DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket Number FWS–R1–ES–2013–0028; 4500030113]

RIN 1018–AZ38

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Three Plant Species on Hawaii Island

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for *Bidens micrantha* ssp. *ctenophylla* (kookoolau), *Isodendrion pyrifolium* (wahine noho kula), and *Mezoneuron kavaiense* (uhiuhi) respectively, under the Endangered Species Act (Act). In total, approximately 11,640 acres (ac) (4,711 hectares (ha)) in North Kona and South Kohala on Hawaii Island fall within the boundaries of the critical habitat designation. Approximately 72 percent of this area is already designated as critical habitat for 42 plants and the Blackburn's sphinx moth (*Manduca blackburni*). We are excluding, under section 4(b)(2) of the Act, approximately 7,027 ac (2,844 ha) of land on the island of Hawaii that meet the definition of critical habitat from this final critical habitat designation.

DATES: This rule is effective on September 20, 2018.

ADDRESSES: This final rule, the final economic analysis, and some supporting documentation used in preparing this final rule are available on the internet at *http://www.regulations.gov.* All of the comments, materials, and documentation that we considered in this rulemaking are available, by appointment, during normal business hours, at U.S. Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office, 300 Ala Moana Boulevard, Box 50088, Honolulu, HI 96850; telephone 808–792–9400; or facsimile 808–792–9581.

The coordinates or plot points or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at *http://www.fws.gov/pacificislands,* at *http://www.regulations.gov* under Docket No. FWS–R1–ES–2013–0028, and at the Pacific Islands Fish and Wildlife Office (address above).

FOR FURTHER INFORMATION CONTACT: Mary Abrams, Field Supervisor, U.S. Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office, 300 Ala Moana Boulevard, Room 3–122, Honolulu, HI 96850; by telephone at 808–792–9400; or by facsimile at 808–792–9581. If you use a telecommunications device for the deaf (TDD), call the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. This is a final rule to designate critical habitat for the following endangered plants: *Bidens micrantha* ssp. *ctenophylla* (listed in 2013), *Isodendrion pyrifolium* (listed in 1994), and *Mezoneuron kavaiense* (listed in 1986). These three plants occur in the same ecosystem and have not had designated critical habitat on Hawaii Island. Under the Act, species that are determined to be endangered or threatened species generally require critical habitat to be designated, to the maximum extent prudent and determinable. Designations of critical habitat can only be completed by issuing a rule.

Section 4(b)(2) of the Act states that the Secretary shall designate critical habitat 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 critical habitat areas we are designating in this rule constitute our current best assessment of the areas that meet the definition of critical habitat for the plants *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* Here we are designating approximately 11,640 acres (ac) (4,711 hectares (ha)) in five multi-species critical habitat units for these species. The five units are in North Kona and South Kohala on Hawaii Island, on lands owned by the National Park Service, State of Hawaii, and private entities. Approximately 72 percent, or 8,443 ac (3,417 ha), of the area designated as critical habitat overlaps with areas already designated as critical habitat for listed plant and animal species. Therefore, 27 percent, or 3,197 ac (1,294 ha), of the area is new critical habitat.

We have prepared an economic analysis of the designation of critical habitat. In order to consider economic impacts, we prepared an analysis of the economic impacts of the critical habitat designations and related factors. The draft economic analysis (DEA) addressed possible economic impacts of critical habitat designation for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and was made available for public review during three comment periods. Following the close of the comment periods, we reviewed and evaluated all information submitted during the comment periods, including information that pertains to our consideration of the possible incremental economic impacts of this critical habitat designation. We have incorporated the comments as appropriate and have completed the final economic analysis (FEA).

Peer review and public comment. We sought comments from independent specialists to ensure that our designation is based on scientifically sound data and analyses. We obtained opinions from two knowledgeable individuals with scientific expertise to review our technical assumptions and analysis, and whether or not we had used the best available scientific information. These peer reviewers generally concurred with our methods and conclusions, and they provided additional information, clarifications, and suggestions to improve this final rule. Information we received from peer review is incorporated into this final designation. We also considered all comments and information received from the public during the comment periods.

Previous Federal Actions

We listed *Mezoneuron kavaiense* as an endangered species on July 8, 1986 (51 FR 24672) and *Isodendrion pyrifolium* as an endangered species on March 4, 1994 (59 FR 10305). On October 17, 2012, we published in the **Federal Register** a proposed rule to list 15 species, including *Bidens micrantha* ssp. *ctenophylla,* as endangered, and to designate critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on Hawaii Island (77 FR 63928). On October, 29, 2013, we listed *Bidens micrantha* ssp. *ctenophylla* as an endangered species (78 FR 64638).

We accepted public comments on our October 17, 2012, proposed rule to designate critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on Hawaii Island (77 FR 63928) for 60 days, ending December 17, 2012. In addition, we published a public notice of the proposed rule on October 20, 2012, in the local Honolulu Star Advertiser, Hawaii Tribune Herald, and West Hawaii Today newspapers, at the beginning of that comment period. On April 30, 2013, we announced the availability of the DEA on the proposed

designation of critical habitat, and reopened the comment period on our proposed rule, the DEA, and amended required determinations for another 30 days, ending May 30, 2013 (78 FR 25243). On April 30, 2013, we also announced a public information meeting in Kailua-Kona, Hawaii, which we held on May 15, 2013, followed by a public hearing on that same day (78 FR 25243). On July 2, 2013, we announced the reopening of the comment period on the proposed designation of critical habitat and the DEA for an additional 60 days, ending September 3, 2013 (78 FR 39698). In that July 2, 2013, document, we also announced a public information meeting in Kailua-Kona, Hawaii, which we held on August 7, 2013. On May 20, 2016, we announced an additional reopening of the comment period on the proposed critical habitat designation, including the economic impacts of the designation, ending June 6, 2016 (81 FR 31900).

Background

Hawaii Island Species Addressed in This Final Rule

The table below (Table 1) provides the scientific name, common name, listing status, and critical habitat status for the plant species that are the subjects of this final rule.

TABLE 1—THE HAWAII ISLAND SPECIES ADDRESSED IN THIS FINAL RULE

Scientific name	Common name	Listing status	Critical habitat status
Bidens micrantha ssp. *ctenophylla*	kookoolau	Listed as an endangered species, 2013.	Designated in this rule.
Isodendrion pyrifolium	wahine noho kula	Listed as an endangered species, 1994.	Designated in this rule.
Mezoneuron kavaiense	uhiuhi	Listed as an endangered species, 1986.	Designated in this rule.

Critical Habitat Unit Map Corrections

We designated critical habitat for *Cyanea shipmanii, Phyllostegia racemosa, Phyllostegia velutina,* and *Plantago hawaiensis* in 2003 (68 FR 39624; July 2, 2003). In this final rule, we correct the critical habitat unit maps published at 50 CFR 17.99(k)(1) for these four species to accurately reflect their designated critical habitat units. We amend 50 CFR 17.99(k)(1) by removing four maps (Map 97, Unit 30—*Cyanea stictophylla*—d; Map 100, Unit 30—*Phyllostegia hawaiiensis*—c; Map 101, Unit 30—*Phyllostegia racemosa*—c; and Map 102, Unit 30—*Phyllostegia velutina*—b) that are either a duplicate of another unit map or labeled with the incorrect species name. We replace these four maps, using the same map numbers, with correctly labeled maps that accurately represent the geographic location of each species' critical habitat unit. We also remove the textual descriptions of critical habitat boundaries from the entries with corrected maps, in accordance with our rule published on October 27, 2017 (82 FR 49751).

Determining Primary Constituent Elements of Critical Habitat

Under section 4(a)(3)(A) of the Act (16 U.S.C. 1531 *et seq.*), we are required to designate critical habitat to the maximum extent prudent and determinable concurrently with the publication of a final determination that a species is an endangered or threatened species. In this final rule, we are designating critical habitat for the plant *Bidens micrantha* ssp. *ctenophylla,* which was listed as an endangered species on October 29, 2013 (78 FR 64638); *Isodendrion pyrifolium,* which was listed as an endangered species on March 4, 1994 (59 FR 10305); and *Mezoneuron kavaiense,* which was listed as an endangered species on July 8, 1986 (51 FR 24672). These three species share occupied and unoccupied critical habitat on Hawaii Island.

On February 11, 2016, we published a final rule in the **Federal Register** (81 FR 7414) to amend our regulations concerning the procedures and criteria we use to designate and revise critical habitat, including the identification of primary constituent elements (PCEs). That rule became effective on March 14, 2016, but, as stated in that rule, the amendments it sets forth apply to ''rules for which a proposed rule was published after March 14, 2016.'' We published our proposed critical habitat designation for the three plant species on October 17, 2012 (77 FR 63928); therefore, the amendments set forth in the February 11, 2016, final rule (81 FR 7414) do not apply to this final designation of critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

In this final rule, we designate critical habitat for three species in five multiple-species critical habitat units. Although critical habitat is identified for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* individually, we have found that the conservation of each depends on the successful functioning of certain physical or biological features shared by all three of these species in the lowland dry ecosystem. Each critical habitat unit identified in this rule contains the physical or biological features essential to the conservation of those individual species that occupied that particular unit at the time of listing, or in the case of areas that were not occupied at the time of listing, contains areas essential for the conservation of those species identified. These unoccupied areas are essential for the conservation of that species because the designation allows for the expansion of the species' range and reintroduction of individuals into areas where the species occurred historically, and provides area for recovery in the case of stochastic events that otherwise hold the potential to eliminate the species from the one or more locations where it is presently found. Under current conditions, some of these species are so rare in the wild that they are at high risk of extirpation or even extinction from various stochastic events, such as hurricanes or landslides. Therefore, building up resilience and redundancy in these species through the establishment of multiple robust populations is a key component of recovery.

Each of the areas designated represents critical habitat for more than one species, based upon shared habitat requirements (*i.e.,* physical or biological features) essential for their conservation. The identification of critical habitat also takes into account any species-specific conservation needs as appropriate. *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* co-occur in the same lowland dry ecosystem on the island of Hawaii. These three plant species share many of the same physical or biological features (*e.g.,* elevation, annual rainfall, substrate, and associated native plant genera), as well as the same threats from development,

fire, and nonnative ungulates and plants.

Please refer to the proposed rule (77 FR 63928; October 17, 2012) or our supporting document ''Supplemental Information for the Designation and Non-designation of Critical Habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense*'' available at *http://www.regulations.gov* (see **ADDRESSES**), for a description of the island of Hawaii and associated map, and for a description of the lowland dry ecosystem that is designated as critical habitat for the three species addressed in this final rule.

Current Status of the Three Species

In order to avoid confusion regarding the number of locations of each species (a location does not necessarily represent a viable population), we use the word ''occurrence'' instead of ''population.'' Each occurrence is composed only of wild (*i.e.,* not propagated and outplanted) individuals. We have updated information on the status of the three species that was presented in the proposed rule (77 FR 63928; October 17, 2012), and provide the updated status below.

Bidens micrantha ssp. *ctenophylla* (kookoolau), a perennial herb in the sunflower family (Asteraceae), occurs only on the island of Hawaii (Ganders and Nagata 1999, pp. 271, 273). Historically, *Bidens micrantha* ssp. *ctenophylla* was known from the north Kona district in the lowland dry ecosystem (HBMP 2010a). Currently, this subspecies is restricted to an area of less than 10 square miles (mi^2) (26 square kilometers (km^2)) on the leeward slopes of Hualalai volcano, in the lowland dry ecosystem in five occurrences totaling fewer than 1,000 individuals. The largest occurrence is found in Kaloko and Honokohau, with over 475 individuals widely dispersed throughout the area (David 2005, pp. 8–10; Palmer 2005a, pp. 3–4; Palmer 2005b, pp. 4–5; Zimpfer 2011, in litt.). The occurrence at Kealakehe was reported to have been abundant and common in 1992, but by 2010 had declined to low numbers (Whistler 2007, pp. 1–18; Bio 2008, in litt.; HBMP 2010a; Whistler 2008, pp. 1–11). Currently, there are approximately 13 individuals scattered amongst several locations in the Kealakehe area (HFIA 2013, in litt.; Guinther *et al.* 2013). In addition, there are three individuals in Kaloko-Honokohau National Historical Park (NHP) (Beavers 2010, in litt.), and two occurrences are found to the northeast: an unknown number of individuals at Puu Waawaa, and a few scattered individuals at Kaupulehu (HBMP 2010a; Giffin 2011, pers. comm.). *Bidens micrantha* ssp. *ctenophylla* is under propagation for outplanting at the Future Forest Nursery (Hawaii). Seed banking of this subspecies is occurring at the Harold L. Lyon Arboretum Seed Conservation Laboratory (Oahu), and the Hawaii Island Seed Bank at the Hawaii Forest Institute (Hawaii). *Bidens micrantha* ssp. *ctenophylla* has been outplanted within fenced exclosures at Kaloko-Honokohau NHP (49 individuals), Koaia Tree Sanctuary (1 individual), Puu Waawaa (5 individuals), Kealakehe (124 individuals), and at several locations as a result of the Federal Highway Administration's (FHWA) conservation measures (over 600 individuals) (Boston 2008, in litt.; HBMP 2010a; Wagner 2013a, in litt., Wagner 2014a, in litt.; Wagner 2015, in litt.).

Isodendrion pyrifolium (wahine noho kula), a perennial shrub in the violet family (Violaceae), is known from Niihau, Oahu, Molokai, Lanai, Maui, and Hawaii (Wagner *et al.* 1999a, p. 1,331). *Isodendrion pyrifolium* was thought to be extinct since 1870, but was rediscovered in 1991, at Kealakehe, near Kailua on the island of Hawaii. In 2003, *Isodendrion pyrifolium* was only known from a single occurrence of approximately nine individuals at Kealakehe on the island of Hawaii (68 FR 39624, July 2, 2003). Currently, there are no extant occurrences on Oahu, Lanai, Molokai, or Maui. Surveys have documented the decline of the total number of individuals at Kealakehe (from nine individuals in 2003, to four individuals in 2006, to three individuals in 2007, to two individuals in 2012) (David 2007, pers. comm. in USFWS 2008, in litt.; Wagner 2011b, in litt.) within two small, managed preserves situated in an urban setting. The larger 26 ac (11 ha) preserve is bordered by a high school, residential development, and construction of the Kealakehe portion of Ane Keohokalole Highway. Recent surveys have documented the mortality of the two mature, reproducing individuals, leaving only several immature individuals in one of the preserves (Wagner 2014b, in litt.; Wagner 2016, in litt.). Three individuals are represented in off-site seed storage collections (PEPP 2011, p. 32). *Isodendrion pyrifolium* is under propagation for outplanting at the Volcano Rare Plant Facility (Hawaii) and at the Future Forests Nursery (Hawaii) (VRPF 2010, in litt.; VRPF 2011, in litt; Wagner 2011b, in litt.). Seed banking for this species is occurring at the Volcano Rare Plant Facility (Hawaii), the Lyon Arboretum's Seed Conservation Lab (Oahu), and the National Tropical Botanical Garden (Kauai). Thirteen *Isodendrion pyrifolium* plants have been outplanted at the Kaloko-Honokohau NHP, 20 plants were outplanted in Puu Waawaa and Kaupulehu, and another 15 plants in the Kaloko area (Wagner 2011c, in litt.; Wagner 2013a, in litt.; Wagner 2013b, in litt.). Critical habitat has been designated for this species on Oahu (77 FR 57648; September 18, 2012), and on the islands of Maui and Molokai (81 FR 17790; March 30, 2016).

Mezoneuron kavaiense (uhiuhi), a medium-sized tree in the pea family (Fabaceae), was known historically from Kauai, Oahu, Lanai, Maui, and Hawaii (Geesink *et al.* 1999, pp. 647–648). At the time of listing in 1986, a single large occurrence of approximately 30 individuals at Puu Waawaa contained the majority of individuals of this species on Hawaii Island (51 FR 24672, July 8, 1986; HBMP 2010c). In 1992, a second occurrence of 21 individuals was discovered at Kealakehe (USFWS 1994, p. 14; HBMP 2010c). In 1993, fire within a kipuka (an area of older land within the younger Kaupulehu lava flow) destroyed 80 percent of the individuals known from Puu Waawaa. Surveys in 2006 reported the number of individuals at Puu Waawaa to be approximately 50 to 100 individuals (HBMP 2010c). In addition, new information recently documented 13 individuals near Waikoloa Village (Faucette 2010, p. 3). A total of 520 individuals have been reintroduced at several sites in the North Kona and Waikoloa regions (USFWS 2015a, in litt.). Currently, *Mezoneuron kavaiense* is found in 6 occurrences totaling 72 mature and 22 immature wild individuals in the lowland dry ecosystem of Hawaii Island (USFWS 2015a, in litt.). Due to its rarity on Kauai and Oahu, remaining populations and individuals on those islands are regularly monitored by staff at the Plant Extinction Prevention Program of Hawaii. *Mezoneuron kavaiense* is under propagation for outplanting at the Volcano Rare Plant Facility (Hawaii), the Olinda Rare Plant Facility (Maui), the Pahole Rare Plant Facility (Oahu), the Waimea Valley (Oahu), and the National Tropical Botanical Garden (Kauai). Seed banking for this species is occurring at the Volcano Rare Plant Facility (Hawaii), the Maui Nui Botanical Garden (Maui), Lyon Arboretum Seed Conservation Laboratory (Oahu), and the National Tropical Botanical Garden (Kauai). Seed collections contain representation of

genetic material from all islands across the species' distribution.

Due to the small population sizes, few numbers of individuals, and reduced geographic range of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* we have determined that a recovery focus limited to the areas known to be occupied at the time of listing would be inadequate to achieve the conservation of these species. Some areas believed to be unoccupied, and that may have been unoccupied at the time of listing, have been determined to be essential for the conservation and recovery of the species; these areas provide the habitat necessary for the expansion of existing wild populations and reestablishment of wild populations within the historical range of the species. Conservation of suitable habitat in both occupied and unoccupied areas, either through critical habitat or conservation partnerships with landowners, is essential to facilitate the establishment of additional populations through natural recruitment or managed reintroductions. The recovery plans for these species note that augmentation and reintroduction of populations are necessary for the species' conservation (as described below in ''Recovery Needs''). Population augmentation will increase the likelihood that the species will survive and recover in the face of normal and stochastic events (*e.g.,* hurricanes, fire, and nonnative species introductions) (Mangel and Tier 1994, p. 612; Pimm *et al.* 1998, p. 777; Stacey and Taper 1992, p. 27). Furthermore, because so many important habitat areas for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* occur on lands managed by non-Federal entities, collaborative relationships are essential for their recovery, and, in some cases, partnerships with landowners are sufficient to conserve areas occupied by the species.

The conservation of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* is dependent upon the protection of existing population sites and the protection of suitable unoccupied habitat within the species' historical range, either through critical habitat or conservation partnerships; protection of these areas will provide for the requisite resiliency, redundancy, and representation of populations through restoration and reintroductions. Population resiliency is the population size, growth rate, and connectivity indicative of the ability to withstand stochastic disturbances. Redundancy refers to the spreading of risk among multiple populations over a large geographic area, and the ability to withstand catastrophic events. Representation is genetic and environmental diversity, and the ability to adapt to changing conditions over time. Sufficient resiliency, redundancy, and representation will ensure long-term viability and bring *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* to the point at which the protections of the Act are no longer necessary (that is, when delisting is appropriate).

Summary of Changes From Proposed Rule

We are designating a total of 11,640 ac (4,711 ha) of critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the island of Hawaii. We received a number of site-specific comments related to critical habitat for the species, completed our analysis of areas considered for exclusion under section 4(b)(2) of the Act or for exemption under section 4(a)(3) of the Act, reviewed the application of our criteria for identifying critical habitat across the range of these species to refine our designations, and completed the FEA of the designation as proposed. We fully considered all comments from the public and peer reviewers on the proposed rule and the associated economic analysis to develop this final designation of critical habitat for these three species. This final rule incorporates changes to our proposed critical habitat based on the comments that we received and have responded to in this document, and considers conservation agreements, conservation partnerships, and other efforts to conserve *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

Our final designation of critical habitat reflects the following changes from the proposed rule:

(1) We updated the ownership of two parcels in Hawaii—Lowland Dry—Unit 35, TMK (3) 7–4–020:005 (21.7 ac (8.8 ha)) and TMK (3) 7–4–030:006 (24.8 ac (9.6 ha)) totaling 46.5 ac (18.4 ha), which we had indicated were under State of Hawaii ownership in the proposed rule to ownership by the Department of Hawaiian Home Lands (DHHL) in this final rule.

(2) In response to comments, we provided additional detail from the Service's existing recovery plans for *Isodendrion pyrifolium* and *Mezoneuron kavaiense,* and discussed how the recovery goals and objectives for these two plants relate to the recovery of *Bidens micrantha* ssp. *ctenophylla,* in order to further explain the designation of critical habitat in unoccupied areas and the inclusion of areas for the expansion of existing populations.

(3) In response to comments, we clarified that utility facilities and infrastructure, and their designated, maintained rights-of-way, are existing manmade features and structures that are not included in the critical habitat designation.

(4) Based on public comments and information received regarding *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* in Hawaii, we determined that approximately 100 ac (40 ha) of unoccupied proposed critical habitat do not meet the definition of critical habitat; therefore, we removed these areas from this final designation. These areas that do not meet the definition of critical habitat include: 34.5 ac (14 ha) in Hawaii—Lowland Dry—Unit 31, 20.8 ac (8 ha) in Hawaii—Lowland Dry—Unit 32, 17.1 ac (7 ha) in Hawaii—Lowland Dry—Unit 34, and 28.7 ac (12 ha) in Hawaii—Lowland Dry—Unit 35.

(5) For the areas that meet the definition of critical habitat, we carefully considered the benefits of inclusion and the benefits of exclusion in proposed critical habitat under section 4(b)(2) of the Act, particularly in areas where conservation agreements and management plans specific to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* are in place, and where the maintenance and fostering of important conservation partnerships were a consideration. Based on the results of our analysis, we are excluding approximately 7,027 ac (2,844 ha) from our final critical habitat designation for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* (see Exclusions discussions, below). Two entire units of proposed critical habitat are excluded: Hawaii—Lowland Dry—Unit 32 (1,758 ac (711 ha)), and Hawaii—Lowland Dry—Unit 35 (1,164 ac (471 ha)). We excluded portions of the proposed designation in three other units, including the following: 2,834 ac (1,147 ha) of Hawaii—Lowland Dry—Unit 31, 593 ac (240 ha) of Hawaii—Lowland Dry—Unit 33, and 678 ac (274 ha) of Hawaii—Lowland Dry—Unit 34. The total area excluded represents approximately 37 percent of the area proposed as critical habitat for the three species. Exclusion from critical habitat should not be interpreted as a determination that these areas are unimportant, that they do not provide physical or biological features essential to the conservation of the species (for occupied areas), or are not otherwise

essential for conservation (for unoccupied areas); exclusion merely reflects the Secretary's determination that the benefits of excluding those particular areas outweigh the benefits of including them in the designation.

Due to these changes in our final critical habitat designation, we updated unit descriptions and critical habitat maps, all of which can be found later in this document. This final designation of critical habitat represents a reduction of 7,126 ac (2,886 ha) from our proposed critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* for the reasons detailed above. Additional minor differences between proposed and final critical habitat for these species on the order of roughly 3 ac (1 ha) beyond those detailed above are due to minor boundary adjustments and simple rounding error.

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the 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 that are necessary to bring an endangered 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 requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not 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 the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features within an area, we focus on the primary biological or physical constituent elements (PCEs such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our 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 we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species, 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, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions related to listed plants. Federally funded or permitted projects affecting listed species outside

their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of these species. 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, HCPs, or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

On February 11, 2016, we published a final rule in the **Federal Register** (81 FR 7414) to amend our regulations concerning the procedures and criteria we use to designate and revise critical habitat. That rule became effective on March 14, 2016, but, as stated in that rule, the amendments it sets forth to 50 CFR 424.12 apply to ''rules for which a proposed rule was published after March 14, 2016.'' We published our proposed critical habitat designation for the three plant species on October 17, 2012 (77 FR 63928); therefore, the amendments to 50 CFR 424.12 contained in the February 11, 2016, final rule at 81 FR 7414 do not apply to this final designation of critical habitat for the three plant species.

Recovery Needs

The lack of detailed scientific data on the life histories of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* precludes development of a robust quantitative model (*e.g.,* population viability analysis (Morris *et al.* 2002, p. 708)) to identify the optimal number, size, and location of critical habitat units needed to achieve recovery. Based on the best information available at this time, we have concluded that the current size and distribution of the extant populations are not sufficient to expect a reasonable probability of long-term survival and recovery of these plant species.

For two of the three plant species, the recovery needs, outlined in the approved recovery plans, include: (1) Stabilization of existing wild populations; (2) protection and management of habitat; (3) enhancement of existing small populations and reestablishment of new populations within historical range; and (4) research on species biology and ecology (Recovery Plan for *Caesalpinia kavaiensis* (now *Mezoneuron kavaiense*) and *Kokia drynarioides,* June 1994; Recovery Plan for the Big Island Plant Cluster, September 1996). Although a recovery plan has not yet been developed for *Bidens micrantha* ssp. *ctenophylla,* which we listed as endangered in 2013 (78 FR 64638; October 29, 2013), we believe it is reasonable to apply the same approach to this species because it has a similar life history, occurs in the same habitat, and faces the same threats as the two other plant species with approved recovery plans that are addressed in this final rule.

The overall recovery goal stated in the recovery plans for *Isodendrion pyrifolium* and *Mezoneuron kavaiense,* and applied to *Bidens micrantha* ssp. *ctenophylla,* includes the establishment of 8 to 10 populations with a minimum of 100 mature, reproducing individuals per population for long-lived perennials; 300 mature, reproducing individuals per population for short-lived perennials; and 500 mature, reproducing individuals per population for annuals. These are the minimum population targets set for considering delisting of the species, which we consider the equivalent of achieving the conservation of the species as defined in section 3 of the Act (hereafter we refer to these delisting objectives as defined in recovery plans or by the Hawaii and Pacific Plants Recovery Coordinating Committee (HPPRCC 1998) as simply ''recovery objectives''). To be considered recovered, the populations of multi-island species should be distributed among the islands of its known historical range (Recovery Plan for *Caesalpinia kavaiensis* (now *Mezoneuron kavaiense*) and *Kokia drynarioides,* June 1994; Recovery Plan for the Big Island Plant Cluster, September 1996; HPPRCC 1998). A population, for the purposes of this discussion and as defined in the recovery plans for these species, is a unit in which the individuals could be regularly cross-pollinated and influenced by the same small-scale events (such as landslides), and which contains a minimum of 100, 300, or 500 mature, reproducing individuals, depending on whether the species is a long-lived perennial, short-lived perennial, or annual. For all plant species, propagated and outplanted individuals are generally not initially counted toward recovery, as populations must demonstrate recruitment (the ability to reproduce and generate multiple generations) and viability over an extended period of time to be considered self-sustaining.

Bidens micrantha ssp. *ctenophylla,* a short-lived perennial herb, is known only from the leeward slopes of Hualalai volcano on Hawaii Island. Historically, this subspecies was known only from the North Kona district in the lowland dry ecosystem. Currently, this subspecies is restricted to an area of less than 10 square miles (mi^2) (26 square kilometers (km^2)), in five occurrences totaling fewer than 1,000 individuals in the lowland dry ecosystem. One occurrence at Kaloko is considered reproducing, defined as offspring that reach reproductive maturity (produce viable fruit and seeds). The following recovery objectives apply to *B. micrantha* ssp. *ctenophylla* as a short-lived plant:

- For interim stabilization, 3 populations reproducing and increasing in numbers, with at least 50 mature individuals;
- For downlisting (that is, reclassifying from an endangered species to a threatened species), 5 to 7 populations documented where they now occur or occurred historically, that are naturally reproducing, stable, or increasing in number, with a minimum of 300 mature individuals per population; and
- For delisting (that is, removing from the List of Endangered and Threatened Plants), 8 to 10 populations, that are each naturally reproducing, stable, or increasing in number, and secure from threats, with a minimum of 300 mature individuals per population and persisting at this level for a minimum of 5 consecutive years. There is no previously designated critical habitat for this subspecies.

Isodendrion pyrifolium, a short-lived perennial shrub, is known from Niihau, Oahu, Molokai, Lanai, Maui, and Hawaii. *Isodendrion pyrifolium* was thought to be extinct since 1870, but was rediscovered in 1991, in a single occurrence with 50 to 60 individuals at Kealakehe on the island of Hawaii. Currently, there are no extant occurrences on Niihau, Oahu, Lanai, Molokai, or Maui. On Hawaii Island, only a few immature, wild individuals remain at a single location, and approximately 90 outplanted individuals occur in four locations in the lowland dry ecosystem. One location at Laiopua has reproducing plants. The following recovery objectives apply to *Isodendrion pyrifolium* as a short-lived plant:

- For interim stabilization, 3 populations reproducing and increasing in numbers, with at least 50 mature individuals;
- For downlisting, 5 to 7 populations documented on islands where they now occur or occurred historically, that are naturally reproducing, stable, or increasing in number, with a minimum of 300 mature individuals per population; and
- For delisting, 8 to 10 populations, that are each naturally reproducing,

stable, or increasing in number, and secure from threats, with a minimum of 300 mature individuals per population and persisting at this level for a minimum of 5 consecutive years.

Critical habitat has been designated for this species on Oahu within 8 units totaling 1,924 ac (779 ha) (77 FR 57648; September 18, 2012), and on the islands of Maui and Molokai within 13 units totaling 21,703 ac (8,783 ha) (81 FR 17790; March 30, 2016).

Mezoneuron kavaiense, a long-lived tree, was known historically from Kauai, Oahu, Lanai, Maui, and Hawaii. Currently, this species is represented by single mature tree on Kauai, five mature trees and two seedlings in two populations on Oahu, extirpated on Lanai (two outplanted individuals), and extirpated on Maui. On Hawaii Island, *M. kavaiense* is found in six occurrences totaling 72 mature wild and 22 immature wild individuals in the lowland dry ecosystem on Hawaii Island (USFWS 2015, in litt.). None of these occurrences has reproducing plants. In addition, a total of 520 individuals have been reintroduced at several sites in the North Kona and Waikoloa regions (USFWS 2015, in litt.). The recovery plan for *Mezoneuron kavaiense* identifies the following objectives:

- For downlisting, a minimum of 100 mature individuals in each of three populations in the North Kona region on Hawaii Island, and 100 mature individuals in each of three populations on each of Kauai, Oahu, Lanai, and Maui; and
- For delisting, a total of 8 to 10 populations, that are each naturally reproducing, stable, or increasing in number, and secure from threats, with a minimum of 100 mature individuals per population and persisting at this level for a minimum of 5 consecutive years (USFWS 1996, p. 118).

There is no previously designated critical habitat for this species.

The recovery objectives listed above are intended to reduce the adverse effects of genetic inbreeding and random environmental events and catastrophes, such as landslides, floods, and hurricanes, which could destroy a large percentage of a species at any one time (Kramer *et al.* 2008, p. 879; Menges 1990, pp. 56–60; Neel and Ellstrand 2003, p. 347). These recovery objectives were initially developed by the HPPRCC and are found in the recovery plans for *Isodendrion pyrifolium* and *Mezoneuron kavaiense,* and applied to *Bidens micrantha* ssp. *ctenophylla,* which does not have an approved recovery plan. As stated above, these objectives describe the minimum population criteria to be met, based on the best available scientific data, to ensure adequate population resiliency (population size, growth rate, and connectivity; indicative of ability to withstand stochastic disturbances), redundancy (spreading the risk among multiple populations over a large geographic area; ability to withstand catastrophic events), and representation (genetic and environmental diversity; ability to adapt to changing conditions over time) to ensure long-term viability and bring these species to the point at which the protections of the Act are no longer necessary (that is, when delisting is appropriate). Under section 3 of the Act, ''conserve'' 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 this Act are no longer necessary; therefore, we consider meeting these recovery objectives as essential to the conservation of these species. These population recovery objectives are not necessarily the only recovery criteria for each species, but they served as the guide for our identification of the critical habitat areas essential for the conservation of the three species in this rule, in terms of providing the ability to meet the specified population objectives.

In conclusion, the conservation of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* is dependent upon the protection of existing population sites, including room for population growth and expansion, and the protection of suitable unoccupied habitat within their historical range, to provide for the requisite resiliency, redundancy, and representation of populations through restoration and reintroductions.

Methods

As required by section 4(b) of the Act, we used the best scientific data available in determining those areas that contain the physical or biological features essential to the conservation of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and for which designation of critical habitat is considered prudent, by identifying the occurrence data for each species and determining the ecosystems upon which they depend. This information was developed by using:

- The known locations of the three species, including site-specific species information from the Hawaii Biodiversity Mapping Program (HBMP) database (HBMP 2010a; HBMP 2010b; HBMP 2010c), the The Nature Conservancy database (TNC 2007–*Ecosystem Database of ArcMap Shapefiles,* unpublished), and our own rare plant database;
- Species information from the plant database housed at National Tropical Botanical Garden (NTBG);
- Maps of habitat essential to the recovery of Hawaiian plants, as determined by the Hawaii and Pacific Plant Recovery Coordinating Committee (HPPRCC 1998, 32 pp. + appendices);
- Maps of important habitat for the recovery of plants protected under the Act (USFWS 1999, pp. F12);
- The Nature Conservancy's Ecoregional Assessment of the Hawaiian High Islands (2006) and ecosystem maps (TNC 2007–*Ecosystem Database of ArcMap Shapefiles,* unpublished);
- Color mosaic 1:19,000 scale digital aerial photographs for the Hawaiian Islands (March 2006 to January 2009);
- Island-wide Geographic Information System (GIS) coverage (*e.g.,* Gap Analysis Program (GAP) vegetation data of 2005, HabQual data of 2014, Landfire data of 2014);
- 1:24,000 scale digital raster graphics of U.S. Geological Survey (USGS) topographic quadrangles;
- Geospatial data sets associated with parcel data from Hawaii County (2008);
- Species Distribution Models (USFWS 2013, unpublished);
- Recent biological surveys and reports; and
- Discussions with qualified individuals familiar with these species and ecosystems.

Based upon all of this data, we determined the areas that were occupied by these species at the time of listing, and whether they contain the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. In light of the recovery needs of the species, we also examined areas that were not occupied at the time of listing by one or more of the three species, to identify areas essential for the conservation of the species (TNC 2006b, pp. 1–2).

Physical or Biological Features

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features essential to the conservation of the species and which may require special management considerations or

protection. These include, but are not limited to:

(1) Space for individual and population growth and for normal behavior;

(2) Food, water, air, light, minerals, or other nutritional or physiological requirements;

(3) Cover or shelter;

(4) Sites for breeding, reproduction, or rearing (or development) of offspring; and

(5) Habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions of a species.

For plant species, ecosystems that provide appropriate dryland habitats, host species, pollinators, soil types, and associated plant communities are taken into consideration when determining the physical or biological features essential for a species.

We derived the specific physical or biological features essential for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* from studies on each of the species' habitat, ecology, and life history as described in the Critical Habitat section of the proposed rule to designate critical habitat published in the **Federal Register** on October 17, 2012 (77 FR 63928), and in the information presented below. Additional information can be found in the final listing rules published in the **Federal Register** on October 29, 2013 (78 FR 64638), for *Bidens micrantha* ssp. *ctenophylla,* on March 4, 1994 (59 FR 10305), for *Isodendrion pyrifolium,* and on July 8, 1986 (51 FR 24672) for *Mezoneuron kavaiense;* as well as in the Recovery Plan for *Caesalpinia kavaiensis and Kokia drynarioides* (USFWS 1994, pp. 1–91), the Recovery Plan for the Big Island Plant Cluster (USFWS 1996, pp. 1–252), and the 2003 Final Designation and Nondesignation of Critical Habitat for 46 Plant Species From the Island of Hawaii, HI (68 FR 39624, July 2, 2003). We have reevaluated the physical and biological features for *Isodendrion pyrifolium* based on the features of the ecosystem on which its survival depends, using species information from the 2003 Final Designation and Nondesignation of Critical Habitat for 46 Plant Species From the Island of Hawaii, *HI* (68 FR 39624, July 2, 2003) and new scientific information that has become available since that time. *Bidens micrantha* ssp. *ctenophylla* is found in locations with the same substrate age and soil type as *Isodendrion pyrifolium* and *Mezoneuron kavaiense,* and is known to share the same land cover (vegetation) type as *Mezoneuron kavaiense* throughout over 85 percent of its range (HBMP 2010c). Therefore, we believe that *Bidens micrantha* ssp. *ctenophylla* shares the same physical or biological features that we have determined for *Isodendrion pyrifolium* and *Mezoneuron kavaiense.* We have determined that the three lowland dry plant species *(Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense*) addressed in this final rule require the physical or biological features described in the following paragraphs and summarized in Table 2, below.

Based on the recovery needs of these species discussed above, it is essential to conserve suitable habitat in both occupied and unoccupied areas, which will in turn allow for the establishment of additional populations through natural recruitment or managed reintroductions. Establishment of these additional populations will increase the likelihood that the species will survive and recover in the face of normal and stochastic events (*e.g.,* hurricanes, fire, and nonnative species introductions) (Mangel and Tier 1994, p. 612; Pimm *et al.* 1998, p. 777; Stacey and Taper 1992, p. 27). For these reasons, the designation of critical habitat limited to the geographic areas occupied by the species at the time of listing would be insufficient to achieve recovery objectives.

In this final rule, the physical or biological features are described based on the features of the ecosystem on which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend, the lowland dry ecosystem. Ecosystem characteristic parameters include elevation, precipitation, substrate (*i.e.,* age of lava), and associated native plant genera. The lowland dry ecosystem consists of shrublands and forests generally below 3,300 feet (ft) (1,000 meters (m)) elevation and receives less than 50 inches (in) (130 centimeters (cm)) annual rainfall, or otherwise bearing prevailingly dry substrate conditions that range from weathered reddish silty loams to stony clay soils, rocky ledges with very shallow soil, or relatively recent little-weathered lava (TNC 2006b). As conservation of each species is dependent upon a functioning ecosystem to provide its fundamental life requirements, such as a certain substrate type or minimum level of rainfall, we consider the physical or biological features present in the lowland dry ecosystem described in this rule to provide the necessary physical and biological features for each of the three species (see Table 2, below).

TABLE 2—PHYSICAL AND BIOLOGICAL FEATURES* FOR BIDENS MICRANTHA SSP. CTENOPHYLLA, ISODENDRION PYRIFOLIUM, AND MEZONEURON KAVAIENSE

Ecosystem	Elevation	Annual precipitation	Substrate	Supporting one or more of these associated native plant genera		
				Canopy	Subcanopy	Understory
Lowland Dry.	<3,300 ft (<1,000 m).	<50 in (<130 cm).	Weathered silty loams to stony clay, rocky ledges, little-weathered lava.	*Diospyros, Erythrina, Metrosideros, Myoporum, Pleomele, Santalum, Sapindus.*	*Chamaesyce, Dodonaea, Osteomeles, Psydrax, Scaevola, Wikstroemia.*	*Alyxia, Artemisia, Bidens, Capparis, Chenopodium, Nephrolepis, Peperomia, Sicyos.*

***Note:** These features also represent the primary constituent elements for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

When designating critical habitat in occupied areas, we focus on the physical or biological features that may be essential to the conservation of the species and which may require special management considerations or protections. In unoccupied habitat, we focus on whether the area is essential for the conservation of the species. The physical or biological features for occupied areas, in conjunction with the unoccupied areas needed to expand and reestablish wild populations within their historical range, provide a more accurate picture of the geographic areas needed for the recovery of each species. We believe this information will be helpful to Federal agencies and our other partners, as we collectively work to recover these imperiled species.

Primary Constituent Elements for the Three Species

Under the Act and implementing regulations applicable to this rule, we are required to identify the physical or biological features essential to the conservation of the three plant species in areas occupied at the time of listing, focusing on the features' PCEs. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

The PCEs identified in this final rule take into consideration the ecosystem on which these species depend for survival and reflect a distribution that we believe is essential to achieving the species' recovery needs within the lowland dry ecosystem on Hawaii Island. As described above, we considered the current population status of each species, to the extent it is known, and assessed its status relative to the recovery objectives for that species, in terms of population goals (numbers of populations and individuals in each population, which contributes to population resiliency) and distribution (whether the species occurs in habitats representative of its historic geographical and ecological distribution, and are sufficiently redundant to withstand the loss of some populations over time). This analysis informed us as to whether the species requires space for population growth and expansion in areas occupied at the time of listing, or whether additional areas unoccupied at the time of listing may be required for the reestablishment of populations to achieve conservation.

In this final rule, the PCEs for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* are defined based on those physical or biological features essential to support the successful functioning of the ecosystem upon which each species depends, and which may require special management considerations or protection. As the conservation of each species is dependent upon a functioning ecosystem to provide its fundamental life requirements, such as a certain soil type or minimum level of rainfall, we consider the physical or biological features present in the lowland dry ecosystem described in this rule to provide the necessary PCEs for each of the three species. The ecosystem's features collectively provide the suite of environmental conditions essential to meeting the requirements of each species, including the appropriate microclimatic conditions for germination and growth of plants (*e.g.,* light availability, soil nutrients, hydrologic regime, and temperature), and in all cases, space within the appropriate habitats for population growth and expansion, as well as to maintain the historical geographical and ecological distribution of each species. In the case of *Isodendrion pyrifolium,* due to its relatively recent rediscovery and limited geographic distribution at one known occurrence, the more general description of the physical or biological features that provide for the successful function of the ecosystem that is essential to the conservation of the species represents the only scientific information available. Accordingly, for the purposes of this final rule, the physical or biological features of a properly functioning lowland dry ecosystem are the PCEs essential to the conservation of the three species at issue here (see Table 2, above).

Special Management Considerations or Protections

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection. The following discussion of special management needs is applicable to each of the three Hawaii Island species for which we are designating critical habitat.

For *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* we have determined that the features essential to their conservation are those required for the successful functioning of the lowland dry ecosystem in which they occur (see Table 2, above). Special management considerations or protections are necessary throughout the critical habitat areas designated here to avoid further degradation or destruction of the habitat that provides those features essential to their conservation. The primary threats to the physical or biological features essential to the conservation of these three species include habitat destruction and modification by development, nonnative ungulates, competition with nonnative species, hurricanes, fire, drought, and climate change. The reduction of these threats will require the implementation of special management actions within each of the critical habitat areas identified in this final rule.

All designated critical habitat may require special management actions to address the ongoing degradation and loss of habitat caused by residential and urban development. Urbanization also increases the likelihood of wildfires ignited by human sources. Without protection and special management, habitat containing the features that are essential for the conservation of these species will continue to be degraded and destroyed.

All designated critical habitat may require active management to address the ongoing degradation and loss of native habitat caused by nonnative ungulates (goats and cattle). Nonnative ungulates also impact the habitat through predation and trampling. Without this special management, habitat containing the features that are essential for the conservation of these species will continue to be degraded and destroyed.

All designated critical habitat may require active management to address the ongoing degradation and loss of native habitat caused by nonnative plants. Special management is also required to prevent the introduction and spread of nonnative plant species into native habitats. Particular attention is required in nonnative plant control efforts to avoid creating additional disturbances that may facilitate the further introduction and establishment of invasive plant seeds. Precautions are also required to avoid the inadvertent trampling of listed plant species in the course of management activities.

The active control of nonnative plant species will help to address the threat posed by fire in all five of the designated critical habitat units. This threat is largely a result of the presence of nonnative plant species such as the grasses *Pennisetum setaceum* and *Melinis minutiflora* that increase the fuel load and quickly regenerate after a fire. These nonnative grass species can outcompete native plants that are not adapted to fire, creating a grass-fire cycle that alters ecosystem functions (D'Antonio and Vitousek 1992, pp. 64–66; Brooks *et al.* 2004, p. 680).

In summary, we find that each of the areas we are designating as critical habitat contains features essential for the conservation of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* that may require special management considerations or protection to ensure the conservation of the three plant species for which we are designating critical habitat. These special management considerations and protections are required to preserve and maintain the essential features provided to these species by the lowland dry ecosystem upon which they depend.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we used the best scientific data available to designate critical habitat. We reviewed available information pertaining to the habitat requirements of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* In accordance with the Act and implementing regulations at 50 CFR 424.12(b) applicable to this final rule, we review available information pertaining to the habitat requirements of the species and identify areas occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species to be considered for designation as critical habitat. We are designating critical habitat in areas within the geographical area occupied by *Bidens micrantha* ssp. *ctenophylla* at the time of its listing in 2013, *Isodendrion pyrifolium* at the time of its listing in 1994, and *Mezoneuron kavaiense* at the time of its listing in 1986. We also are designating critical habitat in areas outside the geographical area occupied by these species at the times of their listing because we have determined that such areas are essential for the conservation of these species.

