DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R1–ES–2023–0017; FXES1111090FEDR–245–FF09E21000]

RIN 1018–BG65

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for 12 Species on Hawai'i Island

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for 12 federally endangered species on the island of Hawai'i under the Endangered Species Act of 1973 (Act), as amended. In total, approximately 119,326 acres (48,289 hectares) on the island of Hawai'i, in the State of Hawaii, fall within the boundaries of the critical habitat designation. This rule extends the Act's protections to these species' designated critical habitats.

DATES: This rule is effective April 11, 2024.

ADDRESSES: This final rule is available on the internet at *https://www.regulations.gov* under Docket No. FWS–R1–ES–2023–0017 and at *https://www.fws.gov/project/critical-habitat-hawaii-island-species*. Comments and materials we received are available for public inspection at *https://www.regulations.gov under* Docket No. FWS–R1–ES–2023–0017.

Availability of supporting materials: Supporting materials we used in preparing this rule, such as the draft recovery plan, 5-year status reviews, and other materials relating to this critical habitat designation, including coordinates or plot points or both from which the maps are generated, are available at *https://www.regulations.gov* under Docket No. FWS–R1–ES–2023–0017.

FOR FURTHER INFORMATION CONTACT: Earl Campbell, Project Leader, U.S. Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office, 300 Ala Moana Boulevard Room 3–122, Honolulu, HI 96850; telephone 808–792–9400. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act (16 U.S.C. 1531 *et seq.*), to the maximum extent prudent and determinable, we must designate critical habitat for any species that we determine to be an endangered or threatened species. Making a critical habitat determination can be completed only by issuing a rule through the Administrative Procedure Act rulemaking process (5 U.S.C. 551 *et seq.*).

What this document does. This rule designates approximately 119,326 *acres (ac) (*48,289 *hectares (ha)) as critical habitat for 12 federally endangered species (11 plants, 1 insect) on the island of Hawai'i in the State of Hawai'i.*

The basis for our action. Under section 4(a)(3) of the Act, if we determine that a species is an endangered or threatened species, the Secretary of the Interior (Secretary) must designate critical habitat to the maximum extent prudent and determinable. Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat.

Previous Federal Actions

Please refer to the proposed and final listing rules (77 FR 63928, October 17, 2012; 78 FR 64638, October 29, 2013) and proposed critical habitat rule (88 FR 18756, March 29, 2023) for a detailed description of previous Federal actions concerning the species addressed in this final rule.

Peer Review

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we solicited independent scientific review of the information contained in the proposed critical habitat rule (88 FR 18756, March 29, 2023). We sent the proposed rule to five independent peer reviewers and received three separate peer reviewer responses. The peer reviews can be found at *https://www.regulations.gov.* We incorporated the results of these reviews, as appropriate, into this final rule. A summary of the peer review comments and our responses can be found under Summary of Comments and Recommendations, below.

Summary of Changes From the Proposed Rule

After considering the comments we received during the public comment period on our March 29, 2023, proposed rule to designate critical habitat for the 12 federally endangered species on the island of Hawai'i (88 FR 18756) and relevant information that became available since the proposed rule published, we made changes to this final critical habitat rule. No changes were required for our economic analysis after considering public comments; thus, we finalized the economic analysis of the designation. We made many small, nonsubstantive changes and corrections throughout this document that do not affect the designation (*e.g.,* updating the Background discussion in this rule's preamble in response to comments, and making other minor clarifications). Below is a summary of changes made in this final rule; please note that an explanation of plant sections and their correlation to designated critical habitat units for the plants that are the subjects of this rule is provided under Final Critical Habitat Designation, below.

(1) We make minor clarifications and elaborate on our rationale for concluding in our proposed rule (88 FR 18756, March 29, 2023) that the designation of critical habitat is not prudent at this time for *Pritchardia lanigera* (loulu) and *Vetericaris chaceorum* (anchialine pool shrimp).

(2) We correct the range information for *Cyrtandra wagneri* to include only the Mauna Kea region, resulting in the removal of all unoccupied critical habitat units for this species. Specifically, this designation does not include critical habitat for *C. wagneri* that we proposed in units 23, 24 (Sections 8 and 9), 28, 29, 30, 42, 43, 44, 45, 46, and 51. The critical habitat we are designating for *C. wagneri* in this rule includes only two occupied units:

units 3 and 52 in Section 1. This is a decrease of approximately 72,469 ac (29,328 ha) from the critical habitat we proposed for *C. wagneri* on March 29, 2023 (88 FR 18756). However, because all of the unoccupied critical habitat units that we proposed for *C. wagneri* are also occupied by other plants for which we are designating critical habitat in this rule, not designating these units for *C. wagneri* does not change the total area designated as critical habitat in this rule.

(3) We remove the proposed *Drosophila digressa*—Unit 6 from this final designation; however, this same area was proposed, and remains in this final rule, as designated critical habitat for *Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae* in Section 6, units 16 and 40.

(4) We revise the critical habitat designation to add a new unit for *Drosophila digressa* (a new *Drosophila digressa*—Unit 6), based on new information we received in peer review comments regarding recent surveys in South Kona. Within the same boundaries of the new *Drosophila digressa*—Unit 6, we created a new plant Section 20 that contains Unit 56 for *Cyanea marksii* and *Schiedea diffusa* ssp. *macraei.* The new unit (*Drosophila digressa*—Unit 6, and Unit 56 for *Cyanea marksii* and *Schiedea diffusa* ssp. *macraei*) results in an increase of 224 ac (91 ha) of delineated critical habitat from the areas we proposed.

(5) Pursuant to section 4(b)(2) of the Act (16 U.S.C. 1533(b)), in this final designation, we exclude lands in 12 areas in 7 units owned by the following entities: the Kamehameha Schools; Parker Ranch Waipunalei, LLC; Parker Ranch Waiemi, LLC; State Department of Hawaiian Home Lands; Laupāhoehoe Nui; Kahua Ranch; and Queen Emma Foundation. This amounts to a decrease of approximately 3,172 ac (1,284 ha) from the critical habitat areas we proposed.

(6) We do not exclude The Nature Conservancy's land in Section 13 (Unit 41 for *Cyanea tritomantha, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae*) and *Drosophila digressa*—Unit 5 based on information we received from public comments. This area of approximately 986 ac (399 ha) is designated as critical habitat in this final rule.

(7) In the March 29, 2023, proposed rule (88 FR 18756), we erroneously included 125 ac (51 ha) as part of plant Section 8, Unit 24, even though those acres actually belonged in plant Section 8, Unit 44. We correct that error in this final rule by transferring in our acreage totals 125 ac (51 ha) from Unit 24 to Unit 44 in plant Section 8.

(8) In the March 29, 2023, proposed rule (88 FR 18756), we erroneously included 469 ac (190 ha) as part of plant Section 11, Unit 30, even though those acres actually belonged in plant Section 11, Unit 51. We correct that error in this final rule by transferring in our acreage totals 469 ac (190 ha) from Unit 30 to Unit 51 in plant Section 11.

(9) We made minor adjustments to the elevations we provided in the proposed rule related to the different ecosystem types which we used to determine the physical or biological features essential to each of the 12 species. We made these adjustments in this final rule to mirror exactly the elevations given in the scientific literature source from which each was derived. Specifically, we more accurately report: the elevation of the coastal ecosystem as less than 984 feet (ft) (300 meters (m)), instead of rounding to less than 980 ft; the elevation of the mesic forest as less than 6,562 ft (2,000 m), instead of rounding to less than 6,600 ft; the elevation of wet forest as less than 7,218 ft (2,200 m), instead of rounding to less than 7,300 ft; the elevation of mesic grassland and shrubland as 98 ft to 7,546 ft (30 to 2,300 m), instead of rounding to 100 ft to 7,500 ft; and the elevation of wet grassland and shrubland as 656 ft to 2,953 ft (200 to 900 m), instead of rounding to 660 ft to 2,950 ft.

(10) There are minor differences in area measurements reported in our March 29, 2023, proposed rule (88 FR 18756) compared to this final rule due to digital mapping discrepancies between Tax Map Key (TMK) parcel Geographic Information System (GIS) data (Hawaii Statewide GIS Program 2022, entire) and the National Oceanic and Atmospheric Administration's (NOAA's) Coastal Change Analysis Program coastline data (Office for Coastal Management 2023, entire). Additionally, we received updated TMK parcel GIS data from Hawaii County that resulted in a 23-ac (9-ha) discrepancy for Parker Ranch lands in this final rule when compared to the acreages presented in our March 29, 2023, proposed rule. As a result, we identified that we were considering for exclusion 349 ac (141 ha) of Parker Ranch land in Section 3, Unit 54, in the proposed rule, but that updated acreage which we exclude in the final rule is 372 ac (150 ha). Further, minor differences (1 to 2 acres or hectares) in areas reported between the proposed rule and this final rule may exist as an artifact of summing, rounding, and conversion from acreage to hectarage.

(11) We removed 4 ac (2 ha) from the proposed plant Section 2, Unit 53 and plant Section 8, Unit 44, in this final rule. These 4 ac (2 ha) consisted of small slivers, ranging in size from less than 0.01 ac (0 ha) to 1.09 ac (0.4 ha), that had been part of the proposed designation in Unit 53 and Unit 44. However, once we excluded the Kamehameha Schools land from Unit 53 and Unit 44 in the final designation, these slivers were left because the base layer and TMK layer did not align with each other after the removal of the Kamehameha Schools exclusion. This misalignment of the base layer and TMK layer is due to digital mapping discrepancies, and the slivered 4 ac (2 ha) left over as a result of this spatial analysis are artifacts of these discrepancies rather than real acres of land that are being included or excluded as part of the critical habitat designation.

Beyond those changes, this critical habitat designation is unchanged from what we proposed on March 29, 2023 (88 FR 18756).

Summary of Comments and Recommendations

In the proposed critical habitat rule published on March 29, 2023 (88 FR 18756), we requested that all interested parties submit written comments on the proposal by May 30, 2023. We also contacted appropriate Federal and State agencies, scientific experts and organizations, and other interested parties and invited them to comment on the proposal. Digital newspaper notices inviting general public comment were published by Pacific Media Group, covering the communities of Maui and Hawai'i Island, as well as a radio and television broadcast airing on Hawai'i Public Radio and Hawai'i News Now, respectively. We held a public hearing on April 20, 2023. All substantive information we received during the comment period, as described above, on the proposal has either been incorporated directly into this final rule or is addressed below.

Peer Reviewer Comments

As noted above in Peer Review, we received comments from three peer reviewers on the proposed rule. We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding the species and their habitats. The peer reviewers generally concurred with our designations of critical habitat and conclusions, and provided additional information, clarifications, and

suggestions to improve the designation. The additional details and information received or raised by the peer reviewers have been incorporated into this final rule, as appropriate. Peer reviewer comments are addressed in the following summary.

(1) Comment: One reviewer provided information regarding habitat conditions that do not support *Drosophila digressa* in Kīpāhoehoe Natural Area Reserve in *Drosophila digressa*—Unit 6.

Our response: The Kīpāhoehoe Natural Area Reserve was not occupied by *Drosophila digressa* at the time of listing. Based on the information available at the time of our proposed critical habitat designation, this area appeared to contain the physical or biological features essential to the conservation of the species, and we therefore included it in our proposed designation. The commenter provided information on the habitat conditions of Kīpāhoehoe Natural Area Reserve in *Drosophila digressa*—Unit 6 that were not available to us at the time we proposed critical habitat. After we reviewed the new information provided by the commenter, we agree that the wet to mesic forest there does not support the host plants for *D. digressa,* and that the younger lava flows outside of the kīpuka (vegetated areas surrounded by bare lava flows) are unsuitable for the host plants of *D. digressa.* Because the new information indicates that the area likely does not contain the host plants for *D. digressa,* and is therefore unsuitable for *D. digressa,* we removed the proposed *Drosophila digressa*—Unit 6 from this final critical habitat designation.

(2) Comment: One reviewer suggested that additional critical habitat should be designated for a new population of *Drosophila digressa* discovered in 2022 in lower Honomalino Forest Reserve within existing plant critical habitat unit Hawaii 17—*Asplenium dielerectum*—a and Hawaii 17—*Flueggea neowawraea*—a (see 50 CFR 17.99(k) and 68 FR 39624 at 39740–39741, July 2, 2003).

Our response: In our March 29, 2023, proposed critical habitat rule (88 FR 18756), we requested from the public any new information regarding additional areas occurring within the range of each species that should be included in our critical habitat designation because they were occupied at the time of listing and contain the physical or biological features essential to the conservation of the species. The commenter provided new information on a population of *Drosophila digressa* that was unknown to the Service at the time we delineated the proposed critical habitat designation (Magnacca 2023a, pers. comm.; Magnacca 2023b, pers. comm.). We expect that this *D. digressa* population was present at the time the species was listed because the location of this population contains suitable habitat for *D. digressa,* is protected as State Forest Reserve land, and is within the known range of the species. However, because this area was previously unsurveyed, the population was not discovered until surveyed in 2022. We considered the commenter's suggestion to add the new population of *D. digressa* to the area currently designated as plant critical habitat unit Hawaii 17—*Asplenium dielerectum*—a and Hawaii 17—*Flueggea neowawraea*—a (see 50 CFR 17.99(k)), but we determined that the newly discovered *D. digressa* population does not overlap with that existing critical habitat. However, after reviewing the information on the new population provided by the commenter and applying our critical habitat delineation methodology (as described under Criteria Used To Identify Critical Habitat in our March 29, 2023, proposed critical habitat rule (88 FR 18756 at 18765–18767)), we determined that the new *D. digressa* population area meets the criteria for designation as critical habitat. Therefore, in this rule, we designate a new critical habitat unit in South Kona named *Drosophila digressa*—Unit 6, as described above in Summary of Changes from the Proposed Rule and detailed below. (Note that this new *Drosophila digressa*—Unit 6 replaces the proposed *Drosophila digressa*—Unit 6, which we discuss above in our response to *(1) Comment.*)

Additionally, we applied our critical habitat delineation methodology to the new *Drosophila digressa*—Unit 6 in South Kona and found that it also meets the criteria for two plant species included in this rule, *Cyanea marksii* and *Schiedea diffusa* ssp. *macraei.* Using the same boundaries of the *Drosophila digressa*—Unit 6, we created a new plant Section 20, which contains Unit 56 for *Cyanea marksii* and *Schiedea diffusa* ssp. *macraei.* The new unit (*Drosophila digressa*—Unit 6, and Unit 56 for *Cyanea marksii* and *Schiedea diffusa* ssp. *macraei*) is 224 ac (91 ha) and consists of State-owned lands.