We considered several factors in the selection of specific boundaries for critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* We determined critical habitat unit boundaries taking into consideration the known past and present locations of the species, important areas of habitat identified by HPPRCC (HPPRCC 1998, entire), recovery areas described by species' Recovery Plans (for *Isodendrion pyrifolium* and *Mezoneuron kavaiense*), projections of geographic ranges of Hawaiian plant species (Price *et al.* 2012, entire), space to allow for increases in numbers of individuals and for expansion of populations to provide for the minimum numbers required to reach delisting goals (as described in recovery plans), and space between individual critical habitat units to provide for redundancy of populations across the range of the species in case of catastrophic events such as fire and hurricanes (see also *Methods,* above). For these three species, we designate critical habitat only in the geographic area of historical occurrence on Hawaii Island, which is restricted to the lowland dry ecosystem in the north Kona and south Kohala regions. Initial draft boundaries were superimposed over digital topographic maps of the island of Hawaii and further evaluated. In general, land areas that were identified as highly degraded were removed from the final critical habitat units, and natural or manmade features (*e.g.,* ridge lines, valleys, streams, coastlines, roads, and obvious land features) were used to delineate the final critical habitat boundaries. We are designating critical habitat on lands that contain the physical or biological features essential to conserving these species, and unoccupied lands that are essential the species' conservation, based on their shared dependence on the lowland dry ecosystem.

The critical habitat is a combination of areas occupied by these three species at the time of listing, as well as areas that may be currently unoccupied. The best available scientific information suggests that these species either presently occur within, or have occupied, these habitats. The occupied areas provide the physical or biological features essential to the conservation of these species, which all depend on the lowland dry ecosystem. However, due to the small population sizes, few numbers of individuals, and reduced geographic range of each of the three species for which critical habitat is here designated, we have determined that a designation limited to the areas known to be occupied at the time of listing would be inadequate to achieve the conservation of those species. The areas believed to be unoccupied, and that may have been unoccupied at the time of listing, have been determined to be essential for the conservation and recovery of the species because they provide the habitat necessary for the expansion of existing wild populations and reestablishment of wild populations within the historical range of the species.

We are designating critical habitat on lands that contain the physical or biological features essential to conserving multiple species, based on their shared dependence on the functioning ecosystem they have in common. Because the lowland dry ecosystem that supports the three plant species addressed here does not form a contiguous area, it is divided into five geographic units. Some of the designated critical habitat for the three plant species overlies critical habitat already designated for other plants on the island of Hawaii. Because of the small numbers of individuals or low population sizes of each of these three plant species, each requires suitable habitat and space for the expansion of existing populations to achieve a level that could approach recovery. For example, recent surveys of *Isodendrion pyrifolium* have documented the mortality of the two remaining mature, reproducing individuals, leaving only several immature individuals in the lowland dry ecosystem on Hawaii Island (Wagner 2014b, in litt.; Wagner 2016, in litt.) and three individuals represented in off-site seed storage collections (PEPP 2011, p. 32). The unoccupied areas of each unit are essential for the expansion of this species to achieve viable population numbers and maintain its historical geographical and ecological distribution. This same reasoning applies to *Bidens micrantha* ssp. *ctenophylla* and *Mezoneuron kavaiense.* Further details are provided under Final Critical Habitat Designation, below.

The critical habitat areas described below constitute our best assessment of the areas occupied by *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* at their times of listing that contain the physical or biological features essential for the recovery and conservation of the three plant species, and the unoccupied areas that are needed for the expansion or augmentation of reduced populations or reestablishment of populations. The approximate size of each of the five plant critical habitat units and the status of their land ownership, are identified in Table 3. As noted in Table 3, all areas designated for critical habitat designation are found within the lowland dry ecosystem. Table 4 identifies the areas excluded from critical habitat designation under section 4(b)(2) of the Act (see Consideration of Impacts Under Section 4(b)(2) of the Act, below).

When determining critical habitat boundaries within this final rule, we made every effort to avoid including developed areas (such as lands covered by buildings, pavement, railroads, airports, runways, utility facilities and infrastructure and their designated and maintained rights-of-way, other paved areas, lawns, and other urban landscaped areas) because such lands lack the physical or biological features essential for the conservation of the three plant species. The scale of the maps we prepared under the parameters for publication within the CFR may not reflect the exclusion of such developed areas. Any such structures and the land under them inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, Federal actions involving these areas would not trigger section 7 consultation with respect to critical habitat or the requirement to avoid adverse modification of critical habitat unless

the specific action would affect the physical or biological features in the adjacent critical habitat.

TABLE 3—CRITICAL HABITAT DESIGNATION FOR BIDENS MICRANTHA SSP. CTENOPHYLLA, ISODENDRION PYRIFOLIUM, AND MEZONEURON KAVAIENSE ON THE ISLAND OF HAWAII

[Totals may not sum due to rounding]

Designated critical habitat area	Size of section in acres	Size of section in hectares	State	Federal	County	Private	Corresponding critical habitat map in the Code of Federal Regulations
Hawaii—Lowland Dry							
—Unit 10	2,913	1,179	2,913	.....	.....	.....	Map 39a.
—Unit 31	7,067	2,860	7,067	.....	.....	.....	Map 104.
—Unit 33	989	400	989	.....	.....	.....	Map 105.
—Unit 34	268	109	242	.....	.....	27	Map 105.
—Unit 36	402	163	5	397	.....	.....	Map 105.
Total Lowland Dry.	11,640	4,711	11,216	397	.....	27	

We are designating as critical habitat lands that we have determined are occupied at the time of listing and contain sufficient physical or biological features to support life-history processes essential for the conservation of the species, and lands outside of the geographical area occupied at the time of listing that we have determined are essential for the conservation of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

Units are designated based on sufficient elements of physical or biological features being present to support the life processes of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* Some units contain all of the identified elements of physical or biological features and support multiple life processes. Some units contain only some elements of the physical or biological features necessary to support the species' particular use of that habitat.

The critical habitat designation is defined by the maps, and refined by accompanying regulatory text, presented at the end of this document in the regulatory portion of this final rule. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. The coordinates or plot points or both on which each map is based are available to the public on *http://www.regulations.gov* at Docket No. FWS–R1–ES–2013–0028, on our internet site at *http://www.fws.gov/pacificislands/,* and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT**, above).

Final Critical Habitat Designation

We are designating 11,640 ac (4,711 ha) as critical habitat in five units within the lowland dry ecosystem for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* (see Table 3, above, for details). Of these five units, 8,443 ac (3,417 ha) or 72 percent, was already designated as critical habitat for other listed species. The final critical habitat includes land under State, County of Hawaii, Federal (Kaloko-Honokohau NHP), and private ownership. The critical habitat units we describe below constitute our current best assessment of those areas that meet the definition of critical habitat for the three species of plants. The five critical habitat units are: Hawaii—Lowland Dry—Unit 10, Hawaii—Lowland Dry—Unit 31, Hawaii—Lowland Dry—Unit 33, Hawaii—Lowland Dry—Unit 34, and Hawaii—Lowland Dry—Unit 36 (see the Regulation Promulgation section of this rule, 50 CFR 17.99(k)(115), the Table of Protected Species Within Each Critical Unit for the Island of Hawaii, for the occupancy status of each unit).

Because some of the final critical habitat for the three plants overlays critical habitat already designated for other plant species on the island of Hawaii, we have incorporated the maps of the areas newly designated as critical habitat in this final rule into the existing critical habitat unit numbering system established for the plants on the island of Hawaii in the Code of Federal Regulations (CFR) at 50 CFR 17.99(k). The maps and area descriptions presented here represent the critical habitat designation that we have identified for the three plant species, subdivided into a total of five units (see Table 3, above). The critical habitat unit numbers and the corresponding map numbers that will appear at 50 CFR 17.99 are provided for ease of reference in the CFR.

Descriptions of the Five Critical Habitat Units

Hawaii—Lowland Dry—Unit 10

Hawaii—Lowland Dry—Unit 10 consists of 2,913 ac (1,179 ha) of State land from Puu Waawaa to Kaupulehu on the northwestern slope of Hualalai between the elevations of 1,400 and 2,600 ft (427 and 793 m). This unit overlaps portions of previously designated plant critical habitat in unit Hawaii 10 (see 50 CFR 17.99(k)), and includes critical habitat for the following listed plant species: *Bonamia menziesii, Colubrina oppositifolia, Hibiscadelphus hualalaiensis, Neraudia ovata, Nothocestrum breviflorum, and Pleomele hawaiiensis.* This unit is depicted on Map 39a in the Regulation Promulgation section of this rule.

This unit is occupied by *Mezoneuron kavaiense* and includes the mixed herbland and shrubland, the moisture regime, and canopy, subcanopy, and understory native plant species identified as physical or biological features in the lowland dry ecosystem (see Table 2, above). This unit also contains unoccupied habitat for *Mezoneuron kavaiense* that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Hawaii—Lowland Dry—Unit 10 is not known to be occupied by *Bidens micrantha* ssp. *ctenophylla* and *Isodendrion pyrifolium,* we have determined this area is also essential for the conservation and

recovery of these two species because it provides the PCEs necessary for the reestablishment of wild populations within their historical range. Due to their small numbers of individuals, these species require suitable habitat and space for expansion or introduction to achieve population levels that could approach recovery.

Hawaii—Lowland Dry—Unit 31

Hawaii—Lowland Dry—Unit 31 consists of 7,067 ac (2,860 ha) of State land from Puu Waawaa to Kaupulehu on the northwestern slope of Hualalai between the elevations of 720 and 1,960 ft (427 and 597 m). This unit is not in previously designated plant critical habitat and comprises only newly designated plant critical habitat. This unit is depicted on Map 104 in the Regulation Promulgation section of this rule.

This unit is occupied by *Mezoneuron kavaiense* and includes the mixed herbland and shrubland, the moisture regime, and canopy, subcanopy, and understory native plant species identified as physical or biological features in the lowland dry ecosystem (see Table 2, above). This unit also contains unoccupied habitat for *Mezoneuron kavaiense* that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Hawaii—Lowland Dry—Unit 31 is not known to be occupied by *Bidens micrantha* ssp. *ctenophylla* and *Isodendrion pyrifolium,* we have determined this area is also essential for the conservation and recovery of these two species because it provides the PCEs necessary for the reestablishment of wild populations within their historical range. Due to their small numbers of individuals, these species require suitable habitat and space for expansion or introduction to achieve population levels that could approach recovery.

Hawaii—Lowland Dry—Unit 33

Hawaii—Lowland Dry—Unit 33 consists of 989 ac (400 ha) of State land, from Puukala to Kalaoa on the western slope of Hualalai between the elevations of 360 and 1,080 ft (110 and 329 m). This unit is not in previously designated critical habitat and comprises only newly designated critical habitat. This unit is depicted on Map 105 in the Regulation Promulgation section of this rule.

This unit is unoccupied by *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense;* however, it contains the mixed herbland and shrubland, the moisture regime, and canopy, subcanopy, and understory native plant species identified as physical or biological features in the lowland dry ecosystem (see Table 2, above). Although Hawaii—Lowland Dry—Unit 33 is not known to be occupied by *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* we have determined this area is essential for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within their historical range. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could approach recovery.

Hawaii—Lowland Dry—Unit 34

Hawaii—Lowland Dry—Unit 34 consists of 242 ac (98 ha) of State land, and 27 ac (11 ha) of privately owned land for a total of 269 ac (109 ha), from Kalaoa to Puukala on the western slope of Hualalai between the elevations of 280 and 600 ft (85 and 183 m). This unit is not in previously designated critical habitat and comprises only newly designated critical habitat. This unit is depicted on Map 105 in the Regulation Promulgation section of this rule.

This unit is unoccupied by *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense;* however, it includes the mixed herbland and shrubland, the moisture regime, and canopy, subcanopy, and understory native plant species identified as physical or biological features in the lowland dry ecosystem (see Table 2, above). Although Hawaii—Lowland Dry—Unit 34 is not known to be occupied by *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* we have determined this area is essential for the conservation and recovery of these lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within their historical range. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could approach recovery.

Hawaii—Lowland Dry—Unit 36

Hawaii—Lowland Dry—Unit 36 consists of 5 ac (2 ha) of State land and 397 ac (161 ha) of Federal land for a total of 402 ac (163 ha), near the coastline at Kaloko and Honokohau on the western slope of Hualalai between the elevations of 20 and 90 ft (6 and 27 m). This unit is not in previously designated critical habitat and comprises only newly designated critical habitat. This unit is depicted on Map 105 in the Regulation Promulgation section of this rule.

This unit is occupied by the plant *Bidens micrantha* ssp. *ctenophylla,* and includes the mixed herbland and shrubland, the moisture regime, and canopy, subcanopy, and understory native plant species identified as physical or biological features in the lowland dry ecosystem (see Table 2, above). This unit also contains unoccupied habitat for *Bidens micrantha* ssp. *ctenophylla* that is essential to the conservation of this species by providing the PCEs necessary for the expansion of the existing wild populations. Although Hawaii—Lowland Dry—Unit 36 is not known to be occupied by *Isodendrion pyrifolium,* we have determined this area is also essential for the conservation and recovery of this lowland dry species because it provides the PCEs necessary for the reestablishment of wild populations within its historical range. Due to their small numbers of individuals or low population sizes, these species require suitable habitat and space for expansion or reintroduction to achieve population levels that could approach recovery.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act, as amended, requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action that is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

We published a final rule defining ''destruction or adverse modification'' on February 11, 2016 (81 FR 7214). ''Destruction or adverse modification'' means a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of

a species or that preclude or significantly delay development of such features.

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. Examples of actions that are subject to section 7 consultation process are actions on Federal lands or that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the FHWA, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, County, or private lands that are not federally funded or authorized, do not require section 7 consultation.

At the conclusion of section 7 consultation, we may issue:

(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 and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define ''reasonable and prudent alternatives'' (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying 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 formal consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies may sometimes need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the ''Adverse Modification'' Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the three species, or would retain its current ability for the essential features to be functionally established. Activities that may destroy or adversely modify critical habitat are those that result in a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of these species or that preclude or significantly delay development of such features.

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

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* These activities include, but are not limited to:

(1) Actions that may appreciably degrade or destroy the physical or biological features for the species, including, but not limited to, overgrazing, maintaining or increasing feral ungulate levels, clearing or cutting native live trees and shrubs (*e.g.,* woodcutting, bulldozing, construction, road building, mining, herbicide application), and taking actions that pose a risk of fire.

(2) Actions that may alter watershed characteristics in ways that would appreciably reduce groundwater recharge or alter natural, wetland, aquatic, or vegetative communities. Such activities include new water diversion or impoundment, excess groundwater pumping, and manipulation of vegetation through activities such as the ones mentioned in (1), above.

(3) Recreational activities that may appreciably degrade vegetation.

(4) Mining sand or other minerals.

(5) Introducing or facilitating the spread of nonnative plant species.

(6) Importing nonnative species for research, agriculture, and aquaculture, and releasing biological control agents.

Exemptions

Application of Section 4(a)(3) of the Act

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: ''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 [INRMP] 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.'' There are no Department of Defense (DOD) lands with a completed INRMP within the critical habitat designation.

Consideration of Impacts Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impacts of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless 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 statute on its face, as well as the legislative history are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive from the protection from adverse modification or destruction as a result of actions with a Federal nexus; the educational benefits of mapping essential habitat for recovery of the listed species; and any benefits that may result from a designation due to Federal, State, or local laws that may apply to critical habitat. We also look at whether these benefits might be reduced by the existence of a conservation plan. In such cases, we consider a variety of factors, including, but not limited to, whether the plan is finalized; how it provides for the conservation of the essential physical or biological features; whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future; whether the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to encourage new conservation partnerships and future conservation efforts. The Secretary places great weight on demonstrated partnerships, as in many cases they can lead to the implementation of conservation actions that provide benefits to the species and their habitat beyond those that are achievable through the designation of critical habitat and section 7 consultations, particularly on private lands. As most endangered or threatened species in Hawaii occur on private and other non-Federal lands, such conservation partnerships are of heightened importance on the islands of Hawaii.

After identifying the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to evaluate whether the benefits of exclusion outweigh those of inclusion. If our analysis indicates the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

Based on the information provided by landowners, as well as public comments received, we evaluated whether certain lands in the proposed critical habitat were appropriate for exclusion from this final designation pursuant to section 4(b)(2) of the Act. We are excluding the following areas from critical habitat designation for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense:*

TABLE 4—AREAS EXCLUDED FROM CRITICAL HABITAT DESIGNATION BY CRITICAL HABITAT UNIT

Unit name designated CH + area excluded, in acres (Hectares)	Landowner or land manager	Area excluded from critical habitat, in acres (Hectares)
Hawaii—Lowland Dry—Unit 31 12,814 (4,039)	Kamehameha Schools	Total 2,834 (1,147).
Hawaii—Lowland Dry—Unit 32 1,779 (720)	Waikoloa Village Association (WVA)	Total 1,758 (712).
Hawaii—Lowland Dry—Unit 33 1,583 (640)	Palamanui Global Holdings LLC; Department of Hawaiian Home Lands (DHHL).	502 (203). 91 (30). Total 593 (233).
Hawaii—Lowland Dry—Unit 34 961 (389)	Kaloko Entities; Lanihau Properties	631 (255). 47 (19). Total 677 (274).
Hawaii—Lowland Dry—Unit 35 1,192 (485)	County of Hawaii (State); Hawaii Housing and Finance Development Corporation (HHFDC) (State); Department of Hawaiian Home Lands (DHHL); Forest City Kona; Queen Liliuokalani Trust (QLT).	165 (67). 30 (12). 401 (165). 265 (107). 302 (122). Total 1,164 (471).

Consideration of Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we prepared a DEA of the proposed critical habitat designation and related factors (IEc 2013, entire). The draft analysis, dated April 4, 2013, was made available for public review from April 30, 2013, through May 30, 2013 (78 FR 25243; April 30, 2013); from July 2, 2013, through September 3, 2013 (78 FR 39698); and from May 20, 2016, through June 6, 2016 (81 FR 31900). The DEA addressed potential economic impacts of critical habitat designation for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* Following the close of the comment periods, a final analysis of the potential economic effects of the designation (FEA) was developed taking into consideration the public comments and any new information received (IEc 2016). We also considered the effects of the exclusion of lands owned by Kaloko Properties LLC, which resulted in Unit 34 becoming an unoccupied unit.

The economic impact of the final critical habitat designation is analyzed by comparing scenarios both ''with critical habitat'' and ''without critical habitat.'' The ''without critical habitat'' scenario represents the baseline for the analysis, considering protections already in place for the species (*e.g.,* under the Federal listing and other Federal, State, and local regulations). The baseline, therefore, represents the costs incurred regardless of whether critical habitat is designated. The ''with critical habitat'' scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts are those not expected to occur absent the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat above and beyond the baseline costs; these are the costs we consider in the final designation of critical habitat. The analysis looks retrospectively at baseline impacts incurred since the species was listed, and forecasts both baseline and incremental impacts likely to occur with designation of critical habitat.

The FEA also addresses how potential economic impacts are likely to be distributed, including an assessment of any local or regional impacts of habitat conservation and the potential effects of

conservation activities on government agencies, private businesses, and individuals. The FEA measures lost economic efficiency associated with residential and commercial development and public projects and activities, such as economic impacts on development and transportation projects.

The FEA looks retrospectively at costs that have been incurred since the listing of the three species (51 FR 24672, July 8, 1986; 59 FR 10305, March 4, 1994; 78 FR 64638, October 29, 2013), and considers those costs that may occur in the 10 years following the designation of critical habitat, which was determined to be the appropriate period for analysis because limited planning information was available for most activities to forecast activity levels for projects beyond a 10-year timeframe. The FEA analyzes economic impacts of the conservation efforts for these species associated with the following categories of activity: Residential and commercial development projects, and transportation projects. The FEA concluded that critical habitat designation is unlikely to change the outcome of future section 7 consultations on projects or activities within occupied areas, and that incremental impacts due to section 7 consultations in occupied areas will most likely be limited to the additional administrative effort of considering adverse modification (IEc 2016, p. 2–9). The FEA estimates approximately $35,000 over the next 10 years (an annualized impact of $4,700, 7 percent discount rate) associated with future section 7 consultations. Impacts on projects occurring in areas being considered for exclusion are expected to be $15,000 (an annualized impact of $2,000, 7 percent discount rate) (IEc 2016, p. E–7).

The FEA concluded that additional impacts, beyond administrative costs associated with section 7 consultations, are likely within unoccupied areas but limited information is available regarding the nature and extent of these impacts and precludes quantification of these costs. Two specific projects in unoccupied habitat were identified that may be subject to economic impacts due to a critical habitat designation. Prior to finalizing this rule, we also evaluated the potential economic effects related to a third project in Unit 34, which, based on a potential 4(b)(2) exclusion, would become an unoccupied unit. The first is a DHHL residential development project that is expected to involve the use of Federal funds, and would thus require section 7 consultation, but this area is being excluded from the critical habitat designation; therefore, any anticipated effects due to the designation will not occur. The second is a QLT mixed-use development project that is not likely to be subject to a Federal nexus and would, therefore, have very little chance of any economic impacts due to critical habitat designation. The QLT land is also being excluded from the critical habitat designation. The third project is a highway extension planned on Kaloko Entities property and State lands in proposed Unit 34. With the exclusion of the Kaloko Entities lands, this unit would be considered unoccupied, and, therefore, the only critical habitat the project would be impacting would be unoccupied critical habitat. However, the project would also still be impacting occupied areas on the Kaloko Entities lands, and, therefore, a section 7 jeopardy analysis on the presence of the species within the project area would already be required. Because one of the primary threats to these species is habitat loss and degradation, the consultation process under section 7 of the Act for projects with a Federal nexus will, in evaluating the effects to these species, evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands, and will likely result in similar recommended conservation measures. Therefore, the cost of critical habitat designation on this project would be limited to the additional administrative cost of adding the adverse modification analysis to the section 7 jeopardy analysis.

The FEA additionally considered the potential indirect effects of the designation, including, for example, perceptional effects on land values, or the potential for third-party lawsuits. Given the uncertainties surrounding the probability of any such effects occurring (and if so, the magnitude of any such effects), quantification of the potential indirect effects of the designation was not possible. The FEA acknowledges, however, that these uncertainties result in an underestimate of the quantified impacts of the designation (IEc 2016, p. 2–23).

Exclusions Based on Economic Impacts

The Service considered the economic impacts of the critical habitat designation and the Secretary is not exercising his discretion to exclude any areas from this designation of critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* based on economic impacts.

A copy of the FEA may be obtained by contacting the Pacific Islands Fish and Wildlife Office (see **ADDRESSES**) or by downloading from the internet at *http://www.regulations.gov* under Docket No. FWS–R1–ES–2013–0028.

Exclusions Based on Impacts on National Security or Homeland Security

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. In preparing this final rule, we have determined that no lands within the designation of critical habitat for these three species are owned or managed by the Department of Defense or Department of Homeland Security, and, therefore, we anticipate no impact on national security or homeland security. Consequently, the Secretary is not exercising his discretion to exclude any areas from this final designation based on impacts on national security or homeland security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether there are permitted conservation plans covering the species in the area such as HCPs, safe harbor agreements, or candidate conservation agreements, or non-permitted conservation agreements which reduce the benefits of critical habitat or partnerships that would be encouraged by exclusion from critical habitat. In preparing this final rule, we have determined that the final designation of critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* does not include any land covered by permitted conservation plans. We anticipate no impact to permitted conservation plans from this critical habitat designation.

Private or Other Non-Federal Conservation Plans or Agreements and Partnerships

We sometimes exclude areas from critical habitat designations based in part on the existence of private or other non-Federal conservation plans or agreements that can minimize the benefits of critical habitat. We may also exclude areas covered by conservation agreements if we believe a benefit of exclusion would be to encourage future conservation partnerships. A conservation plan or agreement describes actions that are designed to provide for the conservation needs of a species and its habitat, and may include

actions to reduce or mitigate negative effects on the species caused by activities on or adjacent to the area covered by the plan. Conservation plans or agreements can be developed by private entities with no Service involvement, or in partnership with the Service.

We evaluate a variety of factors to determine how the benefits of any exclusion and the benefits of inclusion are affected by the existence of private or other non-Federal conservation plans or agreements and their attendant partnerships when we undertake a discretionary section 4(b)(2) exclusion analysis. Some of the factors that we will consider for non-permitted plans or agreements are listed below. These factors are not required elements of plans or agreements, and all items may not apply to every plan or agreement.

1. The degree to which the plan or agreement provides for the conservation of the species or the essential physical or biological features (if present) for the species;

2. Whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan or agreement will be implemented;

3. The demonstrated implementation and success of the chosen conservation measures;

4. The degree to which the record of the plan supports a conclusion that a critical habitat designation would impair the realization of benefits expected from the plan, agreement, or partnership;

5. The extent of public participation in the development of the conservation plan;

6. The degree to which there has been agency review and required determinations (*e.g.,* State regulatory requirements), as necessary and appropriate;

7. Whether National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) compliance was required; and

8. Whether the plan or agreement contains a monitoring program and adaptive management to ensure that the conservation measures are effective and can be modified in the future in response to new information.

The Secretary places great weight on demonstrated partnerships, as in many cases they can lead to the implementation of conservation actions that provide benefits to the species and their habitat beyond those that are achievable through the designation of critical habitat and section 7 consultations, particularly on private lands, reducing the benefits of critical habitat. In addition, we consider the potential benefits of exclusion where voluntary conservation agreements may encourage future conservation actions and partnerships. The establishment and encouragement of strong conservation partnerships with non-Federal landowners is especially important in the State of Hawaii, where there are relatively few lands under Federal ownership; we cannot achieve the conservation and recovery of listed species in Hawaii without the help and cooperation of non-Federal landowners.

More than 60 percent of the United States is privately owned (Lubowski *et al.* 2006, p. 35), and at least 80 percent of endangered or threatened species occur either partially or solely on private lands (Crouse *et al.* 2002, p. 720). In the State of Hawaii, 84 percent of landownership is non-Federal (U.S. General Services Administration, in Western States Tourism Policy Council, 2009). Given the distribution of listed species with respect to landownership, conservation of listed species in many parts of the United States is dependent upon working partnerships with a wide variety of entities and the voluntary cooperation of many non-Federal landowners (Wilcove and Chen 1998, p. 1,407; Crouse *et al.* 2002, p. 720; James 2002, p. 271). Building partnerships and promoting voluntary cooperation of landowners is essential to understanding the status of species on non-Federal lands and necessary to implement recovery actions, such as the reintroduction of listed species, habitat restoration, and habitat protection.

Many non-Federal landowners derive satisfaction from contributing to endangered species recovery. Conservation agreements with non-Federal landowners, safe harbor agreements, other conservation agreements, easements, and State and local regulations enhance species conservation by extending species protections beyond those available through section 7 consultations. We encourage non-Federal landowners to enter into conservation agreements based on a view that we can achieve greater species conservation on non-Federal lands through such partnerships than we can through regulatory methods alone (USFWS and NOAA 1996e (61 FR 63854, December 2, 1996)).

Many non-Federal landowners, however, are wary of the possible consequences of attracting endangered species to their property. Some evidence suggests that some regulatory actions by the government, while well intentioned and required by law, can (under certain circumstances) have unintended negative consequences for the conservation of species on non-Federal lands (Wilcove *et al.* 1996, pp. 5–6; Bean 2002, pp. 2–3; James 2002, pp. 270–271; Koch 2002, pp. 2–3). Many landowners fear a decline in their property value due to real or perceived restrictions on land-use options where endangered or threatened species are found. Consequently, harboring endangered species is viewed by many landowners as a liability. This perception can result in an anti-conservation incentive because of the fear that maintaining habitats for endangered species could represent a risk to future economic opportunities (Main *et al.* 1999, pp. 1,264–1,265; Brook *et al.* 2003, pp. 1,644–1,648).

Because so many important habitat areas for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* occur on lands managed by non-Federal entities, collaborative relationships are essential for their recovery. These species and their habitat are expected to benefit substantially from voluntary land management actions that implement appropriate and effective conservation strategies, or that add to our bank of knowledge about the species and their ecological needs. The conservation benefits of critical habitat, on the other hand, are primarily regulatory or prohibitive in nature. Where consistent with the discretion provided by the Act, the Service believes it is both desirable and necessary to implement policies that provide positive incentives to non-Federal landowners and land managers to voluntarily conserve natural resources and to remove or reduce disincentives to conservation (Wilcove *et al.* 1996, pp. 1–14; Bean 2002, p. 2). We believe it is imperative for the recovery of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* to support ongoing positive management efforts with non-Federal conservation partners, and to provide positive incentives for other non-Federal land managers who might be considering implementing voluntary conservation activities but have concerns about incurring incidental regulatory, administrative, or economic costs.

Many landowners perceive critical habitat as an unnecessary and duplicative regulatory burden, particularly if those landowners are already developing and implementing conservation and management plans that benefit listed species on their lands. In certain cases, we believe the exclusion of non-Federal lands that are under positive conservation management is likely to strengthen the partnership between the Service and the landowner, which may encourage other

conservation partnerships with that landowner in the future. As an added benefit, by modeling positive conservation partnerships that may result in exclusion from critical habitat, such exclusion may also help encourage the formation of new partnerships with other landowners, with consequent benefits to the listed species. For all of these reasons, we place great weight on the value of conservation partnerships with non-Federal landowners when considering the potential benefits of inclusion versus exclusion of areas in critical habitat.

We are excluding a total of approximately 7,027 ac (2,844 ha) of non-Federal lands on the island of Hawaii that meet the definition of critical habitat from the final critical habitat rule under section 4(b)(2) of the Act. We are excluding these lands because the continuation and strengthening of important conservation partnerships with the landowners will increase the likelihood of meaningful conservation for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and increase the possibility that these partnerships will encourage others to enter into similar partnerships. Furthermore, the development and implementation of management plans covering portions of these excluded lands increase the accessibility necessary for surveys or monitoring designed to promote the conservation of these federally listed plant species and their habitat, as well as provide for other native species of concern, thereby reducing the benefits of overlying a designation of critical habitat. The Secretary has determined that the benefits of excluding these areas outweigh the benefits of including them in critical habitat, and that such exclusion will not result in the extinction of the species. The specific areas excluded are detailed in Table 4. Maps of each area excluded are provided in our supporting document ''Supplemental Information for the Designation and Nondesignation of Critical Habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense*'' available at *http://www.regulations.gov* under Docket No. FWS–R1–ES–2013–0028. Here we present (by landowner) an overview of each of the areas we are excluding based on conservation partnerships with the landowners, followed by a summary of our analysis of the benefits of inclusion versus the benefits of exclusion in each case.

Kamehameha Schools

In this final designation, the Secretary has exercised his discretionary authority to exclude from critical habitat lands that are owned by the Kamehameha Schools, totaling 2,834 ac (1,147 ha), under section 4(b)(2) of the Act. These lands fall within a portion of the 9,936 ac (4,021 ha) proposed as critical habitat in Hawaii—Lowland Dry—Unit 31 (77 FR 63928, October 17, 2012), have documented presence of *Bidens micrantha* ssp. *ctenophylla* and *Mezoneuron kavaiense,* and are considered essential to the conservation of *Isodendrion pyrifolium.* Kamehameha Schools is a proven conservation partner, as demonstrated, in part, by their ongoing management programs that provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat, as well as to other federally listed species. These programs include Kamehameha Schools Natural Resources Management Plan (NRMP), the Three Mountain Alliance TMA Management Plan, and the management program on Kamehameha Schools lands at Kaupulehu. We have determined that the benefits of excluding these lands owned by Kamehameha Schools outweigh the benefits of including them in critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

Kamehameha Schools is the largest private landowner in the State of Hawaii, owning approximately 375,000 ac (151,757 ha), with approximately 297,000 ac (120,192 ha) on Hawaii Island alone. Approximately 98 percent of these lands are dedicated to agriculture and conservation, and the remaining 2 percent of lands are in commercial real estate and properties. Kamehameha Schools is a private charitable educational trust established in 1887, through the will of Princess Bernice Pauahi Paki Bishop. The trust is used primarily to operate a comprehensive educational program for students of Hawaiian ancestry. In addition, part of the Kamehameha Schools' mission is to protect Hawaii's environment through recognition of the significant cultural value of the land and its unique flora and fauna. Kamehameha Schools has established a policy to guide the sustainable stewardship of its lands including natural resources, water resources, and ancestral places (Kamehameha Schools 2013, entire). The maintenance of healthy, functioning native ecosystems is a critical component of the Kamehameha Schools' integrated management strategy, and is sustained through a suite of voluntary actions including invasive weed control, native species restoration, ungulate management, rodent control, and wildfire mitigation on lands owned by Kamehameha Schools.

In 1993, the North Kona Dry Forest Working Group was organized to address recovery of dry forest ecosystems in the region. The group consisted of Kamehameha Schools in partnership with Federal and State agencies, other private landowners, conservation organizations, scientific researchers, and the Service. The group selected a 5.8-ac (2.3-ha) parcel at Kaupulehu Mauka managed by Kamehameha Schools as a pilot project to demonstrate the feasibility of economically restoring and regenerating the lowland dry forest ecosystem (Hawaii Forest Industry Association (HFIA) 1998, p. 3). By 1998, the group had successfully demonstrated exclusion of ungulates, removal of fountain grass (*Pennisetum setaceum*), a reduction in rodent populations, and establishment of numerous native understory plant species at Kaupulehu Mauka. The benefits of these actions for endangered plant recovery include reduction in the threat of wildfire, reduction in rodent predation of fruits and seeds of native plant species, and increased regeneration of native plant species.

In 1999, the North Kona Dry Forest Working Group received funding from the Service's Private Landowner Incentive Program to outplant nine endangered plant species and as part of an effort to expand dry forest restoration efforts to larger areas within the region (Cordell *et al.* 2008, pp. 279–284). The group initiated this effort at Kaupulehu Makai (Cordell *et al.* 2008, pp. 279–284), an approximately 70-ac (28-ha) parcel that is managed as part of a larger parcel owned by the Kamehameha Schools. Five endangered plant species naturally occur within Kaupulehu Makai, including one of the species for which critical habitat is designated in this rule, *Mezoneuron kavaiense.* The other four naturally occurring federally listed plant species are *Bonamia menziesii, Colubrina oppositifolia, Nothocestrum breviflorum,* and *Pleomele hawaiiensis.* Four other listed plant species have been outplanted here, including *Abutilon menziesii, Hibiscadelphus hualalaiensis, Hibiscus brackenridgei,* and *Kokia drynarioides.* Management actions on the 70-ac (28-ha) parcel have included outplanting and care for 100 individuals of each of the nine endangered plant species, construction and enlargement of fire

breaks, repair and maintenance of a fence line to exclude goats and sheep, removal of fountain grass, and control of rodent populations.

In 2004, additional funding was received from the Service's Private Stewardship Grants Program for restoration of the lowland dry ecosystem within the 70-ac (28-ha) parcel. With the stated goal of discovering and demonstrating methods of cost effective control of fountain grass and other nonnative species, this project and its collaboration with scientific researchers has provided landowners with the tools and scientific documentation to restore the lowland dry ecosystems in the North Kona region (Cabin *et al.* 2000; Cabin *et al.* 2002a; Cabin *et al.* 2002b; Thaxton *et al.* 2010). This project also includes public outreach through ongoing volunteer participation to control nonnative plants and outplant native plants. Community volunteer participation has become a significant part of the continued success of this project, with volunteers consisting of school groups, native Hawaiian charter school groups, Youth Conservation Corps, and other special interest groups (HFIA 2006, in litt.; HFIA 2007, in litt.; HFIA 2008, in litt.).

Kamehameha Schools helped establish the Three Mountain Alliance (TMA) in 2007. That year, Kamehameha Schools signed a memorandum of understanding (MOU) with the other members of the TMA, including the Service, to incorporate approximately 253,466 ac (102,785 ha) of its lands into the partnership (TMA Management Plan 2007, entire). Of the 2,834 ac (1,147 ha) of Kamehameha Schools land excluded from this critical habitat designation, 650 ac (263 ha) at Kaupulehu, North Kona, are within the management area of the TMA, but currently only the 6 ac (2.3 ha) at Mauka are actively managed. The TMA management program is ongoing and includes: (1) Habitat protection and restoration; (2) watershed protection; (3) compatible recreation and ecotourism; (4) education, awareness, and public outreach; (5) cultural and historical resource protection; and (6) research, monitoring, and management program indicators (TMA Management Plan 2007, pp. 26–38). The TMA management plan priorities that benefit *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat include prioritizing feral animal control (through removal and fencing), weed control, human activities management, public education and awareness, small mammal control, climate change, and fire management (TMA Management Plan 2007, pp. 16–21). The TMA management plan and the commitments by Kamehameha Schools to implement the conservation actions listed above have led to maintenance or enhancement of habitat for these and other native species, or the emergence of suitable habitat where it is not present.

The conservation priorities articulated in the TMA management plan have been implemented on the Kamehameha Schools property at Kaupulehu in some form or another since the 1993 organization of the North Kona Dry Forest Working Group. Beginning with the experimental set-aside at Kaupulehu Mauka and continuing with the outplantings at Makai, Kamehameha Schools has conducted voluntary, ongoing conservation, and we expect they will continue conservation activities in the future. For more than 10 years, Kamehameha Schools has carried out active ecosystem management at Kaupulehu on the 76 ac (31 ha) of lowland dry forest (70 ac (28 ha) at Makai, and approximately 6 ac (2.3 ha) at Mauka), with intensive management occurring in a 36-ac (15-ha) area. The entire 76-ac (31-ha) area is fenced, is enclosed by strategic firebreaks, and has been maintained as ungulate-free for the past 15 years. Within the 36-ac (15-ha) intensively managed area, additional management actions include the aggressive suppression of fountain grass and other priority weeds, suppression of rodent populations, and outplanting of common and rare native species (Hannahs 2013, in litt.). Such voluntary threat management and restoration actions provide multiple benefits to listed plant species, including *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat. In association with their site manager of the 76 ac (28 ha) parcel at Kaupulehu (Hawaii Forest Industry Association) and the Service, Kamehameha Schools is working to complete a 10-year management plan to continue their ongoing active ecosystem management of the parcel, as well as a potential expansion of management actions into an additional 70 ac (28 ha) in the surrounding lowland dry ecosystem (Whitehead 2015, in litt.).

In addition to implementing conservation actions on their lands on Hawaii Island, Kamehameha Schools has shown a commitment to conservation on their lands across the State of Hawaii. In 2011, they approved a 10-year Statewide Natural Resource Management Plan (NRMP), which sets the vision and direction for native ecosystem management on all the Kamehameha Schools lands in Hawaii. The NRMP includes broad ecologically and culturally based goals and strategies to: (1) Assess natural resources integrity; (2) manage priority threats to regeneration of native species; (3) restore ecosystem integrity; and (4) integrate and enable sustainable use. The NRMP further describes specific actions, targets, and metrics for monitoring implementation at annual or 5-year intervals. For example, the NRMP identifies the goal of limiting habitat loss by suppressing or eliminating priority threats to the regeneration of native species, increasing very high-quality habitat, and increasing land-based learning experiences to the 3,000 people served annually. The NRMP includes the following management actions designed to address threats to the lowland dry ecosystem: (1) Weed control; (2) fencing/hunting to remove ungulates; (3) increasing native land cover and biodiversity; (4) maintaining access and fire response infrastructure; and (5) developing a restoration strategy. The NRMP also identifies the desired goal of increasing the area of habitat in restoration within the area being excluded from this designation.

The Kamehameha Schools is currently implementing the NRMP across the State in coordination with previously established site-specific plans that often already include the conservation actions in the NRMP, such as the program at Kaupulehu, North Kona. As a partner in the West Maui Mountain Watershed Partnership, Kamehameha Schools participates in the conservation efforts in Paunau, Maui, to control erosion, manage ungulate populations, and eradicate invasive species for the purpose of maintaining the watershed that provides a continual supply of fresh water to the families of Maui. On Oahu, Kamehameha Schools is a partner in efforts to restore the wetlands of Uko'a in order to provide a healthy native habitat for Hawaii's water birds and other native biodiversity. Ongoing work includes a project to fence a 100-ac (40.5-ha) area to keep out ungulate populations and allow the native ecosystem to regenerate and thrive. On Kauai, Kamehameha Schools has conducted surveys on the invasive Australian tree fern and is now working on mitigation efforts to control spread of the fern.

As discussed above, Kamehameha Schools NRMP, the TMA Management Plan, and the management program on Kamehameha Schools lands at Kaupulehu together have provided for the conservation of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and their shared essential physical or

biological features. Implementation of these programs has been ongoing for many years and the Service has a reasonable expectation that the conservation management strategies and actions contained in these conservation plans will continue to be implemented. The plans contain monitoring programs to ensure that the conservation measures are effective and can be modified in the future in response to new information.

Because critical habitat designation provides regulatory protection against Federal actions that are found likely to destroy or adversely modify critical habitat, we looked at the section 7 consultation history on these Kamehameha Schools lands. According to our records, between 2007 and 2016, there were no section 7 consultations conducted for projects on these Kamehameha Schools lands, indicating little likelihood of a future Federal nexus on these lands that would potentially trigger the consideration of adverse modification or destruction of critical habitat through section 7 consultation.

Waikoloa Village Association (WVA)

In this final designation, the Secretary has exercised his discretion to exclude 1,758 ac (712 ha) of lands from critical habitat, under section 4(b)(2) of the Act, that are owned by the WVA. These lands include almost the entirety of the 1,779 ac (720 ha) proposed as critical habitat in Hawaii—Lowland Dry—Unit 32; this area is occupied by one of the three plant species, *Mezoneuron kavaiense,* and is unoccupied but essential to the conservation of *Bidens micrantha* ssp. *ctenophylla* and *Isodendrion pyrifolium* (77 FR 63928; October 17, 2012). The WVA has a history of voluntarily facilitating and supporting the conservation of federally listed species and habitat essential to their recovery on their privately owned lands, and recently signed a MOU that formalizes their partnership with the Service. We have determined that the benefits of excluding these lands owned by the WVA outweigh the benefits of including them in critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

Waikoloa Village is a rapidly growing suburban community situated on the leeward slope of Mauna Kea volcano at approximately 1,100 ft (335 m) elevation in the district of South Kohala on Hawaii Island. The WVA, which represents the community through an elected Board of Directors, owns and manages the village golf course and approximately 10,000 ac (4,047 ha) of land that surround the village. In 2009, the non-profit Waikoloa Village Outdoor Circle secured funding for the Waikoloa Dry Forest Recovery Project from the State of Hawaii Forest Stewardship Program and Natural Resource Conservation Service's (NRCS) Wildlife Habitat Improvement Program. The 10-year project (from 2009 to 2019) has proven successful at protecting existing *Mezoneuron kavaiense* individuals, restoring native forest around a remnant patch of lowland dry wiliwili (*Erythrina sandwicensis*) forest, and creating new populations of nine endangered plant species. The project's management program includes: (1) Construction and maintenance of a fence to exclude ungulates from a 275-ac (111-ha) area of dry forest south of Waikoloa Village; (2) removal of ungulates from the fenced exclosure; (3) control of nonnative plant species to reduce competition and the threat of fire; (4) integrated pest management to reduce impacts on native plant species; (5) provision of infrastructure for propagation and maintenance of outplantings; (6) the establishment of common native and endangered plant species; and (7) education and community outreach activities. In 2011, a new nonprofit, the Waikoloa Dry Forest Initiative Inc. (WDFI), was formed to take over responsibility of the Waikoloa Dry Forest Recovery Project. In 2012, the WVA Board of Directors granted WDFI permission to protect and restore the 275-ac (111-ha) dry forest area on WVA lands in the proposed critical habitat Hawaii–Lowland Dry–Unit 32 for a period of 75 years by way of a license agreement with WDFI.

In total, the Waikoloa Dry Forest Recovery Project's budget is over $1 million, which includes funding from the State of Hawaii Forest Stewardship Program, NRCS, and in-kind contributions (Waikoloa Dry Forest Recovery Project 2009). Since 2009, the project has successfully completed construction of the fence around the 275-ac (111-ha) dry forest area, conducted ungulate removal from within the fenced exclosure, controlled nonnative plant species, and propagated and outplanted common and federally listed native plant species, including the federally listed *Abutilon sandwicense, Achyranthes mutica, Bonamia menziesii, Chrysodracon* (=*Pleomele*) *hawaiiensis, Hibiscus brackenridgei, Kokia drynarioides, Melanthera* (=*Lipochaeta*) *venosa, Mezoneuron kavaiense, Neraudia ovata, Nothocestrum breviflorum, Sesbania tomentosa, Silene hawaiiensis, Silene lanceolata,* and *Vigna o-wahuensis.* In addition, WDFI conducts regular guided tours, volunteer work trips, and an annual festival that provides educational opportunities for the community to learn about conservation of listed species and the lowland dry ecosystem.

In addition to cooperating with WDFI, in April 2014, the WVA signed an MOU with the Service wherein they agreed to implement additional important conservation actions beneficial to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and the lowland dry ecosystem upon which they depend (Memorandum of Understanding between Waikoloa Village Association and U.S. Department of Interior Fish and Wildlife Service 2014, entire). The WVA agreed to set aside from development a 60-ac (24-ha) parcel adjacent to the Waikoloa Dry Forest Recovery Project's 275-ac (111-ha) exclosure, and work cooperatively with the Service or other approved conservation partners to conduct activities expected to benefit *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and the lowland dry ecosystem. Adaptive management strategies may include monitoring, fencing, ungulate removal, nonnative plant control, outplanting of target species, and other management actions intended to benefit listed species or the lowland dry ecosystem. Implementation has already been initiated on the following action agreed to in the MOU: set aside from development a 60-ac (24-ha) parcel adjacent to the Waikoloa Dry Forest Recovery Project's 275-ac (111-ha) exclosure.