(3) Comment: One reviewer provided additional information and commented that *Cyrtandra wagneri* should be added to Unit 54 because the species was found in the Kohala Mountains as of 2009.

Our response: The reviewer did not provide specific information on the current status of *Cyrtandra wagneri* in Unit 54, except for photos of the observed plant. We asked a State of Hawaii botanist to review the photographs provided by the reviewer, and they noticed a slight difference in the flower structure of the photographed plant from that of *C. wagneri,* which they thought suggested that the plant in the photograph was most likely a hybrid or another species of *Cyrtandra.* We reviewed the best available information describing the occurrences and physical or biological features essential to the conservation of *C. wagneri* in this unit and found no records in our database indicating that *C. wagneri* occurred in the Kohala Mountains. Our species range map for *C. wagneri* does not include the Kohala Mountains; therefore, this occurrence is outside the known range of *C. wagneri.* In Laupāhoehoe, where *C. wagneri* naturally occurs, *C. wagneri* has been documented to hybridize with the endangered *Cyrtandra tintinnabula.* The Service and the State no longer have access to survey this area, and, at this time, the best available information indicates that *C. wagneri* has become hybridized or been extirpated from Unit 54. Therefore, we do not designate Unit 54 as critical habitat for *C. wagneri* in this rule.

Federal Agency Comments

(4) Comment: The U.S. Army at Pōhakuloa Training Area (PTA) provided comments specific to the proposed critical habitat designation for *Schiedea hawaiiensis* in the Pu'u Anahulu region adjacent to the PTA (Unit 55). The Department of Defense (DoD) awarded Readiness and Environmental Protection Integration (REPI) Program grants to the State of Hawaii Division of Forestry and Wildlife (DOFAW) to implement conservation actions at Pu'u Anahulu, creating a Federal nexus for activities at Pu'u Anahulu that are implemented under REPI, requiring consultation under section 7(a)(2) of the Act. As a result, the commenter stated that these activities will likely increase their consultation workload. They also stated that because wildfire risk to the proposed critical habitat unit in Pu'u Anahulu is greater than that to *Schiedea hawaiiensis* and its habitat at the PTA installation, they would need to implement additional conservation measures to minimize wildfire risk to the proposed critical habitat unit as a result of military training at PTA. They also expressed concern that training restrictions may increase in comparison to those currently implemented or anticipated as part of the planned comprehensive programmatic

consultation for PTA. They stated that the additional economic and administrative burden (*e.g.,* section 7 consultation) to the U.S. Army that would result from the proposed critical habitat at Pu'u Anahulu was not accounted for in the draft economic analysis.

Our response: The Pu'u Anahulu area that the commenter refers to is a State of Hawaii Game Management Area within critical habitat Unit 55. As such, the critical habitat designation there will affect the DoD only for activities that they fund at Pu'u Anahulu through the REPI Program. Activities funded through the REPI Program would include wildland fire risk management conducted by the State of Hawaii that would provide a conservation benefit to *Schiedea hawaiiensis.* Due to the nature of these management actions, we anticipate any additional consultation burdens resulting from the Service's designation of Unit 55 as critical habitat would be primarily administrative. Further, our understanding is that the DoD is already conducting and planning conservation measures to minimize wildfire risk as a result of military training at PTA both on and off of the installation, and that these measures would be no different than those that may apply to the new critical habitat in Unit 55. We will continue to work with the DoD's REPI Program to assist them in meeting their section 7 consultation requirements. Further, any additional future conservation measures to minimize wildfire risk to Unit 55 as a result of military training at the adjacent PTA will depend upon the U.S. Army's proposed action as described in their upcoming biological assessment.

State Agency Comments

(5) Comment: The State of Hawaii DOFAW questioned why the lands of Pu'u Anahulu in Unit 55 are being designated, as these lands constitute a Game Management Area and have a draft habitat conservation plan that covers management of the area. Additionally, the State mentioned that DoD's REPI Program is funding fencing, fuels management, and seed collection/banking for all known rare species in the area and is concerned that additional compliance measures may be required if critical habitat is designated.

Our response: As described in our March 29, 2023, proposed rule, we delineated critical habitat areas based on the defined methodology and identified areas that contain the physical or biological features essential to the conservation of the species. While Section 19, Unit 55 is within a Game Management Area, the area contains the physical or biological features essential to the conservation of *Schiedea hawaiiensis.* The characteristics of Section 19 are described under *Descriptions of Critical Habitat,* below. Additionally, existing conservation actions being led by DOFAW that occur within Section 19 contribute to the conservation of *S. hawaiiensis* habitat despite the area's categorization as a Game Management Area.

The most recent draft habitat conservation plan (HCP) for game management at Pu'u Wa'awa'a and Pu'u Anahulu was published on August 14, 2017, as a ''working document.'' The DOFAW last received funding under section 6 of the Act from the Service's habitat conservation planning assistance program in 2011 to complete the final HCP, which was not completed (Hawaii Department of Land and Natural Resources (DLNR)–DOFAW 2017, entire). We met with DOFAW during the March 29, 2023, proposed rule's (88 FR 18756) comment period to discuss planned actions for the Pu'u Anahulu area, and they indicated that planned actions would support the habitat for *Schiedea hawaiiensis* and other native at-risk species. However, apart from these planned actions, we confirmed with DOFAW that development of the draft game management HCP was discontinued. According to DOFAW and our records, there is currently no support to continue developing the draft HCP or game management plan. In regard to REPI, we acknowledge the importance of the conservation actions that will benefit rare species and their habitats resulting from the DoD's REPI Program funding to DOFAW for conservation actions in the Pu'u Anahulu area. As such, we are working with DoD's REPI Program to assist them in meeting their section 7 consultation requirements, independent of the potential HCP.

The Service is not relieved of its statutory obligation to designate critical habitat based on the contention that such designation will not provide additional conservation benefit or because adequate protections are already in place (see Special Management Considerations or Protection, below). If any area provides the physical or biological features essential to the conservation of the species, even if that area is already well managed or protected, that area still qualifies as critical habitat under the statutory definition.

(6) Comment: The State of Hawaii DOFAW stated that plant Section 18 (Unit 50 for *Cyrtandra nanawaleensis,* in the Halepua'a Section of the Nānāwale Forest Reserve) is severely degraded and unlikely to support any more remnant *Cyrtandra nanawaleensis.* They stated that the most recent monitoring of that location indicated that very few plants remain, despite protections from pigs.

Our response: When the October 29, 2013, final listing rule for *Cyrtandra nanawaleensis* was published (78 FR 64638), the Halepua'a section of the Nānāwale Forest Reserve was one of five known occurrences for this species. As directed by the Act, we proposed as critical habitat those areas occupied by the species at the time of listing that contain the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. At this time, the best available information indicates that *C. nanawaleensis* occupied plant Section 18 (Unit 50 for *Cyrtandra nanawaleensis*) at the time of listing. In addition, the best available information, which includes the most recent 5-year review for *C. nanawaleensis* (Service 2020, pp. 9–10), indicates that plant Section 18 is still occupied and contains the physical or biological features essential to the conservation of the species. Therefore, we are designating Unit 50 as critical habitat for *Cyrtandra nanawaleensis* in this rule.

(7) Comment: The State of Hawaii DOFAW stated that they are not aware of *Schiedea hawaiiensis* occurring on State-owned lands in plant Section 19 (Unit 55). They questioned why critical habitat is being designated on State lands in this parcel, but not on Federal lands where *Schiedea hawaiiensis* is known to occur. They claim that the DoD has more protected lands with the species' suitable habitat type than exist on the adjacent State land, and that DoD activities pose one of the greatest threats—fire—as demonstrated by August 2022's boundary-crossing Leilani fire.

Our response: We agree that there are no known occurrences of *Schiedea hawaiiensis* on State-owned lands in Section 19 (Unit 55). We identified Section 19 (Unit 55) as unoccupied critical habitat for *S. hawaiiensis.* Unoccupied areas are needed for the expansion or augmentation of reduced populations or the reestablishment of populations. The Act specifically requires the Service to designate critical habitat for listed species to the maximum extent prudent and determinable and does not restrict such designation to particular land ownership. Rather, areas that meet the definition of critical habitat, as determined on the basis of the best scientific data available, are proposed

for designation. We are designating critical habitat for *S. hawaiiensis* only on State-owned lands in Section 19 (Unit 55) because the Federal lands (*i.e.,* the Pōhakuloa Training Area) where *S. hawaiiensis* occurs are exempt from the critical habitat designation in accordance with section 4(a)(3)(B)(i) of the Act (see Exemptions, below).

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 areas owned or controlled by the DoD that are subject to an integrated natural resources management plan (INRMP), if the Secretary determines that such a plan provides a benefit to the species for which critical habitat is proposed for designation. An INRMP integrates the military mission of the installation with stewardship of the natural resources found there and must provide benefits to wildlife and their habitats. The DoD's current INRMP at Pōhakuloa Training Area (PTA) in plant Section 19 provides protection and enhancement of *S. hawaiiensis* and its habitat through management actions including, but not limited to, seed collection and storage, propagation and planting of cultivated plants, and ungulate fencing for protection of wild populations. We have determined that this INRMP provides conservation benefits to *S. hawaiiensis;* as such, the PTA lands are exempt from critical habitat designation in accordance with section 4(a)(3)(B)(i) of the Act. While we acknowledge the State lands adjacent to the PTA may be valuable to the conservation of *S. hawaiiensis* and other wildlife, the Act does not provide for exemptions outside of DoD lands (see Exemptions, below). Although State lands may qualify for exclusion under certain circumstances (see Consideration of Impacts under Section 4(b)(2) of the Act, below), we found no reason to identify the State lands adjacent to PTA as lands we were considering for exclusion in our March 29, 2023, proposed rule, nor did we receive a request for their exclusion after publication of the proposed rule.

(10) Comment: The State of Hawaii DOFAW stated that critical habitat plant Sections 4, 5, 6, 7, 8, 9, 11, 12, and 13 are not appropriate for the recovery of *Schiedea diffusa* ssp. *macraei, Cyrtandra wagneri,* and/or *Stenogyne cranwelliae,* because they are outside of the species' historical ranges.

Our response: While the State of Hawaii may use a different method to define historical ranges, we do not agree that the critical habitat units we are designating are outside of the historical ranges of the species to which the commenter referred. We used U.S. Geological Survey (USGS) species' range maps (Price et al. 2012, unpaginated), which include not only sites of known occupancy, but also geospatially projected habitat likely to have been occupied by the species historically based on climatic and vegetation data. We applied the critical habitat delineation methodology (as described under Criteria Used To Identify Critical Habitat in our March 29, 2023, proposed critical habitat rule (88 FR 18756 at 18765–18767)) to each of the plant sections identified in the State's comment.

As a result of this analysis, the Service is retaining in this designation the areas noted by the commenter. The Service's range maps for *Schiedea diffusa* ssp. *macraei* and *Stenogyne cranwelliae* overlap with these plant sections, and factors used to delineate the critical habitat boundaries for these species are consistent with our critical habitat methodology. These factors include information on known past and present locations of the species, landcover and ecosystem data sources by USGS Carbon Assessment Landcover Data (Selmants et al. 2017, entire), recovery areas described by the species' draft recovery plan, projections of geographic ranges of Hawaiian plant species (Price et al. 2012, entire; Service 2022b–l, entire), and adequacy of habitat to allow for the larger populations needed to meet recovery goals (as described in the draft recovery plan (Service 2022a, entire)). We considered all of these factors to delineate the critical habitat boundaries for these species, and these areas are essential for the conservation of these species. As a result, in this final rule, we retain the designations of critical habitat for *Schiedea diffusa* ssp. *macraei* and *Stenogyne cranwelliae* in plant Sections 4, 5, 6, 8, 9, 11, 12, and 13 as proposed.

For information about plant Section 7, and our final critical habitat designation for *Cyrtandra wagneri,* see Summary of Changes from the Proposed Rule, above, and Final Critical Habitat Designation, below.

(11) Comment: The State of Hawaii DOFAW recommended that *Schiedea diffusa* ssp. *macraei* not be removed from plant Section 3. The DOFAW stated that although the *Schiedea diffusa* from Kohala is actually the subspecies *diffusa* (confirmed by experts on the genera), and not *Schiedea diffusa* ssp. *macraei,* this has not been formally recognized.

Our response: We agree that critical habitat for *Schiedea diffusa* ssp. *macraei* should be designated in Section 3 (Units 8, 9, and 54). The additional information provided is reliable and the best available information; therefore, we include the information provided by the commenter in this final critical habitat designation. No change is necessary to Section 3 (Units 8, 9, and 54), as the relevant units are designated as critical habitat for *Schiedea diffusa* ssp. *macraei* in this final rule.

(12) Comment: The State of Hawaii commented that although *Schiedea diffusa* ssp. *macraei* is not known from the geographic area of plant Section 1 (Units 3 and 52), it is an area that supports high-quality habitat that hosts a similar suite of species found near the historical location for *Schiedea diffusa* ssp. *macraei* and could be a potential introduction site.

Our response: In our March 29, 2023, proposed rule, we proposed plant Section 1 (Units 3 and 52) as critical habitat for *Schiedea diffusa* ssp. *macraei* along with several other plants. The type collection by Macrae in 1825 of *Schiedea diffusa* ssp. *macraei* appears to have come from the slopes of Mauna Kea; however, no individuals have been collected from Mauna Kea in recent times (Wagner et al. 2005a, p. 106). We included the information provided by the commenter in this final rule. No change is necessary to Section 1 (Units 3 and 52), as the relevant units are designated as critical habitat for *Schiedea diffusa* ssp. *macraei* in this final rule.

(13) Comment: The State of Hawaii DOFAW commented that they support designating critical habitat but stated that the process could be improved by incorporating a slightly more detailed assessment of habitat quality, potential for habitat protection and ecosystem restoration, suitability as remnant habitat, and potential as reintroduction areas, as well as species' history and distribution. In addition, they state that targeted outreach to private landowners and increased collaboration could be beneficial.