As discussed above, the Waikoloa Dry Forest Recovery Project conducted with the cooperation of WVA has provided for the conservation of *Mezoneuron kavaiense* on WVA lands. Although the conservation area is unoccupied by *Bidens micrantha* ssp. *ctenophylla* and *Isodendrion pyrifolium,* by conserving *Mezoneuron kavaiense,* the Project also conserves the shared physical and biological features that are essential to the conservation of *Bidens micrantha* ssp. *ctenophylla* and *Isodendrion pyrifolium.* Implementation of the program has been ongoing for many years, and is expected to continue on the 275-ac (111-ha) dry forest reserve until 2087. The plan contains a monitoring program to ensure that the conservation measures are effective and can be modified in the future in response to new information. Furthermore, WVA's 2014 MOU with the Service augments the reserve area with 60 ac (24 ha) of additional

protected habitat. The WVA's history of conservation actions, their willingness to supplement those actions with a new MOU with the Service for the protection of additional acreage, and their steps to implement the MOU give the Service a reasonable expectation that WVA will continue to implement the conservation management strategies and actions for the Waikola Dry Forest Recovery Project and those contained in the MOU.

Because critical habitat designation provides regulatory protection against Federal actions that are found likely to destroy or adversely modify critical habitat, we looked at the section 7 consultation history on these WVA lands. According to our records, between 2007 and 2016, there were two informal consultations conducted regarding projects receiving Federal funding on WVA lands. The 2008 consultation with NRCS involved the implementation of conservation actions for the Waikoloa Dry Forest Recovery Project. The project was determined not likely adversely affect listed species or critical habitat in the action area. The second consultation with FEMA in 2013 involved the construction of a dip tank to improve fire suppression capabilities in West Hawaii. The project was also determined not likely to adversely affect any listed species or critical habitat in the action area. This history indicates the potential for a future Federal nexus on these lands that could trigger the consideration of adverse modification or destruction of critical habitat through section 7 consultation; however, these consultations were for actions aimed, directly or indirectly, at facilitating conservation efforts. Also, the presence of *Mezoneuron kavaiense* on these lands would trigger a section 7 consultation on effects to the species even without a critical habitat designation. As discussed in *Benefits of Exclusion Outweigh the Benefits of Inclusion,* below, we determined that the benefits of excluding these lands from critical habitat outweigh the benefits that may be derived from this potential Federal nexus.

Palamanui Global Holdings LLC (Palamanui)

In this final designation, the Secretary has exercised his authority to exclude from critical habitat lands that are owned by Palamanui, totaling 502 ac (203 ha). These lands fall within a portion of the 1,583 ac (640 ha) proposed as critical habitat in Hawaii—Lowland Dry—Unit 33 (77 FR 63928, October 17, 2012), have documented presence of *Mezoneuron kavaiense,* and are considered essential to the conservation of *Bidens micrantha* ssp. *ctenophylla* and *Isodendrion pyrifolium.* Palamanui has demonstrated their willingness to work as a conservation partner by undertaking site management that provides important conservation benefits to the native Hawaiian species that depend upon the lowland dry ecosystem habitat. These actions include a voluntary conservation partnership and conservation agreement with the Service and ongoing site-specific management on their lands for the conservation of rare and endangered species and their habitats. We have determined that the benefits of excluding these lands owned by Palamanui outweigh the benefits of including them in critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

Palamanui is developing a mixed-use residential and commercial project on 725 ac (293 ha) in the land division of Kau, North Kona district, Hawaii Island (Group 70 International 2004, p. 1–5; Case 2013, in litt.). A portion of this development will provide supporting infrastructure for the proposed University of Hawaii West campus located on adjacent State land. In 2005, the area's previous owner, Hiluhilu Development LLC, developed an integrated natural and cultural resources management plan (INCRMP) as part of a petition to reclassify the 725 ac (293 ha) of land to the Urban District for the development project at North Kona (Land Use Commission Docket A03–744 2005). The INCRMP addressed preservation, mitigation, management, and stewardship measures for the natural and cultural resources at the Palamanui development, and included a phased management program for biological resources with the following goals: (1) Creation of a lowland dry forest preserve and smaller reserves to protect rare and endangered plants; (2) establishment of the Palamanui Dry Forest Working Group; (3) hiring of a reserve coordinator; (4) reduction of fire threat; (5) construction of fences around preserve areas and exclosures around endangered tree species; (6) control of invasive weeds; (7) control of nonnative predators; (8) protection of rare and endangered species outside dry forest preserve; (9) creation of a native plant restoration program; (10) provision of an updated biological inventory of preserve areas and information on native invertebrates and the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*); and (11) development of an interpretive program for natural and cultural resources (Hiluhilu Development 2005, Exhibit D). To date, Palamanui has successfully implemented the following conservation actions: (1) Fencing to protect a 55-ac (22-ha) lowland dry forest preserve and other endangered plant locations outside the preserve; (2) maintenance of firebreaks to control the threat of fire at the preserve and other endangered plant locations outside the preserve; (3) establishment of the Palamanui Dry Forest Working Group and research partnership; and (4) partnerships with other landowners and practitioners to benefit the conservation and recovery of dry forest species and their habitat.

Subsequent to the publication of the October 17, 2012, proposed critical habitat rule (77 FR 63928), Palamanui participated in a series of collaborative meetings with the Service, County of Hawaii, DHHL, Hawaii Department of Land and Natural Resources (DLNR), and other landowners in Hawaii—Lowland Dry—Units 31, 33, 34, and 35, to address species protection and recovery, and development on a regional scale. These discussions resulted in a cooperative approach to setting aside acreage adjacent to other landowners in order to protect larger areas of contiguous habitat from development. In 2015, Palamanui signed a MOU with the Service wherein they agreed to implement important conservation actions beneficial to the three species, as well as other rare and listed plant species and their habitat in the lowland dry ecosystem (Memorandum of Understanding Between Palamanui Global Holdings LLC and U.S. Department of Interior Fish and Wildlife Service 2015, entire). Palamanui agreed to increase the area of fenced and managed lowland dry forest protected within the 55-ac (22-ha) preserve by 19 ac (7.7 ha), for a total of approximately 75 ac (30 ha). Palamanui also agreed to ensure funding for conservation actions within the preserve for the next 20 years at a minimum of $50,000 per year. Palamanui will contribute conservation actions valued at an additional $200,000 to benefit the recovery of the three plant species and the lowland dry ecosystem, and agreed to work cooperatively with the Service or other conservation partners to conduct activities expected to benefit *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat. Implementation has already been initiated on the following actions agreed to in the MOU: (1) Firebreak maintenance around the preserve; (2) fence maintenance to exclude ungulates from the preserve, and removal of ungulates that breached the fence and

entered the preserve; (3) regular weed control in the preserve; and (4) propagation, outplanting, and maintenance of listed species in the preserve (Wagner 2016b, in litt., Wagner 2016c, in litt).

As discussed above, Palamanui's protection of the lowland dry forest species and habitat through the INCRMP has provided for the conservation of *Mezoneuron kavaiense* and the physical or biological features that are essential to its conservation. Although the conservation area is unoccupied by *Bidens micrantha* ssp. *ctenophylla* and *Isodendrion pyrifolium,* by conserving *Mezoneuron kavaiense,* the INCRMP also conserves the shared physical and biological features that are essential to the conservation of *Bidens micrantha* ssp. *ctenophylla* and *Isodendrion pyrifolium.* The plan has had ongoing implementation for many years, and Palamanui has committed to continuing the effort into the future (based on their 2015 MOU with the Service). The plan contains a monitoring program to ensure that the conservation measures are effective and can be modified in the future in response to new information. The 2015 MOU with the Service includes augmentation of the existing 55-ac (22-ha) preserve by an additional 19 ac (7.7 ha), as well as a commitment to fund conservation actions in the preserved areas for the next 20 years. Palamanui's history of conservation actions, their cooperation in the development and finalization of the MOU, and their initial steps to implement the MOU give the Service a reasonable expectation that the conservation management strategies and actions contained in the MOU will continue to be implemented.

Because critical habitat designation provides regulatory protection against Federal actions that are found likely to destroy or adversely modify critical habitat, we looked at the section 7 consultation history on these Palamanui lands. According to our records, between 2007 and 2016, there were no section 7 consultations conducted for projects on these Palamanui lands, indicating little likelihood of a future Federal nexus on these lands that would potentially trigger the consideration of adverse modification or destruction of critical habitat through section 7 consultation.

Department of Hawaiian Home Lands (DHHL)

In this final designation, the Secretary has exercised his authority to exclude from critical habitat lands that are owned by DHHL, totaling 492 ac (199 ha). These lands fall within portions of two proposed critical habitat units. The DHHL owns 91 ac (30 ha) of the 1,583 ac (640 ha) proposed as critical habitat in Hawaii—Lowland Dry—Unit 33 (77 FR 63928; October 17, 2012); this DHHL land has no documented presence of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense* but is considered essential to the conservation of all three. The DHHL also owns 401 ac (165 ha) of the 1,192 ac (485 ha) proposed as critical habitat in Hawaii—Lowland Dry—Unit 35 (77 FR 63928; October 17, 2012); this DHHL land has documented presence of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* Currently, the DHHL has the responsibility of managing approximately 200,000 ac (80,900 ha) in the State of Hawaii for the purposes of providing homestead leasing opportunities for native Hawaiians. The DHHL has demonstrated their willingness to work as a conservation partner by undertaking site management that provides important conservation benefits to the native Hawaiian species that depend upon the lowland dry ecosystem habitat. These actions include a voluntary conservation partnership and conservation agreement with the Service and ongoing site-specific management on their lands for the conservation of rare and endangered species and their habitats. We have determined that the benefits of excluding these lands owned by DHHL outweigh the benefits of including them in critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

At Kealakehe, the DHHL is developing a portion of the Villages of Laiopua (Laiopua), a master-planned community with single- and multi-family residential units, recreational facilities, community facilities, parks, and archaeological and endangered plant preserve sites (DHHL 2009, pp. 12–13). From 1996 to 2006, DHHL acquired 685 ac (277 ha) of the roughly 1,000-ac (405-ha) development from the previous owner Hawaii Housing Finance and Development Corporation (HHFDC) (formerly Housing and Community Development Corporation of Hawaii (HCDCH)). The HHFDC had developed a mitigation plan with the Service and Hawaii Department of Fish and Wildlife (DOFAW) (Belt Collins 1999) for the listed and other rare plant species affected by the proposed development as part of a section 7 consultation with the Environmental Protection Agency (EPA) on wastewater treatment for Laiopua (USFWS 1990). The plan was finalized in 1999, and included the following conservation actions: (1) Construction requirements for fire prevention and control, and to avoid construction impacts to endangered plants; (2) development of eight mini-preserves (each approximately 0.03 ac, for a total of 0.24 ac (0.1 ha)) and two principal preserves totaling approximately 37 ac (15 ha); (3) a secured and managed off-site mitigation area (tied to the development of villages 9 and 10) of approximately 100 to 150 ac (40 to 61 ha); and (4) propagation and on-site planting of endangered and common native plant species, and management, monitoring, and reporting (Belt Collins 1999).

The transfer agreements between the HHFDC and DHHL included acknowledgement of the need to conform with the portions of the 1999 Plan related to the lands that DHHL acquired (including management of the preserves), and the need to consult with the Service and the DLNR on endangered and threatened species issues (HHFDC and DHHL 1997; BLNR *et al.* 2000; HCDCH and DHHL 2004; HCDCH and DHHL 2006). On May 17, 2007, in association with a section 7 consultation with the U.S. Housing and Urban Development (HUD) regarding funding under the Native American Housing Assistance and Self Determination Act of 1996 (25 U.S.C. 4101 *et seq.*), the Service determined the DHHL development of Villages 1, 2, 4, and 5, and associated park and community facilities totaling approximately 235 ac (95 ha), were not likely to adversely affect the endangered *Isodendrion pyrifolium* and *Mezoneuron kavaiense* or any designated critical habitat for listed species (USFWS 2007, in litt.). As part the proposed action, DHHL agreed to: (1) Minimize impacts to listed species and their habitats during construction; (2) develop and implement a revised endangered species management plan for *Isodendrion pyrifolium* and *Mezoneuron kavaiense;* and (3) construct and manage the two principal preserves and the mini preserves (for Villages 3, 4, and 5) from the 1999 plan, and an archaeological preserve totaling approximately 66 ac (27 ha) (Kane 2007, in litt.). The DHHL subsequently committed two parcels (totaling 40 ac) and four mini preserves (each between 0.1 and 0.4 acres, for a total of approximately 1 ac (0.4 ha)) for the development, management, and maintenance as preserves with the sole purpose of protecting *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium, Mezoneuron kavaiense,* and other endangered species (Masagatani

2012, in litt.), and set aside an area identified for protection of archaeological resources; all protected areas totaled approximately 73 ac (29 ha). The DHHL also agreed to allocate $250,000 per year over a 2-year period to fund management of the preserves. The 100- to 150-ac (40- to 61-ha) off-site mitigation area from the 1999 plan addressing development of Villages 9 and 10 was not created because Village 9 and 10 were not developed. The DHHL has protected all of the 21.7 ac (8.8 ha) for Village 10 from development, as discussed below. The HHFDC owns the land slated for Village 9; they protected from development a 4.2-ac (1.7-ha) portion of this area that is occupied by *Mezoneuron kavaiense.*

Since 2010, the DHHL has committed approximately $1,198,052 for the development and management of the two larger preserves and four mini preserves at Kealakehe (Masagatani 2012, in litt.). Conservation actions in the preserve areas include: (1) Fencing to exclude ungulates and prevent human trespass; (2) control and removal of nonnative plants; (3) control and prevention of the threat of fire; (4) propagation, outplanting, and care of common native and endangered plant species; and (5) promotion of community volunteer and education programs that support native plant conservation.

Subsequent to the publication of the October 17, 2012, proposed rule, the DHHL participated in a series of collaborative meetings with the Service, County of Hawaii, DLNR, and other stakeholders in Hawaii—Lowland Dry—Units 31, 33, 34, and 35, to address species protection and recovery, and development on a regional scale. These discussions resulted in a cooperative approach to setting aside acreage adjacent to other landowners in order to protect larger areas of contiguous habitat from development. In 2015, the DHHL signed a MOU with the Service wherein they agreed to implement important conservation actions beneficial to the recovery of the three species, as well as other rare and listed plant species and their habitat in the lowland dry ecosystem (Memorandum of Understanding Between the Department of Hawaiian Home Lands and U.S. Department of Interior Fish and Wildlife Service 2015, entire). DHHL agreed to protect the 73 ac (29 ha) of existing preserves and to set aside and not develop two additional parcels totaling 24 ac (10 ha) (one 2 ac (0.8 ha) area and another 21.7 ac (8.8 ha) area); in total the protected area is approximately 97 ac (39 ha) to benefit the recovery of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and the lowland dry ecosystem. The 21.7-ac (8.8-ha) portion of the additional 24 ac (10 ha) protected from development by DHHL is the site of proposed Village 10 and is adjacent to the 4.2 ac (1.7 ha) protected from development by the HHFDC (Village 9) and another 22 ac (8.9 ha) set aside by the County; these three areas together create approximately 47.9 contiguous acres (19.4 ha) protected for the conservation of the three species and the lowland dry ecosystem. The DHHL also agreed in the MOU to fund conservation actions valued at $3.229 million on 44 ac (18 ha) of the existing preserves for 40 years and within the additional 24 ac (10 ha) for 20 years. The remaining 29 ac (ha) of existing preserves will not be actively managed but will remain protected from development.

Conservation actions on the 68 managed acres include actions from the 1999 plan (control and the prevention of the threat of fire; control and removal of nonnative plant species; and propagation, outplanting, and care of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and other rare and endangered plant species) as well as the following additional actions: (1) Installation and maintenance of a 6-ft-tall, hog wire, ungulate-proof fence around each protected area; (2) construction and maintenance of a 20-ft (6-m) wide firebreak and fence line around these fences; (3) sufficient control of nonnative plant species to prepare the land for out-planting of covered species; (4) out-planting of covered species; (5) weeding after initial preparation and re-weeding/re-planting the entire area at regular intervals after the entire area has been weeded and out-planted once; and (6) allowing site visits by the Service. Implementation has already been initiated on the following actions agreed to in the MOU: (1) Fence and firebreak maintenance around the preserves; (2) regular weed control of the managed areas in the preserves; (3) improvements to the fences and gates in the existing Aupaka Preserve, including raising the height of the fence to exclude ungulates and removing barbed wire (a threat to the endangered Hawaiian hoary bat); (4) site preparation for outplanting; (5) outplanting of 200 listed plants on 5 ac (2 ha) per year inside the main Aupaka preserve; and (6) and weekly monitoring of all outplants (Wagner 2017b, in litt).

As discussed above, the development and management of the preserves at Kealakehe has provided for the conservation of *Mezoneuron kavaiense, Bidens micrantha* ssp. *ctenophylla,* and *Isodendrion pyrifolium.* The conservation effort has been occurring since DHHL took over ownership and management of the land, and DHHL has committed to continuing the effort into the future based on their 2015 MOU with the Service. The effort includes an annual progress evaluation to ensure that the conservation measures are effective and can be modified in the future in response to new information. The MOU augments the original 75-ac (29-ha) preserve with an additional 24 ac (10 ha) and includes a commitment to fund conservation actions into the future. The DHHL's history of conservation actions, their cooperation in the development and finalization of their MOU with the Service, and their steps to implement the MOU give the Service a reasonable expectation that the conservation management strategies and actions contained in the MOU will continue to be implemented.

The DHHL has worked in other areas on the Island of Hawaii to protect and restore endangered and threatened species and their habitats. In December 2010, the Hawaiian Homes Commission adopted the ''Aina Mauna Legacy Program,'' a 100-year plan to reforest approximately 87 percent of a 56,200-ac (22,743-ha) contiguous parcel managed by DHHL on the eastern slope of Mauna Kea, Hawaii Island. The Aina Mauna Legacy Program is removing all feral ungulates from the Aina Mauna landscape, and several projects have included fenced units where pigs and cattle have been removed (DHHL 2009, pp. 19–21). Projects that have been implemented to date have received funding from the Service's Partners for Fish and Wildlife Program and included 10-year landowner agreements between the Service and the landowners (including DHHL) to maintain the conservation actions; other partners involved include the State of Hawaii, the Hakalau Forest National Wildlife Refuge, and the Mauna Kea Watershed Alliance. Conservation actions that have been implemented for these projects include: (1) Management of 650 ac (263 ha) of native koa (*Acacia koa*) buffer between the invasive nonnative gorse and the Hakalau Forest National Wildlife Refuge (USFWS 2014a, in litt.); (2) restoration of 2 mi (3.2 km) of riparian habitat along Nauhi Gulch (USFWS 2014b, in litt.); (3) protection and restoration of approximately 1,100 ac (445 ha) of montane wet and montane mesic native forest within the Waipahoehoe Management Unit (USFWS 2015b, in litt.); and (4) habitat

restoration and protection of 525 ac (212 ha) of the Kanakaleonui Bird Corridor.

Because critical habitat designation provides regulatory protection against Federal actions that are found likely to destroy or adversely modify critical habitat, we looked at the section 7 consultation history on these DHHL lands. According to our records, between 2007 and 2016, there were three informal consultations conducted regarding projects receiving Federal funding on DHHL lands in proposed Hawaii—Lowland Dry—Unit 35 (in 2007, 2010, and 2014). The 2007 project funded by HUD (discussed above), entailed the development of four residential subdivisions and the establishment of endangered species preserve areas at the Villages of Laiopua, Kealakehe, North Kona. Based on the conservation measures for the endangered plants *Isodendrion pyrifolium* and *Mezoneuron kavaiense,* and the candidate plant (at the time) *Bidens micrantha* ssp. *ctenophylla,* we concurred that this project was not likely to adversely affect listed species or critical habitat (USFWS 2007, in litt.). A second consultation in 2010 involved the construction of Phase 1A of the Ane Keohokalole Highway within a right of way adjacent to DHHL lands containing *Isodendrion pyrifolium.* Based on the conservation measures for *Isodendrion pyrifolium,* we concurred that this project was not likely to adversely affect listed species or critical habitat (USFWS 2010a, in litt.). The 2014 project, also funded by HUD, was for the construction of the Laiopua 2020 community center, with a project footprint of 4.53 ac (1.83 ha). Based on the conservation measures incorporated into the project description and the small project footprint, we concurred that this project was not likely to adversely affect listed species or proposed critical habitat. This history indicates the potential for a future Federal nexus on these lands that could trigger section 7 consultation on effects to critical habitat. In addition, a future residential project planned for development on the 91 ac (30 ha) of DHHL lands at Kalaoa in proposed Hawaii—Lowland Dry—Unit 33 is likely to involve a Federal nexus (DHHL 2002, pp. 25–26). However, as discussed below under *Benefits of Exclusion Outweigh the Benefits of Inclusion,* we determined that the benefits of excluding these lands from critical habitat outweigh the benefits that may be derived from this potential Federal nexus.

Kaloko Entities

In this final designation, the Secretary has exercised his discretion to exclude 631 ac (255 ha) of lands from critical habitat, under section 4(b)(2) of the Act, that are owned or managed by Kaloko Entities. These lands fall within a portion of the 961 ac (389 ha) proposed as critical habitat in Hawaii—Lowland Dry—Unit 34 (77 FR 63928, October 17, 2012), have documented presence of *Bidens micrantha* ssp. *ctenophylla* and *Mezoneuron kavaiense,* and are considered essential to the conservation of *Isodendrion pyrifolium.* Kaloko Entities is a new conservation partner with a willingness to engage in ongoing management programs that provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat, as well as to other rare and federally listed species. We have determined that the benefits of excluding these lands owned or managed by Kaloko Entities outweigh the benefits of including them in critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

The Kaloko Entities, established in 2016, manages approximately 1,203 ac (487 ha) in the district of North Kona, on Hawaii Island, including 631 ac (255 ha) originally proposed for designation of critical habitat but excluded by this final rule. The Kaloko Entities consists of: (1) Kaloko Residential Park LLC, a Hawaii limited liability company (new owner of lands formerly owned by SCD–TSA Kaloko Makai LLC and Kaloko Properties Corporation); and (2) TSA LLC, a Hawaii limited liability company (formerly known as TSA Corporation).

Conservation activities on these excluded lands date back to a 2010 section 7 consultation by the FHWA associated with the construction of Phase 1A Package B of the Ane Keohokalole Highway (USFWS 2010b, in litt.). As a result of that consultation, SCD–TSA Kaloko Makai LLC agreed to set aside 150 ac (61 ha) of this area as a dryland forest reserve and participate in implementing conservation measures as a condition for issuance of a county grading permit. SCD–TSA Kaloko Makai LLC worked cooperatively with FHWA and the County of Hawaii by providing access to its lands for implementation of FHWA-funded conservation actions in the 150-ac (61-ha) set-aside. The FHWA conservation measures that addressed impacts of construction of the portion of Ane Keohokalole Highway from Kealakehe Parkway to Hina Lani Street ended in 2015.

In 2011, SCD–TSA Kaloko Makai, LLC prepared a draft habitat conservation plan (HCP) under State law to address the impacts of their planned Kaloko Makai Development, a mixed use development on 1,139 ac (461 ha) in the Kaloko-Kohanaiki area, Kona, Hawaii; approximately 605 ac (245 ha) of this area was included in proposed Hawaii—Lowland Dry—Unit 34 (77 FR 63928; October 17, 2012). The draft HCP was available for public comment as a supporting document with the publication of the October 17, 2012, proposed designation. The conservation measures in the draft HCP were designed to address impacts to four endangered species (*Chrysodracon* (*Pleomele*) *hawaiiensis, Mezoneuron kavaiense, Neraudia ovata, Nothocestrum breviflorum*), one (at the time) candidate plant species (*Bidens micrantha* ssp. *ctenophylla*), and the Kaloko dry forest. These measures included: (1) Establishment of a preserve to protect in perpetuity the 150-ac (61-ha) set-aside of dry forest from the 2010 consultation; (2) propagation and planting of three listed plants for each listed plant taken; (3) implementation of a fire plan; and (4) removal of invasive plant species around listed plant species in the preserve (Hookuleana 2011, pp. 10–11). During the public comment periods following the publication of the October 17, 2012, proposed critical habitat designation (77 FR 63928), the Service continued to reach out to State, County, and private landowners, including several meetings between the Service and representatives of SCD–TSA Kaloko Makai, LLC. On June 6, 2016, during the second reopened comment period on the proposed critical habitat designation, the Service was notified of the new management and consultant team representing the Kaloko Entities. The comment letter expressed an interest to engage in discussions with the Service regarding conservation of key habitats on their property. The Kaloko Entities also noted that all development plans for the Kaloko Makai Development have been deferred with the transfer of ownership of those lands from SCD–TSA Kaloko Makai LLC and Kaloko Properties Corporation to Kaloko Residential Park LLC (Mukai 2016, in litt.).

In October 2016, the Kaloko Entities entered into a MOU with the Service wherein they agreed to implement important conservation actions beneficial to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* as well as other rare and endangered plant species

and their habitat in the lowland dry ecosystem (Memorandum of Understanding between Kaloko Entities and U.S. Department of Interior Fish and Wildlife Service 2016, entire). The MOU established a partnership between Kaloko Entities and the Service to benefit the recovery of endangered species and their habitats for the next 26 years. Kaloko Entities previously agreed to set aside 150 ac (61 ha) as a preserve to benefit the conservation of 10 rare and endangered plant and animal species and the lowland dry ecosystem. In the 2016 MOU, Kaloko Entities committed to pursuing protection of the preserve in perpetuity via transfer or donation of the preserve to a third party. Kaloko Entities will also construct a fence to exclude ungulates from the preserve. The MOU includes a commitment from Kaloko Entities to provide $2,000,000 towards the implementation of on-site conservation actions that will benefit the recovery of the three plant species and the lowland dry ecosystem. Conservation actions include fence maintenance, the establishment of fire breaks, weeding, outplanting, irrigation, ungulate removal, monitoring, and associated activities (including necessary staking and soil surveys) to conserve covered species, additional species, and dry forest ecosystem within the preserve. The plan contains a monitoring program to ensure that the conservation measures are effective and can be modified in the future in response to new information. Kaloko Entities' protection of the lowland dry forest species and habitat through their MOU with the Service will provide for the conservation of *Mezoneuron kavaiense, Bidens micrantha* ssp. *ctenophylla,* and *Isodendrion pyrifolium,* and the physical or biological features that are essential to their conservation. Implementation has already been initiated on the following action agreed to in the MOU: Provide funding towards the implementation of on-site conservation actions.

As discussed above, Kaloko Entities' protection of the lowland dry forest species and habitat through the 2010 section 7 consultation by the FHWA has provided for the conservation of *Mezoneuron kavaiense, Bidens micrantha* ssp. *ctenophylla,* and *Isodendrion pyrifolium* on Kaloko Entities lands. The 2016 MOU with the Service includes a commitment to fund $2,000,000 towards the implementation of conservation actions in the preserve. The effort includes an annual progress evaluation to ensure that the conservation measures are effective and can be modified in the future in response to new information. Kaloko Entities' history of conservation actions, their cooperation in the development and finalization of the MOU, and their initial steps to implement the MOU give the Service a reasonable expectation that the conservation management strategies and actions contained in the MOU will continue to be implemented.

Because critical habitat designation provides regulatory protection against Federal actions that are found likely to destroy or adversely modify critical habitat, we looked at the section 7 consultation history on these Kaloko Entities lands. According to our records, between 2007 and 2016, there were two informal consultations regarding projects receiving Federal funding on Kaloko Entities lands. In 2008, the Service concluded that the construction of the Kaloko Transitional Housing Project funded by HUD on lands previously owned TSA Corporation was not likely to adversely affect listed species or critical habitat. In 2010, the second consultation (discussed earlier in this summary) involved construction of Phase 1A Package B of Ane Keohokalole Highway funded by the FHWA, and incorporated measures to minimize impacts to the endangered plants, *Nothocestrum breviflorum, Mezoneuron kavaiense, Neraudia ovata,* and *Chrysodracon* (*Pleomele*) *hawaiiensis,* and the (at that time) candidate *Bidens micrantha* ssp. *ctenophylla* on lands owned by Kaloko Properties Corporation and Stanford Carr Development. This consultation resulted in the 150-ac (61-ha) short-term set-aside (facilitated by the County) protected from development, and $500,000 committed by FHWA for conservation actions in the set-aside over a 5-year period ending in 2015. Based on the above conservation measures, we concurred that this project was not likely to adversely affect listed species or existing critical habitat. This history, as well as the planned future extension of the Ane Keohokalole Highway discussed in the FEA (IEc 2016, p. 2–8), indicates the potential for a future Federal nexus on these lands that could trigger section 7 consultation on effects to critical habitat, although the presence of *Bidens micrantha* ssp. *ctenophylla* and *Mezoneuron kavaiense* on these lands would trigger a section 7 consultation on effects to the species even without a critical habitat designation. As discussed below under *Benefits of Exclusion Outweigh the Benefits of Inclusion,* we determined that the benefits of excluding these lands from critical habitat outweigh the benefits that may be derived from this potential Federal nexus.

Lanihau Properties

In this final designation, the Secretary has exercised his discretion to exclude 47 ac (19 ha) of lands from critical habitat, under section 4(b)(2) of the Act, that are owned by Lanihau Properties. These lands fall within a portion of the 961 ac (389 ha) proposed as critical habitat in Hawaii— Lowland Dry—Unit 34 (77 FR 63928, October 17, 2012), have documented presence of *Bidens micrantha* ssp. *ctenophylla,* and are considered essential to the conservation of *Isodendrion pyrifolium* and *Mezoneuron kavaiense.* Lanihau Properties has demonstrated their willingness to work as a conservation partner by undertaking site management that provides important conservation benefits to the native Hawaiian species that depend upon the lowland dry ecosystem habitat. These actions include a voluntary conservation partnership and a conservation MOU with the Service and ongoing site-specific management on their lands for the conservation of rare and endangered species and their habitats. We have determined that the benefits of excluding these lands owned by Lanihau Properties outweigh the benefits of including them in critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

Lanihau Properties, LLC, and its affiliates the Palani Ranch Company and the Kaumalumalu, LCC (collectively with Lanihau Properties called the ''Lanihau Group'') manage certain lands in the district of North Kona, on Hawaii Island. Subsequent to the publication of the October 17, 2012, proposed critical habitat rule (77 FR 63928), Lanihau Properties participated in a series of collaborative meetings along with the Service, County of Hawaii, DHHL, DLNR, and other stakeholders in Hawaii—Lowland Dry—Units 31, 33, 34, and 35, to address species protection and recovery, and development on a regional scale. These discussions resulted in a cooperative approach to setting aside acreage adjacent to other landowners in order to protect larger areas of contiguous habitat from development.

In 2014, Lanihau Properties entered into a MOU with the Service wherein they agreed to implement important conservation actions beneficial to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* as well as other rare and endangered plant species and their habitat in the lowland dry

ecosystem (Memorandum of Understanding between Lanihau Properties and U.S. Department of Interior Fish and Wildlife Service 2014, entire). Lanihau Properties agreed to set aside and not undertake development in an approximately 16-ac (6-ha) area, adding 11.4 ac (4.6 ha) to 4.6 ac (1.9 ha) previously set aside as a dryland forest reserve as a condition for issuance of a county grading permit associated with the construction of Phase 1A Package B of the Ane Keohokalole Highway (USFWS 2010, in litt.), and to work cooperatively with the Service to allow entry access and work by the Service (or entities working under contract, grant, or cooperative agreement with the Service including the County of Hawaii) to conduct activities in the no-development area expected to benefit the conservation of the three species and the lowland dry ecosystem for the next 20 years. Conservation measures that the Service may undertake in the no-development area include: (1) Fencing to exclude ungulates; (2) control of nonnative plant species; (3) outplanting of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* as well as other rare and common native plant species; and (4) provision of supplemental water to outplanted individuals, and other actions pre-approved by the Lanihau Properties. Implementation has already been initiated on the following action agreed to in the MOU: Set aside and not undertake development in an approximately 16-ac (6-ha) area of lands under its management.

As discussed above, Lanihau Properties' protection of the lowland dry forest species and habitat through their 2014 MOU with the Service will provide for the conservation of *Mezoneuron kavaiense, Bidens micrantha* ssp. *ctenophylla,* and *Isodendrion pyrifolium,* and the physical or biological features that are essential to their conservation. In light of their prior conservation efforts and the fact that they have begun implementation of the 2014 MOU, there is a reasonable expectation that the conservation management strategies and actions contained in the MOU will continue to be implemented. The plan contains a monitoring program to ensure that the conservation measures are effective and can be modified in the future in response to new information.

Because critical habitat designation provides regulatory protection against Federal actions that are found likely to destroy or adversely modify critical habitat, we looked at the section 7 consultation history on these Lanihau Properties lands. According to our records, between 2007 and 2016, there was one informal consultation finalized in 2010 regarding projects receiving Federal funding on Lanihau Properties lands. The consultation involved construction of Phase 1A Package B of Ane Keohokalole Highway funded by the FHWA and incorporated measures to minimize impacts to the endangered plants, *Nothocestrum breviflorum, Mezoneuron kavaiense, Neraudia ovata,* and *Chrysodracon* (*Pleomele*) *hawaiiensis,* and the (at that time) candidate *Bidens micrantha* ssp. *ctenophylla* on lands owned by Lanihau Properties and Stanford Carr Development. This consultation resulted in 150-ac (61-ha) set-aside (facilitated by the County) protected from development, and $500,000 committed by FHWA for conservation actions in the 150-ac (61-ha) set-aside over 5 years. Based on the above conservation measures, we concurred that this project was not likely to adversely affect listed species or existing critical habitat. While this history indicates a small potential for a future Federal nexus on these lands that could trigger the consideration of adverse modification or destruction of critical habitat through section 7 consultation, the presence of *Bidens micrantha* ssp. *ctenophylla* these lands would trigger a section 7 consultation on effects to the species even without a critical habitat designation. As discussed below under *Benefits of Exclusion Outweigh the Benefits of Inclusion,* we determined that the benefits of excluding these lands from critical habitat outweigh the benefits that may be derived from this potential Federal nexus.

County of Hawaii

In this final designation, the Secretary has exercised his authority to exclude from critical habitat lands owned by the State of Hawaii that are under management of the County of Hawaii (or County), totaling 165 ac (67 ha). These lands fall within a portion of the 1,192 ac (485 ha) proposed as critical habitat in Hawaii—Lowland Dry—Unit 35 (77 FR 63928; October 17, 2012), have documented presence of *Mezoneuron kavaiense,* and are considered essential to the conservation of *Bidens micrantha* ssp. *ctenophylla* and *Isodendrion pyrifolium.* The County has demonstrated their willingness to work as a conservation partner by undertaking site management that provides important conservation benefits to the native Hawaiian species that depend upon the lowland dry ecosystem habitat. These actions include a voluntary conservation partnership and conservation agreement with the Service and ongoing site-specific management on their lands for the conservation of rare and endangered species and their habitats. We have determined that the benefits of excluding these lands managed by the County outweigh the benefits of including them in critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

The County of Hawaii owns or manages over 10,000 ac (4,047 ha) on Hawaii Island and is pursuing the development of a regional park on 193 ac (78 ha) in Kealakehe, North Kona, Hawaii Island. In 2011, the Governor of the State of Hawaii set aside these 193 ac (78 ha) from the DLNR to be under the control and management of the County for the purposes of wastewater reclamation, a golf course, and/or a public park (Governor's Executive Order No. 4355).

The County has been voluntarily cooperating with the Service in the conservation of rare and endangered species and their habitats for several years. In 2010, in association with their management of the construction of Phase 1A Package B of the Ane Keohokalole Highway by the FWHA, the County helped negotiate protection from development of over 150 ac (61 ha) of lowland dry ecosystem habitat in the Kaloko dry forest known to contain numerous listed plant species (USFWS 2010, in litt.). This project did not involve County lands, but the land has since come under County management through an easement. Subsequent to the publication of the October 17, 2012, proposed rule, the County participated in a series of collaborative meetings with the Service, DHHL, DLNR, and other stakeholders in Hawaii—Lowland Dry—Units 31, 33, 34, and 35, to address species protection and recovery, and development on a regional scale. These discussions resulted in a cooperative approach to setting aside acreage adjacent to other landowners in order to protect larger areas of contiguous habitat from development.

In 2015, the County entered into an MOU with the Service wherein they agreed to implement important conservation actions beneficial to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* as well as other rare and listed plant species and their habitat in the lowland dry ecosystem (Memorandum of Understanding Between County of Hawaii and U.S. Department of Interior Fish and Wildlife Service 2015, entire). The County agreed

to set aside and not develop approximately 30 ac (12 ha) of lands under its management, and conduct conservation actions valued at $1.534 million on a total of 50.1 ac (20.3 ha) to benefit the recovery of the three plant species, as well as other rare and listed plant species and their habitat in the lowland dry ecosystem, over the next 20 years. The 50.1 ac (20.3 ha) where conservation actions will occur includes 30 ac (12 ha) managed by the County, 4.2 ac (1.7 ha) managed by HHFDC, and 15.9 ac (6.4 ha) owned by Lanihau Properties. Of the total 30 ac (12 ha) of County land protected from development, 22 ac (8.9 ha) are adjacent to the 4.2 ac (1.7 ha) set aside by the HHFDC and another 21.7 ac (8.8 ha) set aside by DHHL; these three areas together create approximately 47.9 contiguous acres (19.4 ha) protected for the conservation of the three species and the lowland dry ecosystem. The remaining 8 ac (3.2 ha) of County set-aside are located within the proposed Kealakehe Regional Park and adjacent to an existing 3.4-ac (1.4-ha) preserve managed by the County but owned by the Hawaiian DLNR. Because the conservation actions will occur in some areas jointly managed by the County and other agencies or at offsite locations, the County will work cooperatively and in partnership with these landowners. These conservation actions include: (1) Fencing to exclude ungulates; (2) control and prevention of the threat of fire; (3) control of nonnative plant species; and (4) other management actions expected to benefit the recovery of listed plant species and the lowland dry ecosystem. Implementation has already been initiated on the following action agreed to in the MOU: Set aside and not develop approximately 30 ac (12 ha) of lands under its management. The County continues to meet with the Service to implement the MOU.

As discussed above, the County's protection of the lowland dry forest species and habitat through their 2015 MOU with the Service will provide for the conservation of *Mezoneuron kavaiense, Bidens micrantha* ssp. *ctenophylla,* and *Isodendrion pyrifolium,* and the physical or biological features that are essential to their conservation. In light of their prior conservation efforts and the fact that they have begun implementation of the 2015 MOU, there is a reasonable expectation that the conservation management strategies and actions contained in the MOU will continue to be implemented. The plan contains a monitoring program to ensure that the conservation measures are effective and can be modified in the future in response to new information.

Because critical habitat designation provides regulatory protection against Federal actions that are found likely to destroy or adversely modify critical habitat, we looked at the section 7 consultation history on these County lands. According to our records, between 2007 and 2016, there was one informal consultation conducted regarding a project receiving Federal funding on lands under management of the County. In 2013, the FHWA consulted with the Service regarding the widening of Queen Kaahumanu Highway, adjacent to Kaloko-Honokohau NHP in Kailua-Kona, Hawaii. The Service concurred the proposed project was not likely to adversely affect listed species or designated critical habitat, including proposed critical habitat delineated by Hawaii—Lowland Dry—Unit 35. While this history indicates there is a small potential for a future Federal nexus on these lands that could trigger the consideration of adverse modification or destruction of critical habitat through section 7 consultation, the presence of *Mezoneuron kavaiense* on these lands would trigger a section 7 consultation on effects to the species even without a critical habitat designation. As discussed below in our summary of benefits of exclusion outweighing the benefits of inclusion, by landowner, we determined that the benefits of excluding these lands from critical habitat outweigh the benefits that may be derived from this potential Federal nexus.

Hawaii Housing Finance and Development Corporation (HHFDC)

In this final designation, the Secretary has exercised his authority to exclude from critical habitat lands owned by the State of Hawaii that are under management of the HHFDC totaling 30 ac (12 ha). These lands fall within a portion of the 1,192 ac (485 ha) proposed as critical habitat in Hawaii—Lowland Dry—Unit 35 (77 FR 63928; October 17, 2012), have documented presence of *Mezoneuron kavaiense,* and are considered essential to the conservation of *Bidens micrantha* ssp. *ctenophylla* and *Isodendrion pyrifolium.* The HHFDC is a new conservation partner with a willingness to engage in ongoing management programs that provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and their habitat, as well as to other rare and federally listed species. We have determined that the benefits of excluding these lands managed by HHFDC outweigh the benefits of including them in critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

The HHFDC was established in 2006, and is tasked with developing and financing low- and moderate-income housing projects and administering homeownership programs. The HHFDC has the development rights to a 36.6-ac (14.8-ha) parcel, Tax Map Key (3) 7–4–020: 004, of Village 9 at the former Villages of Laiopua project in Kealakehe, North Kona, Hawaii; approximately 30 ac (12 ha) of this parcel was proposed as critical habitat (77 FR 63928; October 17, 2012). In 2012, the Hawaii State Judiciary selected a 10-ac (4-ha) portion of the parcel as the future site of the Kona Judiciary Complex; however, during the extended due diligence process, surveys detected the presence of the endangered *Mezoneuron kavaiense* within the HHFDC parcel, which led to the decision to pursue development of the Judiciary Complex at another location (Hawaii State Judiciary 2013, in litt.; Hawaii State Judiciary 2014, in litt.).

Subsequent to the publication of the October 17, 2012, proposed rule (77 FR 63928), the HHFDC, in partnership with the Service, County of Hawaii, DHHL, DLNR, and other stakeholders in Hawaii—Lowland Dry—Units 31, 33, 34, and 35, participated in a series of meetings to address species protection and recovery, and development on a regional scale. These discussions resulted in a cooperative approach to setting aside acreage adjacent to other landowners in order to protect larger areas of contiguous habitat from development.

In 2016, the HHFDC entered into an MOU with the Service wherein they agreed to implement important conservation actions beneficial to the three species, as well as other rare and listed plant species and their habitat in the lowland dry ecosystem (Memorandum of Understanding Between Hawaii Housing Finance and Development Corporation and U.S. Department of Interior Fish and Wildlife Service 2016, entire). The HHFDC agreed to set aside and not develop approximately 4.2 ac (1.7 ha) of lands under its management (at the site of the proposed Village 9 at Laiopua) to provide protection and management for one of the seven remaining mature individuals of *Mezoneuron kavaiense* in proposed Unit 35, as well as other rare and listed plant species and their habitat in the lowland dry ecosystem,

over the next 20 years. The 4.2 ac (1.7 ha) protected from development by the HHFDC are adjacent to the 22 ac (8.9 ha) set aside by the County and another 21.7 ac (8.8 ha) set aside by the DHHL; these three areas together create approximately 47.9 contiguous acres (19.4 ha) protected for the conservation of the three species and the lowland dry ecosystem. Because the conservation actions will occur in some areas jointly managed by the HHFDC and other agencies, the HHFDC will work cooperatively and in partnership with these landowners and the Service. These conservation actions include: (1) Fencing to exclude ungulates; (2) control and prevention of the threat of fire; (3) control of nonnative plant species; and (4) other management actions expected to benefit the recovery of listed plant species and the lowland dry ecosystem. Implementation has already been initiated on the following action agreed to in the MOU: set aside and not develop approximately 4.2 ac (1.7 ha) of lands under its management. The HHFDC continues to meet with the Service to implement the MOU.

As discussed above, HHFDC's protection of the lowland dry forest species and habitat through their 2016 MOU with the Service will provide for the conservation of *Mezoneuron kavaiense, Bidens micrantha* ssp. *ctenophylla,* and *Isodendrion pyrifolium,* and the physical or biological features that are essential to their conservation. In light of their prior conservation efforts and the fact that they have begun implementation of the 2016 MOU, there is a reasonable expectation that the conservation management strategies and actions contained in the MOU will continue to be implemented. The plan contains a monitoring program to ensure that the conservation measures are effective and can be modified in the future in response to new information.

Because critical habitat designation provides regulatory protection against Federal actions that are found likely to destroy or adversely modify critical habitat, we looked at the section 7 consultation history on these lands managed by HHFDC lands. According to our records, between 2007 and 2016, there were no section 7 consultations conducted for projects on these HHFDC lands, indicating little likelihood of a future Federal nexus on these lands that would potentially trigger the consideration of adverse modification or destruction of critical habitat through section 7 consultation.

Forest City Hawaii Kona LLC (Forest City Kona)

In this final designation, the Secretary has exercised his discretion to exclude 265 ac (107 ha) of lands from critical habitat, under section 4(b)(2) of the Act, that are owned by Forest City Kona. These lands fall within a portion of the 1,192 ac (485 ha) proposed as critical habitat in Hawaii—Lowland Dry—Unit 35 (77 FR 63928, October 17, 2012), have documented presence of *Bidens micrantha* ssp. *ctenophylla,* and are considered essential to the conservation of *Isodendrion pyrifolium* and *Mezoneuron kavaiense.* Forest City Kona is a new conservation partner with a willingness to engage in ongoing management programs that provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat, as well as to other rare and federally listed species. We have determined that the benefits of excluding lands owned by Forest City Kona outweigh the benefits of including them in critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

Forest City Kona is a wholly owned subsidiary of the national real estate company, Forest City Enterprises, Inc. Forest City Kona was selected by the HHFDC to be the developer of the Kamakana Villages housing project on approximately 272 ac (110 ha) in Keahuolu, North Kona district, Hawaii Island (James 2012, in litt.). The Kamakana Villages project is planned to consist of residential (50 percent affordable housing), commercial, mixed-use, parks, open space, archaeological preserves, and schools. Subsequent to the publication of the October 17, 2012, proposed critical habitat rule (77 FR 63928), Forest City Kona participated in a series of collaborative meetings with the Service, DHHL, DLNR, and other stakeholders in Hawaii—Lowland Dry—Units 31, 33, 34, and 35, to address species protection and recovery, and development on a regional scale. These discussions resulted in a cooperative approach to setting aside acreage adjacent to other landowners in order to protect larger areas of contiguous habitat from development.