Our response: As described in the March 29, 2023, proposed rule, within areas where we have information regarding species' observation and distribution, annual precipitation, elevation, soil, substrate, associated native plant genera, landcover and ecosystem data, and projections of species' geographic ranges, we included that information in our analysis. We considered the best available information and the physical or biological features essential to the conservation of each species in the critical habitat designation. We met with private landowners to help explain this critical habitat designation. We provided information about our compilation of available information on

species and habitat areas on Hawai'i Island, and requested updated information from landowners. We reviewed and incorporated new information from these meetings into this final rule. We acknowledge that the State has been a strong collaborator in developing our critical habitat areas, and we look forward to continued engagement.

Public Comments

(14) Comment: One commenter requested clarification on the exclusion policy and further justification for not including exempted areas.

Our response: Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that critical habitat is exempted on areas owned or controlled by the DoD that are subject to an integrated natural resources management plan prepared under 16 U.S.C. 670a that provides benefit to the listed species under consideration for critical habitat designation. In addition, an area may be excluded from critical habitat under section 4(b)(2) of the Act based on economic impacts, impacts on national security, or any other relevant impacts, if the benefits of the exclusion outweigh the benefits of inclusion as critical habitat and the failure to designate the area as critical habitat will not result in the extinction of the species (see 50 CFR 424.19 and 81 FR 7226, February 11, 2016). Details about exemptions and exclusions, and justification for those relevant to this critical habitat designation, can be found below under Exemptions and Consideration of Impacts under Section 4(b)(2) of the Act.

(15) Comment: One commenter stated that the greatest risk and current threat to the palm (*Pritchardia lanigera*) are rats that consume seeds, thereby hindering palm reproduction, and that collection is not a threat to the palm.

Our response: Pritchardia lanigera is easy to identify and may be attractive to collectors of rare palms for personal use, for trade, or for sale (Shirey et al. 2013, pp. 301–302). Several nurseries advertise and sell *Pritchardia* palms, including *P. lanigera* and other federally listed *Pritchardia* species, indicating that *Pritchardia* are attractive to some collectors. Collection is a threat to *P. lanigera* that would likely increase if we were to designate critical habitat for the species, as such designation would aid collectors in locating occurrences of the species (Shirey et al. 2013, p. 307; Weisenberger 2023, pers. comm.). Therefore, the designation of critical habitat for *Pritchardia lanigera* is not prudent due to the threat of collection.

(16) Comment: One commenter disagreed with the not-prudent critical habitat determination for *Vetericaris chaceorum.* When the Service listed *V. chaceorum* as endangered, overcollection for commercial and recreational purposes was not listed as a threat to the species. The commenter stated that *V. chaceorum* has only been documented in two specific locations, which have already been identified in the species' listing, have already been disclosed in the **Federal Register**, and are found easily online.

Our response: Vetericaris chaceorum is one of several different species and taxon of Hawaiian anchialine pool shrimp and is the largest of the anchialine pool shrimp found in Hawai'i (Yamamoto et al. 2015, p. 40). Anchialine pools are sensitive discrete ecosystems, and a single pool system can be home to many different species of anchialine pool shrimp.

We agree with the commenter that we did not cite overcollection as a threat to *V. chaceorum* when we listed it as endangered (78 FR 64638; October 29, 2013, pp. 63978–63978). However, after listing *V. chaceorum,* new information has become available highlighting a new threat in the form of collection and overutilization, as described in our proposed rule (88 FR 18756, March 29, 2023). Coincidentally after listing *V. chaceorum,* popularity in the aquarium trade of another Hawaiian anchialine shrimp species, *Halocaridina rubra,* commonly called the Hawaiian red shrimp or volcano shrimp, has increased worldwide (Yamamoto et al. 2015, p. 83). This increase in collection activities of *H. rubra* has resulted in a risk to *V. chaceorum,* due to these two species sharing a similar appearance and habitat preferences. The shrimp that are being harvested are primarily *H. rubra,* which is not endangered, but as the popularity of this business increases there is risk that the endangered *V. chaceorum* may either intentionally or accidentally be harvested and become part of the aquarium trade. Collectors may target *V. chaceorum* due to its similar appearance, rarity, and aesthetic, or collectors attempting to harvest the *H. rubra* that occur in the same pools as *V. chaceorum* may accidentally harvest both species (Sakihara 2012, entire). Because this shrimp is so rare, a single person with a hand-net could do irreparable damage to a population of *V. chaceorum* (Yamamoto 2015, pers. comm.).

Although more than 400 of the estimated 520 to 560 anchialine pool habitats have been surveyed on the island of Hawai'i, *V. chaceorum* has only been documented from two locations, indicating that this species has a very limited range, likely due to its behavior and salinity preferences (see 78 FR 64638, October 29, 2013). While general occurrence locations were included in the October 29, 2013, rule listing *V. chaceorum* as an endangered species, specifically defining occupied areas by geographic coordinates through a critical habitat designation may pose a risk to *V. chaceorum* by causing increased unauthorized collection by individuals seeking *Halocaridina rubra,* a prey source for *V. chaceorum.*

(17) Comment: The Nature Conservancy stated the Service should have designated as critical habitat areas occupied by *Drosophila digressa* in mesic forest below Kona Hema Preserve at Honomalino, and at Kīpuka Punahou.

Our response: We have reviewed the new information provided by the commenter, as well as similar information provided by a peer reviewer, regarding *Drosophila digressa* occurrences, and we evaluated the areas for inclusion in this critical habitat designation. The Nature Conservancy's suggestion regarding Honomalino is supported by information provided by one peer reviewer, as described above in Summary of Changes from the Proposed Rule. We have determined that the Honomalino area the commenter suggested for inclusion should be included in this critical habitat designation, and we include it in this designation as a new *Drosophila digressa*—Unit 6. The area is occupied by *D. digressa* as a new population discovered in 2022, has at least one physical or biological feature essential to the conservation of *D. digressa,* and may require special management considerations or protection.

We do not, however, include Kīpuka Punahou, which is also known as Kīpuka 9 located along Saddle Road, in this designation. The commenter did not provide any information to indicate that this area is currently occupied by *Drosophila digressa,* and the best available information indicates that the species was last observed in this area in 1986 (Hawaii Natural Heritage Program 2011, in litt.). Further, because of the lack of breeding substrate in the area, an individual *Drosophila digressa* observed in Kīpuka Punahou would likely be a vagrant (Magnacca 2012, pers. comm., entire).

Background

For species with Hawaiian common names, we prefer to, and will, include Hawaiian language spellings, including diacritical marks, to the degree possible and appropriate in the preambles of our **Federal Register** documents. For the

text to be codified in the Code of Federal Regulations (CFR), however, we will omit diacritical marks to ensure that no errors are inadvertently incorporated during the codification process.

Species Descriptions

We provide a brief description for each of the 14 species addressed in this rule, below.

Bidens hillebrandiana ssp. *hillebrandiana* (koʻokoʻolau), a short-lived perennial herb in the sunflower family (Asteraceae), occurs only on the island of Hawaiʻi (Ganders and Nagata 1999, pp. 275–276). Historically, *B. hillebrandiana* ssp. *hillebrandiana* was known from two locations along the windward Kohala coastline, in the coastal and dry cliff ecosystems, often along rocks just above the ocean (Degener and Wiebke 1926, in litt.; Flynn 1988, in litt.).

Cyanea marksii (hāhā), a short-lived perennial palmlike shrub in the bellflower family (Campanulaceae), is found only on the island of Hawaiʻi. Historically, *C. marksii* was known from the Kona district, in the lowland wet and montane wet ecosystems (Lammers 1999, p. 457; Hawaiʻi Biodiversity Mapping Program (HBMP) database 2010b).xxxxxxx

Cyanea tritomantha (ʻakū), a short-lived perennial palmlike shrub in the bellflower family (Campanulaceae), is known only from the island of Hawaiʻi (Pratt and Abbott 1997, p. 13; Lammers 2004, p. 89). Historically, this species was known from the windward slopes of Mauna Kea, Mauna Loa, Kīlauea, and the Kohala Mountains, in the lowland wet, montane wet, and wet cliff ecosystems (Pratt and Abbott 1997, p. 13).

Cyrtandra nanawaleensis (haʻiwale), a short-lived perennial shrub or small tree in the African violet family (Gesneriaceae), is known only from the island of Hawaiʻi (Wagner and Herbst 2003, p. 29; Wagner et al. 2005b). Historically, *C. nanawaleensis* was known only from the lowland wet ecosystems in the Puna district (St. John 1987, p. 500; Wagner et al. 1988, in litt.; HBMP 2010d).

Cyrtandra wagneri (haʻiwale), a short-lived perennial shrub or small tree in the African violet family (Gesneriaceae), occurs only on the island of Hawaiʻi (Lorence and Perlman 2007, p. 357). Historically, *C. wagneri* was known in the lowland wet ecosystem along the northeast side of the island (Lorence and Perlman 2007, p. 359).

Melicope remyi (no common name), a long-lived perennial shrub or shrubby tree in the rue family (Rutaceae), occurs only on the island of Hawaiʻi (Stone et al. 1999, p. 1210; Service 2010, pp. A–11, 4–74). Historically, *M. remyi* was known from a few scattered individuals on the windward slopes of the Kohala Mountains and several small populations on the windward slopes of Mauna Kea, in the lowland wet and montane wet ecosystems (Stone et al. 1999, p. 1210; HBMP 2010f).

Phyllostegia floribunda (no common name), a short-lived perennial subshrub in the mint family (Lamiaceae), is found only on the island of Hawaiʻi (Wagner 1999, p. 268; Wagner et al. 1999a, p. 815). Historically, *P. floribunda* was reported in the lowland wet, montane mesic, and montane wet ecosystems at scattered sites along the eastern side of the island.

Pittosporum hawaiiense (hōʻawa, hāʻawa), a small, long-lived perennial tree in the pittosporum family (Pittosporaceae), is known only from the island of Hawai'i (Wagner et al. 1999b, p. 1,044). Historically, *P. hawaiiense* was known from the leeward side of the island, from the Kohala Mountains south to Kaʻū, in the lowland mesic, montane mesic, and montane wet ecosystems (Wagner et al. 1999b, p. 1,044).

Pritchardia lanigera (loulu), a medium-sized, long-lived perennial tree in the palm family (Arecaceae), is found only on the island of Hawaiʻi (Read and Hodel 1999, p. 1,371; Hodel 2007, pp. 10, 24–25). Historically, *P. lanigera* was known from the Kohala Mountains, Haāmākua district, windward slopes of Mauna Kea, and southern slopes of Mauna Loa, in the lowland mesic, lowland wet, montane wet, and wet cliff ecosystems (Read and Hodel 1999, p. 1,371; National Park Service 2015, pp. 467–468)

Schiedea diffusa ssp. macraei (no common name), a short-lived perennial climbing herb in the pink family (Caryophyllaceae), is reported only from the island of Hawaiʻi (Wagner et al. 2005c; Wagner et al. 2005a, p. 106). Historically, *S. diffusa* ssp. *macraei* was known from the Kohala Mountains, the windward slopes of Mauna Loa, and the Olaʻa Tract of Hawaiʻi Volcanoes National Park, in the montane wet ecosystem (Perlman et al. 2001, in litt.; Wagner et al. 2005a, p. 106; HBMP 2010g).

Schiedea hawaiiensis (māʻoliʻoli), a short-lived perennial herb in the pink family (Caryophyllaceae), is known only from the island of Hawaiʻi (Wagner et al. 2005a, pp. 92–96). Historically, *S. hawaiiensis* was known from a single site between Mauna Loa and Mauna Kea mountains in the montane dry ecosystem (Hillebrand 1888, p. 33; Wagner et al. 2005a, pp. 92–96).

Stenogyne cranwelliae (no common name), a short-lived perennial vine in the mint family (Lamiaceae), is known only from the island of Hawaiʻi. Historically, *S. cranwelliae* was known from the Kohala Mountains, in the montane wet and wet cliff ecosystems (Weller and Sakai 1999, p. 837).

Drosophila digressa (Hawaiian picture-wing fly), a member of the family Drosophilidae, is found only on the island of Hawaiʻi and historically known from five locations on the island in elevations ranging from approximately 2,000 to 4,500 feet (ft) (610 to 1,370 meters (m)), in the lowland mesic, montane mesic, and montane wet ecosystems (Hardy and Kaneshiro 1968, p. 182; Montgomery 1975, p. 95; Magnacca 2012, pers. comm.). This species is small, with adults ranging in size from 0.15 to 0.19 inches (in) (4.0 to 5.0 millimeters (mm)) in length. Adults are brownish yellow in color and have yellow-colored legs and hyaline (shiny-clear) wings with prominent brown spots. Like many endemic Hawaiian Drosophilidae species, *D. digressa* are highly host-plant-specific (Magnacca et al. 2008, p. 1), relying on the decaying stems of *Charpentiera* spp., *Ceodes brunoniana* (previously known as *Pisonia brunoniana*), and *Rockia sandwicensis* (previously known as *Pisonia sandwicensis*) for reproduction and larval substrate (Magnacca et al. 2008, pp. 11, 13; Magnacca 2012, pers. comm.).

Vetericaris chaceorum (anchialine pool shrimp), a small shrimp in the family Procarididae, is endemic to Hawaiʻi. Anchialine pools are coastal, land-locked bodies of water that have underground hydrological connections to the ocean, contain varying levels of salinity, and show tidal fluctuations in water level. Vetericaris chaceorum is one of seven described species of hypogeal (underground) shrimp found in the Hawaiian Islands that occur in anchialine pools (Brock 2004, p. 6) and is relatively large in size for a hypogeal shrimp species; adult *V. chaceorum* measure approximately 2.0 in (5.0 centimeters (cm)) in total body length, excluding the primary antennae, which are approximately the same length as the adult's body length (Kensley and Williams 1986, p. 419). The species lacks large chelapeds (claws) (Kensley and Williams 1986, p. 426), which are a key diagnostic characteristic of all other known shrimp species. Vetericaris chaceorum is largely devoid of pigment and lacks eyes, although eyestalks are

present (Kensley and Williams 1986, p. 419).

Additional information on the descriptions of each species' occurrence can be found in the proposed (77 FR 63928, October 17, 2012) and final (78 FR 64638, October 29, 2013) listing rules for these species and in the proposed critical habitat rule (88 FR 18756, March 29, 2023).

Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations in title 50 of the Code of Federal Regulations set forth the procedures for determining whether a species is an endangered species or a threatened species, issuing protective regulations for threatened species, and designating critical habitat for endangered and threatened species. In 2019, jointly with the National Marine Fisheries Service, the Service issued a final rule that revised the regulations in 50 CFR part 424 regarding how we add, remove, and reclassify endangered and threatened species and the criteria for designating listed species' critical habitat (84 FR 45020; August 27, 2019).

Our analysis for this decision applied our current regulations, portions of which were last revised in 2019. Given that we proposed further revisions to these regulations on June 22, 2023 (88 FR 40764), we have also undertaken an analysis of whether the decision would be different if we were to apply those proposed revisions. We concluded that the decision would have been the sameif we had applied the proposed 2023 regulations. The analyses under both the regulations currently in effect and the regulations after incorporating the June 22, 2023, proposed revisions are included in our decision file.

Critical Habitat

Section 4(a)(3) of the Act requires that, to the maximum extent prudent and determinable, we designate a species' critical habitat concurrently with listing the species. 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.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.,* range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.,* migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

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 also 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. Rather, designation requires that, where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the Federal agency consult with the Service under section 7(a)(2) of the Act. If the action may affect the listed species itself (such as for occupied critical habitat), the Federal action agency would have already been required to consult with the Service even absent the critical habitat designation because of the requirement to ensure that the action is not likely to jeopardize the continued existence of the species. Even if the Service were to conclude after consultation that the proposed activity is likely to result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must 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 data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat).

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.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific 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 from the species status report and 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 ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species; and (3) the prohibitions found in section 9 of the Act. 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, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Physical or Biological Features Essential to the Conservation of the Species

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas we will designate as critical habitat from within the geographical area occupied by the species at the time of listing, we consider the physical or biological features that are essential to the conservation of the species, and which may require special management considerations or protection. The regulations at 50 CFR 424.02 define ''physical or biological features essential to the conservation of the species'' as the features that occur in specific areas and that are essential to support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity. For example, physical features essential to the conservation of the species might include gravel of a particular size required for spawning, alkaline soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or absence of a particular level of nonnative species consistent with conservation needs of the listed species. The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic essential to support the life history of the species.

In considering whether features are essential to the conservation of the species, we may consider an appropriate quality, quantity, and spatial and temporal arrangement of habitat characteristics in the context of the life-history needs, condition, and status of the species. These characteristics include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing (or development) of offspring; and habitats that are protected from disturbance.

In this rule, the physical or biological features are based on the features of the six ecosystem types on which the 11 plant (*Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea marksii, Cyanea tritomantha, Cyrtandra nanawaleensis, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Schiedea hawaiiensis, Stenogyne cranwelliae*) and 1 animal (*Drosophila digressa*) species depend (see table 1, below). These six ecosystems are coastal, dry forest, mesic forest, wet forest, mesic grassland and shrubland, and wet grassland and shrubland; we summarize the descriptions of these ecosystems and our source for the descriptions below. The physical or biological features essential to the conservation of the species identified in this rule are those features required for the successful functioning of the ecosystem in which these species occur or have historically occurred (see table 2, below). Although critical habitat is identified for each species individually, we have found that the conservation of each depends, at least in part, on the successful functioning of the commonly shared ecosystem. Ecosystem parameters include elevation, precipitation, substrate, and associated native plant genera. These ecosystem parameters describe the species-specific physical or biological features of the functioning ecosystems on which these listed species depend. For example, the associated native plant genera described as physical or biological features for these 12 listed species are representative of the native plant genera that occur in the functioning ecosystems on which these 12 species depend, and as such, the occurrence of these native plant genera indicate functioning native ecosystems that provide the fundamental biological requirements for the listed species in these areas. Additionally, *Drosophila digressa* relies on native plant genera, specifically *Charpentiera, Rockia,* and *Ceodes,* as native plant host resources, and without which this species would be highly vulnerable to mortality, reproductive failure, and cyclical population variation related to fluctuations in breeding resources (Magnacca et al. 2008, p. 32).

Coastal (as Described by Kim et al. 2020, p. 2)

Coastal ecosystems are defined as near-shore areas that are impacted by the ocean and generally occur within 328 ft (100 m) of high tide up to 984 ft (300 m) in elevation. Coastal ecosystems are found on all the main Hawaiian Islands and include coastal dry herblands, coastal dry grasslands, coastal mixed communities, coastal dry shrublands, coastal dry forests, and coastal wet-mesic forests. Coastal substrate includes well-drained talus, calcareous slopes, and dunes. Annual precipitation ranges from less than 47 in (120 cm) in the coastal dry ecosystem to 47 to 98 in (120 to 250 cm) in the coastal mesic ecosystem, and to more than 98 in (250 cm) in the coastal wet ecosystem. *Bidens hillebrandiana* ssp. *hillebrandiana* is the only species addressed in this rule known to occupy a coastal ecosystem, and more

specifically the coastal wet ecosystem that receives higher rainfall.

Dry Forest (as Described by Javar-Salas et al. 2020, p. 2)

Dry forest ecosystems are found on all of the main Hawaiian Islands and include lowland dry forest and montane-alpine dry forest. Dry forest is found from 0 to 9,500 ft (0 to 2,900 m). Annual precipitation ranges from 12 to 79 in (30 to 200 cm). Substrates are generally well-drained, sandy loams from volcanic ash or cinder and weathered basaltic lava in lowland dry forest to well-drained, loams from volcanic ash, cinder, and weathered basaltic lava in montane-alpine dry forest. *Schiedea hawaiiensis* is the only species addressed in this rule known to occupy the dry forest ecosystem.

Mesic Forest (as Described by Lowe et al. 2020, pp. 2–7)

Mesic forest ecosystems include lowland mesic forest and montane subalpine mesic forest. Elevation ranges from 98 to 5,249 ft (30 to 1,600 m) in lowland mesic forest to 2,953 to 6,562 ft (900 to 2,000 m) in montane subalpine mesic forest. Annual precipitation ranges from 39 to 150 in (100 to 380 cm) in montane subalpine to 47 to 150 in (120 to 380 cm) in lowland mesic forest. Substrates are generally well-drained and include rocky, shallow, organic muck soils; steep rocky talus soils; shallow soils over weathered rock in steep gulches; deep soils over soft weathered rock; and gravelly alluvium. The plants *Cyrtandra nanawaleensis, Phyllostegia floribunda,* and *Pittosporum hawaiiense* addressed in this rule are found in the mesic forest ecosystem. The picture-wing fly, *Drosophila digressa,* addressed in this rule is also found in the mesic forest ecosystem.

Wet Forest (as Described by Clark et al. 2020, p. 2)

Wet forest ecosystems include lowland rainforest, montane rainforest, and montane cloud forest. Elevation ranges from 328 to 3,937 ft (100 to 1,200 m) in lowland rainforest; 2,700 to 7,218 ft (823 to 2,200 m) in montane rainforest; and 2,461 to 6,070 ft (750 to 1,830 m) in montane cloud forest. Annual precipitation is greater than 98 in (250 cm). Substrates range from very weathered soils to rocky substrate with classes of undeveloped and developed soil substrates formed from basalt lava. The plants *Cyanea marksii, Cyanea tritomantha, Cyrtandra nanawaleensis, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Melicope remyi, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* addressed in this rule are found in the wet forest ecosystem. *Drosophila digressa* is also found in the wet forest ecosystem.

Mesic Grassland and Shrubland (as Described by Ball et al. 2020, p. 2)

Mesic grassland and shrubland ecosystems include lowland mesic shrubland, subalpine mesic shrubland, montane-subalpine mesic grassland, and lowland mesic grassland. Elevation ranges from 98 to 7,546 ft (30 to 2,300 m). Annual precipitation ranges from 39 to 98 in (100 to 250 cm). Substrates generally include shallow soils that frequently dry with rocky outcrops. *Cyrtandra nanawaleensis* is the only species addressed in this rule known to occupy the mesic grassland and shrubland ecosystem.

Wet Grassland and Shrubland (as Described by Nelson et al. 2020, p. 3)

Wet grassland and shrubland ecosystems include native wet sedge and grassland and native wet cliff and crest shrubland. Elevation ranges from 656 to 2,953 ft (200 to 900 m). Annual precipitation ranges from 98 to 197 in (250 to 500 cm). Substrates range from older, weathered soils to younger, rocky substrates. The plants *Cyanea tritomantha* and *Phyllostegia floribunda* addressed in this rule are found in the wet grassland and shrubland ecosystem.

Summary of Essential Physical or Biological Features

We derive the specific physical or biological features essential to the conservation of the 12 species from studies of the species' habitat, ecology, and life history as described below. Additional information about the ecosystems containing these physical or biological features and descriptions of each species' occurrence within these ecosystems can be found in the proposed (77 FR 63928, October 17, 2012) and final (78 FR 64638, October 29, 2013) listing rules and the proposed critical habitat rule (88 FR 18756, March 29, 2023) for these species. Each species identified in this rule requires the physical or biological features for each ecosystem in which that species occurs, as noted below in table 1. Table 2, below, identifies the physical or biological features of a functioning ecosystem for each of the ecosystem types identified in this rule. The physical or biological features are defined here by elevation, annual levels of precipitation, substrate type, and the characteristic native plant genera that are found in the canopy, subcanopy, and understory levels of the vegetative community where applicable. Due to our limited knowledge of the specific life-history requirements for the species that are little-studied and occur in remote and inaccessible areas, the physical or biological features described in this document that provide for the successful function of the ecosystem that is essential to the conservation of the species represents the best, and, in many cases, the only, scientific information available. Accordingly, the physical or biological features of a functioning ecosystem are, at least in part, the physical or biological features essential to the conservation of these 12 species.

TABLE 1—TWELVE SPECIES AND APPLICABLE ECOSYSTEMS

[Note: All species, except for *Bidens hillebrandiana* ssp. *hillebrandiana* and *Schiedea hawaiiensis* are found in multiple ecosystems]

Ecosystem	Species
Coastal	*Bidens hillebrandiana* ssp. *hillebrandiana*.
Dry Forest	*Schiedea hawaiiensis*.
Mesic Forest	*Cyrtandra nanawaleensis, Phyllostegia floribunda, Pittosporum hawaiiense,* and *Drosophila digressa*.
Wet Forest	*Cyanea marksii, Cyanea tritomantha, Cyrtandra nanawaleensis, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Melicope remyi, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa*.
Mesic Grassland and Shrubland	*Cyrtandra nanawaleensis*.
Wet Grassland and Shrubland	*Cyanea tritomantha, Phyllostegia floribunda*.

TABLE 2—PHYSICAL OR BIOLOGICAL FEATURES FOR EACH ECOSYSTEM UPON WHICH THE 12 SPECIES DEPEND
[Read in association with table 1]

Ecosystem	Elevation	Annual precipitation	Substrate	Contain one or more of these associated native plant genera		
				Canopy	Subcanopy	Understory
Coastal	<984ft (<300 m)	<47 to >98 in (<120 cm to >250 cm).	well-drained talus, calcareous slopes, dunes.	*Diospyros, Metrosideros, Myoporum, Pritchardia.*	*Chenopodium, Gossypium, Heliotropium, Santalum, Scaevola.*	*Eragrostis, Sesuvium, Sida, Sporobolus.*
Dry Forest	<9,500 ft (<2,900 m).	<79 in (<200 cm).	well-drained, sandy loams or loams from volcanic ash or cinder; weathered basaltic lava.	*Acacia, Colubrina, Diospyros, Erythrina, Melicope, Metrosideros, Myoporum, Myrsine, Sophora.*	*Achyranthes, Euphorbia, Leptecophylla, Nototrichium.*	*Dodonaea, Doryopteris, Heteropogon, Pellaea.*
Mesic Forest	<6,562 ft (<2,000 m).	39–150 in (100–380 cm).	rocky, shallow, organic muck soils; rocky talus soils; shallow soils over weathered rock; deep soils over soft weathered rock; gravelly alluvium.	*Acacia, Antidesma, Charpentiera, Chrysodracon, Metrosideros, Myrsine, Nestegis, Pisonia, Santalum.*	*Coprosma, Freycinetia, Leptecophylla, Myoporum, Pipturus, Rubus, Sadleria, Sophora.*	*Ctenitis, Doodia, Dryopteris, Pelea, Sadleria.*
Wet Forest	<7,218 ft (<2,200 m).	>98 in (≤ 250 cm).	very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.	*Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*	*Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*	*Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*
Mesic Grassland and Shrubland.	98–7,546 ft (30–2,300 m).	39–98 in (100–250 cm).	shallow soils that frequently dry with rocky outcrops.	*Coprosma, Metrosideros, Wilkesia.*	*Dodonaea, Dubautia, Leptecophylla, Osteomeles, Sadleria, Vaccinium.*	*Bidens, Carex, Deschampsia, Dicranopteris, Dryopteris, Eragrostis, Euphorbia, Lipochaeta.*
Wet Grassland and Shrubland.	656–2,953 ft (200–900 m).	98–197 in (250–500 cm).	older, weathered soils to younger, rocky substrates.	*Ilex, Kadua, Melicope, Metrosideros, Myrsine.*	*Cibotium, Clermontia, Dubautia, Freycinetia, Hydrangea, Lobelia, Pipturus, Touchardia, Urera, Vaccinium.*	*Carex, Cladium, Deschampsia, Dicranopteris, Eragrostis, Peperomia, Phyllostegia, Scaevola.*

The physical or biological features identified in this rule take into consideration the ecosystem types in which each species occurs, 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 essential distribution (whether the populations occur in habitats representative of the species' historical geographical and ecological distribution, and are sufficiently redundant to withstand the loss of some populations over time). This assessment 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 recovery.

Some of the species addressed in this rule occur in more than one ecosystem. We describe the physical or biological features for these species separately for each ecosystem in which they occur. We took this approach because each species requires a different suite of environmental conditions depending upon the ecosystem in which it occurs. For example, *Cyrtandra nanawaleensis* will occur in association with different native plant species, depending on the mesic forest, wet forest, or mesic grassland and shrubland ecosystem type where it is found. Each of the physical or biological features described in each ecosystem in which the species occurs are essential to the conservation of the species, which includes the ability to support the geographical and ecological distribution across the different ecosystem types where the species occurs. Each physical or biological feature is also essential to retaining the genetic representation that allows the species to successfully adapt to different environmental conditions in various native ecosystems. Although some of these species occur in multiple native ecosystems, their declining abundance in the face of ongoing threats, such as increasing numbers of nonnative plant competitors, indicates that they are not such broad habitat generalists as to be able to persist in highly altered habitats. Based on an analysis of the best available scientific information, functioning native ecosystems provide the fundamental biological requirements for the narrow-range, island-endemic species that are addressed in this rule.