In 2016, Forest City Kona entered into a MOU with the Service and HHFDC wherein they agreed to implement important conservation actions beneficial to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* as well as other rare and listed plant species and their habitat in the lowland dry ecosystem (Memorandum of Understanding between Forest City Kona and U.S. Department of Interior Fish and Wildlife Service 2016, entire). Forest City Kona agreed to set aside and not undertake development in two areas, totaling 20 ac (8 ha), and to work cooperatively with the Service or approved conservation partners to conduct activities expected to benefit the conservation of the three species and the lowland dry ecosystem in these areas for the next 20 years. In the larger of the two areas, 12 ac (5 ha) in size, Forest City Kona will fence and maintain a firebreak around the perimeter. The MOU's conservation actions include installation of maintenance of fencing to exclude ungulates, the installation and maintenance of a firebreak, and control of nonnative plant species. The MOU includes an agreement by Forest City Kona to provide $500,000 towards the implementation of on-site or off-site conservation actions within the North Kona region that will benefit the recovery of the three plant species and the lowland dry ecosystem. These actions may include additional fencing, firebreaks, and weeding, as well as propagation, outplanting, and care of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and other rare and common native plant species. Implementation has already been initiated on the following actions agreed to in the MOU: (1) Set aside and not undertake development in two areas, totaling 20 ac (8 ha) of lands under its management; and (2) provide funding towards the implementation of on-site or off-site conservation actions within the North Kona region to conserve and recover the three plant species and the lowland dry ecosystem. Forest City Kona continues to meet with the Service to implement the MOU.

As discussed above, Forest City Kona's protection of the lowland dry forest species and habitat through their 2016 MOU with the Service will provide for the conservation of *Mezoneuron kavaiense, Bidens micrantha* ssp. *ctenophylla,* and *Isodendrion pyrifolium,* and the physical or biological features that are essential to their conservation. In light of their prior conservation efforts and the fact that they have begun implementation of the 2016 MOU, there is a reasonable expectation that the conservation management strategies and actions contained in the MOU will continue to be implemented. The plan contains a monitoring program to ensure that the conservation measures are

effective and can be modified in the future in response to new information.

Because critical habitat designation provides regulatory protection against Federal actions that are found likely to destroy or adversely modify critical habitat, we looked at the section 7 consultation history on these Forest City Kona lands. According to our records, between 2007 and 2016, there were no section 7 consultations conducted for projects on these Forest City Kona lands, indicating little likelihood of a future Federal nexus on these lands that would potentially trigger the consideration of adverse modification or destruction of critical habitat through section 7 consultation.

Queen Liliuokalani Trust (QLT)

In this final designation, the Secretary has exercised his discretion to exclude 302 ac (122 ha) of lands from critical habitat, under section 4(b)(2) of the Act, that are owned by QLT. These lands fall within a portion of the 1,192 ac (485 ha) proposed as critical habitat in Hawaii—Lowland Dry—Unit 35 (77 FR 63928, October 17, 2012), have no documented presence of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense,* but are considered essential to the conservation of all three. The QLT is a proven conservation partner, as demonstrated, in part, by their history of conservation programs and site management that provide important conservation benefits to federally listed plants and their habitat. These programs include a voluntary conservation agreement with the Service dating back to 2004 under the Service's Partners for Fish and Wildlife Program, outplanting and site maintenance for federally listed species, and the initiation of a service learning program to engage the public in conservation actions. We have determined that the benefits of excluding these lands owned by QLT outweigh the benefits of including them in critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

The mission of the Queen Liliuokalani Trust, founded in 1909, is to provide services to benefit orphaned and destitute Hawaiian children and their families. On Hawaii Island, QLT properties total approximately 6,200 ac (2,509 ha), including the nearly intact, 3,400-ac (1,376-ha) ahupua'a of Keahuolūu in Kona, and the 2,800 ac (1,133 ha) of agricultural and conservation lands of Honohina on the windward side. In 2004, the QLT entered into an agreement with the Service's Partners for Fish and Wildlife Program to conduct research on the propagation of two endangered plants, *Isodendrion pyrifolium* and *Neraudia ovata,* in order to secure genetic material in *ex situ* (off-site) storage and provide individuals of each species for reintroduction or restoration projects. The Service and the QLT each contributed $10,000 toward the completion of this project. The QLT voluntarily contributed additional funds toward purchase of an all-terrain vehicle, fencing to exclude ungulates, and construction of a greenhouse, and renewed and extended the 2004 agreement through 2007. The QLT also initiated management of outplanting sites, installed irrigation, and conducted reintroduction of select native species.

In February 2014, the QLT entered into a MOU with the Service wherein they agreed to implement important conservation actions beneficial to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* as well as other rare and listed plant species and their habitat in the lowland dry ecosystem (Memorandum of Understanding between Queen Liliuokalani Trust and U.S. Department of Interior Fish and Wildlife Service 2014, entire). The management program will be implemented within a portion of an already existing 25-ac (10-ha) Historic Preserve Area for a period of 20 years and includes: (1) Fencing to exclude ungulates; (2) control and prevention of the threat of fire; (3) propagation and outplanting of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* as well as six other rare or listed plant species; (4) weed control; (5) watering and maintenance of outplanted individuals; (6) monitoring and reporting; (7) analysis of success criteria; and (8) adaptive management. To date, they have installed exclusion fencing around the Historic Preserve Area and have begun implementation of their intensive management program. The QLT also agreed to set aside and not undertake development in a separate 28-ac (11-ha) area and work cooperatively with the Service or other conservation partners to conduct activities such as those mentioned above to benefit the conservation of the three species and the lowland dry ecosystem. This area will be available for the conservation and propagation efforts for the three species and other listed and rare species of the lowland dry ecosystem.

In addition to the agreements detailed above, the QLT developed a culturally and place-based service learning program that has involved over 1,300 beneficiaries, school groups, and other community members in removing invasive species. The QLT continues to spend over $12,000 per year to control invasive species, such as fountain grass (*Pennisetum setaceum*) and haole koa (*Leucaena leucocephala*). Other significant expenditures include funds spent on security in response to trespassing and vandalism on its Kona lands (QLT 2013, in litt.).

As discussed above, QLT's protection of the lowland dry forest species and habitat through their 2014 MOU with the Service will provide for the conservation of *Mezoneuron kavaiense, Bidens micrantha* ssp. *ctenophylla,* and *Isodendrion pyrifolium,* and the physical or biological features that are essential to their conservation. In light of their prior conservation efforts and the fact that they have begun implementation of the 2014 MOU, there is a reasonable expectation that the conservation management strategies and actions contained in the MOU will continue to be implemented. The plan contains a monitoring program to ensure that the conservation measures are effective and can be modified in the future in response to new information.

Because critical habitat designation provides regulatory protection against Federal actions that are found likely to destroy or adversely modify critical habitat, we looked at the section 7 consultation history on these QLT lands. According to our records, between 2007 and 2016, there were no consultations conducted regarding projects receiving Federal funding on these QLT lands, indicating little likelihood of a future Federal nexus on these lands that would potentially trigger the consideration of adverse modification or destruction of critical habitat through section 7 consultation. Our DEA and FEA identified one anticipated future project slated for development on QLT lands; however, the Trust's project is unlikely to involve the use of Federal funding or require Federal permitting, and, therefore, section 7 consultation is unlikely (IEc 2016, p. 2–12). The Benefits of Inclusion and Exclusion

Benefits of Inclusion—We find there are minimal benefits to including the areas described above in critical habitat. As discussed earlier in this document, the primary effect of designating any particular area as critical habitat is the requirement for Federal agencies to consult under section 7 of the Act to ensure actions they carry out, authorize, or fund do not destroy or adversely modify designated critical habitat. In areas where a federally listed species is likely present, Federal agencies are obligated under section 7 of the Act to consult with us on actions that may

affect that species to ensure that such actions are not likely to jeopardize the species' continued existence. This requirement to consult to ensure Federal actions are not likely to jeopardize federally listed species in the area in question operates regardless of critical habitat. In areas where listed species are not likely present, section 7 consultation may not be triggered by a Federal action unless critical habitat is designated. Thus the benefit of critical habitat may potentially be greater in unoccupied areas, since consultation may be triggered solely by the critical habitat designation. An evaluation of our consultation history on the island of Hawaii demonstrates that there is some potential for a Federal nexus resulting in a section 7 consultation, as has occurred nine times in the last 9 years (2007 to 2016) for actions in the excluded areas; however, the consultations were all informal, and the Service concurred in each case that the action was not likely to adversely affect the listed species or any critical habitat within the project area, in some cases due to conservation measures included in the project.

In areas of critical habitat unoccupied by but essential to a species, such as QLT-owned lands and the portion of DHHL-owned lands in Hawaii—Lowland Dry—Unit 33, critical habitat designation can provide a conservation benefit because Federal agencies are required to consult with the Service to ensure that their actions are not likely to destroy or adversely modify critical habitat, and conservation measures are subsequently recommended for offsetting adverse project impacts to habitat. However, in these two particular cases, the likelihood that conservation benefits would be gained from a critical habitat adverse modification analysis is very limited. There is no history of section 7 consultations on the excluded QLT lands over the last 9 years, and the only future development project expected on these lands is unlikely to involve the use of Federal funding or require Federal permitting and, therefore, would not have a Federal nexus that would trigger a consultation (IEc 2016, p. 2–13).

With respect to the unoccupied portions of DHHL lands in Hawaii—Lowland Dry—Unit 33, although there is no history of section 7 consultations, there is a future development project proposed for these 91 ac (37 ha) that would likely have a Federal nexus. However, the DHHL has a strong history of implementation in the development and management of the preserves at Kealakehe that have provided for the conservation of *Mezoneuron kavaiense, Bidens micrantha* ssp. *ctenophylla,* and *Isodendrion pyrifolium,* and in 2015 DHHL entered into an MOU with the Service in which DHHL agreed to preserve a total of approximately 97 ac (39 ha) of land for the conservation and recovery of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and their lowland dry ecosystem. In addition, under the MOU, DHHL agreed to install and maintain a fence around the preserve lands and to construct and maintain a firebreak around the fence, control nonnative plant species, conduct out-planting, weed and maintain the area, and conduct other related conservation activities. As discussed above, implementation of this MOU has been initiated. For these reasons, we believe that the MOU minimizes the benefits of designating the 91 ac (37 ha) of DHHL lands in Hawaii—Lowland Dry—Unit 33 for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

If a future Federal nexus were to occur for an action taking place within an area occupied by one or more listed species, section 7 consultation would already be triggered by the presence of the species, and the Federal agency would consider the effects of its actions on the species through a jeopardy analysis. Because one of the primary threats to these species is habitat loss and degradation, the consultation process will, in evaluating the effects to these species, evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands. As noted in our FEA (IEc 2016, p. 1–7), the Service's recommendations for offsetting adverse project impacts to habitat that is occupied by a listed bird, invertebrate, or plant species under the jeopardy standard are often the same as recommendations we would make to offset adverse impacts to critical habitat, with the exception of the conservation project's location. As a consequence of shared threats and habitat requirements, any potential project modifications to provide for the conservation of one of these species would likely be the same as modifications requested for the others; thus, there would be little if any benefit from additional section 7 consultation for those species for which an area is designated as unoccupied but essential critical habitat for a species when it is also designated as occupied habitat for one of the other species.

Although the standards for jeopardy and adverse modification are not the same, any additional conservation that could be attained through the section 7 prohibition on adverse modification analysis would not likely be significant in this case because of the consultation history. Most of the excluded areas in this rule are occupied by *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense,* and, therefore, in all seven previous consultations a jeopardy analysis was completed and recommendations for offsetting adverse impacts to habitat were incorporated into the projects. Furthermore, the State of Hawaii prohibits take of any federally listed endangered or threatened plants (HRS section 195D–4). Violation of this State law can result in a misdemeanor conviction with both criminal fines and administrative fines that graduate for subsequent convictions. This prohibition may lessen the benefit of a critical habitat designation on these lands that are occupied by *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and/or *Mezoneuron kavaiense.*

The existing conservation programs being implemented by these landowners also may reduce the regulatory benefits of critical habitat. The designation of critical habitat carries no requirement that non-Federal landowners undertake any proactive conservation measures, for example with regard to the maintenance, restoration, or enhancement of habitat for listed species. Any voluntary action by a non-Federal landowner that contributes to the maintenance, restoration, or enhancement of habitat is, therefore, a valuable benefit to the listed species. The benefits of overlaying a designation of critical habitat may be further reduced by the fact that the development and implementation of management plans covering portions of these excluded lands increase the accessibility necessary for surveys or monitoring designed to promote the conservation of these federally listed plant species and their habitat. We have evaluated each of the conservation plans below to determine the appropriate weight that should be given to the plans in reducing the benefits of critical habitat.

Another potential benefit of including lands in a critical habitat designation is that the designation can serve to educate landowners, State and local government agencies, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high conservation value for certain species. Any information about *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and

Mezoneuron kavaiense and their habitat that reaches a wider audience, including parties engaged in conservation activities, is valuable. However, in the case of all the lands excluded from this designation, the educational value of critical habitat is limited because the conservation value of these lands to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* is well recognized through extensive coordination and outreach with State and local government agencies and the public after critical habitat was proposed.

During 2012, the Service held multiple informational meetings with the DHHL, DLNR, HHFDC, QLT, Forest City Kona, other nongovernmental organizations (NGOs) and private landowners, about the proposed critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* In 2013, the Service participated in a community forum and held a public informational meeting to educate local community members about the limited distribution of the three federally listed species, the threats to the native flora of Hawaii and the ecosystems upon which they rely, and the importance of native flora and fauna to the Hawaiian community and economy. On August 7, 2013, the Service held a public information meeting in the Kailua-Kona area of west Hawaii specifically to highlight the proposed critical habitat. In 2013 and 2014, the Service, along with several landowners participated in a series of meetings to address protection and recovery of listed species and their habitat while balancing individual landowner priorities on a regional scale. The process of proposing and finalizing critical habitat provided the opportunity for peer review and public comment. Through this process, all of these excluded lands were clearly identified as meeting the definition of critical habitat for the three plant species. The Service has posted maps of the areas excluded as supplemental materials under Docket No. FWS–R1–ES–2013–0028 at *http://www.regulations.gov.* The maps identify and further underscore the importance of these areas for the conservation of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* It is unlikely that designation of critical habitat will reach a wider audience or provide new information concerning the conservation value of this area.

Furthermore, the landowners excluded from this designation have already taken proactive steps to manage for the conservation of these species, as demonstrated by their ongoing conservation efforts and participation in conservation agreements. Several landowners have a history of conservation efforts that date back many years. Also, three of the landowners (Kamehameha Schools, WVA, and QLT) conduct public outreach and education programs that engage the public in conservation awareness. Therefore, for the lands excluded from this designation, the benefit of critical habitat in terms of education is reduced.

There is a long history of critical habitat designation in Hawaii, and neither the State nor county jurisdictions have ever initiated their own additional requirements in areas because they were identified as critical habitat. Therefore, based on this history, we believe this potential benefit of critical habitat is limited.

Benefits of Exclusion—The benefits of excluding the areas described above from designated critical habitat are relatively substantial. Excluding the areas owned and/or managed by these landowners from critical habitat designation will provide significant benefit in terms of sustaining and enhancing the partnership between the Service and these landowners and partners, with positive consequences for conservation for the species that are the subject of this rule as well as other species that may benefit from such partnerships in the future. As described above, partnerships with non-Federal landowners are vital to the conservation of listed species, especially on non-Federal lands; therefore, the Service is committed to supporting and encouraging such partnerships through the recognition of positive conservation contributions. In the cases considered here, excluding these areas from critical habitat, both managed and unmanaged, will help foster the partnerships the landowners and land managers in question have developed with Federal and State agencies and local conservation organizations; will encourage the continued implementation of voluntary conservation actions for the benefit of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat on these lands; and may also serve as a model and aid in fostering future cooperative relationships with other parties here and in other locations for the benefit of other endangered or threatened species.

The designation of critical habitat, on the other hand, could have an unintended negative effect on our relationship with some non-Federal landowners due to the perceived imposition of government regulation. According to some researchers, the designation of critical habitat on private lands significantly reduces the likelihood that landowners will support and carry out conservation actions (Main *et al.* 1999, p. 1,263; Bean 2002, p. 2). The magnitude of this negative outcome is greatly amplified in situations where active management measures (such as reintroduction, fire management, and control of invasive species) are necessary for species conservation (Bean 2002, pp. 3–4). We believe the judicious exclusion of specific areas of non-federally owned lands from critical habitat designation can contribute to species recovery and provide a superior level of conservation than critical habitat. Therefore, we consider the positive effect of excluding active conservation partners from critical habitat to be a significant benefit of exclusion.

Benefits of Exclusion Outweigh the Benefits of Inclusion—We have reviewed and evaluated the exclusion of 7,027 ac (2,844 ha) of land owned and/or managed by 10 landowners on the island of Hawaii from critical habitat designation (see Table 4, above). The benefits of including these lands in the designation are comparatively small. We see a low likelihood of these areas substantially benefitting from the application of section 7 to critical habitat, as reflected in the consultation history between 2007 and 2016. All seven of the section 7 consultations in the excluded areas have resulted ''in not likely to adversely affect'' determinations. There are three future projects planned for development on these excluded lands. One of them is planned for occupied habitat (on Kaloko Makai land) and, therefore, would already be subject to a jeopardy analysis in a section 7 consultation, which minimizes the benefits of designating this area as critical habitat. In evaluating the effects to these species in a jeopardy analysis, we evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands, and the Service's recommendations for offsetting adverse project impacts to occupied habitat are often the same as any recommendations we would make to offset adverse impacts to critical habitat. The two other projects are planned for unoccupied habitat, but only one (on DHHL land) would have a Federal nexus and, therefore, a potential benefit from critical habitat designation. However, the section 7 consultation for the project on DHHL land would be

unlikely to result in benefits for these species beyond the current and anticipated future benefits gained through the conservation partnership DHHL has with the Service.

Furthermore, the potential educational and informational benefits of critical habitat designation on lands containing the physical or biological features essential to the conservation of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* would be minimal, because the landowners and land managers under consideration have demonstrated their knowledge of the species and their habitat needs in the process of developing their partnerships with the Service. Additionally, the current active conservation efforts on some of these lands contribute to our knowledge of the species through monitoring and adaptive management. Finally, as described above, Kamehameha Schools, WVA, and QLT have developed or participated in an active community outreach programs that have increased community awareness of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

In contrast, the benefits derived from excluding these owners and enhancing our partnership with these landowners and land managers is significant. Because voluntary conservation efforts for the benefit of listed species on non-Federal lands are so valuable, the Service considers the maintenance and encouragement of conservation partnerships to be a significant benefit of exclusion. The development and maintenance of effective working partnerships with non-Federal landowners for the conservation of listed species is particularly important in areas such as Hawaii, a State with relatively little Federal landownership but many species of conservation concern. Excluding these areas from critical habitat will help foster the partnerships the landowners and land managers in question have developed with Federal and State agencies and local conservation organizations, and will encourage the continued implementation of voluntary conservation actions for the benefit of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat on these lands. In addition, these partnerships not only provide a benefit for the conservation of these species, but may also serve as a model and aid in fostering future cooperative relationships with other parties in this area of Hawaii Island and in other locations for the benefit of other endangered or threatened species. Therefore, in consideration of the factors discussed above under *Benefits of Exclusion,* including the relevant impacts to current and future partnerships, we have determined that the benefits of exclusion of lands owned and/or managed by the 10 landowners considered here and identified in Table 4, above, outweigh the benefits of designating these non-Federal lands as critical habitat. Below, we provide a summary of how the benefits of exclusion outweigh the benefits of inclusion for each landowner.

Kamehameha Schools

In this final designation, the Secretary has exercised his authority to exclude from critical habitat lands owned by Kamehameha Schools, totaling 2,834 ac (1,147 ha) on the island of Hawaii. Kamehameha Schools has been a proven conservation partner over the last two decades, as demonstrated, in part, by their ongoing management programs, including the Kamehameha Schools NRMP, the TMA Management Plan, and the management program on Kamehameha Schools land at Kaupulehu.

The section 7 consultation history of these Kamehameha Schools lands (no consultations over the last 9 years) indicates there is little potential for a future Federal nexus that would create a benefit to including these lands in critical habitat. If a future Federal nexus were to occur for an action taking place on these lands, a section 7 consultation would already be triggered by the presence of *Bidens micrantha* ssp. *ctenophylla* and *Mezoneuron kavaiense,* and the Federal agency would consider the effects of its actions on the species through a section 7 consultation on the species. Because one of the primary threats to these species is habitat loss and degradation, the consultation process under section 7 of the Act for projects with a Federal nexus will, in evaluating the effects to these species, evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands, and will likely result in similar recommended conservation measures.

Several additional factors serve to reduce the benefit of designating these lands owned by Kamehameha Schools as critical habitat. First, the significant management actions already underway by Kamehameha Schools to restore and support the lowland dry habitat upon which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend reduce the benefit of including the lands where these management actions occur in critical habitat. Since critical habitat does not require active management to maintain or improve habitat, the conservation actions in the Kamehameha Schools NRMP, the TMA Management Plan, and the management program on Kamehameha Schools lands at Kaupulehu provide benefits on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat designation and section 7 consultations. Additionally, this landowner and the public are already educated about the conservation value of these areas due to Kamehameha Schools' conservation actions, their active outreach and education program, and the extensive coordination and outreach with State and local government agencies and the public after critical habitat on these lands was proposed; the designation of critical habitat would not increase Kamehameha School's or the public's awareness in this regard. Finally, the State of Hawaii's take prohibition on federally listed plants (HRS section 195D–4) will also lessen the benefit of a critical habitat designation on these lands since they are occupied by *Bidens micrantha* ssp. *ctenophylla* and *Mezoneuron kavaiense.*

The benefits of exclusion, on the other hand, are significant. Excluding areas covered by existing plans and programs can encourage landowners like Kamehameha Schools to partner with the Service in the future, by removing any real or perceived disincentives for engaging in conservation activities, and thereby provide a benefit by encouraging future conservation partnerships and beneficial management actions. Furthermore, we give great weight to the benefits of excluding areas where we have conservation partnerships, especially on non-Federal lands, and excluding Kamehameha Schools lands even where active management is not occurring is likely to strengthen the partnership between the Service and the landowner, which may encourage other conservation opportunities with Kamehameha Schools in the future and increased conservation of listed species and their habitat on Kamehameha Schools lands. Because Kamehameha Schools is a large landowner in the area where habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* occurs, managing approximately 297,000 ac (120,192 ha) on Hawaii Island, its partnership with the Service is not only beneficial to the conservation of the species on Kamehameha Schools land

through protection and enhancement of habitat, but also potentially a very positive influence on other landowners considering partnerships with the Service. The exclusion highlights a positive conservation partnership model with a large landowner, and thereby may encourage the formation of new partnerships with other landowners, with consequent benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium, Mezoneuron kavaiense,* and other listed species.

The benefits of excluding these Kamehameha Schools lands from critical habitat are sufficient to outweigh the potential benefits that may be realized through the designation of critical habitat. The regulatory benefit of designating critical habitat, afforded through the section 7(a)(2) consultation process, is minimal because of limited potential for a Federal nexus on these lands and because the presence of *Bidens micrantha* ssp. *ctenophylla* and *Mezoneuron kavaiense* would already require section 7 consultation regardless of whether or not critical habitat is designated. In occupied habitat, the section 7 prohibition on adverse modification would be unlikely to provide additional conservation benefits beyond what would be attained through the jeopardy analysis for these species. The current efforts underway by Kamehameha Schools demonstrate the willingness of the landowner to contribute to the conservation of listed species and their habitat, and provide significant benefits for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. Furthermore, significant conservation benefits would be realized through the exclusion of all these Kamehameha Schools lands, both managed and unmanaged, by continuing and strengthening our positive relationship with Kamehameha Schools, as well as encouraging additional beneficial conservation partnerships in the future. The combination of conservation gained from continuing management actions by Kamehameha Schools and the importance of maintaining, enhancing, and developing conservation partnerships provides greater benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* than what could be provided through the designation of critical habitat.

The Secretary has therefore concluded that, in this particular case, the benefits of excluding Kamehameha Schools' lands outweigh those of including them in critical habitat. As detailed below, the Secretary has further determined that such exclusion will not result in the extinction of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense.*

Waikoloa Village Association (WVA)

In this final designation, the Secretary has exercised his authority to exclude from critical habitat lands owned by WVA, totaling 1,758 (712 ha) on the island of Hawaii. The WVA has been involved in conservation since 2009, through the State Forest Stewardship Agreement, the 2012 Waikoloa Dry Forest Initiative License Agreement, and more recently their MOU with the Service.

The section 7 consultation history of these WVA lands (two informal consultations over the last 9 years) indicates there is potential for a future Federal nexus that could create a benefit to including these lands in critical habitat. However, we believe that the benefits gained from supporting the positive conservation partnership with this landowner in the State of Hawaii by excluding these lands from critical habitat (discussed below) are greater than the benefit that would be gained from the designation of critical habitat. If a future Federal nexus were to occur for an action taking place on these WVA lands, a section 7 consultation would already be triggered by the presence of *Mezoneuron kavaiense,* and the Federal agency would consider the effects of its actions on the species through a jeopardy analysis. Because one of the primary threats to these species is habitat loss and degradation, the consultation process under section 7 of the Act for projects with a Federal nexus will, in evaluating the effects to these species, evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands, and likely result in similar recommended conservation measures.

Several additional factors serve to reduce the benefit of designating these lands owned by WVA as critical habitat. This landowner and the public are already educated about the conservation value of these areas for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* due to WDFI's conservation actions, their active public outreach and education program, and the Service's extensive coordination and outreach with State and local government agencies and the public after critical habitat on these lands was proposed; the designation of critical habitat would not increase WVA's or the public's awareness in this regard. The State of Hawaii's take prohibition on federally listed plants (HRS section 195D–4) will also lessen the benefit of a critical habitat designation on these lands since they are occupied by *Mezoneuron kavaiense.* In addition, the 2014 MOU with the Service contains conservation actions that will restore and support the lowland dry habitat upon which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend, and so the benefit of including the lands where the management actions occur in critical habitat is reduced. Since critical habitat does not require active management to maintain or improve habitat, the conservation actions in the MOU are expected to provide benefits on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat designation and section 7 consultations. However, we have also taken into consideration that this is a new conservation agreement and full implementation has not yet been demonstrated.

The benefits of exclusion, on the other hand, are significant. Excluding areas covered by existing plans and programs can encourage landowners like WVA to partner with the Service in the future, by removing any real or perceived disincentives for engaging in conservation activities, and thereby provide a benefit by encouraging future conservation partnerships and beneficial management actions. Furthermore, we give great weight to the benefits of excluding areas where we have conservation partnerships, especially on non-Federal lands, and excluding other WVA lands where active management is not occurring is likely to strengthen the partnership between the Service and WVA, which may encourage other conservation opportunities with the landowner in the future and increased conservation of listed species and their habitat on WVA lands. Because WVA is a large landowner in the area where habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense* occurs, managing approximately 10,000 ac (4,047 ha) on Hawaii Island, its partnership with the Service is not only beneficial to the conservation of the species on WVA land through protection and enhancement of habitat, but also potentially a very positive influence on other landowners considering partnerships with the Service. The exclusion highlights a positive conservation partnership model with a large landowner, and thereby may

encourage the formation of new partnerships with other landowners, with consequent benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and other listed species

The benefits of excluding these lands from critical habitat are sufficient to outweigh the potential benefits that may be realized through the designation of critical habitat. The regulatory benefit of designating critical habitat, afforded through the section 7(a)(2) consultation process, is minimal because the presence of the species would already require a section 7 consultation regardless of whether or not critical habitat is designated. In occupied habitat, the section 7 prohibition on adverse modification would be unlikely to provide significant additional conservation benefits beyond what would be attained through the section 7 consultation due to the presence of *Mezoneuron kavaiense.* The current conservation efforts underway by WVA demonstrate the willingness of WVA to contribute to the conservation of listed species and their habitat, and provide significant benefits for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. WVAs current conservation efforts (including development of the MOU), combined with our outreach to State and local governments and the public, indicate that the educational value of critical habitat would be minimal. The State's prohibition on the take of listed plants will also minimize the benefits of critical habitat in this case because the excluded lands are occupied by *Mezoneuron kavaiense.* On the other hand, significant conservation benefits would be realized through the exclusion of all these WVA lands, both managed and unmanaged, by continuing and strengthening our positive relationship with WVA, as well as encouraging additional beneficial conservation partnerships in the future. The combination of conservation gained from continuing management actions by WVA and the importance of maintaining, enhancing, and developing conservation partnerships provides greater benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* than what could be provided through the designation of critical habitat on these WVA lands.

The Secretary has therefore concluded that, in this particular case, the benefits of excluding WVA lands outweigh those of including them in critical habitat. As detailed below, the Secretary has further determined that such exclusion will not result in the extinction of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense.*

Palamanui Global Holdings, LLC

In this final designation, the Secretary has exercised his authority to exclude from critical habitat lands owned or managed by Palamanui Global Holdings LLC (Palamanui), totaling 502 ac (203 ha) on the island of Hawaii. Palamanui has been involved since 2005 in conservation programs that provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat, as well as to other rare and federally listed species, such as their INCRMP, their new MOU with the Service, and their collaboration with other landowners in the originally Hawaii—Lowland Dry—Units 31, 33, 34, and 35.

The section 7 consultation history of these Palamanui lands (no consultations over the last 9 years) indicates there is little potential for a future Federal nexus that would create a benefit to including these lands in critical habitat. If a future Federal nexus were to occur for an action taking place on these Palamanui lands, a section 7 consultation would already be triggered by the presence of *Mezoneuron kavaiense,* and the Federal agency would consider the effects of its actions on the species through a section 7 consultation on the species. Because one of the primary threats to these species is habitat loss and degradation, the consultation process under section 7 of the Act for projects with a Federal nexus will, in evaluating the effects to these species, evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands, and will likely result in similar recommended conservation measures.

Several additional factors serve to reduce the benefit of designating these lands owned by Palamanui as critical habitat. First, the management actions already underway by Palamanui to restore and support the lowland dry habitat upon which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend reduce the benefit of including the lands where these management actions occur in critical habitat. Since critical habitat does not require active management to maintain or improve habitat, the conservation actions included in the ICNRMP and the 2015 MOU with the Service provide benefits on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. In addition, the landowner and public are already aware of the conservation value of these areas due to Palamanui's conservation actions and the extensive coordination and outreach with State and local government agencies and the public after critical habitat on these lands was proposed; the designation of critical habitat would not increase Palamanui's or the public's awareness in this regard. Finally, the State of Hawaii's take prohibition on federally listed plants (HRS section 195D–4) will also lessen the benefit of a critical habitat designation on these lands since they are occupied by *Mezoneuron kavaiense.*

The benefits of exclusion, on the other hand, are significant. Excluding areas covered by existing plans and programs can encourage landowners like Palamanui to partner with the Service in the future, by removing any real or perceived disincentives for engaging in conservation activities, and thereby provide a benefit by encouraging future conservation partnerships and beneficial management actions. Furthermore, we give great weight to the benefits of excluding areas where we have conservation partnerships, especially on non-Federal lands, and excluding other Palamanui lands where active management is not occurring is likely to strengthen the partnership between the Service and the landowner, which may encourage additional conservation partnerships with Palamanui in the future and increased conservation of listed species and their habitat on Palamanui lands. The exclusion highlights a positive conservation partnership model with the landowner, and thereby may help encourage the formation of new partnerships with other landowners, yielding benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* beyond what could be realized through critical habitat designation and section 7 consultations on these areas.

The benefits of excluding these Palamanui lands from critical habitat are sufficient to outweigh the potential benefits that may be realized through the designation of critical habitat. The regulatory benefit of designating critical habitat, afforded through the section 7(a)(2) consultation process, is minimal because of limited potential on these lands for a Federal nexus and because the presence of *Mezoneuron kavaiense* would already require section 7 consultation regardless of whether or

not critical habitat is designated. In occupied habitat, the section 7 prohibition on adverse modification would be unlikely to provide additional conservation benefits beyond what would be attained through the jeopardy analysis for these species. The current conservation efforts underway by Palamanui demonstrate the willingness of Palamanui to contribute to the conservation of listed species and their habitat, and provide significant benefits for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. Palamanui's current conservation efforts (including development of the MOU), combined with our outreach to State and local governments and the public, indicate that the educational value of critical habitat would be minimal. The State's prohibition on the take of listed plants will also minimize the benefits of critical habitat in this case because the excluded lands are occupied by *Mezoneuron kavaiense.* On the other hand, significant conservation benefits for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* would be realized through the exclusion of these Palamanui lands, by continuing and strengthening our positive relationship with Palamanui, as well as encouraging additional beneficial conservation partnerships in the future. The combination of conservation gained from continuing management actions by Palamanui and the importance of maintaining, enhancing, and developing conservation partnerships provides greater benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* than what could be provided through the designation of critical habitat on this Palamanui land.

The Secretary has therefore concluded that, in this particular case, the benefits of excluding Palamanui's lands outweigh those of including them in critical habitat. As detailed below, the Secretary has further determined that such exclusion will not result in the extinction of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense.*

Department of Hawaiian Home Lands (DHHL)

In this final designation, the Secretary has exercised his authority to exclude 492 ac (199 ha) of lands from critical habitat, under section 4(b)(2) of the Act, that are under management by DHHL. This landowner is a conservation partner with a willingness to engage in ongoing management programs that provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat, as well as to other rare and federally listed species as demonstrated, by their history of conservation actions at Laiopua, their new MOU with the Service, and their collaboration with other landowners in Hawaii—Lowland Dry—Units 31, 33, 34, and 35.

The section 7 consultation history of these DHHL lands over the last 9 years includes three informal consultations in Hawaii—Lowland Dry—Unit 35, indicating there is potential for a future Federal nexus that would create a benefit to including these lands in critical habitat. However, we believe that the benefits gained from supporting the positive conservation partnership with this large landowner in the State of Hawaii by excluding these lands from critical habitat (discussed below) are greater than the benefit that would be gained from the designation of critical habitat. Furthermore, if a future Federal nexus were to occur for an action taking place on the DHHL lands in Hawaii—Lowland Dry—Unit 35, a section 7 consultation would already be triggered by the presence of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,* and the Federal agency would consider the effects of its actions on the species through a jeopardy analysis. Because one of the primary threats to these species is habitat loss and degradation, the consultation process under section 7 of the Act for projects with a Federal nexus will, in evaluating the effects to these species, evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands, and likely result in similar recommended conservation measures.

With respect to the unoccupied portions of DHHL lands in Hawaii—Lowland Dry—Unit 33, although there is no history of section 7 consultations, there is a future project that would likely have a Federal nexus. As mentioned earlier, DHHL is planning to develop all of these lands under their ownership in Hawaii—Lowland Dry—Unit 33. However, DHHL has a strong history of implementation of conservation efforts at the Kealakehe preserves, and in 2015, DHHL entered into an MOU with the Service in which DHHL agreed to preserve a total 97.05 ac (39 ha) of land for the conservation and recovery of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their lowland dry ecosystem, and to conduct related conservation activities. We do not anticipate that critical habitat designation on these DHHL lands would result in benefits for these species beyond the current and anticipated future benefits gained through the conservation partnership DHHL has with the Service.

Several additional factors serve to further reduce the benefit of designating these lands as critical habitat. The management actions already underway at the Kealakehe preserves to restore and support the lowland dry habitat upon which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend reduce the benefit of including the lands where the management actions occur in critical habitat. Since critical habitat does not require active management to maintain or improve habitat, the conservation actions included in the conservation effort at Kealakehe and the 2015 MOU with the Service are expected to provide benefits on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. Additionally, this landowner and the public are already educated about the conservation value of these areas for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* due to DHHL's conservation actions and the Service's extensive coordination and outreach with State and local government agencies and the public after critical habitat on these lands was proposed; the designation of critical habitat would not increase DHHL's or the public's awareness in this regard. Also, the State of Hawaii's take prohibition on federally listed plants (HRS section 195D–4) will also lessen the benefit of a critical habitat designation on these DHHL lands in proposed Unit 35 since they are occupied by *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

The benefits of exclusion, on the other hand, are significant. Excluding areas where there are existing plans and programs can encourage landowners like DHHL to partner with the Service in the future, by removing any real or perceived disincentives for engaging in conservation activities, and thereby provide a benefit by encouraging future conservation partnerships and beneficial management actions. Furthermore, we give great weight to the benefits of excluding areas where we have conservation partnerships,

especially on non-Federal lands, and excluding other DHHL lands where active management is not occurring is likely to strengthen the partnership between the Service and the landowner, which may encourage additional partnerships with DHHL in the future and increased conservation of listed species and their habitat on DHHL lands. Because DHHL is a large landowner/manager in the State of Hawaii, managing 200,000 ac (80,900 ha), its partnership with the Service is not only beneficial to the conservation of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on DHHL land through protection and enhancement of habitat, but also potentially a very positive influence on other landowners considering partnerships with the Service. The exclusion highlights a positive conservation partnership model with a large landowner/manager in the State, and thereby may encourage the formation of new partnerships with other landowners, yielding benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* beyond what could be realized through critical habitat designation and section 7 consultations on these areas.

The benefits of excluding these lands from critical habitat are sufficient to outweigh the potential benefits that may be realized through the designation of critical habitat. The regulatory benefit of designating critical habitat, afforded through the section 7(a)(2) consultation process, is minimal. In the occupied proposed Unit 35, the presence of the species would already require a jeopardy analysis and section 7 prohibition on adverse modification with critical habitat would be unlikely to provide additional conservation benefits on those lands beyond what would be attained through the jeopardy analysis for these species on those lands; the conservations measures that would be recommended to avoid impacts to habitat would likely be the same as those already recommended to avoid impacts to the species. In unoccupied Unit 33, there could be a benefit to designating critical habitat; however, we do not anticipate that critical habitat designation on these DHHL lands would result in benefits for these species beyond the current and anticipated future benefits gained through the conservation partnership DHHL has with the Service. The current conservation efforts underway by DHHL demonstrate the willingness of DHHL to contribute to the conservation of listed species and their habitat, and provide significant benefits for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. These current conservation activities on these lands and development of the MOU, combined with our outreach to State and local governments and the public, indicate that the educational value of critical habitat would be minimal. On the other hand, significant conservation benefits would be realized through the exclusion of these DHHL lands, by continuing and strengthening our positive relationship with DHHL, as well as encouraging additional beneficial conservation partnerships in the future. The combination of conservation gained from continuing management actions by DHHL and the importance of maintaining, enhancing, and developing conservation partnerships provides greater benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* than what could be provided through critical habitat and section 7 consultations.

The Secretary has therefore concluded that, in this particular case, the benefits of excluding DHHL lands outweigh those of including them in critical habitat. As detailed below, the Secretary has further determined that such exclusion will not result in the extinction of *Isodendrion pyrifolium, Mezoneuron kavaiense,* or *Bidens micrantha* ssp. *ctenophylla.*

Kaloko Entities

In this final designation, the Secretary has exercised his authority to exclude from critical habitat lands owned or managed by Kaloko Entities, totaling 631 ac (255 ha) on the island of Hawaii. Kaloko Entities is a new conservation partner with a willingness to engage in management programs and partnerships that will provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat, as well as to other rare and federally listed species, as demonstrated by their MOU with the Service and their collaboration with other landowners in the originally proposed Hawaii—Lowland Dry—Units 31, 33, 34, and 35.

The section 7 consultation history of these Kaloko Entities lands (two informal consultations over the last 9 years) indicates there is a potential for a future Federal nexus that would create a benefit to including these lands in critical habitat. However, we believe that the benefits gained from supporting the positive conservation partnership with this landowner by excluding these lands from critical habitat (discussed below) are greater than the benefit that would be gained from the designation of critical habitat. Furthermore, if a future Federal nexus were to occur for an action taking place on these Kaloko Entities lands, a section 7 consultation would already be triggered by the presence of *Bidens micrantha* ssp. *ctenophylla* and *Mezoneuron kavaiense,* and the Federal agency would consider the effects of its actions on the species through a section 7 consultation on the species. Because one of the primary threats to these species is habitat loss and degradation, the consultation process under section 7 of the Act for projects with a Federal nexus will, in evaluating the effects to these species, evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands, and likely result in similar recommended conservation measures.

Several additional factors serve to reduce the benefit of designating these lands owned by Kaloko Entities as critical habitat. The management actions already underway by Kaloko Entities to restore and support the lowland dry habitat upon which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend reduce the benefit of including the lands where the management actions occur in a critical habitat designation. Since critical habitat does not require active management to maintain or improve habitat, the conservation actions in the MOU provide benefits on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat designation and section 7 consultations. In addition, the landowner and the public are already educated about conservation value of these areas for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* due to Kaloko Entities' conservation actions and the Service's extensive coordination and outreach with State and local government agencies and the public after critical habitat on these lands was proposed; the designation of critical habitat would not increase Kaloko Entities' or the public's awareness in this regard. Finally, the State of Hawaii's take prohibition on federally listed plants (HRS section 195D–4) will also lessen the benefit of a critical habitat designation on these lands since they are occupied by *Bidens micrantha*

ssp. *ctenophylla* and *Mezoneuron kavaiense.*

The benefits of exclusion, on the other hand, are significant. Excluding areas covered by existing plans and programs can encourage landowners like Kaloko Entities to partner with the Service in the future, by removing any real or perceived disincentives for engaging in conservation activities, and thereby provide a benefit by encouraging future conservation partnerships and beneficial management actions. Furthermore, we give great weight to the benefits of excluding areas where we have conservation partnerships, especially on non-Federal lands, and excluding Kaloko Entities lands even where active management is not occurring is likely to strengthen the partnership between the Service and the landowner, which may encourage additional partnerships with Kaloko Entities in the future and increased conservation of listed species and their habitat on Kaloko Entities lands. The exclusion highlights a positive conservation partnership model with the landowner, and thereby may help encourage the formation of new partnerships with other landowners, yielding benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* beyond what could be realized through critical habitat designation and section 7 consultations on these areas.

The benefits of excluding these lands from critical habitat are sufficient to outweigh the potential benefits that may be realized through the designation of critical habitat. The regulatory benefit of designating critical habitat, afforded through the section 7(a)(2) consultation process, is minimal because the presence of *Bidens micrantha* ssp. *ctenophylla* and *Mezoneuron kavaiense* would already require section 7 consultation regardless whether critical habitat is designated. In occupied habitat, the section 7 prohibition on adverse modification would be unlikely to provide additional conservation benefits beyond what would be attained through the jeopardy analysis for these species. The current conservation efforts underway by Kaloko Entities demonstrate the willingness of Kaloko Entities to contribute to the conservation of listed species and their habitat, and provide significant benefits for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. The current conservation efforts (including development of the MOU), combined with our outreach to State and local governments and the public, indicate that the educational value of critical habitat would be minimal. The State's prohibition on the take of listed plants will also minimize the benefits of critical habitat in this case because the excluded lands are occupied by two of the species. On the other hand, significant conservation benefits would be realized through the exclusion of these Kaloko Entities lands, by continuing and strengthening our positive relationship with Kaloko Entities, as well as encouraging additional beneficial conservation partnerships in the future. The combination of conservation gained from continuing management actions by Kaloko Entities and the importance of maintaining, enhancing, and developing conservation partnerships provides greater benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* than what could be provided through the designation of critical habitat on these Kaloko Entities lands.

The Secretary has therefore concluded that, in this particular case, the benefits of excluding Kaloko Entities lands outweigh those of including them in critical habitat. As detailed below, the Secretary has further determined that such exclusion will not result in the extinction of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense.*

Lanihau Properties

In this final designation, the Secretary has exercised his authority to exclude from critical habitat lands owned or managed by Lanihau Properties, totaling 47 ac (19 ha) on the island of Hawaii. Lanihau Properties is a new conservation partner with a willingness to engage in management programs that will provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat, as well as to other rare and federally listed species, as demonstrated by their MOU with the Service and their collaboration with other landowners in the originally proposed Hawaii—Lowland Dry—Units 31, 33, 34, and 35.

The section 7 consultation history of these Lanihau Properties lands (one informal consultation over the last 9 years) indicates there is a small potential for a future Federal nexus that would create a benefit to including these lands in critical habitat. However, we believe that the benefits gained from supporting the positive conservation partnership with this landowner by excluding these lands from critical habitat (discussed below) are greater than the benefit that would be gained from the designation of critical habitat. Furthermore, if a future Federal nexus were to occur for an action taking place on these Lanihau Properties lands, a section 7 consultation would already be triggered by the presence of *Bidens micrantha* ssp. *ctenophylla,* and the Federal agency would consider the effects of its actions on the species through a section 7 consultation on the species. Because one of the primary threats to these species is habitat loss and degradation, the consultation process under section 7 of the Act for projects with a Federal nexus will, in evaluating the effects to these species, evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands, and likely result in similar recommended conservation measures.

Several additional factors serve to reduce the benefit of designating these lands owned by Lanihau Properties as critical habitat. The management actions already underway by Lanihau Properties to restore and support the lowland dry habitat upon which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend reduce the benefit of including the lands where the management actions occur in a critical habitat designation. Since critical habitat does not require active management to maintain or improve habitat, the conservation actions in the MOU provide benefits on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat designation and section 7 consultations. In addition, the landowner and the public are already educated about conservation value of these areas for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* due to Lanihau Properties' conservation actions and the Service's extensive coordination and outreach with State and local government agencies and the public after critical habitat on these lands was proposed; the designation of critical habitat would not increase Lanihau Properties' or the public's awareness in this regard. Finally, the State of Hawaii's take prohibition on federally listed plants (HRS section 195D–4) will also lessen the benefit of a critical habitat designation on these lands since they are occupied by *Bidens micrantha* ssp. *ctenophylla.*

The benefits of exclusion, on the other hand, are significant. Excluding areas covered by existing plans and programs can encourage landowners like Lanihau

Properties to partner with the Service in the future, by removing any real or perceived disincentives for engaging in conservation activities, and thereby provide a benefit by encouraging future conservation partnerships and beneficial management actions. Furthermore, we give great weight to the benefits of excluding areas where we have conservation partnerships, especially on non-Federal lands, and excluding Lanihau Properties lands even where active management is not occurring is likely to strengthen the partnership between the Service and the landowner, which may encourage additional partnerships with Lanihau Properties in the future and increased conservation of listed species and their habitat on Lanihau Properties lands. The exclusion highlights a positive conservation partnership model with the landowner, and thereby may help encourage the formation of new partnerships with other landowners, yielding benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* beyond what could be realized through critical habitat designation and section 7 consultations on these areas.

The benefits of excluding these lands from critical habitat are sufficient to outweigh the potential benefits that may be realized through the designation of critical habitat. The regulatory benefit of designating critical habitat, afforded through the section 7(a)(2) consultation process, is minimal because the presence of *Bidens micrantha* ssp. *ctenophylla* would already require a section 7 consultation regardless of whether or not critical habitat is designated. In occupied habitat, the section 7 prohibition on adverse modification would be unlikely to provide additional conservation benefits beyond what would be attained through the section 7 consultation on species present. The current conservation efforts underway by Lanihau Properties demonstrate the willingness of Lanihau Properties to contribute to the conservation of listed species and their habitat, and provide significant benefits for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. The current conservation efforts (including development of the MOU), combined with our outreach to State and local governments and the public, indicate that the educational value of critical habitat would be minimal. The State's prohibition on the take of listed plants will also minimize the benefits of critical habitat in this case because the excluded lands are occupied by *Bidens micrantha* ssp. *ctenophylla.* On the other hand, significant conservation benefits would be realized through the exclusion of these Lanihau Properties lands by continuing and strengthening our positive relationship with Lanihau Properties, as well as encouraging additional beneficial conservation partnerships in the future. The combination of conservation gained from continuing management actions by Lanihau Properties and the importance of maintaining, enhancing, and developing conservation partnerships provides greater benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* than what could be provided through the designation of critical habitat on these Lanihau Properties lands.

The Secretary has therefore concluded that, in this particular case, the benefits of excluding Lanihau Properties lands outweigh those of including them in critical habitat. As detailed below, the Secretary has further determined that such exclusion will not result in the extinction of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense.*

County of Hawaii

In this final designation, the Secretary has exercised his authority to exclude from critical habitat State-owned lands managed by the County of Hawaii, totaling 165 ac (67 ha) on the island of Hawaii. The County is a proven conservation partner, as shown, in part, in voluntary conservation actions dating back to 2010, their new MOU with the Service, and their collaboration with other landowners in Hawaii—Lowland Dry—Units 31, 33, 34, and 35, which all demonstrate a willingness to engage in ongoing management programs that provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat.

The section 7 consultation history of these County lands (one informal consultation over the last 9 years) indicates there is a small potential for a future Federal nexus that would create a benefit to including these lands in critical habitat. However, we believe that the benefits gained from supporting the positive conservation partnership with this landowner by excluding these lands from critical habitat (discussed below) are greater than the benefit that would be gained from the designation of critical habitat. Furthermore, if a future Federal nexus were to occur for an action taking place on these County lands, a section 7 consultation would already be triggered by the presence of *Mezoneuron kavaiense* and the Federal agency would consider the effects of its actions on the species through a section 7 consultation on the species. Because one of the primary threats to these species is habitat loss and degradation, the consultation process under section 7 of the Act for projects with a Federal nexus will, in evaluating the effects to these species, evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands, and likely result in similar recommended conservation measures.

Several additional factors serve to reduce the benefit of designating these lands managed by the County as critical habitat. The management actions already underway by the County to restore and support the lowland dry habitat upon which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend reduce the benefit of including the lands where the management actions occur in a critical habitat designation. Since critical habitat does not require active management to maintain or improve habitat, the conservation actions in the MOU provide benefits on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. In addition, the landowner and the public are already educated about conservation value of these areas for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* due to the County's prior conservation actions and the Service's extensive coordination and outreach with State and local government agencies and the public after critical habitat on these lands was proposed; the designation of critical habitat would not increase the County of Hawaii's or the public's awareness in this regard. The State of Hawaii's take prohibition on federally listed plants (HRS section 195D–4) will also lessen the benefit of a critical habitat designation on these lands since they are occupied by *Mezoneuron kavaiense.*

The benefits of exclusion, on the other hand, are significant. Excluding areas covered by existing plans and programs can encourage land managers like the County to partner with the Service in the future, by removing any real or perceived disincentives for engaging in conservation activities, and thereby provide a benefit by encouraging future

conservation partnerships and beneficial management actions. Furthermore, we give great weight to the benefits of excluding areas where we have demonstrated partnerships, especially on non-Federal lands, and excluding County-managed lands from critical habitat even where active management is not occurring is likely to strengthen the partnership between the Service and the landowner, which may encourage additional partnerships with the County in the future and increased conservation of listed species and their habitat on County lands. Because the County of Hawaii is a large landowner/manager in the area where habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* occurs, managing over 10,000 ac (4,047 ha) on Hawaii Island, its partnership with the Service is not only beneficial to the conservation of the species on County land through protection and enhancement of habitat, but also potentially a very positive influence on other landowners considering partnerships with the Service. The exclusion highlights a positive conservation partnership model with a large landowner/manager in the State, and thereby may encourage the formation of new partnerships with other landowners, yielding benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* beyond what could be realized through critical habitat designation and section 7 consultations on these areas.

The benefits of excluding these lands managed by the County of Hawaii from critical habitat are sufficient to outweigh the potential benefits that may be realized through the designation of critical habitat. The regulatory benefit of designating critical habitat, afforded through the section 7(a)(2) consultation process, is minimal because the presence of *Mezoneuron kavaiense* would already require section 7 consultation regardless of whether or not critical habitat is designated. In occupied habitat, the section 7 prohibition on adverse modification would be unlikely to provide additional conservation benefits beyond what would be attained through the jeopardy analysis for these species. The current conservation efforts underway by the County demonstrate the willingness of the County to contribute to the conservation of listed species and their habitat, and provide significant benefits for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. The County's current conservation efforts (including development of the MOU), combined with our outreach to State and local governments and the public, indicate that the educational value of critical habitat would be minimal. The State's prohibition on the take of listed plants will also minimize the benefits of critical habitat in this case because the excluded lands are occupied by *Mezoneuron kavaiense.* On the other hand, significant conservation benefits would be realized through the exclusion of these County lands, by continuing and strengthening our positive relationship with the County of Hawaii, as well as encouraging additional beneficial conservation partnerships in the future. The combination of conservation gained from continuing management actions by the County and the importance of maintaining, enhancing, and developing conservation partnerships provides greater benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* than what could be provided through the designation of critical habitat on these County lands.

The Secretary has therefore concluded that, in this particular case, the benefits of excluding these County of Hawaii lands outweigh those of including them in critical habitat. As detailed below, the Secretary has further determined that such exclusion will not result in the extinction of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense.*

Hawaii Housing and Finance Development Corporation

In this final designation, the Secretary has exercised his authority to exclude from critical habitat State-owned lands managed by HHFDC, totaling 30 ac (12 ha) on the island of Hawaii. HHFDC is a new conservation partner with a willingness to engage in management programs that will provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat, as well as to other rare and federally listed species, as demonstrated by their MOU with the Service and their collaboration with other landowners in Hawaii—Lowland Dry—Units 31, 33, 34, and 35.

The section 7 consultation history of these HHFDC lands (no consultations over the last 9 years) indicates there is little potential for a future Federal nexus that would create a benefit to including these lands in critical habitat. If a future Federal nexus were to occur for an action taking place on these HHFDC lands, a section 7 consultation would already be triggered by the presence of *Mezoneuron kavaiense,* and the Federal agency would consider the effects of its actions on the species through a section 7 consultation on the species. Because one of the primary threats to these species is habitat loss and degradation, the consultation process under section 7 of the Act for projects with a Federal nexus will, in evaluating the effects to these species, evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands, and will likely result in similar recommended conservation measures.

Several additional factors serve to reduce the benefit of designating these lands managed by HHFDC as critical habitat. First, the management actions already underway by HHFDC to restore and support the lowland dry habitat upon which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend reduce the benefit of including the lands where these management actions occur in a critical habitat designation. Since critical habitat does not require active management to maintain or improve habitat, the conservation actions in the MOU provide benefits on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. In addition, the landowner and the public are already educated about conservation value of these areas due to HHFDC's conservation actions and the extensive coordination and outreach with State and local government agencies and the public after critical habitat on these lands was proposed; the designation of critical habitat would not increase HHFDC's or the public's awareness in this regard. Finally, the State of Hawaii's take prohibition on federally listed plants (HRS section 195D–4) will also lessen the benefit of a critical habitat designation on these lands since they are occupied by *Mezoneuron kavaiense.*

The benefits of exclusion, on the other hand, are significant. Excluding areas covered by existing plans and programs can encourage land managers like HHFDC to partner with the Service in the future, by removing any real or perceived disincentives for engaging in conservation activities, and thereby provide a benefit by encouraging future conservation partnerships and beneficial management actions. Furthermore, we give great weight to the

benefits of excluding areas where we have conservation partnerships, especially on non-Federal lands, and excluding other HHFDC lands from critical habitat where active management is not occurring is likely to strengthen the partnership between the Service and the landowner, which may encourage additional partnerships with the HHFDC in the future and increased conservation of listed species and their habitat on HHFDC lands. The exclusion highlights a positive conservation partnership model with a land manager, and thereby may encourage the formation of new partnerships with other landowner/managers, yielding benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* beyond what could be realized through critical habitat designation and section 7 consultations on these areas.

The benefits of excluding these lands from critical habitat are sufficient to outweigh the potential benefits that may be realized through the designation of critical habitat. The regulatory benefit of designating critical habitat, afforded through the section 7(a)(2) consultation process, is minimal because of limited potential on these lands for a Federal nexus and because the presence of *Mezoneuron kavaiense* would already require section 7 consultation regardless of whether or not critical habitat is designated. In occupied habitat, the section 7 prohibition on adverse modification would be unlikely to provide additional conservation benefits beyond what would be attained through the jeopardy analysis for these species. The current conservation efforts underway by HHFDC demonstrate the willingness of HHFDC to contribute to the conservation of listed species and their habitat, and provide significant benefits for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. HHFDC's current conservation efforts (including development of the MOU), combined with our outreach to State and local governments and the public, indicate that the educational value of critical habitat would be minimal. The State's prohibition on the take of listed plants will also minimize the benefits of critical habitat in this case because the excluded lands are occupied by *Mezoneuron kavaiense*. On the other hand, significant conservation benefits would be realized through the exclusion of these HHFDC lands by continuing and strengthening our positive relationship with HHFDC, as well as encouraging additional beneficial conservation partnerships in the future. The combination of conservation gained from continuing management actions by HHFDC and the importance of maintaining, enhancing, and developing conservation partnerships provides greater benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* than what could be provided through the designation of critical habitat on these HHFDC lands.

The Secretary has therefore concluded that, in this particular case, the benefits of excluding HHFDC's lands outweigh those of including them in critical habitat. As detailed below, the Secretary has further determined that such exclusion will not result in the extinction of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense.*

Forest City Kona, LLC

In this final designation, the Secretary has exercised his authority to exclude from critical habitat lands owned by Forest City Kona, totaling 265 ac (107 ha) on the island of Hawaii. Forest City Kona is a new conservation partner with a willingness to engage in management programs that will provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat, as well as to other rare and federally listed species, as demonstrated by their MOU with the Service and their collaboration with other landowners in Hawaii—Lowland Dry—Units 31, 33, 34, and 35.

The section 7 consultation history of these Forest City Kona lands (no consultations over the last 9 years) indicates there is little potential for a future Federal nexus that would create a benefit to including these lands in critical habitat. If a future Federal nexus were to occur for an action taking place on these Forest City Kona lands, a section 7 consultation would already be triggered by the presence of *Bidens micrantha* ssp. *ctenophylla,* and the Federal agency would consider the effects of its actions on the species through a section 7 consultation on the species. Because one of the primary threats to these species is habitat loss and degradation, the consultation process under section 7 of the Act for projects with a Federal nexus will, in evaluating the effects to these species, evaluate the effects of the action on the conservation or function of the habitat for the species regardless of whether critical habitat is designated for these lands, and will likely result in similar recommended conservation measures.

Several additional factors serve to reduce the benefit of designating these lands owned by Forest City Kona as critical habitat. First, the management actions already underway by Forest City Kona to restore and support the lowland dry habitat upon which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend reduce the benefit of including the lands where these management actions occur in a critical habitat designation. Since critical habitat does not require active management to maintain or improve habitat, the conservation actions in the MOU provide benefits on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. In addition, the landowner and the public are already educated about conservation value of these areas due to Forest City Kona's conservation actions and the extensive coordination and outreach with State and local government agencies and the public after critical habitat on these lands was proposed; the designation of critical habitat would not increase Forest City Kona's or the public's awareness in this regard. Finally, the State of Hawaii's take prohibition on federally listed plants (HRS section 195D–4) will also lessen the benefit of a critical habitat designation on these lands since they are occupied by *Bidens micrantha* ssp. *ctenophylla.*

The benefits of exclusion, on the other hand, are significant. Excluding areas covered by existing plans and programs can encourage landowners like Forest City Kona to partner with the Services in the future, by removing any real or perceived disincentives for engaging in conservation activities, and thereby provide a benefit by encouraging future conservation partnerships and beneficial management actions. Furthermore, we give great weight to the benefits of excluding areas where we have conservation partnerships, especially on non-Federal lands, and excluding Forest City Kona lands from critical habitat even where active management is not occurring is likely to strengthen the partnership between the Service and the landowner, which may encourage additional partnerships with Forest City Kona in the future and increased conservation of listed species and their habitat on Forest City Kona lands. The exclusion highlights a positive conservation partnership model with the landowner, and thereby may be influential in the formation of new partnerships with other landowners,

yielding benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* beyond what could be realized through critical habitat designation and section 7 consultations on these areas.

The benefits of excluding these lands from critical habitat are sufficient to outweigh the potential benefits that may be realized through the designation of critical habitat. The regulatory benefit of designating critical habitat, afforded through the section 7(a)(2) consultation process, is minimal because of limited potential on these lands for a Federal nexus and because the presence of *Bidens micrantha* ssp. *ctenophylla* would already require section 7 consultation regardless of whether or not critical habitat is designated. In occupied habitat, the section 7 prohibition on adverse modification would be unlikely to provide additional conservation benefits beyond what would be attained through the jeopardy analysis for these species. The current conservation efforts underway by Forest City Kona demonstrate the willingness of Forest City Kona to contribute to the conservation of listed species and their habitat, and provide significant benefits for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. Forest City Kona's current conservation efforts (including development of the MOU), combined with our outreach to State and local governments and the public, indicate that the educational value of critical habitat would be minimal. The State's prohibition on the take of listed plants will also minimize the benefits of critical habitat in this case because the excluded lands are occupied by *Bidens micrantha* ssp. *ctenophylla.* On the other hand, significant conservation benefits would be realized through the exclusion of these Forest City Kona lands by continuing and strengthening our positive relationship with Forest City Kona, as well as encouraging additional beneficial conservation partnerships in the future. The combination of conservation gained from continuing management actions by Forest City Kona and the importance of maintaining, enhancing, and developing conservation partnerships provides greater benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* than what could be provided through the designation of critical habitat on these Forest City Kona lands.

The Secretary has therefore concluded that, in this particular case, the benefits of excluding Forest City Kona's lands outweigh those of including them in critical habitat. As detailed below, the Secretary has further determined that such exclusion will not result in the extinction of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense.*

Queen Liliuokalani Trust (QLT)

In this final designation, the Secretary has exercised his authority to exclude from critical habitat lands owned by Queen Liliuokalani Trust, totaling 302 ac (122 ha) on the island of Hawaii. The QLT is a proven conservation partner, as demonstrated in several conservation efforts including a Partners for Fish and Wildlife Program Agreement and a new MOU with the Service, showing a willingness to engage in ongoing management programs that provide important conservation benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* and their habitat, as well as to other rare and federally listed species.

The section 7 consultation history of these QLT lands (no consultations over the last 9 years) indicates there is little potential for a future Federal nexus that would create a benefit to including these lands in critical habitat. The only future development project planned for these QLT lands is not expected to have a Federal nexus, and, therefore, critical habitat would provide no benefit through the section 7 consultation process.

Several additional factors serve to reduce the benefit of designating these lands owned by QLT as critical habitat. First, the management actions already underway by QLT to restore and support the lowland dry habitat upon which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend, reduce the benefit of including the lands where these management actions occur in critical habitat. Since critical habitat does not require active management to maintain or improve habitat, the conservation actions of QLT provide benefits on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. Furthermore, QLT has begun implementation on the 2014 MOU with the Service that contains conservation actions that will restore and support the lowland dry habitat upon which *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* depend, and so the benefit of including the lands where the management actions occur in critical habitat is reduced. Additionally, this landowner and the public are already educated about conservation value of these areas due to QLT's conservation actions, their active outreach and education program, and the Service's extensive coordination and outreach with State and local government agencies and the public after critical habitat on these lands was proposed; the designation of critical habitat would not increase QLT's or the public's awareness in this regard.

The benefits of exclusion, on the other hand, are significant. Excluding areas covered by existing plans and programs can encourage landowners like QLT to partner with the Services in the future, by removing any real or perceived disincentives for engaging in conservation activities, and thereby provide a benefit by encouraging future conservation partnerships and beneficial management actions. Furthermore, we give great weight to the benefits of excluding areas where we have conservation partnerships, especially on non-Federal lands, and excluding these QLT lands even where active management is not occurring is likely to strengthen the partnership between the Service and the landowner, which may encourage additional partnerships with QLT in the future and increased conservation of listed species and their habitat on QLT lands. The exclusion highlights a positive conservation partnership model with the landowner, and thereby may be influential in the formation of new partnerships with other landowners, yielding benefits to *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* beyond what could be realized through critical habitat designation and section 7 consultations on these areas.

The benefits of excluding these lands from critical habitat are sufficient to outweigh the potential benefits that may be realized through the designation of critical habitat. The regulatory benefit of designating critical habitat, afforded through the section 7(a)(2) consultation process, is minimal because of limited potential on these lands for a Federal nexus. The current conservation efforts underway by QLT demonstrate the willingness of QLT to contribute to the conservation of listed species and their habitat, and provide significant benefits for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the managed portions of these non-Federal lands beyond those that can be achieved through critical habitat and section 7 consultations. The outreach and

education programs of QLT, as well as our outreach to State and local governments and the public, indicate that the educational value of critical habitat on these lands would be minimal. On the other hand, significant conservation benefits would be realized through the exclusion of these QLT lands, by continuing and strengthening our positive relationship with QLT, as well as encouraging additional beneficial conservation partnerships in the future.

The Secretary has therefore concluded that, in this particular case, the benefits of excluding QLT lands outweigh those of including them in critical habitat. As detailed below, the Secretary has further determined that such exclusion will not result in the extinction of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* or *Mezoneuron kavaiense.*

Exclusion Will Not Result in Extinction of the Species

We have determined that the exclusion of 7,027 ac (2,844 ha) from the designation of critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on the island of Hawaii owned and/or managed by the 10 landowners identified here will not result in extinction of the species. The exclusion of these lands is likely to improve our ability to maintain current and form new conservation partnerships with non-Federal landowners in areas essential to the conservation of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* As discussed above, reintroduction and reestablishment of populations into areas that are not currently occupied by the species will be required to achieve their conservation. Exclusion is not likely to reduce the likelihood that reintroductions would occur or be successful. Exclusion of lands that are managed by non-Federal landowners for restoration or maintenance of suitable native habitat is more likely to facilitate robust partnerships with non-Federal landowners that would be required to support a reintroduction program that would be effective in conserving these species. The establishment and encouragement of strong conservation partnerships with non-Federal landowners is especially important in the State of Hawaii, where there are relatively few lands under Federal ownership; we cannot achieve the conservation and recovery of listed species in Hawaii without the help and cooperation of non-Federal landowners. Excluding lands covered by voluntary conservation partnerships in Hawaii is likely to restore, maintain, and increase the strength and number of partnerships with non-Federal landowners that are needed to recover the species.

An important consideration as we evaluate these exclusions and their potential effect on the species in question is that critical habitat does not carry with it a regulatory requirement to restore or actively manage habitat for the benefit of listed species; the regulatory effect of critical habitat is only the avoidance of destruction or adverse modification of critical habitat should an action with a Federal nexus occur. It is, therefore, advantageous for the conservation of the species to support the proactive efforts of non-Federal landowners who are contributing to the enhancement of essential habitat features for listed species through exclusion.

As described above, at least some of the area excluded is likely to support recovery efforts for these species, although for purposes of this analysis we do not count on that. However, the remaining designated critical habitat will accommodate the expansion of existing populations and the establishment of new populations of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrfolium,* and *Mezoneuron kavaiense* that will help prevent extinction. Although some of the areas where these species occur are being excluded from critical habitat, the 11,640 ac (4,711 ha) of critical habitat designated in this final rule and the sufficient numbers of individuals remaining in the critical habitat designation are adequate to facilitate the recovery of each species.

These three species are also subject to other protections as well; these protections remain in effect even absent the designation of critical habitat. Section 195D–4 of Hawaii Revised Statutes (endangered species and threatened species) stipulates that species determined to be endangered or threatened under the Federal Endangered Species Act shall be deemed endangered or threatened under the State law. Thus, these species are already protected under State law, and unlike the Federal Endangered Species Act, State law prohibits the take of plants. Under the State law, it is unlawful, with some exceptions, to ''take'' such species, or to possess, sell, carry or transport them. The statutory protections under State law provide additional assurances that exclusion of these areas from critical habitat will not result in extinction of *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.*

Bidens micrantha ssp. *ctenophylla* is currently known from five occurrences totaling fewer than 1,000 individuals within the lowland dry ecosystem of the North Kona region on Hawaii Island. One of the locations where the subspecies occurs is on land owned by Kaloko Entities that is excluded from this critical habitat designation, but these individuals of *Bidens micrantha* ssp. *ctenophylla* are protected by the State prohibition on the take of listed plants. As part of their 2016 MOU with the Service, Kaloko Entities is preserving a 150-ac (61-ha) area to protect *Bidens micrantha* ssp. *ctenophylla* and nine other species, and will provide enhanced protection through fencing around the area. However, the Service is not relying on the actions of Kaloko Entities to prevent the extinction of *Bidens micrantha* ssp. *ctenophylla.* As described above in ''Recovery Needs,'' the future of this subspecies depends on the outplanting of cultivated individuals into suitable habitat to establish new populations. Plants are under propagation, and seed banking is taking place at facilities on Hawaii and Oahu, and *Bidens micrantha* ssp. *ctenophylla* has already been outplanted in several areas on Hawaii Island. Although three of the locations (across five different landownerships) where *Bidens micrantha* ssp. *ctenophylla* currently occurs are being excluded from critical habitat, this rule designates 11,640 ac (4,711 ha) of both occupied and unoccupied critical habitat for this subspecies on Hawaii Island where it is possible the subspecies could be reintroduced. The State's prohibition on the take of listed plants, combined with the designation of other critical habitat on the Island of Hawaii, is sufficient to prevent extinction of this subspecies.

Isodendrion pyrifolium currently has only a few immature individuals left in the wild in the Kealakehe area. These individuals are on land owned by DHHL that is excluded from this critical habitat designation. However, DHHL already provides enhanced protection for these individuals through fencing around the plants, and these individuals are protected by the State prohibition on the take of plants. In addition, the recovery of this species will rely on the outplanting of cultivated individuals in suitable habitat on Hawaii Island and other suitable habitat in the State of Hawaii. Plants are under propagation, and seed banking is taking place at facilities on Hawaii and Kauai, and *Isodendrion pyrifolium* has already been outplanted in several areas of Hawaii Island. Recent management efforts have resulted in 90 outplanted individuals distributed in four occurrences (in

addition to the Kealakehe area). We have also designated critical habitat for this species on Oahu within 8 units totaling 1,924 ac (779 ha) (77 FR 57648; September 18, 2012), and on the islands of Maui and Molokai within 13 units totaling 21,703 ac (8,783 ha) (81 FR 17790; March 30, 2016). Even though the DHHL land is excluded, this rule designates 11,640 ac (4,711 ha) of critical habitat for the species on Hawaii Island. Combined, these measures will prevent extinction of *Isodendrion pyrifolium.*

Currently, *Mezoneuron kavaiense* is found in six occurrences totaling 72 mature and 22 immature wild individuals in the lowland dry ecosystem of Hawaii Island, mainly in the Kealakehe, Puu Waawaa, and Waikoloa Village areas. These individuals are protected by the State prohibition on taking listed plants. In addition, as with the other two species, the recovery of this species will rely on the outplanting of cultivated individuals. Monitoring and recovery actions are being implemented for wild and outplanted populations on Kauai, Oahu, and Lanai. Plants are under propagation and seed banking is taking place at facilities on Hawaii, Maui, Oahu, and Kauai. On Kauai, there is an occurrence of *Mezoneuron kavaiense* in Waimea Canyon. On Oahu, there are two occurrences with a total of five individuals. On Lanai, the species is extirpated in the wild; however, two individuals have been reintroduced into a fenced exclosure. Seed collections contain representation of genetic material of *Mezoneuron kavaiense* from all islands across the species' distribution. Although we are excluding some areas that had been proposed for critical habitat designation, this rule designates 11,640 ac (4,711 ha) of critical habitat for the species, including occupied and unoccupied habitat with room for reintroduction. The final designation of critical habitat for *Mezoneuron kavaiense* includes the area at Puu Waawaa that contains the majority (67 percent) of remaining mature wild individuals, and the largest outplanting of the species (254 plants). Combined, these measures will prevent the extinction of *Mezoneuron kavaiense.*

We have thoroughly considered the effect of each of the exclusions made in this final rule. For all of the reasons described above, the Secretary has determined that these exclusions will not result in the extinction of the species concerned, and is exercising his discretion under section 4(b)(2) of the Act to exclude from this final critical habitat designation portions of the proposed critical habitat units that are within the areas identified in Table 4, totaling 7,027 ac (2,844 ha).

Maps of areas essential to the conservation of the species covered in this rule, identified through designated critical habitat, or through partnerships and conservation agreements with landowners and land managers but excluded from critical habitat under section 4(b)(2) of the Act, are available in the document ''Supplementary Information for the Designation and Non-Designation of Critical Habitat on Hawaii for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense,*'' available on the internet at *http://www.regulations.gov* under Docket No. FWS–R1–ES–2013–0028.

The total area excluded from critical habitat designation in this rule is summarized by landowner in the following table.

TABLE 5—TOTAL AREA (ac, ha) EXCLUDED FROM CRITICAL HABITAT BY LANDOWNER OR LAND MANAGER

Landowner or land manager	Area excluded in ac (ha)
Kamehameha Schools	2,834 (1,147)
Waikoloa Village Association	1,758 (712)
Palamanui Global Holdings LLC	502 (203)
Department of Hawaiian Home Lands	492 (199)
Kaloko Entities	631 (255)
Lanihau Properties	47 (19)
County of Hawaii	165 (67)
Hawaii Housing and Finance Development Corporation	30 (12)
Forest City Kona	265 (107)
Queen Liliuokalani Trust	302 (122)

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat on Hawaii Island for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* during four comment periods. We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule and DEA during these comment periods.

During the first comment period, we received 20 letters addressing the proposed critical habitat designation. During the second comment period, we received 87 letters addressing the proposed critical habitat designation or the DEA. During the May 15, 2013, public hearing, 39 individuals or organizations made comments on the designation of critical habitat for the three species. During the fourth comment period, we received 9 letters addressing the proposed critical habitat designation. All substantive information provided during comment periods has either been incorporated directly into this final determination or is addressed below. Comments we received are grouped into 11 general issues relating to the proposed critical habitat designation for the three species.

Peer Review

In accordance with our peer review policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), we solicited expert opinions on our combined proposed listing and critical habitat rule (77 FR 63928; October 17, 2012) from 14 knowledgeable individuals with scientific expertise on the Hawaii Island plants and the other species included in the proposed rulemaking, including familiarity with the species, the geographic region in which these species occur, and conservation biology principles. We received responses from 11 of the peer reviewers on the combined proposed listing and critical habitat rule; however, only two peer reviewers provided comments specifically addressing the proposed critical habitat designation. These peer reviewers generally supported our methodology and conclusions. We reviewed all comments received from the peer reviewers for substantive issues and new information regarding the designation of critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* Peer reviewers' comments are addressed in the following summary and incorporated into the final rule as appropriate.

Comments From Peer Reviewers

(1) *Comment:* One peer reviewer expressed appreciation for emphasis placed on ecosystem approaches to preservation of species and the effects of global climate change. The peer reviewer also commented that we cannot be certain that areas that are identified as unoccupied by a species within the proposed critical habitat designation actually have no representatives of that species in the area. The peer reviewer added that it is very difficult to obtain evidence of absence for species in an area because of the intensive level of sampling required, and that it is doubtful that this level of sampling has been achieved for most of these species and the areas where they could occur.

Our Response: We recognize that biological survey efforts for many native species and ecosystems may be infrequent or lack complete coverage, and that presence of a species may later be detected in a critical habitat unit that was considered unoccupied by a species. To ascertain the occupancy status of critical habitat units, the Service uses the best available occurrence data and other scientific and commercial information available to us at the time of our determination (see *Methods,* above). Our understanding of species' biological needs and distribution is updated as we obtain new information from sources such as additional survey data and recent advances in species distribution modeling. Any updated occurrence data that the Service obtains for a listed species are used to inform ongoing recovery efforts and any further rulemaking for that species. These data also are incorporated into the technical assistance we provide to action agencies during the section 7 consultation process and our section 7 analyses.

(2) *Comment:* One peer reviewer expressed concern that the land set aside for protection in the Kaloko area is not adequately protected from feral animals, particularly goats that have been observed near Kaloko-Honokohau NHP in recent months. The peer reviewer emphasized that this area merits a high ranking for protection for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiensis,* and that funds should be procured to construct an ungulate-proof fence around the entire 150 ac (61 ha), allowing outplanting to continue on a larger scale with assurances that the plants will persist and not be consumed by feral goats.

Our Response: We appreciate the information provided by the peer reviewer regarding the land set-aside for protection at Kaloko, and agree that the area constitutes some of the best remaining habitat for the recovery of listed plant species. The peer reviewer is correct in stating that the entire 150-ac (61-ha) area is not protected from goats by ungulate-proof fencing at this time. The Service is working with the landowners and developer to construct an ungulate-proof fence, remove ungulates, control nonnative plants, maintain firebreaks, and allow for outplanting of listed plant species.

Comments From State Agencies

(3) *Comment:* The State of Hawaii DOFAW stated a concern regarding the proposed critical habitat designation at Puu Waawaa because that area is not an area where the DOFAW is planning on concentrating recovery efforts for these species. The DOFAW commented that the proposed critical habitat for the three species at Puu Waawaa is in a currently grazed area of scattered native trees with an understory dominated by invasive fountain grass, particularly below the highway, and that the area below the highway is not a suitable area in which to recover these species. The DOFAW further stated that conservation efforts will be much more effective in higher elevation (above 2,400 feet (ft) (731 meters (m)), wetter (mesic-dry to mesic, as opposed to dry) habitat, where more intact native ecosystems occur. The DOFAW proposed that the critical habitat boundary polygon be adjusted to include only those areas above the highway, excluding the area below the highway because it is extremely degraded. The DOFAW questioned how the critical habitat designation would affect the management and recovery efforts for these species currently in place at Puu Waawaa.

Our Response: The State DOFAW is a valued conservation partner in the recovery of endangered species and their habitats. We appreciate the DOFAW's strategic approach to focus efforts in areas that may benefit the recovery of additional listed species and where recovery is likely to be accomplished more readily due to reduced competition with nonnative plant species. The designation of critical habitat will not direct or require the State DOFAW to implement recovery and/or management actions in a specific area, and the State is encouraged to continue their recovery efforts how and where they determine most appropriate. Based on geographic analysis program (GAP) vegetation data, we recognize that certain areas of the proposed critical habitat within Unit 31 at Puu Waawaa are characterized as alien grassland dominated by fountain grass or kiawe (GAP 2005). We also understand that the State of Hawaii DLNR manages month-to-month grazing leases at Puu Waawaa that are allowed for the dual purposes of fuels reduction and commercial cattle production (Parsons 2014, pers. comm.). However, our analysis indicates that these areas contain both the physical and biological features essential for the recovery and conservation of the three plant species, as well as unoccupied areas that are needed for the expansion or augmentation of reduced populations or the reestablishment of populations. The Recovery Plans for these species note that augmentation and reintroduction of populations are necessary for the species' conservation (as described above in Recovery Needs section). Survey data indicate 47 separate locations of *Mezoneuron kavaiense* individuals in the area west of Mamalahoa Highway that are distributed evenly throughout the lower elevations of Unit 31 (DOFAW 2006, unpublished). While it can be assumed that areas at higher elevation (above 2,400 ft (731 m)), with higher rainfall (mesic) and higher incidence of native species, may provide favorable conditions for plant growth and recovery, data are not available at this time to inform whether introduction of these three species from the lowland dry to the lowland mesic or montane mesic ecosystem is likely to be successful. *Mezoneuron kavaiense* and the two other species are primarily known to occur at elevations of 2,400 ft (730 m) and below on Hawaii Island, the majority of which occur below Mamalahoa Highway in Unit 31 (USWFS 1994, pp. 13–16). Therefore, we have not adjusted the proposed boundaries of the Unit 31 in this final critical habitat rule. The Service will continue our collaborative approach with the State and DOFAW on the management and recovery of endangered species and their habitats. We will also continue to evaluate new data and information regarding the threat of climate change and the ability of critical habitat to provide the areas essential to species' recovery.

(4) *Comment:* The DHHL recommended that the Service consult with the Hawaiian Homes Commission, the DHHL, the Office of Native Hawaiian Relations, and the native Hawaiian beneficiaries of the Hawaiian Homes Commission Act, as well as provide knowledge of species, habitat, and management and protection prior to designation of critical habitat.

Our Response: We met with DHHL representatives on August 24, 2012, prior to publishing our proposed rule (77 FR 63928; October 17, 2012). At the meeting, we provided information regarding our compilation of available information on species and habitat areas on Hawaii Island, and requested updated information from DHHL. At the time we published our proposed rule (77 FR 63928; October 17, 2012), we notified elected officials, the Hawaii County Planning Department, and several Hawaiian organizations including Kamehameha Schools, the Office of Hawaiian Affairs (OHA) (offices for Honolulu, Maui, Molokai, and Lanai), DHHL, the State Historic Preservation Division, and Kahea (the Hawaiian-Environmental Alliance). Following publication of our proposed rule, we met with DHHL representatives

(December 4, 2012, and April 10, 2013) and presented a joint workshop with DHHL planning staff at the April 23, 2013, Hawaiian Homes Commission meeting, in Kapolei, Oahu. In addition, we have consulted with staff from the Department of the Interior's Office of Native Hawaiian Relations and included them in meetings with DHHL. We reviewed and incorporated new information from these meetings into this final rule.

(5) *Comment:* The DHHL requested that the Secretary of the Interior consider the effects of designation of critical habitat on Hawaiian Home Lands in a similar manner to the effects it has on tribal lands, including the impact of tribal sovereignty. The DHHL also referenced Secretarial Order 3206, which describes guidelines for the Service when dealing with Indian tribes relating to endangered species on Indian tribal lands and calls on the Service to forge close working relationships with Indian tribes to preserve endangered species while respecting tribal authority over their lands. The DHHL further commented that the Hawaiian Home Lands Recovery Act (Pub. L. 104–42) requires the Secretary to follow certain procedures when determining whether the consent of the United States is necessary for an amendment to the Hawaiian Homes Commission Act (Pub. L. 67–34) and when determining whether to approve an exchange of Hawaiian Home Lands with other lands.

Our Response: 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 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems; to incorporate native intelligence and knowledge of species, habitat, and place-based management and protection; to acknowledge that tribal lands are not subject to the same controls as Federal public lands; to remain sensitive to Indian culture; and to make information available to tribes. In addition, a 2004 consolidated appropriations bill (Pub. L. 108–199) established the Office of Native Hawaiian Relations within the Secretary's Office and its duties include effectuating and implementing the special legal relationship between the Native Hawaiian people and the United States, and fully integrating the principle and practice of meaningful, regular, and appropriate consultation with the Native Hawaiian people by assuring timely notification of and prior consultation with the Native Hawaiian people before any Federal agency takes any actions that may have the potential to significantly affect Native Hawaiian resources, rights, or lands. A 2011 Memorandum of Understanding (MOU) signed by the Department of the Interior states that ''Federal agencies are required to consult with Native Hawaiian organizations before taking any action that may have the potential to significantly affect Native Hawaiian resources, rights, or lands.'' Although native Hawaiians do not yet have a formal government-to-government relationship with the Federal Government, we endeavor to fully engage and work directly with native Hawaiians as much as possible. At the time we published our proposed rule (77 FR 63928; October 17, 2012), we notified several Hawaiian organizations as described in our response to *Comment* (4). We have considered all comments provided by the DHHL and these other organizations in this final rule.

(6) *Comment:* The DHHL requested an extension of the public comment period to allow an additional 60 days for public review and comment on the proposed critical habitat designation and DEA. The additional time was requested to gather and assess information regarding the benefits of exclusion or inclusion of DHHL lands.

Our Response: On July 2, 2013 (78 FR 39698), we reopened the public comment period on the proposed critical habitat designation and DEA for an additional 60 days, ending on September 3, 2013. Further, on May 20, 2016, we announced another reopening of the comment period on the proposed critical habitat designation, including the economic impacts of the designation, ending June 6, 2016 (81 FR 31900).

(7) *Comment:* The Hawaii State Department of Agriculture (HDOA) stated that exclusion of agricultural lands from critical habitat designation is important for Hawaii's food sustainability. The HDOA further commented that critical habitat designation on agricultural land hurts Hawaii's agricultural production by limiting potential uses on the land and reducing the market value of the land. They reiterated concerns of cattle producers that critical habitat designation amounts to a downzoning (*i.e.,* State land use district reclassification from Agriculture to Conservation) of property and would negatively affect the development potential of their lands, and consequently would negatively affect the financial well-being of rancher's operations.

Our Response: We understand the HDOA's concern with maintaining food sustainability but we have no information to suggest that the critical habitat designation will limit the ability of agricultural lands to produce food crops. According to the State land use dockets that establish ''Important Agricultural Lands'' (IALs) on the island of Hawaii, there are no IALs within this final critical habitat designation (IAL 2013). The designation of critical habitat does not deny anyone economically viable use of their property (see our response to *Comment* (31) for an explanation of the regulatory consequence of a critical habitat designation).

Regarding downzoning, according to the State's DLNR Office of Conservation and Coastal Lands and the State Office of Planning, critical habitat designation does not automatically generate a district reclassification or downzoning (*e.g.,* redistricting from development use to conservation). According to the State Office of Planning, the presence of critical habitat is taken into consideration during the redistricting process (both during the 5-year boundary reviews and review of petitions for boundary amendments); however, the presence of critical habitat does not necessarily mean that an area will be redistricted to the Conservation District. The DLNR and State Office of Planning were unable to identify an instance in which critical habitat specifically affected a districting decision.

The FEA acknowledges that there is uncertainty with regard to whether or not the County of Hawaii will require landowners to implement conservation measures or conduct environmental assessments as a result of the designation of critical habitat. Uncertainty exists regarding whether or not critical habitat designation will cause the County to request additional assessments or reporting, or require additional conservation efforts when a landowner applies for a change in zoning. As described in section 2.6 of the FEA, the County Planning Department indicated that while critical habitat designation is taken into consideration, the presence of a listed

species weighs more heavily in the decision-making process. The County was unable to identify an instance in which the presence of critical habitat generated additional conservation recommendations or a request for an environmental assessment.

(8) *Comment:* The County of Hawaii Planning Department commented that their policy (''Policy Env-1.5'') requires that areas identified as critical habitat be considered sensitive and are inventoried as part of the County permitting process, and, therefore, the Kona Community Development Plan (KCDP) already recognizes the sensitive nature of the majority of lands that the Service is now designating as critical habitat for these three plant species.

Our Response: We recognize that ''Policy ENV–1.5: Sensitive Resources'' in the KCDP addresses areas already designated critical habitat and predominantly native ecosystems. In addition, we appreciate that authors of the KCDP voluntarily compiled information on critical habitat, anchialine ponds, and rare plants and animals using data from the Hawaii Natural Heritage Program (HNHP) database. The KCDP includes a map showing native vegetation within the plan area and a map showing designated critical habitat; this map also shows habitat of the *Bidens micrantha* ssp. *ctenophylla* and *Mezoneuron kavaiense* within the Kona Urban Area (KCDP 2008, Figures 4–8b and 4–8c). Because the KCDP was published in 2008, and the HNHP, which was a source of information for the map, no longer exists, we will work with the Planning Department and provide updates on sensitive resources, as appropriate, including the critical habitat designations in this final rule.

Even though the KCDP already recognizes the sensitive nature of these lands, the Service is not relieved of its statutory obligation to designate critical habitat based on the contention that it will not provide additional conservation benefit (see, *e.g., Center for Biological Diversity* v. *Norton,* 240 F. Supp. 2d 1090 (D. Ariz. 2003)). If an area provides the physical or biological features essential to the conservation of the species, even if that area is already managed or protected, that area still qualifies as critical habitat under the statutory definition of critical habitat if special management or protection is required.

(9) *Comment:* The County of Hawaii Planning Department commented on the lack of timely input by the Service during the KCDP planning process, which included years of community and government input, including Federal agencies. They stated that if the Service had provided data during the KCDP planning process about areas now being proposed for critical habitat, it may have altered the Kona Urban Area boundary designation.

Our Response: While we were not heavily involved in the KCDP planning process, there was extensive information that the Service had earlier made available to the public regarding two of these species. We previously proposed critical habitat for one of the three species, *Isodendrion pyrifolium,* in the KCDP area in 2002 (67 FR 36968; May 28, 2002). In addition, before its listing in 2013, *Bidens micrantha* ssp. *ctenophylla* had been included as a candidate for protection under the Act since 1980, and is recognized in numerous surveys and reports in the Kona area (Char 1990; Char 1992; Warshauer and Gerrish 1993; Belt Collins Hawaii 1999; Hart 2003, in litt.; Whistler 2007). Futhermore, in the development of this critical habitat designation, the Service used the HNHP database as a primary source of information on rare species occurrence data; this is the same source that the KCDP referenced for information on sensitive resources such as rare plants and animals, and native habitats.

(10) *Comment:* The County of Hawaii Planning Department commented that the KCDP Greenbelt may be an appropriate tool to provide protection for the species' habitats within the Kona Urban Area boundary designation. The Greenbelt is defined as areas of largely undeveloped, wild, agricultural land surrounding or neighboring urban areas and is intended as a strategic planning tool to prevent urban sprawl by keeping land permanently open. The Greenbelt may also serve multipurpose uses, such as for drainage (*e.g.,* flow ways or retention basins), sensitive resource preserves, or wildfire protection buffers.

Our Response: We have reviewed the KCDP and commend the plan for addressing the desire for open space and preventing urban sprawl. We also support the use of native plant species in landscaping, including endangered and threatened plant species, provided proper permits and approvals are secured. While we recognize that Greenbelt areas are intended in some instances to protect sensitive resources, these areas are not likely to support species recovery because they: (1) Are too small in size; (2) increase habitat fragmentation; and (3) allow uses such as various transportation features, parks, playgrounds, and other activities that are incompatible with native ecosystem restoration (Kona CDP 2008, pp. 4–40–4–41, SC12).

Comments From Elected Officials

(11) *Comment:* Hawaii Congresswoman Colleen Hanabusa requested that the Service conduct a public information meeting regarding the proposed critical habitat for three species on the island of Hawaii during the public comment period for the proposed critical habitat.