We offer some examples to help readers understand our approach to describing the physical or biological features for each species. For example, to understand the physical or biological features for the plant *Bidens hillebrandiana* ssp. *hillebrandiana,* first look at table 1 and see that *B. hillebrandiana* ssp. *hillebrandiana* depends on the coastal ecosystem. Then table 2 indicates that the physical or biological features in the coastal ecosystem include elevations of less than 984 ft (300 m); annual precipitation ranges from less than 47 in (120 cm) to more than 98 in (250 cm); well-drained talus, calcareous slopes, and dunes; and one or more genera of the subcanopy and understory plants *Chenopodium, Eragrostis, Gossypium, Heliotropium, Santalum, Scaevola, Sesuvium, Sida,* and *Sporobolus,* and one or more of the genera of the canopy species *Diospyros, Metrosideros, Myoporum,* and *Pritchardia.* The specific physical or biological features for *B. hillebrandiana*

ssp. *hillebrandiana* are intrinsically tied to the coastal ecosystem. The physical or biological features of the coastal ecosystem best approximate the physical or biological features for *B. hillebrandiana* ssp. *hillebrandiana.* Thus, we use the physical and biological features provided in the ecosystem in which *B. hillebrandiana* ssp. *hillebrandiana* is found as the physical and biological features for *B. hillebrandiana* ssp. *hillebrandiana.*

As another example, table 1 indicates the physical or biological features for the plant *Phyllostegia floribunda* include the ecosystem-level physical or biological features for the mesic forest, wet forest, and wet grassland and shrubland ecosystems. The physical or biological features for *P. floribunda* are thus composed of the physical or biological features for each of the three ecosystems it occupies, as described in table 2 for the mesic forest, wet forest, and wet shrubland and grassland ecosystems. Table 1 is read in a similar fashion in conjunction with table 2 to describe the physical or biological features for each of the 12 species for which we are designating critical habitat.

Special Management Considerations or Protection

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 which 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 12 species on the island of Hawai'i for which we are designating critical habitat.

For the 11 plant species and *Drosophila digressa,* we have determined that the features essential to their conservation are those required for the successful functioning of the ecosystem in which they occur (see tables 1 and 2, above); conversely, threats that act at the ecosystem level also act at the species level. Special management considerations or protections may be required throughout designated critical habitat areas to avoid further degradation or destruction of the physical or biological features essential to the 12 species' conservation. Habitat degradation (resulting from, for example, trampling and herbivory by introduced ungulates, fire, drought, and habitat modification by invasive plants) is the greatest threat to these 12 species, and this threat acts at the ecosystem level. Threats specific to *Drosophila digressa* habitat include loss or lack of host plants from ungulates, drought, fire, alteration of microclimate by invasive plants or the plant disease referred to as rapid a death (ROD) (78 FR 64638, October 29, 2013; Service 2023a, pp. 21–28). Some of these threats may be addressed by special management considerations or protection, while others (*e.g.,* sea level rise, hurricanes, drought, volcanic eruption) are beyond the control of landowners and managers. For a more detailed description of threats, please see the proposed listing rule (77 FR 63928 at 63941–63974, October 17, 2012), the final listing rule (78 FR 64638 at 64653–64686, October 29, 2013), and the draft recovery plan (Service 2022a, entire).

While the 12 species share many threats, impacts to individual species and the actions needed to eliminate or manage the threats may differ. Management activities that could minimize or ameliorate these threats include, but are not limited to, ungulate removal and exclusion fencing; control or eradication of significant habitat-modifying, invasive plants; fire management planning and wildfire response; and measures to reduce of the spread of ROD and other plant pathogens. Management activities that could minimize or ameliorate threats specific to *Drosophila digressa* include control measures to reduce and eradicate invasive invertebrates, such as wasps and ants. These management actions would result in the protection of areas providing habitat for the 12 species.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied by the species at the time of listing and refer to these areas as occupied habitat. We also review available information pertaining to habitat requirements of the species in areas outside the geographical area occupied by the species at the time of listing for consideration as critical habitat, and these areas are referred to as unoccupied habitat. We will designate as critical habitat specific areas outside the geographical area occupied by the species only upon a determination that such areas are essential for the conservation of the species. We will only consider unoccupied areas to be essential where a critical habitat designation limited to geographical areas occupied would be inadequate to ensure the conservation of the species. In addition, for an unoccupied area to be considered essential, we must determine that there is a reasonable certainty both that the area will contribute to the conservation of the species and that the area contains one or more of those physical or biological features essential to the conservation of the species.

We are designating both occupied and unoccupied critical habitat for eight species (*Drosophila digressa, Cyanea marksii, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae*). We are not designating any occupied areas as critical habitat for *Schiedea hawaiiensis* because the single area known to be occupied by the species at the time of listing is exempt from designation (see Exemptions, below, for more information). For *Bidens hillebrandiana* ssp. *hillebrandiana, Cyrtandra nanawaleensis,* and *Cyrtandra wagneri,* we are not designating any areas outside the geographical area occupied by the species because we have not identified any unoccupied areas that meet the definition of critical habitat for these species; no unoccupied areas had at least one physical or biological feature essential to the conservation of the species and a reasonable certainty of contributing to conservation.

Except for the designated critical habitat in Unit 55 for *Schiedea hawaiiensis,* all unoccupied critical habitat areas overlap entirely with a geographical area for which we are designating occupied critical habitat for at least one of the other species that are the subjects of this rule. The unoccupied critical habitat in Unit 55 for *Schiedea hawaiiensis* has no overlap in geographic occurrence or range with the other species addressed in this rule. We note that the new plant critical habitat Unit 56 is not occupied by either of the plant species for which it is designated (*Cyanea marksii* and *Schiedea diffusa* ssp. *macraei*) or any of the other nine plant species that are part of this critical habitat designation, but Unit 56 exists entirely within the boundaries of *Drosophila digressa*—Unit 6, which is occupied by *Drosophila digressa.* We are designating areas outside the geographical area occupied by nine species (*Drosophila digressa, Cyanea marksii, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea*

diffusa ssp. *macraei, Stenogyne cranwelliae,* and *Schiedea hawaiiensis*) due to small population sizes, few individuals, or reduced geographic range, which make these species vulnerable to stochastic events. Many of these species are so rare in the wild that they are at a high risk of extirpation or even extinction from various catastrophic events, such as hurricanes or landslides. Therefore, supporting resiliency and redundancy in these species through the establishment of multiple, robust populations is a key component of conservation of the species (Service 2022a, pp. 29–30, 35, 39, 48–49). A designation limited to occupied areas would be inadequate to ensure the conservation of these species. Areas that may have been unoccupied at the time of listing, together with areas occupied at the time of listing, are reasonably certain to provide some or all of the habitat necessary for the expansion of existing wild populations and reestablishment of wild populations within the historical range of the species to achieve a level that could approach recovery. The best available scientific information suggests that the ecosystems in the unoccupied areas in which we are designating critical habitat provide one or more of the physical or biological features that support life-history requirements of these nine species, and thus these unoccupied areas are considered habitat for the conservation of these nine species. These areas support recovery in the case of stochastic events that otherwise have potential to eliminate a species from locations where it is currently found, and some species are only known from one location. We find, therefore, that designation of these unoccupied areas as critical habitat is essential for the conservation of the species. Designating unoccupied areas as critical habitat for these species also promotes conservation actions to restore their historical, geographical, and ecological representation, which are necessary for their recovery.

In this rule, we designate critical habitat for 12 species in 21 distinct areas that include 42 critical habitat units, with animal and plant units identified separately. Each critical habitat unit contains all or some of the physical or biological features essential to the conservation of those individual species that occupy that particular unit, or areas essential for the conservation of those species identified that do not presently occupy that particular unit. The critical habitat for all species includes the functioning ecosystems on which they depend; thus, for those species with life-history requirements that can be supported in multiple ecosystem types, we have identified areas of critical habitat in multiple ecosystem types. For example, the plant *Cyrtandra nanawaleensis* is found in multiple critical habitat units across three ecosystem types: mesic forest, wet forest, and mesic grassland and shrubland.

Because we have determined that the features essential to the conservation of the 12 species are those required for the successful functioning of the ecosystems in which they respectively occur, we grouped species by the commonly shared ecosystem type to delineate critical habitat units. We used similar methods to identify critical habitat unit boundaries for nine plant species: *Cyanea marksii, Cyanea tritomantha, Cyrtandra nanawaleensis, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.* These nine species were considered together because spatial data used for delineating critical habitat are similar among these species, and these species all occur within mesic to wet ecosystems, whereas the remaining two plant species do not (see table 1, above). We considered each species separately within their shared dependence on the functioning ecosystems they have in common. We used separate methods to identify critical habitat unit boundaries for each of the remaining three species: *Bidens hillebrandiana* ssp. *hillebrandiana, Schiedea hawaiiensis,* and *Drosophila digressa. Bidens hillebrandiana* ssp. *hillebrandiana* and *Schiedea hawaiiensis* each occur in an ecosystem type not shared with any of the other 12 species, and *Drosophila digressa* was considered separately because of differences in taxonomy and life history from the plants. Critical habitat boundaries for all species were delineated to clearly depict and promote conservation of these species by identifying the functioning ecosystem on which they depend. Ecosystem types that support the species addressed here but that do not form a contiguous area are divided geographically into separate units. In units consisting of multiple ecosystem types, if a species' physical or biological features are provided by one of the ecosystem types, we designate the entire area as critical habitat for that species. We took this approach because within these units, ecosystem types are patchily distributed at a relatively fine resolution, intermingled, and can be dynamic on a relatively short timescale in their distribution within the critical habitat area.

To delineate the critical habitat units, we relied on an overall conservation strategy in which each of the 12 species was considered separately using a common approach for 9 plant species, and a separate approach for the remaining 2 plant species and *Drosophila digressa.* The goal of the conservation strategy was to identify the specific areas for each species that provide essential physical or biological features without which rangewide resiliency, redundancy, and representation could not be achieved. The conservation strategy considered (1) historical and current distribution of each of the 12 species; (2) assessments of resiliency, redundancy, and representation for each species from the most recent species reports (Service 2023a-n); and (3) recovery planning efforts (Service 2022a, entire). Some of the critical habitat for these 12 species overlies critical habitat already designated for other species on the island of Hawai'i.

In summary, we completed the following basic steps to delineate critical habitat (specific methods follow below):

(1) We compiled the best scientific data available on observations and distributions of the 12 species that were extant at the time of listing;

(2) We compiled all available location and landcover data, including ecosystem type, within the ranges of the 12 species;

(3) We identified areas containing the physical or biological features that may require special management considerations or protection;

(4) We circumscribed boundaries of critical habitat units based on the above information; and

(5) We removed, to the extent practicable, all areas that did not have the specific physical or biological feature components, and therefore are not considered essential to the conservation of one or more of these 12 species.

Based on these five steps, for areas within and outside the geographic area occupied by the species at the time of listing, we delineated critical habitat unit boundaries using the following methods:

(1) Species observation and distribution data sources: We obtained observational and distributional data to include in our Geographic Information System (GIS) database for each of the 12 species including the known locations of the species from the Hawai'i Biodiversity Mapping Program (HBMP) database (HBMP 2010a, entire; HBMP

2010b, entire; HBMP 2010c, entire; HBMP 2010d, entire; HBMP 2010e, entire; HBMP 2010f, entire; HBMP 2010g, entire; HBMP 2010h, entire), the Plant Extinction Prevention Program (PEPP) database (PEPP 2021, unpublished), and our own rare plant database. We also obtained and compiled species information from the plant database housed at National Tropical Botanical Garden (*https://ntbg.org/database/herbarium/*). We used Hawai'i Biodiversity Mapping Program's Geographic reference areas for the Hawaiian Islands in conjunction with known species' location data (Kam 2017, p. 1; Hawai'i Rare Plant Restoration Group 2020, p. 2). For plants, we obtained and compiled species range maps, as determined by plant species ranges in the Hawaiian Islands (Price et al. 2012, entire), and our own plant species range layer adapted from Price et al. 2012 (Service 2022b-l, entire). For *Drosophila digressa,* we created our own potential species range layer using the U.S. Geological Survey's (USGS's) Carbon Assessment Landcover data of 2017 for mesic and wet forest habitats (Selmants et al. 2017, entire; Service 2023a, entire) and the known elevational range of the species, which is between 2,000 to 4,500 ft (600 to 1,400 m). Lastly, we obtained recent biological surveys and reports and discussed that information with qualified individuals familiar with these 12 species and their ecosystems.

We used current and historical species distribution information to develop initial critical habitat boundaries in each of the six ecosystems that would provide for the conservation of the 12 species. The initial boundaries were superimposed over digital topographic maps of the island of Hawai'i and further evaluated. In general, land areas that were identified as highly degraded were removed from the critical habitat units, and natural or constructed features (*e.g.,* ridge lines, valleys, streams, coastlines, roads, lava flows, obvious land features, etc.) were used to delineate the critical habitat boundaries.

(2) Identified areas containing physical or biological features: We obtained and compiled island-wide elevation, annual precipitation, soil substrate, and associated native plant genera data sources (Gagne and Cuddihy 1999, pp. 45–114; LANDFIRE 2016, pp. 1177–1242; Ball et al. 2020, p. 2; Clark et al. 2020, p. 2; Javar-Salas et al. 2020, p. 2; Kim et al. 2020, p. 2; Lowe et al. 2020, pp. 2–7; Nelson et al. 2020, p. 3; Giambelluca et al. 2013, entire; Price and Jacobi 2012, entire). We evaluated areas currently occupied by each species 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. We considered the degree to which the physical or biological features were present or absent in areas as an indication of the successful functioning of the habitat.

(3) Landcover and ecosystem data sources: We obtained and compiled landcover and ecosystem data from the island-wide GIS coverage including USGS Carbon Assessment Landcover data of 2017 (Selmants et al. 2017, entire) and ArcGIS Esri World Imagery of 2022 (Esri 2023, entire); 1:24,000 scale digital raster graphics of USGS topographic quadrangles; and geospatial data sets associated with parcel data from Hawai'i County (Hawaii Statewide GIS Program 2022, entire). We evaluated areas currently occupied by each species. When a species occurs in more than one ecosystem type, we include the full range of ecosystem types within that species' range. For example, *Phyllostegia floribunda* is known from three of the six ecosystem types addressed in this rule: mesic forest, wet forest, and wet grassland and shrubland ecosystem types.

(4) Circumscribed boundaries of potential critical habitat units: We considered several factors in the selection of specific boundaries for critical habitat for the 12 species. We determined critical habitat unit boundaries taking into consideration the information on known past and present locations of the species, landcover and ecosystem data sources by USGS Carbon Assessment Landcover Data (Selmants et al. 2017, entire), recovery areas described by the species' draft recovery plan, projections of geographic ranges of Hawaiian plant species (Price et al. 2012, entire; Service 2022b–l, entire) and *Drosophila digressa* (Service 2023a, entire), and adequate habitat 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 the draft recovery plan (Service 2022a, entire)). Critical habitat boundaries for all species were delineated to promote the conservation of these species by identifying the functioning ecosystems on which they depend.

(5) Removed areas lacking the identified physical or biological features: When determining critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack the physical or biological features necessary for these 12 species. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations (CFR) may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action will affect the physical or biological features in the adjacent critical habitat.

We are designating as critical habitat lands that we have determined are occupied at the time of listing and that contain one or more of the physical or biological features that are essential to support life-history processes of the species. We have determined that occupied areas are inadequate to ensure the conservation of some of the species; therefore, we have also identified, and designate as critical habitat, unoccupied areas that are essential for the conservation of nine of the species (see Final Critical Habitat Designation, below). We have determined that these units are habitat for these nine species and will both contribute to the conservation of the species and contain at least one physical or biological feature essential to the conservation of the species.

Units are designated based on one or more of the physical or biological features being present to support the life-history processes for 1 or more of the 12 species for which we designate critical habitat. Some units contain all of the identified physical or biological features and support multiple life-history 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 map or maps, as modified by any accompanying regulatory text, presented at the end of this document under Regulation Promulgation. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on *https://www.regulations.gov* at Docket No. FWS–R1–ES–2023–0017.

Final Critical Habitat Designation

We are designating approximately 119,326 ac (48,289 ha) as critical habitat in 21 distinct areas that include 42 critical habitat units, with 9 animal and 33 plant units identified separately, for *Drosophila digressa, Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea marksii, Cyanea tritomantha, Cyrtandra nanawaleensis, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Schiedea hawaiiensis,* and *Stenogyne cranwelliae.* The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for each species. Table 3 shows the critical habitat units and the approximate area of each unit by landowner type.

Within the 21 distinct areas, areas of critical habitat for *Drosophila digressa* are described as 9 sequential numbered units, whereas areas of critical habitat for plants are described as 20 sequential numbered sections that are then split into 1 or more units, based on whether they overlap with existing designated critical habitat for other plant species on the island of Hawai'i. Some of the critical habitat for *Drosophila digressa* overlays critical habitat already designated for plant species; however, critical habitat designations for wildlife species at 50 CFR 17.95 are organized differently than critical habitat designations for plant species on the island of Hawai'i at 50 CFR 17.99. Therefore, the critical habitat for *Drosophila digressa* is not presented as being part of any of the existing critical habitat units for plant species. Conversely, for Hawaiian plants only, areas of a plant section that overlay existing Hawaiian plant critical habitat units are assigned to that existing critical habitat unit name. Areas of a plant section that do not overlay existing Hawaiian plant critical habitat are assigned a sequential new critical habitat unit number. This distinction between existing and newly designated critical habitat areas is necessary in order to be consistent with the critical habitat unit numbering system we established earlier for plants on the island of Hawai'i (see 50 CFR 17.99(k)). We provide the critical habitat plant section numbers, where applicable, as well as unit numbers and the corresponding map numbers that appear at 50 CFR 17.99 for ease of reference in the CFR. All units in the designation, with the exception of Unit 55 for *Schiedea hawaiiensis* within Section 19, are considered occupied at the time of listing (see 78 FR 64638; October 29, 2013) by 1 or more of the 12 species for which we are designating critical habitat (see table 4, below). Of the 21 distinct areas for which we are designating critical habitat in this rule, 12 include animal units or plant sections that are both occupied and unoccupied for 2 or more of the 12 Hawai'i island species.

The areas we designate as critical habitat are located in six ecosystem types: (1) coastal, (2) dry forest, (3) mesic forest, (4) wet forest, (5) mesic grassland and shrubland, and (6) wet grassland and shrubland. Critical habitat designations for plants and animals are published in separate sections of the CFR; however, the critical habitat for the 11 plants and *Drosophila digressa* overlap each other in many areas on the island of Hawai'i. For example, ''*Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 1'' and ''*Drosophila digressa*—Unit 1'' overlap entirely within the same geographic area. Therefore, because the section and unit boundaries are the same, we describe them together to avoid redundancy and reduce publication costs for this rule, as indicated by ''and'' following the section name in the headings of the section and unit descriptions, below.

TABLE 3—CRITICAL HABITAT UNITS BY ECOSYSTEM, LAND OWNERSHIP, AND SIZE

[Area estimates reflect all land within critical habitat unit boundaries]

Animal unit	Plant section	Plant unit	Federal (ac (ha))	State (ac (ha))	Private/other (ac (ha))	Total (ac (ha))
Wet Forest*						
Drosophila digressa—Unit 1.	*Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 1.	Unit 3	3,549 (1,436)	7,963 (3,223)	547 (221)	12,059 (4,880)
		Unit 52	549 (222)	2,681 (1,085)	425 (172)	3,656 (1,479)
Subtotal			4,098 (1,658)	10,644 (4,308)	972 (394)	15,714 (6,359)
Drosophila digressa—Unit 7.	*Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 4.	Unit 15		182 (73)		182 (73)
		Unit 39		997 (403)	167 (68)	1,164 (471)
Subtotal				1,179 (477)	167 (68)	1,346 (545)
Drosophila digressa—Unit 8.	*Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 5.	Unit 15		55 (22)	72 (29)	127 (51)
		Unit 38		297 (120)	237 (96)	534 (216)
Subtotal				352 (142)	309 (125)	661 (267)
	Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 6.	Unit 16		156 (63)		156 (63)
		Unit 40		1,190 (482)	52 (21)	1,243 (503)
Subtotal				1,347 (545)	52 (21)	1,399 (566)
Drosophila digressa—Unit 2.	*Cyanea tritomantha, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 11.	Unit 29		494 (200)		494 (200)
		Unit 30	7,232 (2,927)	6,498 (2,630)	<1 (<1)	13,730 (5,556)
		Unit 51	643 (260)	16,905 (6,841)	226 (91)	17,774 (7,193)
Subtotal			7,875 (3,187)	23,897 (9,671)	226 (91)	31,998 (12,949)

TABLE 3—CRITICAL HABITAT UNITS BY ECOSYSTEM, LAND OWNERSHIP, AND SIZE—Continued
[Area estimates reflect all land within critical habitat unit boundaries]

Animal unit	Plant section	Plant unit	Federal (ac (ha))	State (ac (ha))	Private/other (ac (ha))	Total (ac (ha))
Drosophila digressa—Unit 9.	*Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 12.	Unit 37	1,906 (771)		<1 (<1)	1,906 (771)
Subtotal			1,906 (771)		<1 (<1)	1,906 (771)
Drosophila digressa—Unit 5.	*Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 13.	Unit 41		411 (166)	3,001 (1,214)	3,412 (1,381)
Subtotal				411 (166)	3,001 (1,214)	3,412 (1,381)
	Cyrtandra nanawaleensis—Section 15	Unit 47		274 (111)		274 (111)
Subtotal				274 (111)		274 (111)
	Cyrtandra nanawaleensis—Section 16	Unit 48		586 (237)	3 (1)	589 (238)
Subtotal				586 (237)	3 (1)	589 (238)
Drosophila digressa—Unit 6.	*Cyanea marksii, Schiedea diffusa* ssp. *macraei*—Section 20.	Unit 56		224 (91)		224 (91)
Subtotal				224 (91)		224 (91)
Coastal*						
	Bidens hillebrandiana ssp. *hillebrandiana*—Section 2.	Unit 6		2 (1)		2 (1)
		Unit 53		76 (31)	78 (32)	154 (62)
Subtotal				78 (32)	78 (32)	156 (63)
Wet Forest and Wet Grassland and Shrubland*						
	Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 3.	Unit 8		6,805 (2,754)		6,805 (2,754)
		Unit 9			1 (<1)	1 (<1)
		Unit 54		5,855 (2,369)	90 (36)	5,945 (2,406)
Subtotal				12,660 (5,123)	91 (37)	12,751 (5,160)
	Phyllostegia floribunda, Pittosporum hawaiiense—Section 7.	Unit 23	9 (4)			9 (4)
		Unit 45	5,494 (2,223)			5,494 (2,223)
Subtotal			5,503 (2,227)			5,503 (2,227)
	Cyrtandra nanawaleensis, Phyllostegia floribunda—Section 10.	Unit 28		155 (63)		155 (63)
		Unit 46		12,212 (4,942)	7 (3)	12,219 (4,945)
Subtotal				12,368 (5,005)	7 (3)	12,374 (5,008)
Wet Forest and Mesic Forest*						
	Cyanea tritomantha, Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 8.	Unit 24	1,956 (792)			1,956 (792)
		Unit 44	322 (130)	5,561 (2,251)		5,884 (2,381)
Subtotal			2,278 (922)	5,561 (2,251)		7,840 (3,173)
	Pittosporum hawaiiense, Schiedea diffusa ssp. *macraei, Stenogyne cranwelliae*—Section 9.	Unit 24	36 (15)	65 (26)		101 (41)
		Unit 43	1,693 (685)	4,180 (1,691)		5,872 (2,376)
Subtotal			1,729 (700)	4,244 (1,718)		5,973 (2,417)
Drosophila digressa—Unit 3.	*Cyanea tritomantha, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae*—Section 14.	Unit 42	8,773 (3,550)	8 (3)		8,781 (3,554)
Subtotal			8,773 (3,550)	8 (3)		8,781 (3,554)
Wet Forest, Mesic Forest, and Mesic Grassland and Shrubland*						
	Cyrtandra nanawaleensis—Section 17	Unit 49		868 (351)	6 (3)	875 (354)
Subtotal				868 (351)	6 (3)	875 (354)
	Cyrtandra nanawaleensis—Section 18	Unit 50		562 (227)		562 (227)
Subtotal				562 (227)		562 (227)
Dry Forest*						
	Schiedea hawaiiensis—Section 19	Unit 55		6,822 (2,761)		6,822 (2,761)

TABLE 3—CRITICAL HABITAT UNITS BY ECOSYSTEM, LAND OWNERSHIP, AND SIZE—Continued

[Area estimates reflect all land within critical habitat unit boundaries]

Animal unit	Plant section	Plant unit	Federal (ac (ha))	State (ac (ha))	Private/other (ac (ha))	Total (ac (ha))
Subtotal				6,822 (2,761)		6,822 (2,761)
Mesic Forest*						
Drosophila digressa—Unit 4.				167 (67)		167 (67)
Subtotal				167 (67)		167 (67)
Total			32,162 (13,015)	82,252 (33,286)	4,913 (1,988)	119,326 (48,289)

Note: Area sizes may not sum due to rounding.

*Ecosystem subheadings indicate all of the ecosystems that can be found in each unit, but not every species for which each unit is designated is found in every ecosystem found in the unit (see table 1 for the ecosystems within each species may be found).

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TABLE 4—CRITICAL HABITAT UNITS FOR 11 HAWAI'I ISLAND PLANT SPECIES.
[O=occupied critical habitat, UN=unoccupied critical habitat.]

Plant Section	Plant Unit	*Bidens hillebrandiana* ssp. *hillebrandiana*	*Cyanea marksii*	*Cyanea tritomantha*	*Cyrtandra nanawaleensis*	*Cyrtandra wagneri*	*Melicope remyi*	*Phyllostegia floribunda*	*Pittosporum hawaiiense*	*Schiedea diffusa* ssp. *macraei*	*Schiedea hawaiiensis*	*Stenogyne cranwelliae*	Corresponding critical habitat map in the Code of Federal Regulations (CFR)
1	3	-	-	O	-	O	O	O	UN	UN	-	O	11a
	52	-	-	O	-	O	O	O	UN	UN	-	O	119
2	6	O	-	-	-	-	-	-	-	-	-	-	24a
	53	O	-	-	-	-	-	-	-	-	-	-	120
3	8	-	-	O	-	-	UN	UN	O	O	-	O	27a
	9	-	-	O	-	-	UN	UN	O	O	-	O	38a
	54	-	-	O	-	-	UN	UN	O	O	-	O	121
4	15	-	O	-	-	-	-	O	O	UN	-	UN	58a
	39	-	O	-	-	-	-	O	O	UN	-	UN	108
5	15	-	O	-	-	-	-	UN	UN	UN	-	UN	58a
	38	-	O	-	-	-	-	UN	UN	UN	-	UN	107
6	16	-	O	-	-	-	-	O	UN	UN	-	UN	60a
	40	-	O	-	-	-	-	O	UN	UN	-	UN	109
7	23	-	-	-	-	-	-	O	O	-	-	-	74a
	45	-	-	-	-	-	-	O	O	-	-	-	114
8	24	-	-	O	-	-	-	-	O	O	-	UN	78a
	44	-	-	O	-	-	-	-	O	O	-	UN	113
9	24	-	-	-	-	-	-	-	O	O	-	UN	78a
	43	-	-	-	-	-	-	-	O	O	-	UN	112
10	28	-	-	-	O	-	-	O	-	-	-	-	89a
	46	-	-	-	O	-	-	O	-	-	-	-	115
11	29	-	-	O	-	-	-	O	O	O	-	UN	91a
	30	-	-	O	-	-	-	O	O	O	-	UN	98a
	51	-	-	O	-	-	-	O	O	O	-	UN	118
12	37	-	O	-	-	-	-	UN	UN	UN	-	UN	106
13	41	-	O	-	-	-	-	O	O	UN	-	UN	110
14	42	-	-	UN	-	-	-	UN	O	O	-	UN	111
15	47	-	-	-	O	-	-	-	-	-	-	-	116
16	48	-	-	-	O	-	-	-	-	-	-	-	116
17	49	-	-	-	O	-	-	-	-	-	-	-	117
18	50	-	-	-	O	-	-	-	-	-	-	-	117
19	55	-	-	-	-	-	-	-	-	-	UN	-	122
20	56	-	UN	-	-	-	-	-	-	UN	-	-	123

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TABLE 5—CRITICAL HABITAT UNITS FOR DROSOPHILA DIGRESSA
[Picture-wing fly]

Critical habitat unit	Occupied/unoccupied	Corresponding critical habitat map in the Code of Federal Regulations (CFR)
Drosophila digressa—Unit 1	Unoccupied	*Drosophila digressa*—Hawai'i Island, HI—Unit 1.