Our Response: The Service held two public information meetings regarding the proposed critical habitat designation for the three Hawaii Island species, the first on May 15, 2013, and the second on August 7, 2013; both public information meetings were held at the Kona Civic Center. Announcements of the meetings were published in the **Federal Register** on April 30, 2013 (78 FR 25243), and July 2, 2013 (78 FR 39698), respectively. In addition, the Service sent letters to all interested parties, including elected officials, Federal and State agencies, native Hawaiian organizations, private landowners, and other stakeholders, notifying each of the public information meetings.

(12) *Comment:* Hawaii County Mayor William Kenoi expressed strong reservations about the proposed critical habitat designation and commented that areas within the proposed critical habitat designation have been proposed for some type of active use or development for at least 25 years. Mayor Kenoi commented that the proposed use of these properties are a result of a quarter-century of land use decisions, planning, and coordination, and represent an integral part of the growth of this fast-growing region. Mayor Kenoi also expressed support for the Service's efforts to protect native species in accordance with the Act, and urged the Service and all stakeholders to seek common ground.

Our Response: We acknowledge Mayor Kenoi's concerns related to the proposed critical habitat designation and its overlap with current land use proposals. Under the Act, any species determined to be endangered or threatened requires critical habitat to be designated, to the maximum extent prudent and determinable. By definition, in section 3(5)(A) of the Act, critical habitat for an endangered or threatened species includes the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the provisions of section 4 of the Act, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and specific areas outside

the geographical area occupied by a species at the time it is listed in accordance with the provisions of section 4 of the Act, upon a determination that such areas are essential for the conservation of the species. Although this designation may overlap areas proposed for the land uses mentioned by the commenter, these areas meet the definition of critical habitat and are therefore included in this final designation. However, under section 4(b)(2), we designate, and make revisions to, critical habitat based on the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact. In this final rule, we have excluded several areas based on relevant impacts (see Consideration of Impacts Under Section 4(b)(2) of the Act, above).

(13) *Comment:* Hawaii County Councilmember Karen Eoff commented on the importance in maintaining cultural, environmental, and economic balance, and expressed support for designating adequate critical habitat for Hawaii Island's endangered native plant and animal species. She further stated that protection of the island's fragile ecosystem, and cultural and natural environment, will enhance the visitor industry and economy. The councilmember also commented that collaborative efforts among the Service, DHHL, QLT, OHA, and State and County agencies, in tandem with the directives and guidelines outlined in the KCDP, will ensure perpetuation of traditional cultural practices, ensure protection of the island's natural resources, and safeguard balanced economic development.

Our Response: We appreciate the councilmember's comments in support of the protection of Hawaii's endangered plant and animal species and her suggestion to work collaboratively with all stakeholders (see our response to *Comments* (37) and (40), below, regarding our outreach to and collaboration with stakeholders). See our response to *Comments* (8) and (9) regarding our consideration of the KCDP in this final rule.

Comments Regarding Exclusions

(14) *Comment:* The Kamehameha Schools, WVA, Palamanui, Kaloko Entities (previously Kaloko Properties Corporation, SCD–TSA Kaloko Makai LLC, TSA Corporation), Lanihau Properties, QLT, Forest City Kona, State of Hawaii lands assigned to the County of Hawaii, DHHL, and the HHFDC requested exclusion of their lands from the proposed critical habitat designation or expressed opposition to the designation of their lands. Numerous other public commenters wrote in support of excluding these lands from critical habitat.

Our Response: We used the best available scientific information to determine habitat essential to the conservation of the species (see *Methods,* above), and further refined the critical habitat boundaries based on new information received since publication of the proposed rule on October 17, 2012 (77 FR 63928), and release of our DEA of the Hawaii Island proposed critical habitat on April 30, 2013 (78 FR 25243). Under section 4(b)(2) of the Act, we designate and make revisions to critical habitat based on the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact. Some of these landowners have long-standing partnerships with the Service, and/or demonstrated commitment and success for conservation of endangered species and the ecosystems on which they depend. The Service has worked with the other landowners to execute MOUs to benefit the three critical habitat species and the lowland dry ecosystem. For the reasons described above (see Consideration of Impacts Under Section 4(b)(2) of the Act), the lands under control of Kamehameha Schools, WVA, Palamanui, Kaloko Entities, Lanihau Properties, QLT, Forest City Kona, State of Hawaii lands assigned to the County of Hawaii, the HHFDC, and the DHHL have been excluded from critical habitat in this final rule.

(15) *Comment:* The Hawaii Electric Light Company (HELCO) stated that the Service's conclusion that the proposed rule will not ''significantly affect energy supply, distribution, and use'' is erroneous. They stated that if HELCO's electrical facilities are included in the critical habitat designation, their ability to provide reliable power where it is needed will be compromised because the designation might impede its ability to maintain, replace, or repair existing facilities or install additional facilities necessary to meet demand and thereby cause a significant adverse effect on energy distribution. The HELCO stated that their 6700 and 6800 circuits provide stability and redundancy for the grid, which is particularly essential, due to their proximity to the Keahole Power Plant. They also stated that the Service failed to take into account the impact of the proposed rules on energy supply, distribution, and use, as required by Executive Order 13211 of May 18, 2011, and that consequently, the Service should prepare a Statement of Energy Effects that addresses HELCO's electrical facilities. Another commenter stated that areas with the HELCO's existing electrical facilities should be excluded from the critical habitat designations, and proposed a buffer of 250 ft (76 m) around all electrical facilities and requested exclusion of these areas from the critical habitat designation to allow for necessary maintenance and vegetation clearing. The commenter also requested that maps of the proposed critical habitat be revised to reflect exclusion of these areas, and that the Service add mention of ''electrical utility infrastructure and a 250 ft (76 m) buffer around such electrical infrastructure'' to the list of examples of manmade features and structures that are not included in the final critical habitat designation.

Our Response: In our proposed rule (77 FR 63928; October 17, 2012), we state that existing manmade features and structures such as buildings, roads, railroads, airports, runways, other paved areas, lawns, and other urban landscaped areas are not included in the critical habitat designation. In this final rule, we add clarification to include utility facilities and infrastructure and their designated, maintained rights-of-way as examples of existing manmade features and structures (see § 17.99 Critical habitat; plants on the Hawaiian Islands.). Any such structures or features and the land under them that is inside critical habitat boundaries shown on the maps in this final rule are excluded by text in this final rule and are not designated as critical habitat (see above, *Criteria Used to Identify Critical Habitat*). It has always been our intent and practice to not include any existing designated, maintained rights-of-way for utility facilities and infrastructure in the areas designated as critical habitat. Federal actions involving these areas will not trigger section 7 consultation unless the specific action will also affect adjacent critical habitat or its physical or biological features. We believe the clarification for utility facilities and infrastructure and their existing designated, maintained rights-of-way allows for maintenance and vegetation clearing, therefore, exclusion of a 250-ft (76-m) buffer around electrical infrastructure and facilities is neither necessary nor appropriate. As stated above, it is our practice to consider utility rights-of-way as part of the development/infrastructure footprint, although, there are circumstances where a portion of the designated right-of-way may not be regularly maintained; therefore, this area may contain physical or biological features that define critical habitat. For example, a utility company

may have a designated right-of-way for a utility line where only a small portion of the right-of-way is maintained (mowed, graded) as an access route. In this situation, if the un-maintained portion of the right-of-way contains the designated physical or biological features, the Service would recommend the action agency consult on the project's effects to critical habitat.

According to Executive Order 13211, a ''Significant energy action'' means any action by an agency that is a significant regulatory action under Executive Order 12866 or any successor order, and is likely to have a significant adverse effect on the supply, distribution, or use of energy; or that is designated by the Administrator of the Office of Information and Regulatory Affairs (OIRA) as a significant energy action (66 FR 28355; May 22, 2001). As discussed in the Required Determinations section below, the OIRA determined this rule was not significant. The economic analysis for this critical habitat designation could not identify any energy projects planned or proposed within the proposed critical habitat designation, and, therefore, section A.4 of Appendix A of the FEA, ''Potential Impacts to the Energy Industry,'' states that the designation of critical habitat is not anticipated to result in any impacts to the energy industry.

(16) *Comment:* Several commenters requested that the Kaloko Makai property be excluded from critical habitat designation in light of the willingness of SCD–TSA Kaloko Makai, LLC to convey 40 ac (1 ha) (out of the roughly 630 ac (255 ha) of the Kaloko Makai property proposed as critical habitat) to Hawaii Health Systems Corporation (HHSC) at no cost for the development of a new regional acute care hospital, to set aside 150 ac (61 ac) in perpetuity for a dryland forest preserve, and to fence and remove ungulates and nonnative species from the preserve. Concern was raised that if the Kaloko Makai property is designated as critical habitat there is little chance that the Kaloko Makai project will be developed, and, as a result, the roads, water, sewer, and other infrastructure that are necessary for the hospital operations would not be built.

Our Response: The Service received notification in a June 6, 2016, letter, of the new management of this property representing a group called the Kaloko Entities that includes: (1) Kaloko Properties LLC, a Hawaii limited liability company (formerly known as Kaloko Properties Corporation); (2) Kaloko Residential Park LLC, a Hawaii limited liability company (owner of the Kaloko Makai lands formerly owned by SCD–TSA Kaloko Makai LLC); and (3) TSA LLC, a Hawaii limited liability company (formerly known as TSA Corporation). The letter expressed an interest to re-engage in discussions with the Service regarding a partnership or conservation agreement. As discussed in our response to *Comment* (14) above, and for the reasons discussed in the Consideration of Impacts Under Section 4(b)(2) of the Act, the lands owned by Kaloko Entities have been excluded from this critical habitat designation.

Comments Regarding the Methodology Used To Determine Critical Habitat

(17) *Comment:* Several commenters opposed the designation of critical habitat in unoccupied areas. One commenter stated that where unoccupied habitat is involved, courts have determined that ''[e]ssential for conservation is the standard for unoccupied habitat . . . and is a more demanding standard than that of occupied critical habitat,'' citing *Homebuilders Association of No. California* v. *U.S. Fish & Wildlife Service,* 616 F.3d 983, 990 (9th Cir. 2010). Another commenter challenged the Service to substantiate the presumption that loss of unoccupied habitat will significantly decrease the likelihood of conserving the species or jeopardize the conservation and preservation of the species.

Our Response: We used the best available scientific information to determine critical habitat for the species (see *Methods,* above), and further refined the critical habitat boundaries based on new information received since publication of the proposed rule on October 17, 2012 (77 FR 63928) and release of our DEA of the Hawaii Island proposed critical habitat on April 30, 2013 (78 FR 25243). In this final rule, the critical habitat designation is a combination of areas occupied by the species and areas that may be unoccupied. For areas considered occupied, the best available scientific information suggests that these areas were occupied by *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiensis* at the times of their listing. However, due to the small population sizes, few numbers of individuals, and reduced geographic range of each of the three species for which critical habitat is here designated, we have determined that a designation limited to the known present range of the area occupied by each species at the time of its listing would be inadequate to achieve the conservation of those species. The areas believed to be unoccupied have been determined to be essential for the conservation and recovery of the species because they provide the physical or biological features necessary for the expansion of existing wild populations and the reestablishment of wild populations within the historical range of the species. These areas within the designated unit provide the physical and biological features of the lowland dry ecosystem for the three plants and also provide essential habitat that is necessary for the expansion of the existing wild populations of the three species which occupy other sites in the unit. Due to the small numbers of individuals or low population sizes of each of these three species, suitable habitat and space for expansion or reintroduction are essential to achieving population levels necessary for recovery these species. See our response to *Comment* (12) above regarding the definition of critical habitat and criteria for our determination of why unoccupied areas are essential to the conservation of the three species in this final rule (see also *Criteria Used to Identify Critical Habitat,* above).

(18) *Comment:* Several commenters disputed the use of an ecosystem approach in our determination of PCEs for each species and cited the regulations for determining critical habitat at 50 CFR 424.12(b). In addition, commenters argued that the proposed ecosystem critical habitat designations are overly generalized and, therefore, lack the necessary analysis and explanation required by the Act for each species, adding that the courts have consistently held that such a generalization of critical habitat is unacceptable.

Our Response: Under the Act and its implementing regulations, in areas occupied at the time of listing, we are required to identify the physical and biological features essential to the conservation of the species for which we propose critical habitat. The PCEs are those specific elements of the physical and biological features that provide for a species' life-history processes and are essential to the conservation of the species. These species need a functioning ecosystem to survive and recovery. Further, in many cases, due to our limited knowledge of specific life-history requirements for the species that are little-studied and occur in remote and inaccessible areas, the physical and biological features that provide for the successful functioning of the ecosystem on which these species depend represent the best, and, in many cases, the only, scientific information available. Accordingly, the physical and biological features of the ecosystem are, at least in part, the physical and

biological features essential to the conservation of those species. Collectively, these features provide the suite of environmental conditions essential to meeting the fundamental requirements of each species.

In this case, the physical and biological features that we identified for these species represent the PCEs for these species, and reflect a distribution that we concluded is essential to the species' recovery needs within the lowland dry ecosystem. The ecosystems' features include the appropriate microclimatic conditions for germination and growth of the plants (*e.g.,* light availability, soil nutrients, hydrologic regime, and temperature) and space within the appropriate habitats for population growth and expansion, as well as maintenance of the historical geographical and ecological distribution of each species. The PCEs are defined by elevation, annual levels of precipitation, substrate type and slope, and the potential to maintain characteristic native plant genera in the canopy, subcanopy, and understory levels of the vegetative community. The physical and biological features/PCEs of a functioning ecosystem for the lowland dry ecosystem identified as essential to the conservation of the three species are described in Table 2 of this final rule and were derived from several sources, including: (a) The Nature Conservancy's Ecoregional Assessment of the Hawaiian High Islands (2006) and ecosystem maps (2007); (b) Natural Resource Conservation Service's (NRCS) soil type analysis data layer for GIS (geographic information systems) mapping (NRCS 2008); (c) Hawaii Island vegetation analyses by Gagne and Cuddihy (1999, pp. 45–114); (d) plant databases from the National Tropical Botanical Garden (2011); (e) geographic information system maps of habitat essential to the recovery of Hawaiian plants (HPPRCC 1998); (f) GAP (geographic analysis program) vegetation data (GAP 2005); (g) **Federal Register** documents, such as listing rules and 5-year status reviews; (h) recent biological surveys and scientific reports regarding species and their habitats; and (i) discussions with qualified individuals familiar with these species and ecosystems.

(19) *Comment:* One commenter stated that most of the area proposed for critical habitat is affected by various threats (wildfires, nonnative plants, and nonnative ungulates), is not currently good habitat for endangered plant species, and would require difficult, expensive measures to rehabilitate, requiring at the very least some fencing and firebreaks. The commenter stated that development could be planned to avoid, protect, and restore remnant sites with high-quality habitat.

Our Response: We agree with the commenter's statement that various threats affect most, if not all, of the habitat for the three species. Fire, nonnative plant species, and ungulates are identified as primary threats to the physical and biological features of the lowland dry ecosystem essential to the conservation of the three species. We also agree that the areas designated require special management considerations or protections. (*e.g.,* firebreaks, fencing, control of nonnative plant species). In addition, active management of the species themselves (*e.g.,* ex situ (off-site) germplasm storage, and collection, propagation, outplanting and maintenance) will likely be necessary for the conservation of the three species (USFWS 1994, pp. 39–48; USFWS 1999, pp. 71, 117–119, 126). With protection and active management, we expect the areas identified in this final rule to provide the areas essential to the conservation of the three species. While development adjacent to protected areas may include paved or landscaped areas that may reduce the potential for invasion by or the harmful effects of nonnative plant species, higher levels of human activity associated with development also creates the potential of ignition sources, vandalism, and theft. During the proposed rule's comment periods and in the development of this final rule, we worked with the State, County, and affected landowners in a cooperative planning process that addressed development and the areas essential to the conservation of the three species.

(20) *Comment:* Several commenters stated the possibility that other potential conservation areas and resources are available for protection of the target species throughout west Hawaii and Hawaii Island, and that the Service's methods of only using available historical surveys and past studies prepared by landowners unnecessarily skews the designation of possible critical habitat areas toward areas that are being slated for development, such as the Kona Urban Area. A commenter suggested that a proper scientific method would include a contemporary analysis of the entire island of Hawaii for the areas that have the necessary physical and biological attributes necessary for establishing a critical habitat area.

Our Response: As required by section 4(b) of the Act, we used the best scientific data available in determining those areas that contain the physical or biological features essential to the conservation of the three species by identifying the occurrence data for each species and determining the ecosystems upon which they depend. The information we used is described in our October 17, 2012, proposed rule (77 FR 63928) and in this final rule (see *Methods,* above). In response to the commenter's suggestion that our analysis consider areas across the entire Hawaii Island, we did not consider including areas outside the species' known historic range as critical habitat. The introduction of a species outside its historically known range may cause additional concerns, such as hybridization with other closely related species (in the case of *Bidens micrantha* ssp. *ctenophylla*) (Giffin 2011, pers. comm.), or exposing species to other known or unknown threats. Regarding the consideration of available habitat on State and Federal lands, the final designation includes significant areas of State and Federal lands, totaling 11,613 ac (4,699 ha) out of the 11,640-ac (4,711-ha) designation.

(21) *Comment:* One commenter stated that areas with soil types classified as pahoehoe lava flows or aa lava flows are not suitable for critical habitat designation because such areas do not provide the PCEs of the lowland dry ecosystem substrate, which consists of ''weathered silty loams to stony clay, rocky ledges, and little-weathered lava.''

Our Response: We disagree with the commenter's statements that pahoehoe and aa lava provide neither the PCEs of the lowland dry ecosystem nor suitable habitat for the three species. As described by Gagne and Cuddihy (1999, pp. 67–74), the substrate of the lowland dry ecosystem ranges from weathered reddish silty loams to stony clay soils, rocky ledges with very shallow soil, or relatively recent, little-weathered lava. In addition, all three species are known from primarily pahoehoe and aa soil types on relatively recent lava flows (51 FR 24672, July 8, 1986; 59 FR 10305, March 4, 1994; HBMP 2010a, HBMP 2010b, HBMP 2010c).

(22) *Comment:* One commenter stated that there is no benefit of critical habitat designation in areas occupied by the species. The commenter stated that according to information presented in the Service's DEA, in areas where the species is present, the level of protection afforded by a critical habitat designation is similar to the level of protection already present without the designation.

Our Response: This comment may be in reference to discussion of incremental economic impacts in the DEA (also discussed in the FEA) which recognizes that the presence of listed

plants provides extensive baseline protection because projects or activities with a Federal nexus would be subject to section 7 consultation regardless of critical habitat designation. It is, therefore, unlikely that critical habitat designation will change the outcome of future section 7 consultations within areas occupied by the species. However, critical habitat provides other benefits. One of the benefits of a critical habitat designation is that it serves to educate landowners, State and local governments, and the public regarding the potential conservation value of an area. This can help focus and promote conservation efforts by identifying areas of high conservation value for the listed plants. Any additional information about the needs of the listed plants or their habitat that reaches a wider audience is of benefit to future conservation efforts. See also the second half of our response to *Comment* (8) regarding the benefit of critical habitat.

(23) *Comment:* One commenter stated that by focusing on areas where there are perceived threats caused by urbanization, the resulting proposed critical habitat identifies areas in and around areas planned for urbanization. The commenter suggested that the Service first consider lands within the State Conservation District and the protections afforded these lands in identification of potential critical habitat. Consideration of urban lands or lands planned for urban growth for critical habitat designation should only occur after all other sites protected through zoning have been thoroughly exhausted.

Our Response: As stated previously, the State is a valued conservation partner in the recovery of endangered species and their habitats and we appreciate their strategic approach. Species that occur in the lowland dry ecosystem face numerous threats in addition to urban development, including habitat destruction by ungulates, nonnative plants, fire, and climate change; predation or herbivory by ungulates, nonnative vertebrates, and invertebrates; and other threats such as hybridization (77 FR 63928; October 17, 2012). Hawaii Revised Statute (HRS) 183C establishes the authority of the Hawaii DLNR to regulate uses and permitting within the Conservation District but does not address endangered and threatened species or designated critical habitat. In the case of species such as *Bidens micrantha* ssp. *ctenophylla,* the historical range of the species may be extremely restricted (see Current Status of the Species, above), and, therefore, areas that contain the physical and biological features or areas determined to be essential for their conservation may not correspond to the existing Conservation District. The best available scientific information led us to a proposed designation of critical habitat wherein ten percent fell within the Urban District (1,921 ac (778 ha)), 16 percent within the Conservation District (2,955 ac (1,196 ha)), and 74 percent in the Agricultural District (13,892 ac (5,622 ha)). See our response to *Comment* (12), above, regarding our analysis and the information used to determine the areas of critical habitat for the three species in our proposed rule (77 FR 63928; October 17, 2012) and in this final rule (see also *Methods* and *Criteria Used to Identify Critical Habitat,* above).

(24) *Comment:* One commenter questioned the Service's consideration for exclusion of certain groups with plans for commercial or residential development within the proposed critical habitat designation, stating that such development would undoubtedly degrade and destroy the physical and biological features, and the resulting traffic would have detrimental effects on the species' habitat. Another commenter opposed the Service's consideration of the areas proposed for exclusion from critical habitat under section 4(b)(2) of the Act for the purposes of widespread urban development and sprawl that further fragment, modify, and destruct these species' critical habitat.

Our Response: We appreciate the commenters' concern for possible impact to and assurances of conservation for areas considered for exclusion from the proposed critical habitat designation in the proposed rule (77 FR 63928; October 17, 2012). Section 4(b)(2) of the Act states that the Secretary must designate or make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impacts of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless 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. The Secretary may exclude an area from critical habitat based on economic impacts, impacts to national security, or any other relevant impacts. In this final rule, the Service carefully considered the factors above and present the results of our analysis for each area excluded under 4(b)(2) of the Act (see Consideration of Impacts Under Section 4(b)(2) of the Act, above).

(25) *Comment:* Two commenters stated that lands within the critical habitat designation will have limited access and thereby not allow people to malama aina (care for the land).

Our Response: The designation of critical habitat does not affect land ownership or establish a wilderness area, preserve, or wildlife refuge, nor does it open or restrict a privately-owned area to human access or use. Past or ongoing activities to care for the land, such as habitat management, reduction of species' threats, and increasing species numbers are expected to benefit the species recovery, and, therefore, such activities would be encouraged within designated critical habitat.

Comments Regarding Regulatory Authority and Requirements

(26) *Comment:* Two commenters stated that designating non-Federal land (Kamakana Villages, Kaloko Makai) as critical habitat will provide no benefit to any listed or proposed endangered species that is not already provided under Hawaii State law. The commenter stated that section 9 of the Act does not prohibit the ''taking'' of federally listed plants from non-Federal lands and cited 16 U.S.C. 1538(a)(2)(B), which defers to State laws and regulations. The commenter stated that under HRS 195D–4(e), it is unlawful to ''take'' any endangered or threatened plant species in the State of Hawaii, and, therefore, with respect to plants, the State law is more protective than the Act and critical habitat designation on non-Federal land. Another commenter stated that the DEA clearly indicates no additional protection of endangered species will be afforded by the proposed critical habitat designation other than that which already exists under State law.

Our Response: Unlike the automatic conferral of State law protection for all federally listed species (see HRS 195D–4(a)), there are no provisions in State law (HRS 195D–4(e)) that reference federally designated critical habitat. When considering the benefits of inclusion of an area in critical habitat, we consider the regulatory benefits that area would receive from the protection from adverse modification or destruction as a result of consultation under section 7(a)(2) of the Act for actions with a Federal nexus; the educational benefits of mapping habitat essential for recovery of the listed species; and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat. Benefits could include public awareness of the presence of listed

species and the importance of habitat protection, and in cases where a Federal nexus exists, increased habitat protection due to the protection from adverse modification or destruction of critical habitat. Also, State law only protects existing plants from take. If an area is unoccupied, there are no provisions for protection under State law. See also the second half of our response to *Comment* (8).

(27) *Comment:* Several commenters expressed concern about the potential negative effects of critical habitat designation on their lands because of the interplay of Federal and Hawaii State law. For example, they were concerned that designation of critical habitat could lead to reclassification of land by the State into the conservation district pursuant to HRS 195D–5.1 and HRS 205–1(3). The commenters stated that critical habitat designation will put the State of Hawaii Land Use Commission (LUC) Urban District classification at risk because under HRS 195D–5.1, the DLNR is required to initiate land use district boundary amendments to put lands that are considered habitat for flora and fauna into the State LUC Conservation District. Multiple commenters stated that the proposed critical habitat designation will result in a redistricting or ''down-zoning'' of the designated area to the conservation district due to HRS section 195D–5.1, resulting in the loss of projects and associated investments, entitlements, and other benefits.

Our Response: HRS section 195D–5.1 states that the DLNR, ''shall initiate amendments to the conservation district boundaries consistent with section 205–4 in order to include high quality native forests and the habitat of rare native species of flora and fauna within the conservation district.'' HRS section 205–2(e) specifies that ''conservation districts shall include areas necessary for * * * conserving indigenous or endemic plants, fish and wildlife, including those which are threatened or endangered * * *.'' Unlike the automatic conferral of State law protection for all federally listed species (see HRS 195D–4(a)), these provisions do not explicitly reference federally designated critical habitat and, to our knowledge, DLNR has not proposed amendments in the past to include all designated critical habitat in the conservation district. State law only permits other State departments or agencies, the county in which the land is situated, and any person with a property interest in the land to petition the State LUC for a change in the boundary of a district (HRS section 205–4).

The Hawaii Department of Business, Economic Development & Tourism's (DBEDT) Office of Planning also conducts a periodic review of district boundaries taking into account current land uses, environmental concerns, and other factors, and may propose changes to the LUC. The State LUC determines whether changes proposed by DLNR, DBEDT, other State agencies, counties, or landowners should be enacted. In doing so, State law requires LUC to take into account specific criteria, set forth at HRS section 205–17. While the LUC is specifically directed to consider the impact of the proposed reclassification on ''the preservation or maintenance of important natural systems or habitats,'' it is also specifically directed to consider five other impacts in its decision: (a) Maintenance of valued cultural, historical, or natural resources; (b) maintenance of other natural resources relevant to Hawaii's economy, including, but not limited to, agricultural resources; (c) commitment of State funds and resources; (d) provision for employment opportunities and economic development; and (e) provision for housing opportunities for all income groups, particularly the low, low-moderate, and gap groups (HRS section 205.17). Approval of redistricting requires six affirmative votes from the nine commissioners, with the decision based on a ''clear preponderance of the evidence that the proposed boundary is reasonable'' (HRS section 205–4). In addition, the LUC must hold a hearing on all petitions to redistrict areas greater than 15 ac (6 ha), and must admit as intervening parties all persons who have some property interest in the land, thus giving private property owners opposing redistricting the opportunity to present evidence (HRS section 205–4). The relevant State endangered and threatened species statute contains no reference to designated critical habitat. Also, as stated above, unlike the automatic conferral of State law protection for all federally listed species, State law does not require initiation of the amendment process for federally designated critical habitat (HRS section 195D–5.1, HRS section 195D–4(a)).

(28) *Comment:* One commenter stated that the consequences of critical habitat designation are broader than section 7 consultation. The commenter stated that the existence of the critical habitat designation would undoubtedly be used to oppose any ongoing or proposed actions in the designated area by State and county agencies.

Our Response: See response to *Comment* (27) above regarding critical habitat and State and County land use processes. In addition, HRS 343 provides a comprehensive review of the environmental impact statement (EIS) process, and describes the applicability and requirements for environmental assessments (EA), regardless of the underlying land classification. HRS 343 does not trigger land reclassification as a result of critical habitat designation, nor does it stipulate prohibitions against proposed actions or proposed land use changes in areas designated as critical habitat, whether or not these areas are in the conservation district. It states that an EIS is required for any proposed land reclassifications under 343–5(2) and 343–5(7) and ''any use within any land classified as a conservation district by the state land use commission under Chapter 205.'' HRS 343, therefore, provides guidelines for the EIS process and EA process regarding: (a) Land reclassification, and (b) proposed actions or proposed land use changes on lands that are already classified as conservation.

(29) *Comment:* One commenter stated that the Service must also consider its designation of critical habitat for plants in the context of the Hawaii Endangered Species Act, HRS 195 (Hawaii ESA). The commenter stated that ''impacts of plant designations in Hawaii are consequently more sweeping than in the rest of the nation because the Hawaii ESA makes it broadly unlawful for any person to 'take' a 'land plant'' under HRS 195D–4(e)(2), subjecting violators to the full force of civil and criminal penalties under the Hawaii ESA (citing HRS 195D–2 which defines ''Taking'' to include collecting, cutting, uprooting, destroying, injuring, or possessing the endangered land plant, without regard to where it is located, including private property).

Our Response: HRS 195D covers conservation of aquatic life, wildlife, and land plants in the State of Hawaii. The sections of HRS 195D relevant to this discussion are HRS sections 195D–4 and 195D–5.1. HRS section 195D–4 recognizes the Federal status (endangered or threatened) of flora and fauna in Hawaii as determined by the Department of the Interior. This section also outlines State regulations for possession, trade, or other uses of these species, as well as prohibitions regarding endangered and threatened species on both Federal and non-Federal land, but makes no mention of critical habitat under HRS 195D–4. HRS section 195D–5.1, ''Protection of Hawaii's unique flora and fauna,'' states that the DLNR shall initiate amendments to the conservation district boundaries consistent with section 205–4 in order to include high-quality native forests

and the habitat for rare native species of flora and fauna within the conservation district. Neither of these sections of HRS 195D includes statements invoking automatic prohibitions against adverse modification of critical habitat on private lands.

(30) *Comment:* Several commenters claimed that the regulatory flexibility analysis provided in the proposed rule was flawed and inadequate. One commenter cited the Regulatory Flexibility Act (RFA) 5 U.S.C. 601 *et seq.,* as amended by the Small Business Regulatory Enforcement Fairness Act of 1996, which states that an agency must either certify that a rule will not have a significant impact on a substantial number of small entities, or it must complete an Initial Regulatory Flexibility Analysis (IRFA) (see 5 U.S.C. 603). The commenters stated that the Service did not perform an adequate analysis of the impacts on small businesses, as required by law, stating that under the RFA a ''small business'' has the same meaning as a ''small business concern'' (see 5 U.S.C. 601).

Our Response: Section 4(b)(2) of the Act requires us to consider the economic impact of designating a particular area as critical habitat for an endangered or threatened species. We also evaluate potential economic impacts of a rulemaking pursuant to both Executive Order 12866 (E.O. 12866), which states that a rulemaking will be determined to be economically significant if it will result in an impact of more than $100 million in any given year, and the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 *et seq.*). Under the RFA, when 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 of these sections of HRS 195D includes statements invoking automatic prohibitions against adverse modification of critical habitat on private lands.

(30) *Comment:* Several commenters claimed that the regulatory flexibility analysis provided in the proposed rule was flawed and inadequate. One commenter cited the Regulatory Flexibility Act (RFA) 5 U.S.C. 601 *et seq.,* as amended by the Small Business Regulatory Enforcement Fairness Act of 1996, which states that an agency must either certify that a rule will not have a significant impact on a substantial number of small entities, or it must complete an Initial Regulatory Flexibility Analysis (IRFA) (see 5 U.S.C. 603). The commenters stated that the Service did not perform an adequate analysis of the impacts on small businesses, as required by law, stating that under the RFA a ''small business'' has the same meaning as a ''small business concern'' (see 5 U.S.C. 601).

Our Response: Section 4(b)(2) of the Act requires us to consider the economic impact of designating a particular area as critical habitat for an endangered or threatened species. We also evaluate potential economic impacts of a rulemaking pursuant to both Executive Order 12866 (E.O. 12866), which states that a rulemaking will be determined to be economically significant if it will result in an impact of more than $100 million in any given year, and the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 *et seq.*). Under the RFA, when 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 (small businesses, small organizations, and small government jurisdictions), except when the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities.

To understand the potential impacts of a critical habitat designation, we evaluate in our economic analysis the incremental impacts of the designation as identified by evaluating the additional protections or conservation measures afforded the species through the designation beyond those that the species receives by being federally listed. Under E.O. 12866, we are required to evaluate the direct and indirect impacts of the designation. The evaluation of these potential impacts is discussed in our DEA and FEA. Additionally, under the RFA and following recent case law, we are to evaluate the potential impacts to small businesses, but this evaluation is limited to impacts to directly regulated entities. The designation of critical habitat only has regulatory impact only through section 7 of the Act, under which a Federal action agency is required to consult with us on any project that is funded, permitted, or otherwise authorized that may affect designated critical habitat. In other words, critical habitat only has a regulatory impact if a Federal nexus exists. Critical habitat has no regulatory effect or impact under the Act on actions that do not have a Federal nexus. Since Federal action agencies are the only directly regulated entities as a result of the designation of critical habitat, it is therefore reasonable for us to conclude that the designation of critical habitat does not directly regulate small business entities and, therefore, does not significantly impact them. As a result, we believe that we have accurately assessed potential impacts to small business entities in the rulemaking, and can reasonably certify that this designation will not have a significant impact on a substantial number of small business entities. For a further discussion of our rationale, please see Required Determinations, below.

(31) *Comment:* One commenter stated that critical habitat is in violation of the U.S. Constitution, Article 1, section 8, based on the assertion that critical habitat designation would constitute Federal ownership of private property within the State of Hawaii. Several commenters stated that the designation of critical habitat is a taking of property without just compensation. One commenter stated that the proposed designation involves a significant amount of private land that has already been granted land use entitlements to allow for development of housing, schools, and commercial and other important uses, and the designation will significantly compromise and perhaps eliminate the ability for those private individuals to develop their land, thereby rendering those land use entitlements void.

Our Response: Critical habitat designation does not confer ownership of private property to the Federal Government, nor does the Act restrict all uses of critical habitat, but only imposes restrictions under section 7(a)(2) on Federal agency actions that may result in destruction or adverse modification of designated critical habitat. The mere promulgation of a regulation, like the enactment of a statute, does not take private, State, Federal, or county property, unless the regulation on its face denies the property owners all economically beneficial or productive use of their land. The designation of critical habitat does not deny anyone economically viable use of their property. The Act does not automatically restrict all uses of critical habitat, but only imposes restrictions under section 7(a)(2) on Federal agency actions that may result

in destruction or adverse modification of designated critical habitat. Furthermore, if in the course of a consultation with a Federal agency, the resulting biological opinion concludes that a proposed action is likely to result in destruction or adverse modification of critical habitat, we are required to suggest reasonable and prudent alternatives that can be implemented in a manner consistent with the intended purpose of the action, that can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction, and that are economically and technologically feasible.

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. Regarding the assertion that critical habitat constitutes a taking, the Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use or access to the designated areas. Critical habitat designation also does not establish specific land management standards or prescriptions, although Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat.

(32) *Comment:* Several commenters stated that the proposed rule did not include a DEA, as would be required under the February 28, 2012, Presidential Memorandum for the Secretary of the Interior, ''Memorandum on Proposed Revised Habitat for the Spotted Owl: Minimizing Regulatory Burdens.'' One commenter further stated that the Service's proceeding with the proposed critical habitat rule without a timely DEA, contrary to President Obama's directive, ''is arbitrary and capricious, does not meet the requirements for transparency, and compounds the uncertainty and economic dislocation that has been identified as a defect in the current critical habitat designation process.''

Our Response: The February 28, 2012, Presidential Memorandum directed the Secretary of the Interior to propose revisions to the current regulations (which were promulgated in 1984, and required that an economic analysis be completed after critical habitat has been proposed) to provide that the economic analysis be completed and made available for public comment at the time of the publication of a proposed rule to designate critical habitat. As directed, the Service published a proposed rule for revisions to the regulations for impact analyses for critical habitat on August 24, 2012 (77 FR 51503) and accepted comments for 60 days, ending October 23, 2012. While we were still accepting public comments on the August 24, 2012, proposed rule, we published the proposed rule to list 15 species, including *Bidens micrantha* ssp. *ctenophylla,* as endangered, and to designate critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* on Hawaii Island (77 FR 63928; October 17, 2012). Therefore, in publishing the proposed rule, we followed the regulations in place at that time. The public, including landowners within proposed critical habitat, were provided with an opportunity to comment on the proposed rule and DEA (see our response to *Comment* (37) for more information regarding the timing and duration of comment periods for the proposed rule). In this final rule, we have fully considered and included responses to all substantive comments related to the DEA (see *Comments on the Draft Economic Analysis,* below).

Comments Regarding Partnership and Collaboration

(33) *Comment:* Several commenters suggested that the Service convene a stakeholders meeting or task force to develop a comprehensive conservation plan for the region that balances protection of species and sustainable urban development to truly embrace the ecological approach for identifying critical habitat. Multiple commenters stated that more can be done through cooperative partnerships between the Service and the affected landowners to contribute to the recovery of the three species while ensuring the mission and work of the Service and various stakeholders will be achieved. Several commenters cited Hawaii House Concurrent Resolution 96 H.D. 2 S.D. 1 passed by the 2013 Hawaii State Legislature requesting the Service work with the affected persons and counties in establishing reasonable critical habitat designations for endangered species in the State.

Our Response: The Service has worked cooperatively with the State, County, and private landowners to conserve the lowland dry ecosystem in the North Kona region by participating on working groups, contributing cost-share funding, and providing technical assistance. Prior to publication of the October 17, 2012, proposed rule, the Service conducted informational meetings with several affected State agencies, landowners, and other interested parties. The Service, along with the County of Hawaii, DHHL, DLNR, and other parties with an interest in Hawaii—Lowland Dry—Units 31, 33, 34, and 35, participated in a series of meetings where the long-term goals and objectives of each party were presented. The process provided a forum to discuss species protection and recovery and development on a regional scale. Although goals and objectives for development are not always reconcilable with goals and objectives of a critical habitat designation, we have considered the information presented in these meetings, as well as public comments, in making this final critical habitat designation. These discussions resulted, in some instances, a cooperative approach to setting aside acreage adjacent to other landowners in order to protect larger areas of contiguous habitat from development. The Service and several landowners have worked in partnership to execute MOUs that are intended to benefit the three critical habitat species and the lowland dry ecosystem. See our analysis above (Consideration of Impacts Under Section 4(b)(2) of the Act) for a description of several areas that are excluded from the critical habitat designation in this final rule.

(34) *Comment:* One commenter expressed concern whether proper monitoring and oversight protocols were in place to ensure for successful implementation of conservation agreements between the Federal Government and its partners. The same commenter expressed concern regarding the fate of the areas protected or managed following the expiration or termination of the current partnerships and/or agreements.

Our Response: The conservation agreements between the Service and our public and private partners include specific obligations for implementation of voluntary conservation actions, monitoring, and reporting, and review by the Service. Upon expiration or termination of the agreement, it is our hope that the parties will seek to continue the partnership and all possible opportunities for the continued care and maintenance of listed species and their habitats. Endangered and threatened species in the areas covered by conservation agreements will be afforded protection under State and Federal laws. To the extent such lands are being excluded from critical habitat

by this rule, we may reconsider designating critical habitat should our partnership for the conservation of listed species prove to be unsuccessful or short-lived.

(35) *Comment:* One commenter recommended that the transfer of development rights to the Federal Government be considered as a means for the protection and survival of endangered plants.

Our Response: It is the landowner's discretion to consider whether an easement or other transfer of development rights to another entity is appropriate given the landowner's current and future planned uses for their land. Several of the conservation agreements contain landowner commitments to ''No Development Areas'' and allow for actions to benefit the recovery of the three species and the lowland dry ecosystem during the term of the agreements. The Service is willing to provide technical assistance to partners who indicate an interest to protect native species and their habitats by voluntarily putting a conservation easement on their property. The Service also remains committed to working cooperatively with landowners who may not be interested in a conservation easement but want to manage their lands for the conservation of listed species and their habitats.

Comments Regarding the Accuracy and Adequacy of the Rule

(36) *Comment:* The DOFAW stated that the maps in the **Federal Register** could be improved as they are difficult to read and understand because: (a) The maps are unclear as to whether each map is for all three species or if species are mapped separately, and (b) the maps are not precise enough to determine exactly where the boundaries fall, so it is difficult to make substantive comments as to their appropriateness for the species involved.

Our Response: The maps provided in the final rule identify the areas designated as critical habitat and identify the species for which each unit is designated. The species are not mapped separately; therefore, each ecosystem unit may contain both occupied and/or unoccupied critical habitat for one or more species as provided in the unit descriptions in the preamble of this rule and in the October 17, 2012, proposed rule, as well as in the map titles. We have limited ability to provide finer-scale maps in a regulatory document due to required **Federal Register** printing standards; however, we provided the DOFAW with more detailed maps showing the level of detail requested as well as the ArcGIS layer of the proposed critical habitat units.

(37) *Comment:* One commenter stated that the proposed rule contained insufficient information for the public to determine the extent and location of unoccupied habitat that is being proposed for designation and that the proposal does not provide sufficient detail, including maps and descriptions, to allow the landowners to readily identify the extent of their land holdings that may be impacted by the proposed designation. The commenter expressed concern that the inadequacy of the information may result in the failure of interested parties to provide comment because they were not aware that their land was included in the proposed critical habitat designation.

Our Response: On October 17, 2012, we published the proposed rule to list 15 Hawaii Island species as endangered throughout their ranges, and to designate critical habitat for three species in the **Federal Register** (77 FR 63928). We sent letters to all appropriate State and Federal agencies, county governments, elected officials, scientific organizations, and other interested parties notifying them of the proposed rule and invited them to comment. Due to the scale of map required for publishing in the **Federal Register**, we were unable to provide finer-scaled maps in the proposed rule. However, we sent personalized letters with an enclosed map showing each landowner's property, Tax Map Key (TMK) parcel information, and the proposed critical habitat designation to all landowners whose property overlapped with the proposed critical habitat. In addition, the proposed rule directed reviewers to contact the Service for further clarification on any part of the proposed rule, and provided contact information.

During the initial comment period on our proposed rule (77 FR 63928; October 17, 2012), we became aware that there were errors in the landownership information in the geospatial data sets associated with parcel data from Hawaii County (2008), which were used to identify affected landowners. We recognize that some landowners whose properties overlapped with the proposed critical habitat did not receive notification letters due to errors in landownership information we received from the State or missing landowner information in the State's geospatial data sets. We received updated information on land ownership from Kaloko Makai in their December 17, 2012, comment letter, from the Hawaii Housing and Finance Development Corporation (HHFDC) in their November 29, 2012, comment letter, and from the DHHL through meetings and correspondence following publication of the October 17, 2012, proposed rule (77 FR 63928). We incorporated all updated land ownership information into this final rule.

Shortly after publishing our April 30, 2013, document announcing the availability of and seeking public comments on the DEA of the proposed critical habitat, reopening the comment period on the October 17, 2012, proposed rule, and announcing the public information meeting and public hearing held on May 15, 2013 (78 FR 25243), we sent letters to all of the affected landowners that we were able to identify. In that letter we provided information on the proposed rule (77 FR 63928; October 17, 2012), the DEA, and the public hearing held on May 15, 2013, in Kailua-Kona, Hawaii. In addition, we contacted all appropriate Federal and State agencies, county governments, elected officials, scientific organizations, and other interested parties and invited them to comment. In addition, on October 20, 2012, we published a public notice of the proposed rule in the local Honolulu Star Advertiser, Hawaii Tribune Herald, and West Hawaii Today newspapers.

(38) *Comment:* One commenter noted that Table 5B in the proposed rule identified 679 ac (275 ha) under consideration for exclusion on lands owned by Kaloko Properties Corp., Lanihau Properties, SCD TSA Kaloko Makai, and TSA Corporation; however, the proposed rule failed to identify the 29 ac (8 ha) of the 702 ac (284 ha) privatel owned land of the proposed designation within Unit 34 that were not considered for exclusion and requested clarification on the location of these lands.

Our Response: The information in our files indicates that the 29 privately owned acres referenced by the commenter are located within TMK parcel 3–7–3–009:013. These lands are located north of Hulikoa Street and are not excluded from this final critical habitat designation.

(39) *Comment:* One commenter noted that Figure 5–C in the proposed rule incorrectly identified a portion of Unit 34 as being owned by TSA Corporation (77 FR 63995); the correct owner is SCD–TSA Kaloko Makai LLC. The commenter noted that, of the 702 ac (284 ha) of private lands proposed for critical habitat designation in Unit 34, more than 83 percent of that land (606 ac (245 ha)) is owned by SCD–TSA and planned for development as part of the Kaloko Makai project.

Our Response: We appreciate the information provided by the commenter. The landowners in Figures 5–A and 5–C in the proposed rule were incorrectly identified. We apologize for this error and any confusion this may have caused. We updated ownership information in our files regarding the lands owned SCD–TSA Kaloko Makai and notified the correct owners of the opportunity to provide comment on the proposed rule during three additional comment periods (78 FR 25243, April 30, 2013; 78 FR 39698, July 2, 2013; 81 FR 31900, May 20, 2016).

(40) *Comment:* One commenter expressed concern regarding the quality and completeness of the scientific materials the Service relied on to prepare the proposed rule and suggested that a public hearing would also provide an opportunity for the scientific community to provide input into the decision making.

Our Response: Under section 4(b)(1)(A) of the Act, we make a determination whether a species is endangered or threatened solely on the basis of the best scientific and commercial data available. All scientific materials are available for review. Although not included with the proposed rule itself, information on how to obtain a list of our supporting documentation used was provided in the proposed rule under Public Comments and References Cited (77 FR 63928; October 17, 2012). In addition, lists of references cited in the proposed rule (77 FR 63928; October 17, 2012) and in this final rule are available on the internet at *http://www.regulations.gov,* and upon request from the Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**, above). We also solicited scientific peer review of the proposed listing and critical habitat designation from 14 qualified reviewers and received responses from 11 reviewers regarding the proposed listing and 2 of these reviewers also commented on the proposed critical habitat designation (see our responses to *Comments* (1) and (2), above). Finally, in addition to the initial 60-day public comment period, the Service reopened the public comment period three times on the proposed critical habitat rule and draft economic analysis, allowing the public an additional 30, 60, and 15 days to submit comments, for a total of 165 days to comment on our proposed critical habitat designation. We also held a public information meeting and hearing in Kailua-Kona, Hawaii, on May 15, 2013, and another public information meeting in Kailua-Kona, Hawaii, on August 7, 2013.

(41) *Comment:* One commenter stated that the proposed rule is silent on whether Unit 36 is occupied by *Mezoneuron kavaiense.*

Our Response: In the *Descriptions of Proposed Critical Habitat* discussion in the October 17, 2012, proposed rule, we identified the species within each unit for which the unit was considered occupied. In the unit description for Hawaii—Lowland Dry—Unit 36, we stated that the unit is occupied by *Bidens micrantha* ssp. *ctenophylla.* Therefore, Hawaii—Lowland Dry—Unit 36 is not occupied by the other two species, *Isodendrion pyrifolium* and *Mezoneuron kavaiense.* In addition, in the Proposed Regulation Promulgation section of the October 17, 2012, proposed rule, proposed 50 CFR 17.99(k)(121), the Table of Protected Species Within Each Critical Unit for the Island of Hawaii, set forth the unit name and occupancy status of each unit.

(42) *Comment:* One commenter stated that Service has not provided any analysis on the minimum amount of land needed to justify designation of 18,766 total ac (7,597 ha) in proposed critical habitat for West Hawaii (Kona area).

Our Response: Our final designation of critical habitat includes 11,640 ac (4,711 ha) for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* in West Hawaii (Kona area). The designated acres meet the definition of critical habitat for these three species, and our analyses determined them to be essential for the conservation of these species. As required by section 4(b) of the Act, we used the best scientific data available in determining those areas that contain the physical or biological features essential to the conservation of the three species, and for which designation of critical habitat is considered prudent, by identifying the occurrence data for each species and determining the ecosystems upon which they depend. The information we used is described in our proposed rule (77 FR 63928; October 17, 2012) and in this final rule (see *Methods,* above). See also our response to *Comment* (12) and *Criteria Used to Identify Critical Habitat.*

(43) *Comment:* One commenter stated that the description of Unit 35 does not suggest reintroduction of the three species for which critical habitat is proposed as a means of increasing the populations of any species, but instead attempts to justify the proposed designation by relying exclusively on the land within Unit 35 as ''providing the PCEs necessary for the expansion of the existing wild populations.'' The commenter stated that this is in stark contrast to the Service's rationale for other units, for which it relies upon additional space for the reintroduction of the species.

Our Response: We did not include a statement regarding reintroduction of the three species because Unit 35 is occupied by the three species for which critical habitat is proposed. However, because of the small numbers of individuals of the three species in Unit 35 and low population sizes, we have determined, similar to other units, that the three species do require suitable habitat and space for expansion or reintroduction within Unit 35 to achieve population levels that could approach recovery. However, the entirety of Unit 35 has been excluded from this final critical habitat designation for the reasons described in Consideration of Impacts Under Section 4(b)(2) of the Act.

(44) *Comment:* Two commenters stated that the proposed rule has significant takings implications; therefore, a takings implications assessment is required. The two commenters further stated that the takings analysis presented in the proposed rule is inadequate and violates the letter and intent of Executive Order 12630 (''Governmental Actions and Interference with Constitutionally Protected Property Rights''). They stated that because a taking implications assessment (TIA) has not been published with the proposed rule, landowners are deprived of the ability to rationally or reasonably comment on the conclusion of the Service that the ''designation of critical habitat for each of these species does not pose significant takings implications within or affected by the proposed designation.''

Our Response: Executive Order 12630 requires that a taking implications assessment (TIA) be made available to the public if there are significant takings implications. If there are not significant takings implications, there is no requirement that this issue be addressed in a rulemaking. In our proposed rule (77 FR 63928; October 17, 2012) we stated that we analyzed the potential takings implications of critical habitat designation for three species and found that this designation of critical habitat does not pose significant takings implications for lands within or affected by the proposed designation. We prepared a TIA for this final rulemaking and have affirmed that the designation of critical habitat for three Hawaii Island species does not pose significant takings implications for lands within or affected by the designation.

Comments Regarding Landowner Notification

(45) *Comment:* One commenter claimed that due to inconsistencies in property identification, and lack of notice to landowners, such as Stanford Carr Development—TSA (SCD–TSA), the proposed rule has not been fairly presented for public comment. The commenter cited 50 CFR 424.16, which states that in the case of any proposed rule to list a species or to designate or revise critical habitat, the Secretary shall give notice of the proposed regulation to any Federal agencies, local authorities, or private individuals or organizations known to be affected by the rule.

Our Response: See our response to *Comment* (37) regarding adequate notification of the publication of the proposed rule, opportunity for public comment, and availability of information and resources in order for the public to comment on the proposed rule. In addition, we have incorporated information received during the public comment period and updated the information on land ownership accordingly. The Service provided adequate notification of the publication of the proposed rule, opportunity for public comment, and availability of information and resources in order for the public to comment on the proposed rule. We also sent personalized letters and with an enclosed map showing each landowner's property, Tax Map Key (TMK) parcel information, and the proposed critical habitat designation to all landowners whose property overlapped with the proposed critical habitat. We sent letters to the addresses contained in the landownership information in the geospatial data sets associated with parcel data from Hawaii County (2008). We became aware that representatives of SCD–TSA to whom the letters were addressed may not have notified SCD–TSA upon receipt of the correspondence sent shortly after publication of the October 17, 2012, proposed rule. During each subsequent comment period, the Service sent letters directly to this landowner providing notification of the comment period and information on the proposed designation.

(46) *Comment:* Two commenters stated that the Service failed to notify Hualalai PIA-Kona, LLC (PIA) of the proposed critical habitat designation as required by 50 CFR 424.16, which requires the Secretary to give notice to ''private individuals or organizations known to be affected by the rule.'' The commenters added that PIA is listed as an owner of record in the County of Hawaii real property tax records on lands leased from Kamehameha Schools within Unit 31 of the proposed critical habitat designation. The commenters noted that this is contrary to the Service's collaboration with PIA's predecessor during preparation of two Service recovery plans (USFWS 1994, USFWS 1996).

Our Response: We sent a letter notifying Kamehameha Schools, the owner of the lands leased by PIA, of the proposed critical habitat designation based on the addresses contained in the landownership information in the geospatial data sets associated with parcel data from Hawaii County (2008). We have updated our landownership information with PIA's address and contact information, and they received notification regarding opportunity to comment on the proposed designation during subsequent comment periods on the proposed rule (78 FR 25243, April 30, 2013; 78 FR 39698, July 2, 2013; 81 FR 31900, May 20, 2016). See also our response to *Comment* (37) concerning notifications of, and opportunities to comment on, the proposed rule.

Other Comments

(47) *Comment:* One commenter requested clarification on whether federally funded programs administered by a State agency such as the State of Hawaii Department of Health (DOH) management of the National Pollutant Discharge Elimination System (NPDES) permit program, a county agency such as the County of Hawaii Planning Department management of the Coastal Zone Management (CZM)/Special Management Area (SMA), or connections to a highway improvement or utility infrastructure improvements approval process will trigger the Act's section 7(a)(2) consultation process.

Our Response: The State of Hawaii DOH, Clean Water Branch is given the authority to implement the NPDES permits process. The NPDES Multi Sector General Permit (MGP) (EPA 2008) Construction General Permit (CGP) (EPA 2012) requires applicants to provide a determination regarding the protection of federally listed endangered or threatened species or their designated critical habitat(s) and the supporting documentation, if necessary (MGP 2008, Appendix E; CGP 2012, Appendix D). The Stormwater Pollution Prevention Plan (SWPPP) guidelines also direct applicants to follow similar guidelines for protection of federally listed endangered and threatened species or designated critical habitat(s) similar to those included in the MGP and CGP. The CZM/SMA program is administered by the Office of State Planning within the State of Hawaii Department of Business Economic Development and Tourism. Neither CZM policy (Hawaii Revised Statutes (HRS) 205A–2(c)) nor SMA guidelines (HRS 205A–26) for the review of developments address the protection of endangered and threatened species or designated critical habitat(s). We are unaware of any requirements of the NPDES or SWPPP permit processes that would require consultation under section 7 of the Act.

(48) *Comment:* Several commenters stated that recent critical habitat designations have been initiated primarily as a result of the Service's 2011 Multi-District Litigation settlement with environmental groups. One commenter added that the settlement unfairly places the burden on landowners and other stakeholders affected by the critical habitat designations.

Our Response: We agree that the final listing rule for *Bidens micrantha* ssp. *ctenophylla* (78 FR 64638; October 29, 2013) meets a requirement under the Service's 2011 Multi District Litigation settlement. In accordance with 4(a)(3)(A)(i), we are required to designate critical habitat concurrently with making a determination that a species is an endangered species or a threatened species to the maximum prudent and determinable. When the final listing rule for *Bidens micrantha* ssp. *ctenophylla* published (78 FR 64638; October 29, 2013), we had already proposed critical habitat for *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense* (77 FR 63928; October 17, 2012), but we had not yet finished developing this final rule. In the intervening time, we repeatedly reopened the comment period on the proposed critical habitat designation (78 FR 25243, April 30, 2013; 78 FR 39698, July 2, 2013; 81 FR 31900, May 20, 2016) to ensure that we had the best scientific and commercial information for our final determination of critical habitat. In this rule, we designate critical habitat for the three plant species. Please also see our response to *Comment* (31) regarding the regulatory consequences of a critical habitat designation.

(49) *Comment:* One commenter stated that the Service considered the 1999 mitigation plan (''Mitigation Plan for Endangered Species at Villages of La'i'opua, Kealakehe, North Kona, Hawaii'' prepared for the Hawaii Housing and Community Development Corporation (HCDCH) (Belt Collins 1999)) during its development of the critical habitat designation, even though Service did not mention they were

considering this document in previous correspondence regarding Forest City Kona's development; the commenter specifically cited the Service's April 8, 2008, and March 12, 2010, comment letters.

Our Response: The 1999 mitigation plan that the commenter mentions identifies a framework of specific conservation actions to mitigate impacts of the development on *Bidens micrantha* ssp. *ctenophylla, Isodendrion pyrifolium,* and *Mezoneuron kavaiense.* At a May 2013 meeting, representatives of the Service, Forest City Kona, and HHFDC discussed the 1999 mitigation plan only as a possible framework to address the concerns of Forest City Kona related to their development and conservation of the three species in the proposed Hawaii—Lowland Dry—Unit 35. The information we used to determine the proposed critical habitat designation of Hawaii—Lowland Dry—Unit 35 was described in our proposed rule (77 FR 63928; October 17, 2012). See also our response to *Comments* (1) and (12) above, and *Criteria Used to Identify Critical Habitat.* Finally, as discussed in our response to *Comment* (14) above and for the reasons described in Consideration of Impacts Under Section 4(b)(2) of the Act, the lands owned by Forest City Kona have been excluded from this critical habitat designation.

(50) *Comment:* One commenter stated that a disproportionate amount of Federal land is being considered for designation when compared with the amount of Federal land in the State of Hawaii. The commenter stated the Federal Government owned approximately 321,400 ac (130,066 ha) of land in 2007, out of the total approximately 4,112,388 ac (1,664,224 ha) in the State, or approximately 7.82 percent, and said the percentage of Federal lands proposed as critical habitat for the three plant species involves approximately 2.11 percent of the total acreage.

Our Response: According to section 4(b)(2) of the Act, we designate critical habitat based on the best available scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact of specifying any particular area as critical habitat; land ownership is not one of the criteria we consider when identifying areas that meet the definition of critical habitat. See our response to *Comments* (12) and (18) above regarding our analysis and the information used to determine critical habitat boundaries in our proposed rule (77 FR 63928; October 17, 2012) and in this final rule (see also *Methods* and *Criteria Used to Identify Critical Habitat,* above).

(51) *Comment:* One commenter expressed opposition to the designation of critical habitat and instead supported focusing efforts and government resources on good species management and recovery planning: The keys to long-term protection and species recovery. The commenter stated that by working with community-based, natural resources nongovernmental organizations (such as the Aha Moku Council) and landowners (such as the QLT), plants and animals will benefit more than they would from a critical habitat designation.

Our Response: We recognize the importance of partnerships and voluntary conservation efforts for species protection and recovery. The Service welcomes information and contributions of place-based knowledge, traditional ecological knowledge, and community-based natural resource management and planning organizations such as the Aha Moku Council in efforts to conserve listed species. We notified the DLNR and other organizations that possess traditional ecological, place-based knowledge, such as the DHHL, the OHA, the QLT, the Kamehameha Schools, and The Hawaiian Environmental Alliance (KAHEA), during the multiple public comment periods on the proposed critical habitat designation. Ongoing partnerships with the DHHL, the Kamehameha Schools, and the QLT are described below (see ''Private or Other Non-Federal Conservation Plans or Agreements and Partnerships,'' above).

Comments on the Draft Economic Analysis

Comments by State Agencies

(52) *Comment:* Several commenters, including the State of Hawaii Department of Accounting and General Services (DAGS), HHFDC, OHA, DHHL, the County Planning Department, County Department of Parks and Recreation, the Office of the Mayor, the Office of the Prosecuting Attorney, and the State House of Representatives, commented that the DEA underestimates the incremental impacts of the proposed critical habitat designation. The commenters stated that the DEA does not take into consideration that the designation will result in the elimination of ongoing or planned projects in the Kona Urban Area, including Kaloko Makai, Kamakana Villages, the Judiciary project, Laiopua 2020, the QLT project, and other major development cores within Transit Oriented Development Areas, identified in the KCDP. The commenters provided information about expenditures that have been made thus far for these projects, and state that these expenditures, along with the value of any entitlements attached to the projects, will be lost as a result of critical habitat designation. In addition, they commented that the designation will result in the redistricting of critical habitat to the Conservation District due to HRS section 195D–5.1, resulting in the loss of projects and associated investments, entitlements, and other benefits.

Our Response: While consultations on planned projects may result in conservation recommendations such as those described in section 1.4 of the DEA and FEA, critical habitat does not preclude the implementation of these projects. With respect to the requirements of the Act, as described in section 1.4 of the DEA and FEA, the presence of the plants across the proposed designation may result in conservation recommendations for projects in these areas regardless of the critical habitat designation. Where the plants are present, projects or activities with a Federal nexus would be subject to section 7 consultation even absent critical habitat designation, and it is unlikely that critical habitat designation would change the outcome of these section 7 consultations. Only two projects are identified as likely to occur where plants are not present (as described in section 2.3 of the DEA) and, for reasons described in Consideration of Impacts Under Section 4(b)(2) of the Act, these lands are excluded from final critical habitat designation in this rule.

The DEA acknowledges, however, that critical habitat designation may affect the other State and local land management authorities, as well as the behavior of individual landowners or buyers. Additional discussion of these potential indirect impacts is included in the FEA (see section 2.6). While information limitations prevent the quantification of such impacts, the qualitative discussion is considered in evaluating impacts of the designation. Section 2.6 of the DEA and FEA also includes a discussion of the potential for critical habitat designation to result in redistricting to the Conservation district (for more information, please see our response to *Comment* (7) above).

(53) *Comment:* Several commenters, including DAGS, OHA, and the County Planning Department, commented that the DEA does not take into consideration the significant project delays that will result from the designation of critical habitat. One

commenter stated that the Hawaii State Legislature has delayed the funding for the Kona Judiciary project due to the uncertainty caused by the designation.

Our Response: Section 2.6 of the FEA includes a discussion of the potential for the critical habitat designation to result in impacts associated with time delays. We recognize that both public and private entities may experience time delays for projects and other activities due to requirements associated with the section 7 consultation process. However, it is highly uncertain to what degree the critical habitat designation might cause incremental project delays above and beyond those that would be experienced due to the listing of the species and other review processes that are not related to the Act (*e.g.,* environmental assessments, EISs, etc.). Due to the degree of uncertainty with respect to whether incremental project delays will occur and, if so, to what extent, the economic analysis does not quantify impacts associated with delays but instead describes the potential impacts qualitatively for the Service's consideration alongside the quantified impacts in this report. The FEA notes that should incremental project delays occur, incremental costs may include carrying costs on project-related debt due to the delays.

(54) *Comment:* Several commenters, including HDOA, DAGS, the County Planning Department, the Hawaii Cattlemen's Council, and the Land Use Research Foundation, commented that the DEA does not take into consideration the indirect effects of the designation, including perceptional effects and regulatory uncertainty that result in the loss of property value and that may deter investment in the designated area and beyond. The commenters stated that these effects will jeopardize planned projects and result in the loss of investors, developers, property value, market value, future economic benefits, project components, economic activities related to development, jobs, tax revenue, and other potential benefits.

Our Response: The DEA and FEA include a discussion of the potential for regulatory uncertainty and perception effects (see section 2.6 of the FEA). We acknowledge that public attitudes about the limits and costs that the Act may impose can cause real economic effects to the owners of property, regardless of whether such limits are actually imposed. Over time, as public understanding grows regarding the exact parameters of regulatory requirements placed on designated lands, particularly where no Federal nexus compelling section 7 consultation exists, the uncertainty and perception effects of critical habitat designation on properties may subside. Ideally, to estimate the amount by which land values may be diminished and the duration of this effect, we would conduct a retrospective study of existing critical habitat designations. We would use statistical analysis of land sales transactions to compare the value of similar parcels located within and outside of critical habitat. However, such primary research, which requires substantial collection and generation of new data, is beyond the scope of this effort. Furthermore, while some research has been conducted on the effect of the Act on perception and land use decisions, the results of these studies are not transferrable to this situation (see section 2.6 of the FEA for more information). As no studies exist that have evaluated the potential perceptional effect of critical habitat on land values in Hawaii, and because significant uncertainty exists regarding whether these perceptional impacts will occur and, if they do, the magnitude of the impacts, the FEA does not quantify these potential indirect effects, but instead presents this qualitative description of their potential for consideration alongside the quantified impacts in this report.

(55) *Comment:* The DHHL commented that by concluding that the critical habitat designation is unlikely to change the outcome of future section 7 consultations in occupied areas, the DEA essentially concludes that critical habitat has no effect on occupied areas and that, therefore, there is no benefit in designation. Further, DHHL stated that the DEA is fundamentally flawed in its gross underestimation of the economic impact to DHHL based on the cost of conservation measures (*i.e.,* offsets of 50 to 150 ac (20 to 61 ha) of land) that the FWS may require as a result of section 7 consultation on DHHL lands within Hawaii—Lowland Dry—Unit 33 of the proposed critical habitat designation, and that such requirements would severely affect its ability to fulfill its mission to native Hawaiians.

Our Response: Please see the second half of our response to *Comment* (8) regarding the benefits of designating critical habitat. The potential conservation offset described (of 50 to 150 ac (20 to 61 ha)) is relevant to this project regardless of whether critical habitat is designated, and the costs are accordingly not described as costs of the critical habitat rule in the DEA or FEA. In addition, for reasons described above in Consideration of Impacts Under Section 4(b)(2) of the Act, 315 ac (127 ha) of lands owned by DHHL in Unit 35 are excluded from the critical habitat designation in this final rule. The FEA has been updated to include additional information on the Kalaoa Homestead Development in Hawaii—Lowland Dry—Unit 33. These lands are also excluded from the critical habitat designation in this final rule (see Consideration of Impacts Under Section 4(b)(2) of the Act).

(56) *Comment:* The DOFAW expressed concern that the DEA does not mention the presence of cattle grazing in the proposed critical habitat units 10 and 31. It stated that the designation could affect the ability of permittees to receive Federal agricultural aid. In addition, DOFAW stated that the DEA does not mention the effects of critical habitat designation on public hunting opportunities in these areas, and that the designation could affect the ability of DOFAW to utilize Federal Aid in Wildlife Restoration grant funds to manage and implement hunting activities in the area. Lastly, the comment states that the costs of administrative effort to participate in section 7 consultations and other costs of the designation should be included in the costs of units 10 and 31 presented in the DEA.

Our Response: The FEA highlights the presence of grazing areas within proposed critical habitat Hawaii—Lowland Dry—Units 31 and 10. We expect that critical habitat would trigger only minor, if any, administrative costs of consultation with respect to these grazing activities. The only section 7 consultations that have occurred on grazing activities are associated with Federal assistance programs, such as the Natural Resource Conservation Service's (NRCS) Environmental Quality Incentive Program (EQIP) and Wildlife Habitat Incentive Program (WHIP) programs, which generally support ecologically beneficial projects that are unlikely to negatively affect critical habitat. As a result, we do not anticipate that the critical habitat designation would prevent permittees from receiving aid through the programs. The direct effects of the designation are most likely to be limited to additional administrative effort by the Federal agencies involved in the consultation as part of future section 7 consultations in the case that grazers work with Federal programs. In addition, the Service does not anticipate that the critical habitat designation will result in changes to the management of hunting activities in the case that the State receives Federal Aid program funding; as a result, the designation would generate only minor, if any, additional administrative costs of section 7 consultation. Furthermore,

both units are occupied by listed plant species, so a section 7 jeopardy analysis would already be required, and any conservation measures that resulted from such a consultation would likely be the same measures that would result from a section 7 consultation on critical habitat for these three plant species.

Public Comments

(57) *Comment:* Several commenters expressed concern that the designation of critical habitat in the Kona Urban Area would constrain community and infrastructure growth; would constrain development of affordable housing, job opportunities, and hospitals; and would result in the loss of development investments and entitlements. The commenters stated that the proposed rule fails to take in to account the adverse economic and social impacts of the critical habitat designation on the long-planned development activities along transit routes and the urban corridor as identified in the KDCP.

Our Response: The DEA assessed the potential impacts of the proposed critical habitat designation on the ongoing and planned projects in the Kona Urban Area (see our response to *Comment* (52), above). Subsequently, the Service, along with the County of Hawaii, DHHL, DLNR, and other stakeholders in Hawaii—Lowland Dry—Units 31, 33, 34, and 35, participated in a series of meetings facilitated by a professional mediator. The mediation process provided a forum to address species protection and recovery, and development on a regional scale. The Service continued to reach out to State, County, and private stakeholders to continue ongoing and develop new voluntary cooperative partnerships. In this rule, a total of 5,268 ac (2,132 ha) is excluded from critical habitat designation in proposed Hawaii—Lowland Dry—Units 31, 33, 34, and 35 (see Consideration of Impacts Under Section 4(b)(2) of the Act, above).

(58) *Comment:* One commenter stated that the DEA fails to consider independent economic analysis of the ''Socio-Economic impact of critical habitat designation for the Keahuolu Lands of the Queen Liliuokalani Trust (QLT)'' by John M. Knox & Associates (2013).

Our Response: Information provided in the analysis cited by the commenter (John M. Knox & Associates 2013) was included in the DEA (IEc 2013, pp. 2–11–2–13, 2–16–2–18). In the case that critical habitat designation results in changes to the planned development, the DEA identifies the several impacts that may result; these include impacts to the development's revenue-generating capacity, regional socio-economic benefits, and the need for alternative programs to provide the services to beneficiaries (IEc 2013, pp. 2–16–2–17). For reasons described above, these lands are excluded from the critical habitat designation in this final rule (see Consideration of Impacts Under Section 4(b)(2) of the Act).

(59) *Comment:* Commenters stated that no economic analysis was conducted on the proposed Kealakehe Regional Park and the Hawaii Health Systems Corporation's (HHSC) hospital project.

Our Response: The FEA included an assessment of the potential impacts of the proposed designation on the Kaloko Makai project, identified in Exhibit 2–4 of the FEA, which includes the HHSC's hospital project. The FEA clarifies that Kaloko Makai project is a mixed-use project that includes the hospital. In addition, the FEA included an assessment of the potential impacts of the proposed designation on the Kealakehe Regional Park Project; it is identified as the Regional Park Project in Exhibit 2–4. The FEA clarifies that the name of the project is the Kealakehe Regional Park Project. For the reasons described above (see Consideration of Impacts Under Section 4(b)(2) of the Act), Kaloko Entities land is excluded from this final critical habitat designation.

(60) *Comment:* One commenter stated that the DEA did not address the impacts of the critical habitat designation on the proposed Laiopua 2020 (L2020) project. The commenter stated that costs will include mitigating for adverse modification of critical habitat, which they guess will be on the order of tens of millions of dollars, and negotiating agreements with the Service, which they estimate at tens of thousands of dollars. For example, they commented that the cost through acquisition or foregone development for 50 to 150 ac (20 to 61 ha) is alone millions of dollars, with ongoing management expenses of at least $150,000, likely in perpetuity. The commenter also stated that the designation will have an immediate economic impact by delaying employment opportunities for numerous construction jobs. The commenter also stated that the DEA does not recognize the 52-ac (21–ac) project area as unoccupied.

Our Response: The L2020 project occurs on land (TMK parcels: (3)7–4–021:002, 003, and 023), leased from DHHL and within a portion of the DHHL Villages of Laiopua Project in Unit 35 (IEc 2013, pp. 2–6–2–9). We disagree with the commenter's statements that the L2020 project site is unoccupied. The lands owned by DHHL within Unit 35, including the L2020 project area, are considered occupied by one or more of the three species for which critical habitat is proposed (77 FR 63928, October 17, 2012; Gerrish and Leonard Bisel Associates LLC 2008, p. 2). As such, the DEA concludes that the project is unlikely to be affected by the designation beyond potential additional administrative effort as part of section 7 consultation. Section 2.6 of the FEA addresses the potential for other impacts generated by the designation, including time delays.

The Service and DHHL have worked in partnership to execute a memorandum of understanding (MOU) that is intended to benefit the three plant species and the lowland dry ecosystem. For the reasons described above (see Consideration of Impacts Under Section 4(b)(2) of the Act), lands owned by DHHL and leased to L2020 are excluded from the final critical habitat designation.

(61) *Comment:* The Kaupulehu Water Company stated that a significant portion of their current water source and transmission infrastructure (*i.e.,* wells and transmission lines), as well as proposed water service infrastructure, falls within a portion of Unit 31 being considered for exclusion. They stated that this infrastructure is essential to the continued operations of the Kaupulehu Water Company, and that the proposed designation will adversely affect their ability to complete new facilities in a timely manner, impede their ability to serve customers, increase the cost and expense of operating their water system, result in increased rates and charges to customers, and result in a significant economic impact to their small business. They stated that the DEA does not include these impacts.

Our Response: For the reasons described above (see Consideration of Impacts Under Section 4(b)(2) of the Act), areas that were being considered for exclusion in Unit 31 in the proposed rule are excluded from this final critical habitat designation.

(62) *Comment:* One commenter commented that the DEA notes that section 7 consultation is likely for the Kaloko Makai Project, but does not explain what would trigger that consultation (IEc 2013, p. A–4). The commenter added that consultation could be required for a number of reasons, including funding from U.S. Department of Housing and Urban Development or the U.S. Department of Veterans Affairs (commonplace for large scale residential housing projects). The commenter further stated that a single

section 7 consultation would, at a minimum, stall development. Additional consultations, as would be required over the life of this 30-year project, and the related mitigation measures would likely preclude development altogether. The commenter cited an average annual cost of $370.3 million estimated for mitigation expenditures required by habitat conservation plans (HCPs) and associated with incidental take permits (ITPs) pursuant to section 10 of the Act (ELI 2007, pp. 52–53).

Our Response: The DEA quantified costs associated with one future section 7 consultation for the Kaloko Makai project. To the extent that the development plans change over the life of the 30-year project, additional consultations or reinitiation of the initial consultation may occur. It is difficult to predict whether and how often additional review will occur absent information on whether and how plans for this land may evolve over time. However, we expect any effect of critical habitat designation on any future consultations would be similarly limited to additional administrative effort. As described in section 2.3 of the DEA, the project is located in an occupied area of the proposed designation, and consultation is therefore unlikely to result in additional conservation recommendations. For the reasons described above (see Consideration of Impacts Under Section 4(b)(2) of the Act), Kaloko Entities land is excluded from this final critical habitat designation.

(63) *Comment:* One commenter stated that the proposed rule fails to recognize the cultural and economic consequences of the critical habitat designation on the lands owned by a native Hawaiian trust (QLT), contrary to the purpose of the regulatory flexibility analysis. Two commenters representing Kamakana Villages (Forest City Kona land) and Kaloko Makai (Koloko Entities land) stated that the Service did not perform an adequate analysis of the impacts on small businesses, as required by law.

Our Response: Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.,* as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency must 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 (small businesses, small organizations, and small government jurisdictions) directly regulated by the rulemaking. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to insure that any action authorized, funded, or carried by the agency is not likely to destroy or adversely modify critical habitat. Only Federal action agencies are subject to a regulatory requirement (*i.e.,* to avoid adverse modification) as the result of the designation. Because Federal agencies are not small entities, the Service certified that the proposed critical habitat rule would not have a significant economic impact on a substantial number of small entities.

We acknowledge, however, that in some cases, third-party proponents of the action subject to permitting or funding may participate in a section 7 consultation and thus may be indirectly affected. Therefore, the focus of the DEA's threshold analysis of impacts to small entities pursuant to the RFA, as amended by the SBREFA of 1996, is to identify the third-party entities likely to be involved and potentially indirectly affected by the future section 7 consultations on development and transportation projects likely to occur within proposed critical habitat (IEc 2013, chapter 2, p. A–4). As described in section 2.5 of the DEA, the QLT project is unlikely to have a Federal nexus that would lead to section 7 consultation with the Service. In addition, for the reasons described above (see Consideration of Impacts Under Section 4(b)(2) of the Act), the lands owned by QLT, Forest City Kona, and Koloko Entities are excluded from this final critical habitat designation.

(64) *Comment:* Two commenters stated that the DEA's analysis of only the incremental impacts resulting from critical habitat designation is flawed and does not comport with the law. One commenter stated that because the DEA uses a review of consultation records conducted in 2002 to estimate consultation costs, the analysis is not based on the best available cost information.

Our Response: While the research undertaken to inform the estimates of administrative effort for consultations was conducted in 2002, the cost model relies on current wage rate information and continued communication with the Service and participating agencies to groundtruth the estimates. The research undertaken in 2002 focused on the range of hours spent in different types of consultation. However, the costs assigned to this effort reference current hourly wage rates for participating agency personnel.

(65) *Comment:* Two commenters stated that the Service must prepare a National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) analysis on the proposed rule to ensure that we make an informed decision regarding the impact of critical habitat designation on the environment.

Our Response: It is the Service's position that, outside the jurisdiction of the Circuit Court of the United States for the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA in connection with designating critical habitat under the Act. This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)). The designation of critical habitat for the three Hawaii Island species is entirely within the Ninth Circuit jurisdiction; therefore, we did not prepare an environmental analysis in connection with this critical habitat designation.

(66) *Comment:* One commenter expressed support for the examples of conservation recommendations to offset habitat loss (*i.e.,* acquire, restore, and manage habitat in perpetuity to compensate habitat disturbed as a result of a project or activity), citing those identified by the County of Hawaii Planning Department where the presence of listed species resulted in conservation requirements including: (1) Setting aside land for conservation; (2) establishing buffer zones around individual species; (3) requiring that landscaping be done using native plant species; and (4) relocating roadways or buildings to avoid species (IEc 2013, p. 2–16).

Our Response: We support the conservation requirements identified by the County and look forward to continuing to work together with the County to conserve endangered species and their habitats.

(67) *Comment:* One commenter stated that the baseline assumptions of the Service's economic analysis are flawed. The commenter stated that section 9 and 10 of the Act are irrelevant on non-Federal land that contains no endangered species of fish or wildlife. The commenter argues that the Service dismisses section 7 costs as part of the baseline and, therefore, is conflating the jeopardy prohibition with the prohibition against adverse modification of critical habitat, in disregard of the plain language in 16 U.S.C. 1536.

Our Response: Section 7(a)(2) of the Act states that ''[e]ach Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued

existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species . . .'' If jeopardy or adverse modification is determined, reasonable and prudent alternatives are recommended. These recommendations focus on avoiding jeopardy and adverse modification by creating measures to restore and conserve temporarily disturbed areas and incorporating those measures into project plans (IEc 2013, p. E–8). Project modifications recommended to avoid jeopardy are similar to those recommended to avoid adverse modification of habitat, and include such modifications as ''avoid destruction of individual listed plants,'' ''control feral ungulates,'' and ''propagate and outplant'' (IEc 2013, p. E–14). However, the DEA and FEA recognize that the analyses for jeopardy and those for adverse modification can differ. The economic impacts of conservation measures undertaken to avoid jeopardy to the species are considered baseline impacts in the DEA and FEA, as they are not generated by the critical habitat designation. Baseline conservation measures and associated economic impacts are not affected by decisions related to critical habitat designation for the species (IEc 2013, p. 1–4).

(68) *Comment:* A commenter claimed that the Service based its analysis on insufficient information and limited consultation, and that information relating to the economic impact on all affected parties, particularly property and business owners in the designation area be solicited, reviewed, and considered.

Our Response: The DEA was prepared for the Service by Industrial Economics, Incorporated (IEc). The primary sources of information for the DEA are communications with, and data provided by, personnel from the Service, State and local government agencies, private landowners, and other stakeholders. Specifically, in developing the DEA and finalizing the FEA, IEc referenced publicly available information, including relevant public comments submitted on the proposed rule (77 FR 63928; October 17, 2012) and the DEA, and agency planning documents (*e.g.,* development plans). A complete list of references is provided in the FEA (IEc 2016, pp. R–1—R–4).

(69) *Comment:* Under the DEA, it is not clear if the Act and section 7 limitations would be triggered by registering lots for sale under the Interstate Land Sales Full Disclosure Act, 15 U.S.C. 1701 *et seq.*

Our Response: The designation of critical habitat establishes an affirmative obligation for Federal agencies to insure their activities do not destroy or adversely modify that critical habitat in accordance with the requirements of section 7(a)(2) of the Act. In this case, the registration by a non-Federal entity of lots for sale in accordance with the Interstate Land Sales Full Disclosure Act does not in and of itself constitute an affirmative Federal agency action requiring compliance with section 7 of the Act. We are unaware of any section 7 consultations occurring in Hawaii involving the U.S. Department of Housing and Urban Development (HUD) and the Interstate Land Sales Full Disclosure Act. We have completed numerous consultations with HUD involving grants or other funding actions, but none that we know of was triggered by the Interstate Land Sales Full Disclosure Act.

(70) *Comment:* One commenter noted that the economic impacts of the proposed critical habitat designation have not been thoroughly vetted. The proposed designation includes at least 6,364 ac (257 ha) of privately owned lands, and the commenter asserted the proposed designation will have a devastating impact on the value and use of those lands. The commenter also requested an extension of time to provide comments on the proposed rule and DEA.

Our Response: In our April 30, 2013 (78 FR 25243), publication, we announced the availability of the DEA and reopened for 30 days (ending May 30, 2013) the comment period on our October 17, 2012, combined listing and critical habitat proposal (77 FR 63928). In the April 30, 2013, publication, we also announced the public information meeting and public hearing held on May 15, 2013, in Kailua-Kona, Hawaii. The DEA presented an analysis of the potential economic impacts associated with the proposed critical habitat designation for the three species.

Shortly after publishing our April 30, 2013, document, we sent letters to all of the affected landowners that we were able to identify. In that letter we provided information on the proposed rule published on October 17, 2012 (77 FR 63928), the DEA, and the public hearing held on May 15, 2013, in Kailua-Kona, Hawaii. In addition, we contacted all appropriate Federal and State agencies, county governments, elected officials, scientific organizations, and other interested parties and invited them to comment.

On July 2, 2013 (78 FR 39698), we again reopened the public comment period on the proposed critical habitat designation and DEA for another 60 days, ending September 3, 2013, and then on May 20, 2016 (81 FR 31900), we reopened the comment period for an additional 15 days, ending on June 6, 2016. In this final rule, we have fully considered and included responses to all substantive comments related to the DEA and the information in the FEA.

(71) *Comment:* Several commenters expressed concern that the Ane Keohokalole Highway extension project will be negatively affected by the critical habitat designation. They state that the designation may result in project delays or prevent the project from occurring altogether.

Our Response: In the DEA and FEA, the Ane Keohokalole Highway project (Phase 3) was identified as a future project occurring within occupied habitat in proposed critical habitat Unit 34, on lands owned by Kaloko Properties LLC and the State of Hawaii. Because areas occupied by *Bidens micrantha* ssp. *ctenophylla* and *Mezoneuron kavaiense* and owned by Kaloko Properties LLC (now Kaloko Entities LLC) are being excluded from the final critical habitat designation, the only critical habitat the Ane Keohokalole Highway project will potentially impact is unoccupied habitat on lands owned by State of Hawaii. Therefore, we examined the potential effects of the designation of this now-unoccupied critical habitat unit (because the occupied portion is excluded). This project is likely to have a Federal nexus that would lead to a section 7 consultation with the Service in the event the State and/or county receives Federal funding from the U.S. Department of Transportation, FHWA. A section 7 consultation for this project would include an analysis of whether effects of the project would likely jeopardize *Bidens micrantha* ssp. *ctenophylla,* which is present on the excluded lands and in the likely path of the highway project, and also whether the project would destroy or adversely modify the unoccupied critical habitat on State lands. Because FHWA would already be consulting on the presence of the species on Koloko Entities' land, the section 7 costs associated with this project in critical habitat in Unit 34 would be limited to the incremental costs of the additional adverse modification analysis and any resulting project modification recommendations. The project may potentially impact some of the 268 ac (109 ha) of critical habitat in Unit 34, but we have no information on specific acreage in the critical habitat unit that would actually be affected by the project. In addition, there is significant uncertainty regarding

effects attributable to critical habitat because potential conservation measures would likely be developed for the project as a whole. However, we acknowledge that the Service may recommend measures to avoid or minimize habitat destruction in the critical habitat unit including fencing to exclude ungulates, nonnative species control, out-planting of native species, and other related conservation activities, and/or mitigation in the form of habitat protection. Based on our Incremental Effects Memorandum (IEc 2016, Appendix E, p. 8), we estimate that the requested mitigation may be at a ratio of 2 or more acres preserved for every one acre impacted (depending on the severity of impact, type/location/condition/rarity of habitat impacted, and the amount of habitat needed for recovery of the species). Therefore, while we cannot quantify the impacts, there may be some incremental economic effects directly attributable to the designation of this unoccupied critical habitat unit.

Refer to *Comments* (52) and (53), above, and chapter 2 of the FEA for a discussion of potential indirect effects on projects such as this, including the possibility for delay. Since FHWA will likely need to consult under section 7 of the Act due to potential impacts of the project on the occupied habitat nearby, regardless of whether or not this unoccupied unit is designated, any delays due to the consultation process may not be solely attributable to critical habitat designation.

Finally, with regard to the commenters' concerns that designation of critical habitat may prevent the highway extension from occurring, we cannot predict the outcome of the consultation process; however, if the Service concludes that the project is likely to result in the destruction or adverse modification of critical habitat, as those terms are used in section 7, it must suggest reasonable and prudent alternatives which the Secretary believes would not violate section 7(a)(2) of the Act. If there are no reasonable and prudent alternatives and other criteria are met, the Act provides for an exemption process. See 16 U.S.C. 1536(e)–(p).

(72) *Comment:* One commenter, on behalf of the Waikoloa Village Association (WVA), claimed that the WVA is a small entity negatively impacted by the proposed designation, and that the proposed rule will have a significant economic impact on the WVA. This impact must be considered in a regulatory flexibility analysis prepared pursuant to the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.* as amended by the SBREFA of 1996).

Our Response: See our response to *Comment* (30) concerning our considerations under the RFA. We acknowledge, however, that in some cases, third-party proponents of the action subject to permitting or funding may participate in a section 7 consultation and thus may be indirectly affected. For these consultations, the DEA estimated that third parties incur approximately $900 in administrative costs to participate in the consultation (IEc 2013, Appendix B, Exhibit B–1). For projects located in occupied areas of the proposed critical habitat designation, such as the WVA, incremental impacts are likely limited to these administrative costs for participation in the consultations (IEc 2013, chapter 1). In addition, for the reasons described above (see Consideration of Impacts Under Section 4(b)(2) of the Act), the lands owned by WVA are excluded from the final critical habitat designation.

(73) *Comment:* On behalf of the Hawaii Judiciary, DAGS requested that the Service exempt or exclude Unit 35 in its entirety based on the following: (a) Timely completion of the new Kona Judiciary complex will result in greater social and economic benefits than the assumed social and economic benefits associated with the critical habitat designation; (b) critical habitat designation will result in significant adverse impacts on ongoing and future developments due to the need for additional consultation at the Federal and State level, resulting in project delays and uncertainties; and (c) the Service has not provided any scientific documentation or justifications to substantiate that exclusion of Unit 35 will result in the extinction of the endangered species.

Our Response: Section 4(b)(2) of the Act states that the Secretary must designate or make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impacts of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless 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. Any such exclusion is at the discretion of the Secretary; exclusion of any area is not a requirement of the Act. The entirety of Unit 35 is excluded from critical habitat designation in this final rule due in part to conservation partnerships established with each separate landowner in the unit; these partnerships and our analysis of the benefits of inclusion and exclusion are described above (see Consideration of Impacts Under Section 4(b)(2) of the Act).

Required Determinations

Regulatory Planning and Review (Executive Orders 12866, 13563 and 13771)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The OIRA has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Executive Order 13771—Reducing Regulation and Controlling Regulatory Costs

This rule is not an Executive Order (E.O.) 13771 (82 FR 9339, February 3, 2017) regulatory action because this rule is not significant under E.O. 12866.

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

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.,* as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA; 5 U.S.C. 801 *et seq.*) 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 RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. In this final rule, we are certifying that this critical habitat designation for the three species will not have a significant economic impact on a substantial number of small entities. The following discussion explains our rationale.

According to the Small Business Administration, small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts to these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term ''significant economic impact'' is meant to apply to a typical small business firm's business operations.

The Service's current understanding of the requirements under the RFA, as amended, and following recent court decisions, is that Federal agencies are required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Consequently, only Federal action agencies will be directly regulated by this designation. There is no requirement under RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities are directly regulated by this rulemaking, the Service certifies that this final critical habitat designation will not have a significant economic impact on a substantial number of small entities.

During the development of this final rule, we reviewed and evaluated all information submitted during the comment periods that may pertain to our consideration of the possible incremental impacts of this critical habitat designation. Based on this information, we affirm our certification that this final critical habitat designation will not have significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute ''a significant adverse effect'' when compared to not taking the regulatory action under consideration. Our economic analysis finds that none of these criteria is relevant to this analysis. Thus, based on information in the economic analysis, energy-related impacts associated with conservation activities for the three species within critical habitat are not expected. As such, the designation of critical habitat is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

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

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

(1) 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, or 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; Aid to Families with Dependent Children 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 onto State governments.

(2) The designation of critical habitat imposes no obligation on State or local governments. By definition, Federal agencies are not considered small entities, although the activities they fund or permit may be proposed or carried out by small entities. Consequently, we do not believe that the critical habitat designation will significantly or uniquely affect small

government entities. As such, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for each of the three species in a takings implications assessment. The Act only regulates Federal actions and does not regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat does not affect landowner actions that do not require Federal funding or permits. A takings implications assessment has been completed and concludes that this designation of critical habitat for the three species does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this rule does not have significant Federalism effects. A federalism impact summary statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this critical habitat designation with appropriate State resource agencies in Hawaii. We received comments from Hawaii elected officials; Hawaii Department of Accounting and General Services; Hawaii Department of Agriculture; Hawaii Department of Business, Economic Development and Tourism, -Hawaii Housing Finance and Development Corporation; Hawaii Department of Hawaiian Home Lands; Hawaii Department of Education; Hawaii Division of Forestry and Wildlife; Office of Hawaiian Affairs; Hawaii County Office of the Prosecuting Attorney; Hawaii County Planning Department; and the University of Hawaii. We addressed these comments above, under Summary of Comments and Recommendations. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the rule does not have substantial direct effects either on the States, or on the relationship between national government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical and biological features of the habitat necessary to the conservation of the species are specifically identified. This information may assist local governments in long-range planning.

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) of the Act would be required. 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.

Civil Justice Reform—Executive Order 12988

In accordance with E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the three species, this rule identifies the elements of physical and biological features essential to the conservation of the three species. The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

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 of 1995 (44 U.S.C. 3501 *et seq.*). 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 (42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the national Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. *See Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996).

References Cited

A complete list of references cited in this rule is available on the internet at *http://www.regulations.gov* and upon request from the Pacific Islands Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**, above).

Authors

The primary authors of this document are the staff members of the Pacific Islands Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

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

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

■ 2. Amend § 17.99:
■ a. By revising paragraphs (k) introductory text and (k)(1);
■ b. By redesignating paragraphs (k)(40) through (52) as paragraphs (k)(41) through (53);
■ c. By adding new paragraph (k)(40);
■ d. By further redesignating newly designated paragraphs (k)(46) through (53) as paragraphs (k)(48) through (55);
■ e. By adding new paragraphs (k)(46) and (47);
■ f. By revising the map in paragraph (k)(97)(ii);
■ g. By revising paragraphs (k)(100), (101), and (102);
■ h. By redesignating paragraphs (k)(104) and (105) as paragraphs (k)(115) and (116);
■ i. By adding new paragraphs (k)(104) and (105) and paragraphs (k)(106) through (114);

■ j. By revising newly designated paragraph (k)(115); and

■ k. In paragraph (l)(1):

■ i. By adding entries for ''Family Asteraceae: *Bidens micrantha* ssp. *ctenophylla*'' and ''Family Fabaceae: *Mezoneuron kavaiense*'' in alphabetical order by family name; and

■ ii. By revising the entry for ''Family Violaceae: *Isodendrion pyrifolium* (wahine noho kula)''.

The additions and revisions read as follows:

§ 17.99 Critical habitat; plants on the Hawaiian Islands.

* * * * *

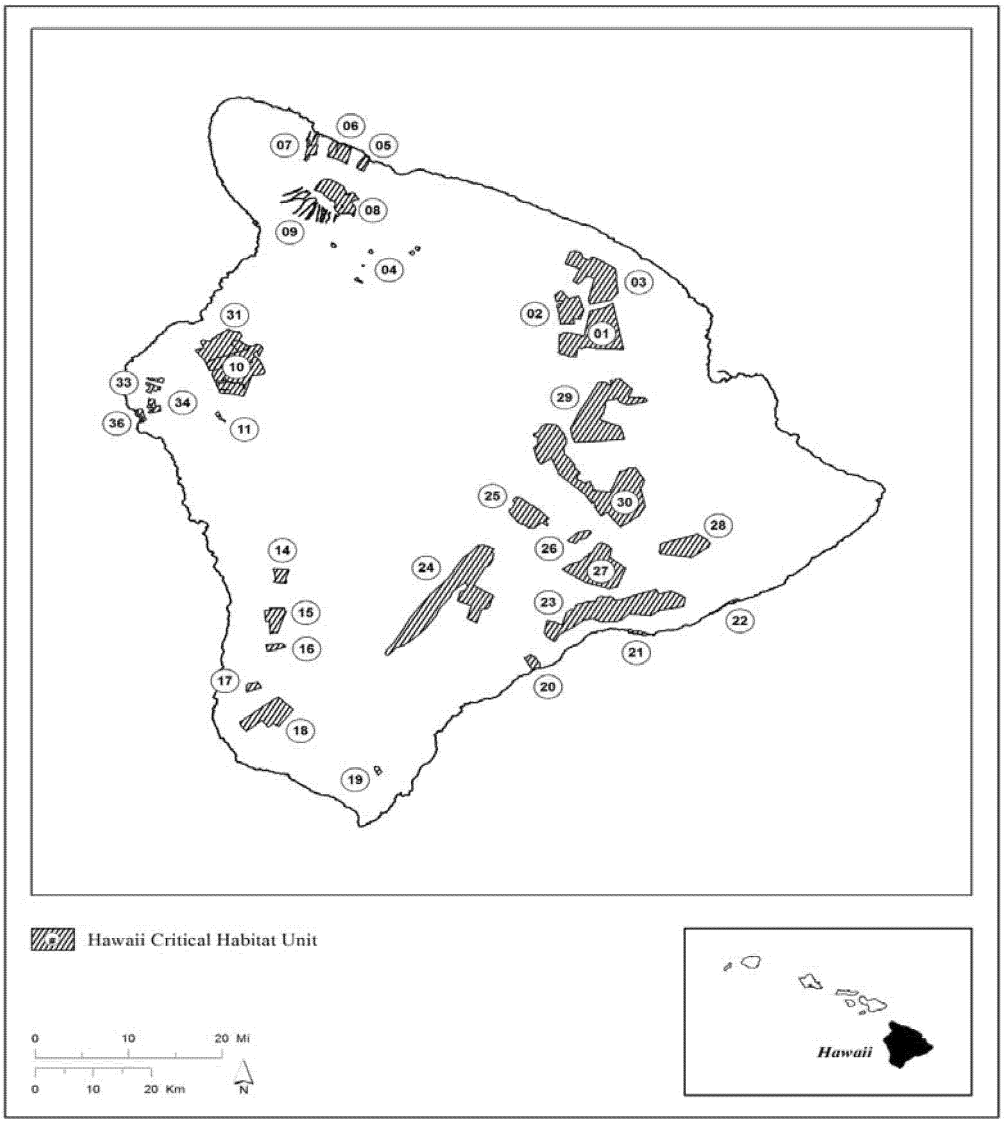
(k) *Maps and critical habitat unit descriptions for the island of Hawaii, HI.* Critical habitat units are described below. Coordinates are in UTM Zone 4 with units in meters using North American Datum of 1983 (NAD83). The following map shows the general locations of the critical habitat units designated on the island of Hawaii. Existing manmade features and structures, such as buildings, roads, railroads, airports, runways, utility facilities and infrastructure and their designated and maintained rights-of-way, other paved areas, lawns, and other urban landscaped areas are not included in the critical habitat designation. Federal actions limited to those areas, therefore, would not trigger a consultation under section 7 of the Act unless they may affect the species or physical or biological features in adjacent critical habitat.

(1)*Note:* Map 1, Index map, follows:

BILLING CODE 4333–15–P

Map 1

Hawaii Critical Habitat–Island Index Map



BILLING CODE 4333–15–C

* * * * *

(40) Hawaii 10—*Bidens micrantha* ssp. *ctenophylla*—a (1,179 ha; 2,914 ac).

(i) This unit is also critical habitat for Hawaii 10—*Isodendrion pyrifolium*—a and Hawaii 10—*Mezoneuron kavaiense*—a (see paragraphs (k)(46) and (47), respectively, of this section).

(ii) *Note:* Map 39a follows:

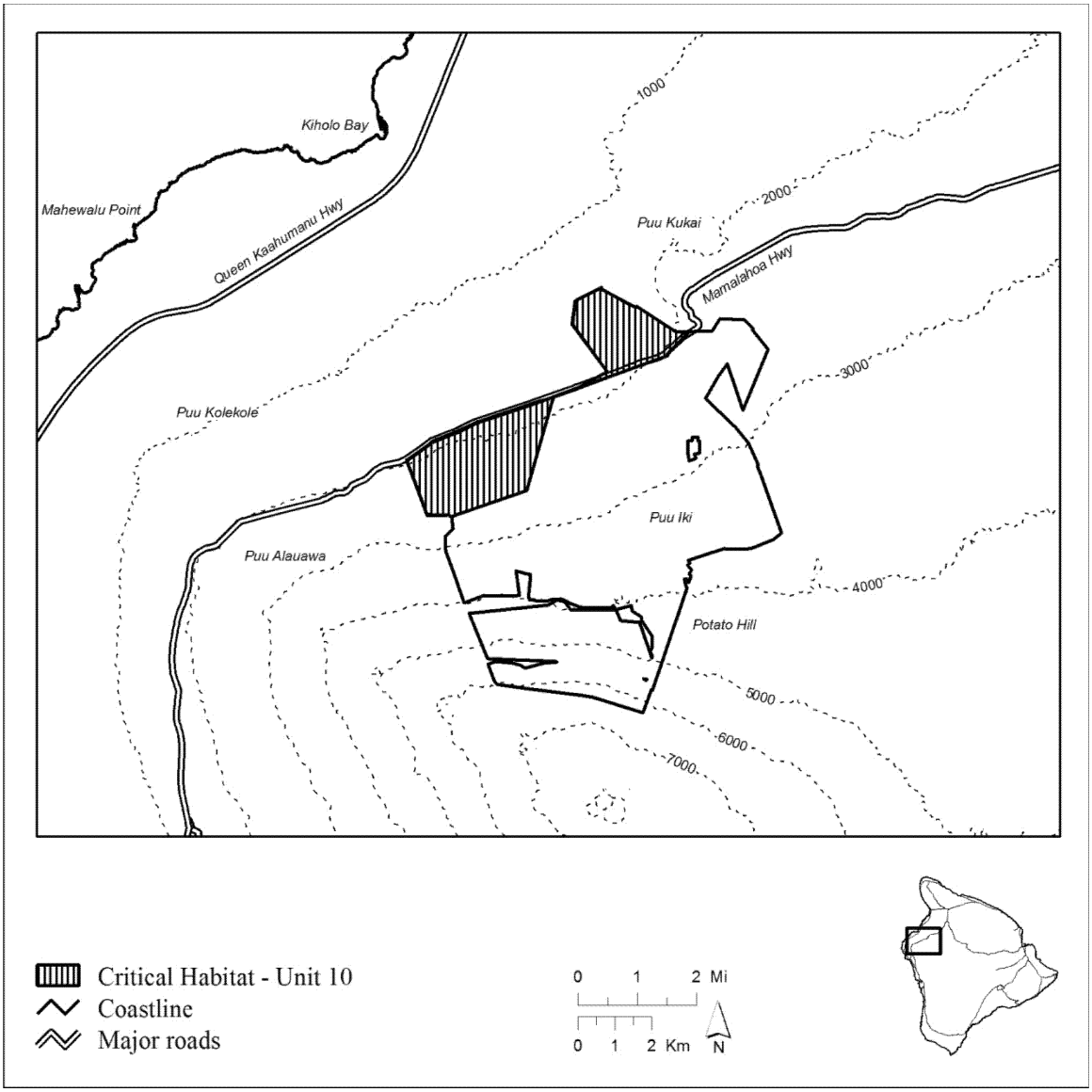
BILLING CODE 4333–15–P

MAP 39a

Hawaii 10–*Bidens micrantha* ssp. *ctenophylla*–a, Hawaii 10–*Isodendrion pyrifolium*–a,

Hawaii 10–*Mezoneuron kavaiense*–a

Lowland Dry



BILLING CODE 4333–15–C

* * * * *

(46) Hawaii 10—*Isodendrion pyrifolium*—a (1,179 ha; 2,914 ac). See paragraph (k)(40)(ii) of this section for the map of this unit.

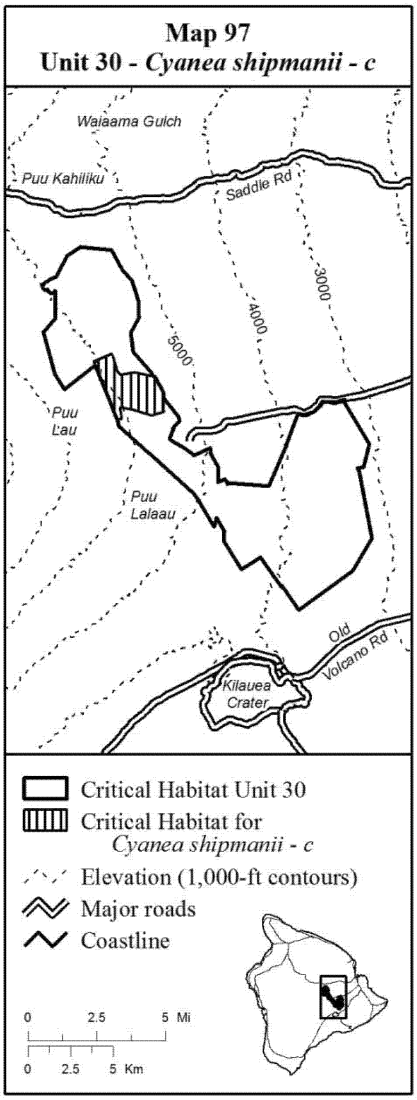
(47) Hawaii 10—*Mezoneuron kavaiense*—a (1,179 ha; 2,914 ac). See paragraph (k)(40)(ii) of this section for the map of this unit.

* * * * *

(97) * * *

(ii) *Note:* Map 97 follows:

BILLING CODE 4333–15–P



BILLING CODE 4333–15–C

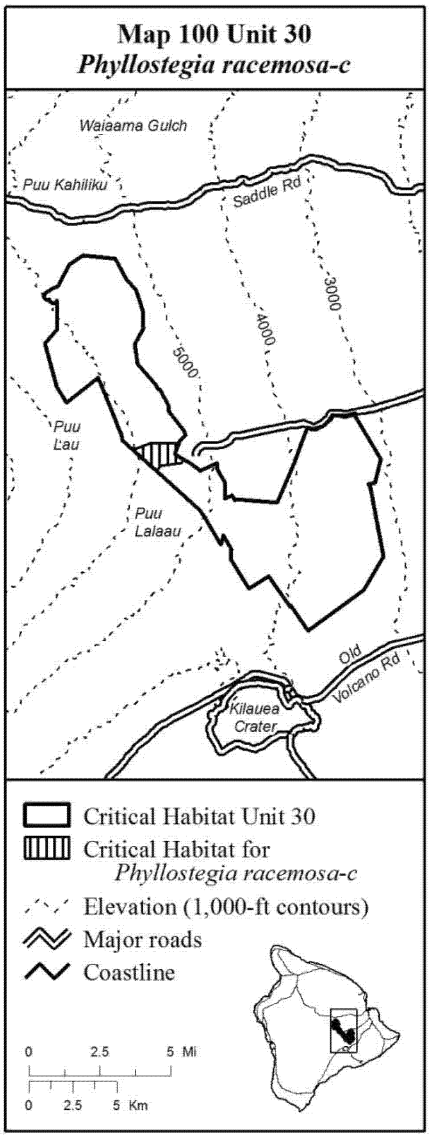
* * * * *

(100) Hawaii 30—*Phyllostegia racemosa*—c (267 ha, 659 ac).

(i) [Reserved]

(ii) *Note:* Map 100 follows:

BILLING CODE 4333–15–P



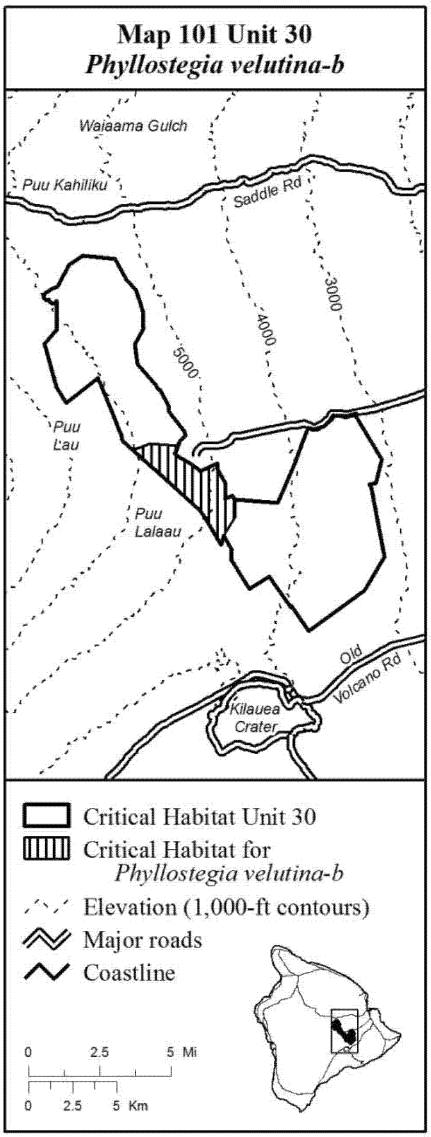
BILLING CODE 4333–15–C

(101) Hawaii 30—*Phyllostegia velutina*—b (1,180 ha, 2,916 ac).

(i) [Reserved]

(ii) *Note:* Map 101 follows:

BILLING CODE 4333–15–P



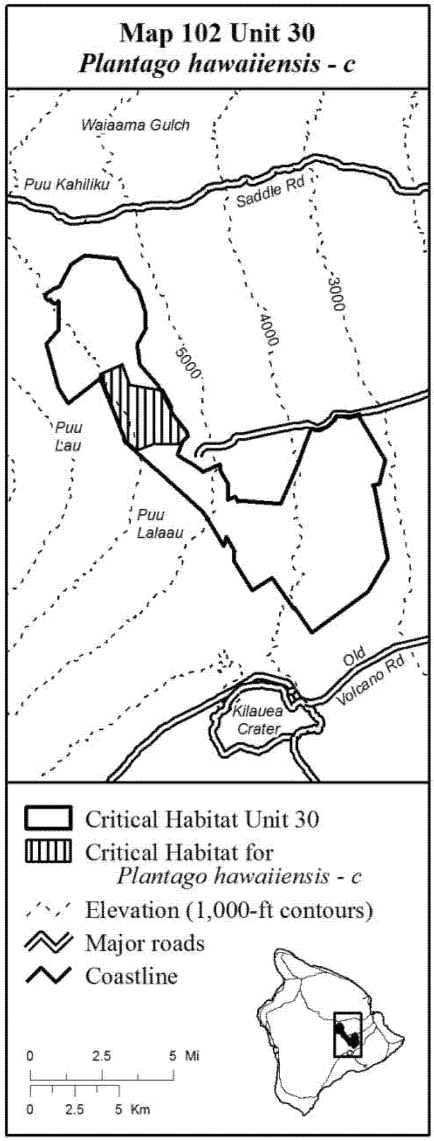
BILLING CODE 4333–15–C

(102) Hawaii 30—*Plantago hawaiensis*—c (1,219 ha, 3,012 ac).

(i) [Reserved]

(ii) *Note:* Map 102 follows:

BILLING CODE 4333–15–P



BILLING CODE 4333–15–C

* * * * *

(104) Hawaii 31—*Bidens micrantha* ssp. *ctenophylla*—b (2,860 ha; 7,066 ac).

(i) This unit is also critical habitat for Hawaii 31—*Isodendrion pyrifolium*—b and Hawaii 31—*Mezoneuron kavaiense*—b (see paragraphs (k)(105) and (106), respectively, of this section).

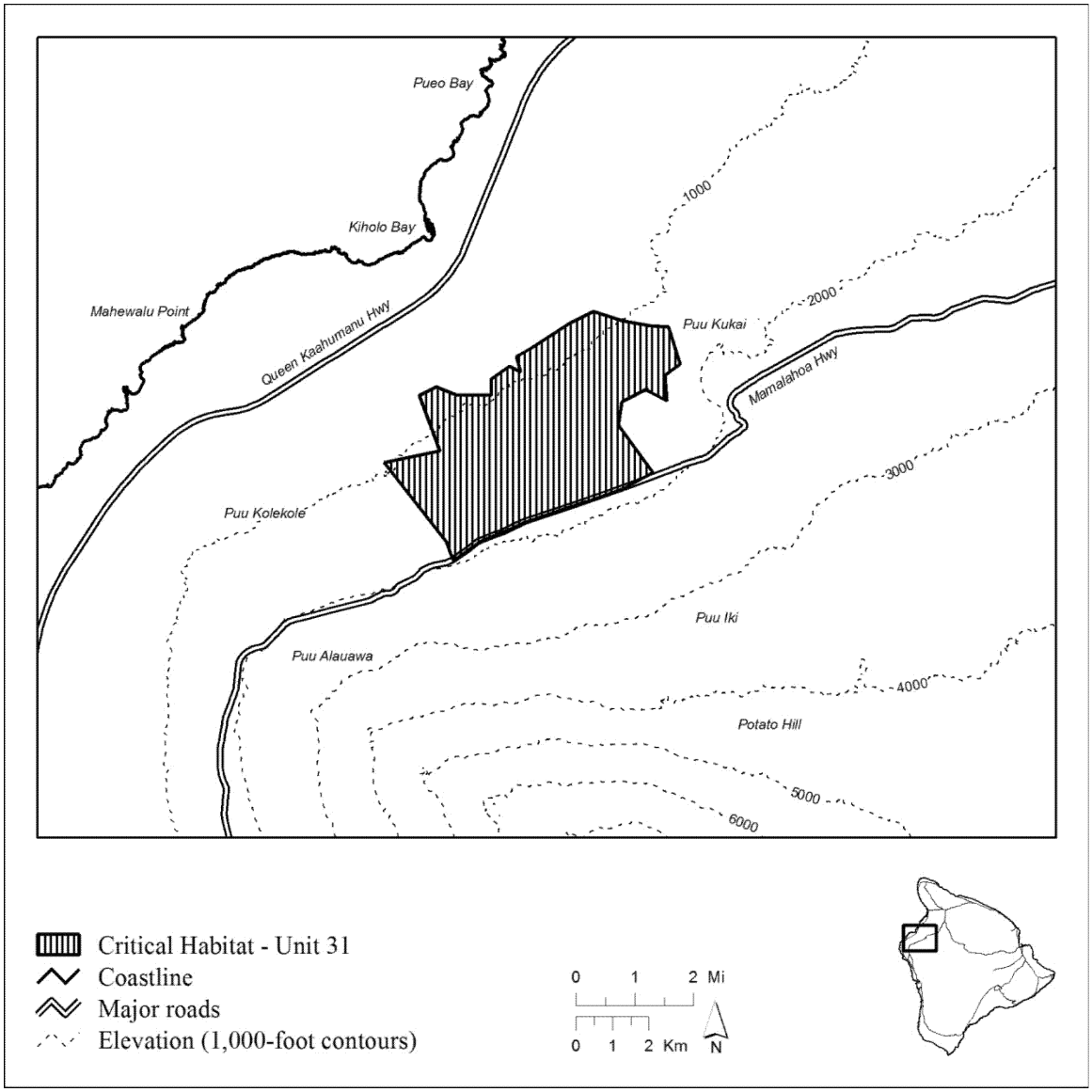
(ii) *Note:* Map 104 follows:

BILLING CODE 4333–15–P

Map 104

Hawaii 31–*Bidens micrantha* ssp. *ctenophylla*–b, Hawaii 31– *Isodendrion pyrifolium*–b, Hawaii 31–*Mezoneuron kavaiense*–b

Lowland Dry



BILLING CODE 4333–15–C

(105) Hawaii 31—*Isodendrion pyrifolium*—b (2,860 ha; 7,066 ac). See paragraph (k)(104)(ii) of this section for the map of this unit.

(106) Hawaii 31—*Mezoneuron kavaiense*—b (2,860 ha; 7,066 ac). See paragraph (k)(104)(ii) of this section for the map of this unit.

(107) Hawaii 33—*Bidens micrantha* ssp. *ctenophylla*—d (400 ha; 989 ac).

(i) This unit is also critical habitat for Hawaii 33–*Isodendrion pyrifolium*—d and Hawaii 33—*Mezoneuron kavaiense*—d (see paragraphs (k)(108) and (109), respectively, of this section).

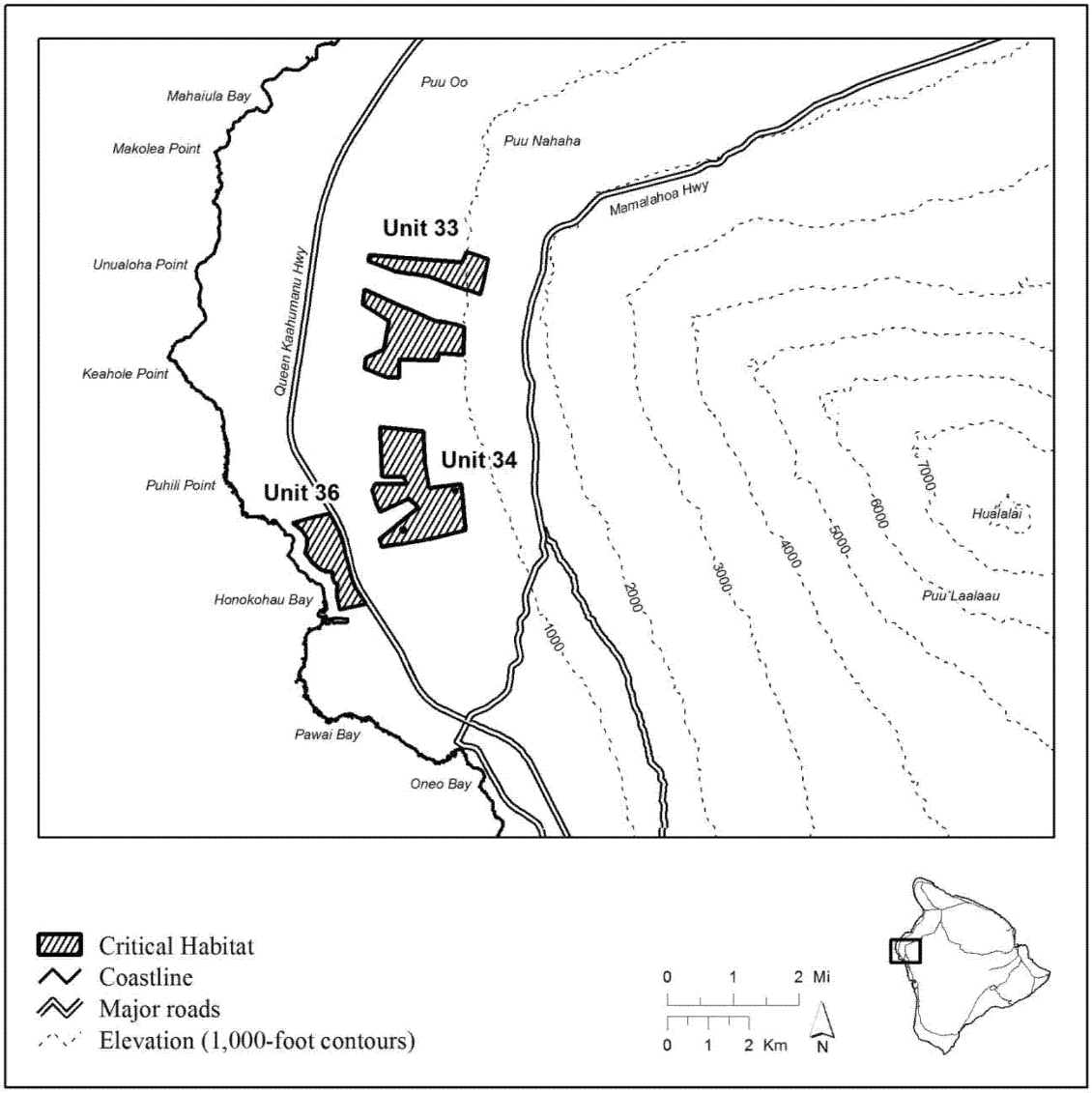
(ii) *Note:* Map 105 follows:

BILLING CODE 4333–15–P

Map 105

Hawaii 33–*Bidens micrantha* ssp. *ctenophylla*–d, Hawaii 33–*Isodendrion pyrifolium*–d, Hawaii 33–*Mezoneuron kavaiense*–d; Hawaii 34–*Bidens micrantha* ssp. *ctenophylla*–e, Hawaii 34–*Isodendrion pyrifolium*–e, Hawaii 34–*Mezoneuron kavaiense*–e; Hawaii 36–*Bidens micrantha* ssp. *ctenophylla*–g, Hawaii 36–*Isodendrion pyrifolium*–g

Lowland Dry



BILLING CODE 4333–15–C

(108) Hawaii 33—*Isodendrion pyrifolium*—d (400 ha; 989 ac). See paragraph (k)(107)(ii) of this section for the map of this unit.

(109) Hawaii 33—*Mezoneuron kavaiense*—d (400 ha; 989 ac). See paragraph (k)(107)(ii) of this section for the map of this unit.

(110) Hawaii 34—*Bidens micrantha* ssp. *ctenophylla*—e (371 ha; 917 ac).

(i) This unit is also critical habitat for Hawaii 34—*Isodendrion pyrifolium*—e and Hawaii 34—*Mezoneuron*

kavaiense— e (see paragraphs (k)(111) and (112), respectively, of this section).

(ii) See paragraph (k)(107)(ii) of this section for the map of this unit.

(111) Hawaii 34—*Isodendrion pyrifolium*—e (371 ha; 917 ac). See paragraph (k)(107)(ii) of this section for the map of this unit.

(112) Hawaii 34—*Mezoneuron kavaiense*—e (371 ha; 917 ac). See paragraph (k)(107)(ii) of this section for the map of this unit.

(113) Hawaii 36—*Bidens micrantha* ssp. *ctenophylla*—g (163 ha; 402 ac).

(i) This unit is also critical habitat for Hawaii 36—*Isodendrion pyrifolium*—g (see paragraph (k)(114) of this section).

(ii) See paragraph (k)(107)(ii) of this section for the map of this unit.

(114) Hawaii 36—*Isodendrion pyrifolium*—g (163 ha; 402 ac). See paragraph (k)(107)(ii) of this section for the map of this unit.

(115) Table of Protected Species Within Each Critical Habitat Unit for the Island of Hawaii.

Unit name	Species occupied	Species unoccupied
Hawaii 1—*Clermontia lindseyana*—a	*Clermontia lindseyana*	*Clermontia lindseyana.*
Hawaii 1—*Clermontia peleana*—a	*Clermontia peleana*	*Clermontia peleana.*
Hawaii 1—*Clermontia pyrularia*—a		*Clermontia pyrularia.*
Hawaii 1—*Cyanea shipmanii*—a	*Cyanea shipmanii*	*Cyanea shipmanii.*
Hawaii 1—*Phyllostegia racemosa*—a	*Phyllostegia racemosa*	*Phyllostegia racemosa.*
Hawaii 2—*Clermontia lindseyana*—b	*Clermontia lindseyana*	*Clermontia lindseyana.*
Hawaii 2—*Clermontia pyrularia*—b	*Clermontia pyrularia*	*Clermontia pyrularia.*
Hawaii 2—*Phyllostegia racemosa*—b	*Phyllostegia racemosa*	*Phyllostegia racemosa.*
Hawaii 3—*Clermontia peleana*—b	*Clermontia peleana*	*Clermontia peleana.*
Hawaii 3—*Cyanea platyphylla*—a	*Cyanea platyphylla*	*Cyanea platyphylla.*
Hawaii 3—*Cyrtandra giffardii*—a	*Cyrtandra giffardii*	*Cyrtandra giffardii.*
Hawaii 3—*Cyrtandra tintinnabula*—a	*Cyrtandra tintinnabula*	*Cyrtandra tintinnabula.*
Hawaii 3—*Phyllostegia warshaueri*—a	*Phyllostegia warshaueri*	*Phyllostegia warshaueri.*
Hawaii 4—*Isodendrion hosakae*—a		*Isodendrion hosakae.*
Hawaii 4—*Isodendrion hosakae*—b		*Isodendrion hosakae.*
Hawaii 4—*Isodendrion hosakae*—c		*Isodendrion hosakae.*
Hawaii 4—*Isodendrion hosakae*—d		*Isodendrion hosakae.*
Hawaii 4—*Isodendrion hosakae*—e		*Isodendrion hosakae.*
Hawaii 4—*Isodendrion hosakae*—f	*Isodendrion hosakae*	*Isodendrion hosakae.*
Hawaii 4—*Vigna o-wahuensis*—a		*Vigna o-wahuensis.*
Hawaii 4—*Vigna o-wahuensis*—b		*Vigna o-wahuensis.*
Hawaii 4—*Vigna o-wahuensis*—c		*Vigna o-wahuensis.*
Hawaii 5—*Nothocestrum breviflorum*—a		*Nothocestrum breviflorum.*
Hawaii 6—*Nothocestrum breviflorum*—b	*Nothocestrum breviflorum*	*Nothocestrum breviflorum.*
Hawaii 7—*Pleomele hawaiiensis*—a	*Pleomele hawaiiensis*	*Pleomele hawaiiensis.*
Hawaii 8—*Clermontia drepanomorpha*—a	*Clermontia drepanomorpha*	*Clermontia drepanomorpha.*
Hawaii 8—*Phyllostegia warshaueri*—b	*Phyllostegia warshaueri*	*Phyllostegia warshaueri.*
Hawaii 9—*Achyranthes mutica*—a		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*—b	*Achyranthes mutica*	*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*—c		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*—d		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*—e		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*—f		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*—g		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*—h		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*—i		*Achyranthes mutica.*
Hawaii 9—*Achyranthes mutica*—j		*Achyranthes mutica.*
Hawaii 10—*Argyroxiphium kauense*—a		*Argyroxiphium kauense.*
Hawaii 10—*Bidens micrantha* ssp. *ctenophylla*—a		*Bidens micrantha* ssp. *ctenophylla.*
Hawaii 10—*Bonamia menziesii*—a		*Bonamia menziesii.*
Hawaii 10—*Colubrina oppositifolia*—a	*Colubrina oppositifolia*	*Colubrina oppositifolia.*
Hawaii 10—*Delissea undulata*—a		*Delissea undulata.*
Hawaii 10—*Delissea undulata*—b	*Delissea undulata*	*Delissea undulata.*
Hawaii 10—*Hibiscadelphus hualalaiensis*—a	*Hibiscadelphus hualalaiensis*	*Hibiscadelphus hualalaiensis.*
Hawaii 10—*Hibiscus brackenridgei*—a	*Hibiscus brackenridgei*	*Hibiscus brackenridgei.*
Hawaii 10—*Isodendrion pyrifolium*—a		*Isodendrion pyrifolium.*
Hawaii 10—*Mezoneuron kavaiense*—a	*Mezoneuron kavaiense*	*Mezoneuron kavaiense.*
Hawaii 10—*Neraudia ovata*—a		*Neraudia ovata.*
Hawaii 10—*Nothocestrum breviflorum*—c	*Nothocestrum breviflorum*	*Nothocestrum breviflorum.*
Hawaii 10—*Pleomele hawaiiensis*—b	*Pleomele hawaiiensis*	*Pleomele hawaiiensis.*
Hawaii 10—*Solanum incompletum*—a		*Solanum incompletum.*
Hawaii 10—*Zanthoxylum dipetalum* ssp. *tomentosum*—a.	*Zanthoxylum dipetalum* ssp. *tomentosum*	*Zanthoxylum dipetalum* ssp. *tomentosum.*
Hawaii 11—*Cyanea hamatiflora* ssp. *carlsonii*—a	*Cyanea hamatiflora* ssp. *carlsonii*	*Cyanea hamatiflora* ssp. *carlsonii.*
Hawaii 11—*Solanum incompletum*—b		*Solanum incompletum.*
Hawaii 14—*Cyanea hamatiflora* ssp. *carlsonii*—b		*Cyanea hamatiflora* ssp. *carlsonii.*
Hawaii 15—*Cyanea hamatiflora* ssp. *carlsonii*—c		*Cyanea hamatiflora* ssp. *carlsonii.*
Hawaii 15—*Cyanea stictophylla*—a	*Cyanea stictophylla*	*Cyanea stictophylla.*
Hawaii 16—*Cyanea hamatiflora* ssp. *carlsonii*—d	*Cyanea hamatiflora* ssp. *carlsonii*	*Cyanea hamatiflora* ssp. *carlsonii.*
Hawaii 16—*Cyanea stictophylla*—b	*Cyanea stictophylla*	*Cyanea stictophylla.*
Hawaii 17—*Diellia erecta*—a	*Diellia erecta*	*Diellia erecta.*
Hawaii 17—*Flueggea neowawraea*—a	*Flueggea neowawraea*	*Flueggea neowawraea.*
Hawaii 18—*Colubrina oppositifolia*—b	*Colubrina oppositifolia*	*Colubrina oppositifolia.*

Unit name	Species occupied	Species unoccupied
Hawaii 18—*Diellia erecta*—b	*Diellia erecta*	*Diellia erecta*.
Hawaii 18—*Flueggea neowawraea*—b	*Flueggea neowawraea*	*Flueggea neowawraea*.
Hawaii 18—*Gouania vitifolia*—a	*Gouania vitifolia*	*Gouania vitifolia*.
Hawaii 18—*Neraudia ovata*—d	*Neraudia ovata*	*Neraudia ovata*.
Hawaii 18—*Pleomele hawaiiensis*—c	*Pleomele hawaiiensis*	*Pleomele hawaiiensis*.
Hawaii 19—*Mariscus fauriei*—a	*Mariscus fauriei*	*Mariscus fauriei*.
Hawaii 20—*Sesbania tomentosa*—a	*Sesbania tomentosa*	*Sesbania tomentosa*.
Hawaii 21—*Ischaemum byrone*—a		*Ischaemum byrone*.
Hawaii 22—*Ischaemum byrone*—b	*Ischaemum byrone*	*Ischaemum byrone*.
Hawaii 23—*Pleomele hawaiiensis*—d	*Pleomele hawaiiensis*	*Pleomele hawaiiensis*.
Hawaii 23—*Sesbania tomentosa*—b	*Sesbania tomentosa*	*Sesbania tomentosa*.
Hawaii 24—*Argyroxiphium kauense*—b	*Argyroxiphium kauense*	*Argyroxiphium kauense*.
Hawaii 24—*Asplenium fragile* var. *insulare*—a	*Asplenium fragile* var. *insulare*	*Asplenium fragile* var. *insulare*.
Hawaii 24—*Cyanea stictophylla*—c		*Cyanea stictophylla*.
Hawaii 24—*Melicope zahlbruckneri*—a		*Melicope zahlbruckneri*.
Hawaii 24—*Phyllostegia velutina*—a	*Phyllostegia velutina*	*Phyllostegia velutina*.
Hawaii 24—*Plantago hawaiensis*—a	*Plantago hawaiensis*	*Plantago hawaiensis*.
Hawaii 25—*Argyroxiphium kauense*—c	*Argyroxiphium kauense*	*Argyroxiphium kauense*.
Hawaii 25—*Plantago hawaiensis*—b	*Plantago hawaiensis*	*Plantago hawaiensis*.
Hawaii 25—*Silene hawaiiensis*—a	*Silene hawaiiensis*	*Silene hawaiiensis*.
Hawaii 26—*Hibiscadelphus giffardianus*—a	*Hibiscadelphus giffardianus*	*Hibiscadelphus giffardianus*.
Hawaii 26—*Melicope zahlbruckneri*—b	*Melicope zahlbruckneri*	*Melicope zahlbruckneri*.
Hawaii 27—*Portulaca sclerocarpa*—a	*Portulaca sclerocarpa*	*Portulaca sclerocarpa*.
Hawaii 27—*Silene hawaiiensis*—b	*Silene hawaiiensis*	*Silene hawaiiensis*.
Hawaii 28—*Adenophorus periens*—a	*Adenophorus periens*	*Adenophorus periens*.
Hawaii 29—*Clermontia peleana*—c	*Clermontia peleana*	*Clermontia peleana*.
Hawaii 29—*Cyanea platyphylla*—b	*Cyanea platyphylla*	*Cyanea platyphylla*.
Hawaii 29—*Cyrtandra giffardii*—b		*Cyrtandra giffardii*.
Hawaii 29—*Cyrtandra tintinnabula*—b		*Cyrtandra tintinnabula*.
Hawaii 30—*Argyroxiphium kauense*—d	*Argyroxiphium kauense*	*Argyroxiphium kauense*.
Hawaii 30—*Clermontia lindseyana*—c	*Clermontia lindseyana*	*Clermontia lindseyana*.
Hawaii 30—*Cyanea shipmanii*—b	*Cyanea shipmanii*	*Cyanea shipmanii*.
Hawaii 30—*Cyanea shipmanii*—c		*Cyanea shipmanii*.
Hawaii 30—*Cyanea stictophylla*—d		*Cyanea stictophylla*.
Hawaii 30—*Cyrtandra giffardii*—c	*Cyrtandra giffardii*	*Cyrtandra giffardii*.
Hawaii 30—*Phyllostegia racemosa*—c		*Phyllostegia racemosa*.
Hawaii 30—*Phyllostegia velutina*—b	*Phyllostegia velutina*	*Phyllostegia velutina*.
Hawaii 30—*Plantago hawaiensis*—c	*Plantago hawaiensis*	*Plantago hawaiensis*.
Hawaii 30—*Sicyos alba*—a	*Sicyos alba*	*Sicyos alba*.
Hawaii 31—*Bidens micrantha* ssp. *ctenophylla*—b		*Bidens micrantha* ssp. *ctenophylla*.
Hawaii 31—*Isodendrion pyrifolium*—b		*Isodendrion pyrifolium*.
Hawaii 31—*Mezoneuron kavaiense*—b	*Mezoneuron kavaiense*	*Mezoneuron kavaiense*.
Hawaii 33—*Bidens micrantha* ssp. *ctenophylla*—d		*Bidens micrantha* ssp. *ctenophylla*.
Hawaii 33—*Isodendrion pyrifolium*—d		*Isodendrion pyrifolium*.
Hawaii 33—*Mezoneuron kavaiense*—d		*Mezoneuron kavaiense*.
Hawaii 34—*Bidens micrantha* ssp. *ctenophylla*—e		*Bidens micrantha* ssp. *ctenophylla*.
Hawaii 34—*Isodendrion pyrifolium*—e		*Isodendrion pyrifolium*.
Hawaii 34—*Mezoneuron kavaiense*—e		*Mezoneuron kavaiense*.
Hawaii 36—*Bidens micrantha* ssp. *ctenophylla*—g	*Bidens micrantha* ssp. *ctenophylla*	*Bidens micrantha* ssp. *ctenophylla*.
Hawaii 36—*Isodendrion pyrifolium*—g		*Isodendrion pyrifolium*.

* * * * *

(l) * * *

(1) * * *

* * * * *

FAMILY ASTERACEAE: *Bidens micrantha* ssp. *ctenophylla* (KOOKOOLAU)

Hawaii 10—*Bidens micrantha* ssp. *ctenophylla*—a, Hawaii 31—*Bidens micrantha* ssp. *ctenophylla*—b, Hawaii 33—*Bidens micrantha* ssp. *ctenophylla*—d, Hawaii 34—*Bidens micrantha* ssp. *ctenophylla*—e, and Hawaii 36—*Bidens micrantha* ssp. *ctenophylla*—g, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Bidens micrantha* ssp. *ctenophylla* on Hawaii Island. In units Hawaii 10—*Bidens micrantha* ssp. *ctenophylla*—a, Hawaii 31—*Bidens micrantha* ssp. *ctenophylla*—b, Hawaii 33—*Bidens micrantha* ssp. *ctenophylla*—d, Hawaii 34—*Bidens micrantha* ssp. *ctenophylla*—e, and Hawaii 36—*Bidens micrantha* ssp. *ctenophylla*—g, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Less than 50 in (130 cm).

(iii) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(iv) Canopy: *Diospyros, Erythrina, Metrosideros, Myoporum, Pleomele, Santalum, Sapindus.*

(v) Subcanopy: *Chamaesyce, Dodonaea, Osteomeles, Psydrax, Scaevola, Wikstroemia.*

(vi) Understory: *Alyxia, Artemisia, Bidens, Capparis, Chenopodium, Nephrolepis, Peperomia, Sicyos.*

* * * * *

FAMILY FABACEAE: *Mezoneuron kavaiense* (UHIUHI)

Hawaii 10—*Mezoneuron kavaiense*—a, Hawaii 31—*Mezoneuron kavaiense*—b, Hawaii 33—*Mezoneuron kavaiense*—d, and Hawaii 34—*Mezoneuron kavaiense*—e, identified in the legal descriptions in paragraph (k) of this

section, constitute critical habitat for *Mezoneuron kavaiense* on Hawaii Island. In units Hawaii 10—*Mezoneuron kavaiense*—a, Hawaii 31—*Mezoneuron kavaiense*—b, Hawaii 33—*Mezoneuron kavaiense*—d, and Hawaii 34—*Mezoneuron kavaiense*—e, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Less than 50 in (130 cm).

(iii) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(iv) Canopy: *Diospyros, Erythrina, Metrosideros, Myoporum, Pleomele, Santalum, Sapindus.*

(v) Subcanopy: *Chamaesyce, Dodonaea, Osteomeles, Psydrax, Scaevola, Wikstroemia.*

(vi) Understory: *Alyxia, Artemisia, Bidens, Capparis, Chenopodium, Nephrolepis, Peperomia, Sicyos.*

* * * * *

FAMILY VIOLACEAE: *Isodendrion pyrifolium* (WAHINE NOHO KULA)

Hawaii 10—*Isodendrion pyrifolium*—a, Hawaii 31—*Isodendrion pyrifolium*—b, Hawaii 33—-*Isodendrion pyrifolium*—d, Hawaii 34—*Isodendrion pyrifolium*—e, and Hawaii 36—*Isodendrion pyrifolium*—g, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Isodendrion pyrfolium* on Hawaii Island. In units Hawaii 10—*Isodendrion pyrifolium*—a, Hawaii 31—*Isodendrion pyrifolium*—b, Hawaii 33—-*Isodendrion pyrifolium*—d, Hawaii 34—*Isodendrion pyrifolium*—e, and Hawaii 36—*Isodendrion pyrifolium*—g, the physical and biological features of critical habitat are:

(i) Elevation: Less than 3,300 ft (1,000 m).

(ii) Annual precipitation: Less than 50 in (130 cm).

(iii) Substrate: Weathered silty loams to stony clay, rocky ledges, little-weathered lava.

(iv) Canopy: *Diospyros, Erythrina, Metrosideros, Myoporum, Pleomele, Santalum, Sapindus.*

(v) Subcanopy: *Chamaesyce, Dodonaea, Osteomeles, Psydrax, Scaevola, Wikstroemia.*

(vi) Understory: *Alyxia, Artemisia, Bidens, Capparis, Chenopodium, Nephrolepis, Peperomia, Sicyos.*

* * * * *

Dated: May 29, 2018.

James W. Kurth,

Deputy Director, U.S. Fish and Wildlife Service, exercising the authority of the Director, U.S. Fish and Wildlife Service.

[FR Doc. 2018–17514 Filed 8–20–18; 8:45 am]

BILLING CODE 4333–15–P