TABLE 5—CRITICAL HABITAT UNITS FOR DROSOPHILA DIGRESSA—Continued

[Picture-wing fly]

Critical habitat unit	Occupied/unoccupied	Corresponding critical habitat map in the Code of Federal Regulations (CFR)
Drosophila digressa—Unit 2	Occupied	*Drosophila digressa*—Hawai'i Island, HI—Unit 2.
Drosophila digressa—Unit 3	Unoccupied	*Drosophila digressa*—Hawai'i Island, HI—Unit 3.
Drosophila digressa—Unit 4	Occupied	*Drosophila digressa*—Hawai'i Island, HI—Unit 4.
Drosophila digressa—Unit 5	Unoccupied	*Drosophila digressa*—Hawai'i Island, HI—Unit 5, Unit 6, Unit 7, Unit 8, Unit 9.
Drosophila digressa—Unit 6	Occupied	
Drosophila digressa—Unit 7	Unoccupied	
Drosophila digressa—Unit 8	Unoccupied	
Drosophila digressa—Unit 9	Unoccupied	

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat, for each of the 12 Hawai'i Island species, below.

Descriptions of Critical Habitat

We describe each section and unit separately, below, but first describe the common rationale for designating areas of critical habitat as occupied and/or unoccupied critical habitat. All areas that are designated as occupied habitat for a species are important for that species because these areas are either the last or one of the last remaining areas inhabited by the species and they meet the definition of critical habitat, making these areas necessary for maintaining the redundancy and representation for the species' conservation. This is the case for all sections and units, with the exception of *Schiedea hawaiiensis*—Section 19, which is critical habitat, but is not currently occupied habitat for any of the 12 species. We note which areas are the last remaining area known to be inhabited by a species.

We analyzed whether occupied areas were adequate for the conservation of each of the 12 species based on conservation goals within the recovery plan (Service 2022a, entire). We determined that occupied areas are not able to provide the space needed to meet the target number of reproductive populations and individuals for any of the 12 species. For four species with naturally narrowly-restricted ranges, no other areas containing their essential physical or biological features are known. We determined that for nine species (*Drosophila digressa, Cyanea marksii, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Schiedea hawaiiensis*) there are additional areas outside the geographical area occupied by the species that contain at least one physical or biological feature essential to the conservation of the species. We are designating as critical habitat all areas of unoccupied habitat that we identified for these nine species because (1) they provide one or more of the physical or biological features necessary for the reestablishment of wild populations within the species' range, and (2) we have reasonable certainty that these areas will contribute to the conservation of the species by adding to the area required to support the numbers of populations and reproducing individuals needed for recovery (thus helping to ensure resiliency, redundancy, and representation needed for the species' viability). The establishment of multiple, robust populations (redundancy) is a key component of conservation of these species (Service 2022a, pp. 29–30, 35, 39, 48–49). Due to the small numbers of individuals of each of these species, they require suitable habitat and space for expansion or introduction to achieve population levels that could approach recovery. Designating unoccupied areas as critical habitat for these species also supports recovery by allowing the habitat needed to establish additional populations able to withstand environmental stochasticity (resiliency) that otherwise has potential to eliminate a species from locations where it is currently found, and some species are only known from one location. Designating these unoccupied areas as critical habitat also promotes conservation actions to restore the species' historical, geographical, and ecological representation (representation), necessary for their recovery. For ease of reading and space efficiency, after first use of the full name of a plant section, we will refer to it by its section number only. For example, our first use of plant Section 2 is described as ''*Bidens hillebrandiana* ssp. *hillebrandiana*—Section 2,'' and after that is simply referred to as ''Section 2.''

TABLE 6—LAND USE, THREATS TO HABITAT, AND POTENTIAL SPECIAL MANAGEMENT CONSIDERATIONS FOR CRITICAL HABITAT UNITS DESIGNATED FOR THE 12 HAWAI'I ISLAND SPECIES

Plant section	Drosophila unit	General land use	Threats	Special management
Section 1	Unit 1	A, B, C, D, E, F, G	O, P, Q	S, T, U.
Section 2		A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 3		A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 4	Unit 7	A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 5	Unit 8	A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 6		A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 7		A, B, C, D, F, H	O, P, Q, R	S, T, U.
Section 8		A, E, F, G, H, I, J, K, L	O, P, Q	S, T.
Section 9		A, E, F, H, I, J	O, P, Q, R	S, T, U.
Section 10		A, B, C, D, E, F, G, H, M	O, P, Q, R	S, T, U.
Section 11	Unit 2	A, B, C, D, E, F, H, K, N	O, P, Q, R	S, T, U.
Section 12	Unit 9	A, B, C, D, F, H	O, P, Q, R	S, T, U.

TABLE 6—LAND USE, THREATS TO HABITAT, AND POTENTIAL SPECIAL MANAGEMENT CONSIDERATIONS FOR CRITICAL HABITAT UNITS DESIGNATED FOR THE 12 HAWAIʻI ISLAND SPECIES—Continued

Plant section	Drosophila unit	General land use	Threats	Special management
	Unit 4	A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 13	Unit 5	A, B, C, D, E, F, G, H	O, P, Q, R	S, T, U.
Section 14	Unit 3	A, E, F, H, I, J	O, P, Q, R	S, T, U.
Section 15		A, B, C, D, E, F, N	O, P, Q, R	S, T, U.
Section 16		A, B, C, D, E, F, N	O, P, Q, R	S, T, U.
Section 17		A, B, C, D, E, F, N	O, P, Q, R	S, T, U.
Section 18		A, B, C, D, E, F, N	O, P, Q, R	S, T, U.
Section 19		A, B, C, D, E, F, H	O, P, Q, R	S, T, U.
Section 20	Unit 6	A, B, C, D, E, F, J, N	O, P, Q, R	S, T.

Definition of Codes Used in Table 6

General land use:

A = Watershed protection
B = Ungulate and invasive plant control
C = Natural resource monitoring
D = Rare species protection and research
E = Public hunting
F = Public use and recreation
G = Education and outreach
H = Fire control
I = Natural resource conservation, including monitoring invasive plants and animals
J = Enhancement of native rare plant resources
K = Cultural uses
L = Personal gathering
M = Public use, including traditional and customary rights of Native Hawaiians
N = Timber management

Threats:

O = Habitat degradation due to rooting by feral ungulates
P = Intrusion of ecosystem-altering, invasive plants
Q = Changes in canopy cover due to plant disease
R = Fire

Special management considerations (see Special Management Considerations or Protection, in text above for additional detail):

S = Feral ungulate control
T = Measures to control spread of invasive plants
U = Fire management planning and wildfire response

Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 1 and Drosophila digressa—Unit 1

Section 1 and *Drosophila digressa*—Unit 1 consist of wet forest ecosystem from ʻŌʻōkala to Maulua Nui on the northeastern slope of Maunakea. Lands within this section and unit include approximately 26 percent in Federal ownership, 68 percent in State ownership, and 6 percent in private/other ownership (see table 3, above). Section 1 is comprised of two units: Unit 3 is a critical habitat unit within unit Hawaii 3 (see 50 CFR 17.99(k)), which was previously designated for other plant species; and Unit 52 is a newly designated critical habitat unit depicted on Map 119. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the Hilo Forest Reserve Humuʻula, Laupāhoehoe, and Pīhā Sections; the Laupāhoehoe Natural Area Reserve; and the Manowaialeʻe Forest Reserve. All Federal lands in this section and unit are managed by the Service within Hakalau Forest National Wildlife Refuge, Hakalau Forest Unit. For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats identified within this section and unit, see table 6, above (DLNR–DOFAW 2022, entire; DLNR and USDA 2016, p. 4; Service 2010, pp. 1–13, 1–33–1–34; Stewart 2010, entire). The State lands within this section and unit are managed under the Laupāhoehoe Forest Management Plan (DLNR and USDA 2016, entire) and the Mauna Kea Watershed Management Plan (Stewart 2010, entire). The Federal lands within this section and unit are managed under the Hakalau Forest National Wildlife Refuge Comprehensive Conservation Plan (Service 2010, pp. 2–20–2–40) and the Mauna Kea Watershed Management Plan (Stewart 2010, entire).

Section 1 is occupied by the plants *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda,* and *Stenogyne cranwelliae.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Section 1 is important because it has the last remaining areas inhabited by *Cyrtandra wagneri* and *Melicope remyi,* and one of the last remaining areas inhabited by *Cyanea tritomantha, Phyllostegia floribunda,* and *Stenogyne cranwelliae,* making it an essential area for maintaining the redundancy and representation necessary for species' conservation. Although Section 1 is not known to be occupied by the plants *Pittosporum hawaiiense* and *Schiedea diffusa* ssp. *macraei,* and *Drosophila digressa*—Unit 1 is not known to be occupied by *Drosophila digressa,* this section and unit contain unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one of the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, each plant species needs at least 10 populations, with at least 400 reproducing individuals per population for *Pittosporum hawaiiense* and 500 reproducing individuals per population for *Schiedea diffusa* ssp. *macraei* (Service 2022a, pp. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. Approximately 12,059 ac (4,880 ha) of this section and unit overlap designated critical habitat for the federally endangered plants *Clermontia peleana, Cyanea platyphylla, Cyrtandra giffardii, Cyrtandra tintinnabula,* and *Phyllostegia warshaueri* (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003).

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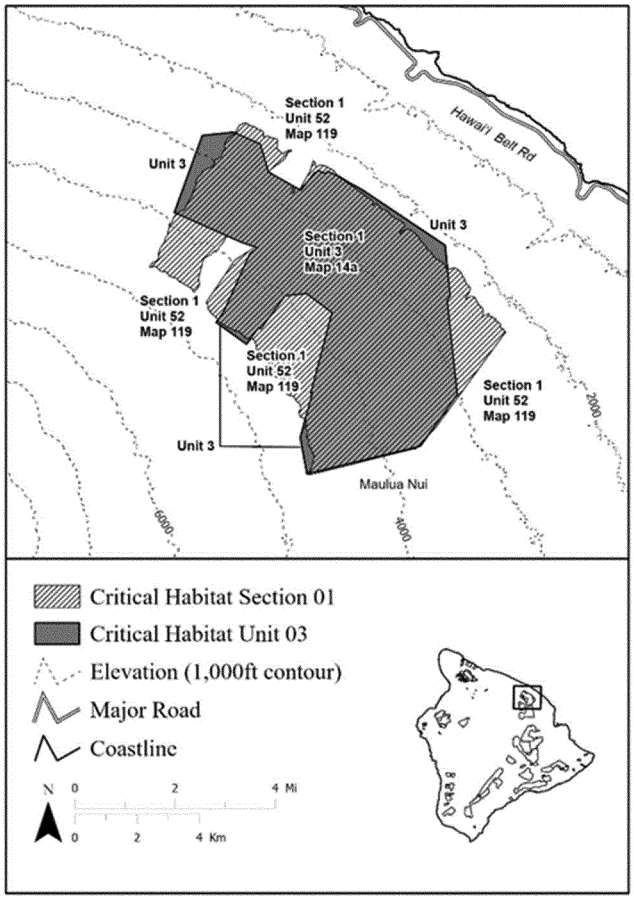
Figure 1. Area designated as critical habitat for *Cyanea tritomantha*, *Cyrtandra wagneri*, *Melicope remyi*, *Phyllostegia floribunda*, *Pittosporum hawaiiense*, *Schiedea diffusa* ssp. *macraei*, *Stenogyne cranwelliae* in Section 1. Section 1 consists of multiple critical habitat units: a portion of an existing critical habitat unit on Hawai‘i Island (Unit 3) and the area designated as critical habitat on Hawai‘i Island (Unit 52). Unit and map numbers for each section as published earlier (50 CFR 17.99(k)) are provided for ease of referencing.



Bidens hillebrandiana ssp. hillebrandiana—Section 2

Section 2 consists of coastal ecosystem from Pololū to Laupāhoehoe Iki on the northeastern slope of Kohala Mountain. Lands within this section include approximately 50 percent in State ownership and 50 percent in private/other ownership (see table 3, above). Section 2 is comprised of two units: Unit 6 is a critical habitat unit within unit Hawaii 6 (see 50 CFR 17.99(k)), which was previously designated for another plant species; and Unit 53 is a newly designated critical habitat unit depicted on Map 120. All State-owned lands in Section 2 are managed by the State of Hawaii as part of the Pololū Section of the Kohala Forest Reserve and the Pu‘u o ‘Umi Natural Area Reserve. The State lands within this section are managed under the Pu‘u o ‘Umi Management Plan (DLNR–DOFAW 1989, entire) and Kohala Mountain Watershed Management Plan Draft (Kohala Watershed Partnership [KWP] 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats identified within this section, see table 6, above (DLNR–DOFAW 1989, entire; KWP 2007, entire).

Section 2 is occupied by the plant *Bidens hillebrandiana* ssp. *hillebrandiana* and includes the coastal habitat, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the coastal ecosystem. This section is especially important because it is the last remaining area inhabited by the species, which makes it an important area for maintaining the redundancy and representation necessary for species' conservation. Approximately 2 ac (1 ha) of this section overlap designated critical habitat for the federally endangered plant *Nothocestrum breviflorum* (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003).

Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 3

Section 3 consists of wet forest and wet grassland and shrubland ecosystems from Kahua to Pu‘ukapu on Kohala Mountain. Lands within this section include approximately 99 percent in State ownership and 1 percent in private/other ownership (see table 3,

above). Section 3 is comprised of three units: Unit 8 and Unit 9 are critical habitat units within unit Hawaii 8 and unit Hawaii 9 (see 50 CFR 17.99(k)), which were previously designated for other plant species; and Unit 54 is a newly designated critical habitat unit depicted on Map 121. All State-owned lands in this section are managed by the State of Hawaii as part of the Kohala Forest Reserve, Kohala Watershed Forest Reserve, and Pu'u o 'Umi Natural Area Reserve. The State lands within this section are managed under the Pu'u o 'Umi Management Plan (DLNR–DOFAW 1989, entire) and the Kohala Mountain Watershed Management Plan Draft (KWP 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats identified within this section, see table 6, above (DLNR–DOFAW 1989, entire; KWP 2007, entire).

Section 3 is occupied by the plants *Cyanea tritomantha, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae,* and includes the wet forest and wet grassland and shrubland ecosystems, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest and wet grassland and shrubland ecosystems. Although Section 3 is not known to be occupied by *Melicope remyi* or *Phyllostegia floribunda,* this section contains unoccupied habitat that is essential for the conservation of these species because it (1) is habitat for these species, (2) provides at least one of the physical or biological features essential for the conservation of each of these species, and (3) contributes to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, each species needs at least 10 populations, with at least 200 reproducing individuals per population for *Melicope remyi* and at least 500 reproducing individuals per population for *Phyllostegia floribunda* (Service 2022a, pp. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of these species and that this section contains one or more of the physical or biological features that are essential to the conservation of these species. Approximately 6,941 ac (2,809 ha) of this section overlap designated critical habitat for the federally endangered plants *Clermontia drepanomorpha, Phyllostegia warshaueri,* and *Achyranthes mutica* (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003); and for the picture-wing fly *Drosophila ochrobasis* Units 3 (Kohala Mountains East) and 4 (Kohala Mountains West) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 4 and Drosophila digressa—Unit 7

Section 4 and *Drosophila digressa*—Unit 7 consist of wet forest ecosystem from Kukuiopa'e to 'Ōlelomoana on the southwestern slopes of Mauna Loa. Lands within this section and unit include approximately 88 percent in State ownership and 12 percent in private/other ownership (see table 3, above). Section 4 is comprised of two units: Unit 15 is a critical habitat unit within unit Hawaii 15 (see 50 CFR 17.99(k)), which was previously designated for another plant species; and Unit 39 is a newly designated critical habitat unit depicted on Map 108. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the South Kona Forest Reserve Kukuiopa'e Section. The State lands within this section and unit are managed under the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats identified within this section and unit, see table 6, above (TMA 2007, pp. 26–37; DLNR–DOFAW 2022, entire).

Section 4 is occupied by the plants *Cyanea marksii, Phyllostegia floribunda,* and *Pittosporum hawaiiense.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 4 is not known to be occupied by the plants *Schiedea diffusa* ssp. *macraei* and *Stenogyne cranwelliae,* and *Drosophila digressa*—Unit 7 is not known to be occupied by *Drosophila digressa,* this section and unit contain unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one of the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Schiedea diffusa* ssp. *macraei* needs at least 10 populations, with at least 500 reproducing individuals per population, and *Stenogyne cranwelliae* needs at least 20 populations, with at least 500 reproducing individuals per population (Service 2022a, pp. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. Approximately 182 ac (73 ha) of this section and unit overlap designated critical habitat for the federally endangered plant *Cyanea stictophylla* (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003).

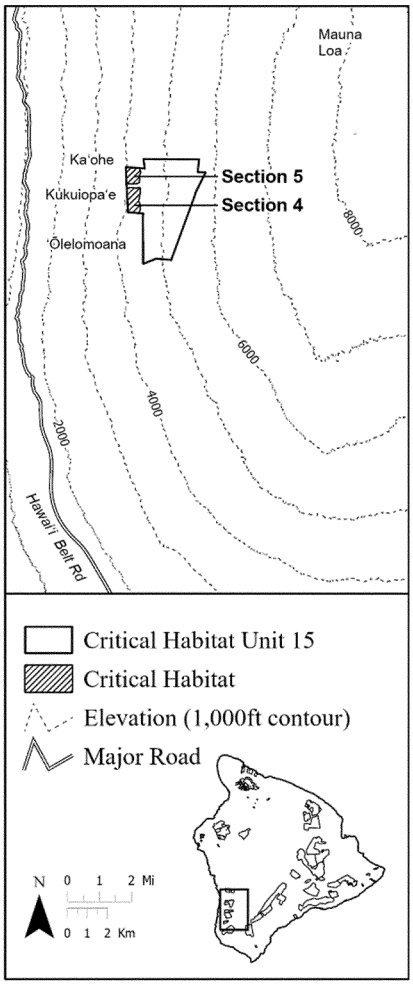


Figure 2. Area designated as critical habitat for *Cyanea marksii*, *Phyllostegia floribunda*, *Pittosporum hawaiiense*, *Schiedea diffusa* ssp. *macraei*, and *Stenogyne cranwelliae* in the portion of Section 4 within Unit 15 and in the portion of Section 5 within Unit 15. Sections 4 and 5 both overlay Unit 15, which is an existing critical habitat unit on Hawai‘i Island, but do not overlay each other.

Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 5 and Drosophila digressa—Unit 8

Section 5 and *Drosophila digressa*—Unit 8 consist of wet forest ecosystem in Kaʻohe on the southwestern slopes of Mauna Loa. Lands within this section and unit include approximately 53 percent in State ownership and 47 percent in private/other ownership (see table 3, above). Section 5 is comprised of two units: Unit 15 is a critical habitat unit within unit Hawaii 15 (see 50 CFR 17.99(k)), which was previously designated for another plant species; and Unit 38 is a newly designated critical habitat unit depicted on Map 107. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the South Kona Forest Reserve, Kaʻohe Section and Kukuiopaʻe Section. The State lands within this section and unit are managed under the Three Mountain Alliance Management Plan (TMA 2007, pp. 47–50). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats identified within this section and unit, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 26–37).

Section 5 is occupied by the plant *Cyanea marksii.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 5 is not known to be occupied by the plants *Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae,* and *Drosophila digressa*—Unit 8 is not known to be occupied by *Drosophila digressa,* this section and unit contain unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one of the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Phyllostegia floribunda, Pittosporum hawaiiense,* and *Schiedea diffusa* ssp. *macraei* each need at least 10 populations, with at

least 500 reproducing individuals per population for *Phyllostegia floribunda* and *Schiedea diffusa* ssp. *macraei* and at least 400 reproducing individuals per population for *Pittosporum hawaiiense* (Service 2022a, pp. 43–44). For *Stenogyne cranwelliae,* at least 20 populations, each with at least 500 reproducing individuals, are necessary for recovery (Service 2022a, pp. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. Approximately 127 ac (51 ha) of this section and unit overlap designated critical habitat for the federally endangered plant *Cyanea stictophylla* (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003).

Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 6

Section 6 consists of wet forest ecosystem in Kīpāhoehoe on the southwestern slopes of Mauna Loa. Lands within this section include approximately 96 percent in State ownership and 4 percent in private/other ownership (see table 3, above). Section 6 is comprised of two units: Unit 16 is a critical habitat unit within unit Hawaii 16 (see 50 CFR 17.99(k)), which was previously designated for another plant species; and Unit 40 is a newly designated critical habitat unit depicted on Map 109. All State-owned lands in this section are managed by the State of Hawaii as part of the Kīpāhoehoe Natural Area Reserve. The State lands within this section are managed under the Kīpāhoehoe Natural Area Reserve Management Plan (DLNR–DOFAW 2002, entire) and the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2002, entire).

Section 6 is occupied by the plants *Cyanea marksii* and *Phyllostegia floribunda.* This section includes the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 6 is not known to be occupied by *Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* or *Stenogyne cranwelliae,* this section contains unoccupied habitat that is essential for the conservation of these species because it (1) is habitat for these species, (2) provides at least one of the physical or biological features essential for the conservation of each of these species, and (3) contributes to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Pittosporum hawaiiense* and *Schiedea diffusa* ssp. *macraei* each need at least 10 populations, with at least 400 reproducing individuals per population for *Pittosporum hawaiiense* and at least 500 reproducing individuals per population for *Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, pp. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of these species and that this section contains one or more of the physical or biological features that are essential to the conservation of these species. Approximately 156 ac (63 ha) of this section overlap designated critical habitat for the federally endangered plant *Cyanea stictophylla* (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003).

Phyllostegia floribunda, Pittosporum hawaiiense—Section 7

Section 7 consists of wet forest and wet grassland and shrubland ecosystems from Pānau Nui to Kamoamoa on the eastern slope of Kīlauea Volcano, entirely on Federal land (see table 3, above). Section 7 is comprised of two units: Unit 23 is a critical habitat unit within unit Hawaii 23 (see 50 CFR 17.99(k)), which was previously designated for another plant species; and Unit 45 is a newly designated critical habitat unit depicted on Map 114. Lands within this section are entirely under Federal ownership managed by the National Park Service within Hawai'i Volcanoes National Park. Federal lands within this section are managed by the National Park Service under the Hawai'i Volcanoes National Park General Management Plan (National Park Service 2015, 2016, entire) and the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (National Park Service 2015, 2016, entire).

Section 7 is occupied by the plants *Phyllostegia floribunda* and *Pittosporum hawaiiense* and includes the wet forest and wet grassland and shrubland ecosystems, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest and wet grassland and shrubland ecosystems. Approximately 9 ac (4 ha) of this section overlap designated critical habitat for the federally endangered plant *Pleomele hawaiiensis* (now listed as *Dracaena konaensis*) (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003).

Cyanea tritomantha, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 8

Section 8 consists of wet and mesic forest ecosystems from Nīnole to Pāhala on the southern slopes of Mauna Loa. Lands within this section include approximately 29 percent in Federal ownership and 71 percent in State ownership (see table 3, above). Section 8 is comprised of two units: Unit 24 is a critical habitat unit within unit Hawaii 24 (see 50 CFR 17.99(k)), which was previously designated for another plant species; and Unit 44 is a newly designated critical habitat unit depicted on Map 113. Federal lands in Section 8 are managed by the National Park Service within Hawai'i Volcanoes National Park and in accordance with the Hawai'i Volcanoes National Park General Management Plan (National Park Service 2015, 2016, entire). All State-owned lands in this section are managed by the State of Hawaii, are part of the Ka'ū Forest Reserve, and are managed under the Ka'ū Forest Reserve Management Plan (DLNR–DOFAW 2012, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within Section 8, see table 6, above (DLNR–DOFAW 2012, p. 3; TMA 2007, pp. 44–46).

Section 8 is occupied by the plants *Cyanea tritomantha, Pittosporum hawaiiense,* and *Schiedea diffusa* ssp. *macraei* and includes the wet and mesic forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet and mesic forest ecosystems. Although Section 8 is not known to be occupied by the plant *Stenogyne cranwelliae,* this section contains unoccupied habitat that is essential for the conservation of this species because it (1) is habitat for the species, (2) provides at least one of the physical or biological features essential for the conservation of the species, and (3) contributes to the area of habitat needed to reestablish wild populations

within their range in support of recovery criteria for the species. For recovery, *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, pp. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of this species and that this section contains one or more of the physical or biological features that are essential to the conservation of the species. Approximately 2,081 ac (842 ha) of the section overlap designated critical habitat for the federally endangered plant *Argyroxiphium kauense* (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003) and for the picture-wing fly *Drosophila heteroneura* Unit 1 (Kaʻū Forest) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

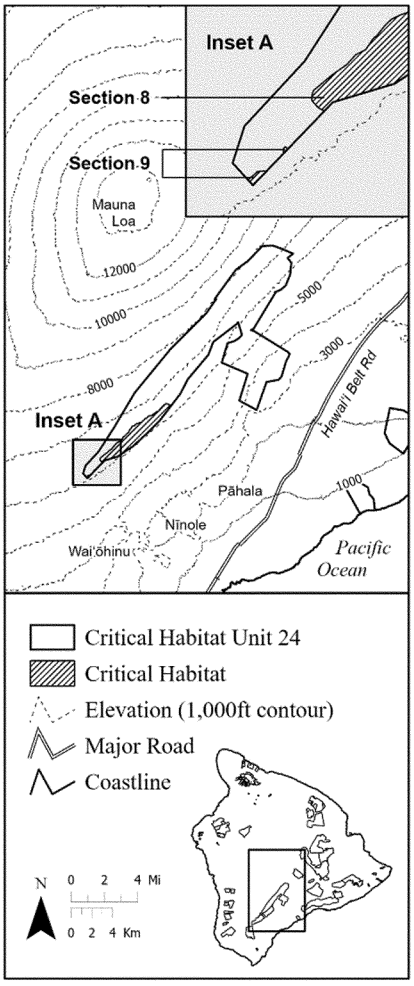


Figure 3. Area designated as critical habitat for *Cyanea tritomantha*, *Pittosporum hawaiiense*, *Schiedea diffusa* ssp. *macraei*, and *Stenogyne cranwelliae* in the portion of Section 8 within Unit 24 and for *Pittosporum hawaiiense*, *Schiedea diffusa* ssp. *macraei*, and *Stenogyne cranwelliae* in the portion of Section 9 within Unit 24. Sections 8 and 9 both overlay Unit 24, which is an existing critical habitat unit on Hawai‘i Island, but do not overlay each other.

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Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 9

Section 9 consists of wet and mesic forest ecosystems from Waiʻōhinu to Nīnole on the southern slopes of Mauna Loa. Lands within this section include approximately 29 percent in Federal ownership and 71 percent in State ownership (see table 3, above). Section 9 is comprised of two units: Unit 24 is a critical habitat unit within unit Hawaii 24 (see 50 CFR 17.99(k)), which was previously designated for another plant species; and Unit 43 is a newly designated critical habitat unit depicted on Map 112. Federal lands in Section 9 are managed by the National Park Service within Hawai‘i Volcanoes National Park and in accordance with the Hawai‘i Volcanoes National Park General Management Plan (National Park Service 2015, 2016, entire). All State-owned lands in this section are managed by the State of Hawaii, are part of the Kaʻū Forest Reserve, and are managed under the Kaʻū Forest Reserve Management Plan (DLNR–DOFAW 2012, entire). For general land use, threats, and special management considerations or protection measures to

reduce or alleviate the threats within this section, see table 6, above (TMA 2007, pp. 26–37; DLNR–DOFAW 2012, pp. 1–3; DLNR 2017, pp. 3–5).

Section 9 is occupied by the plants *Pittosporum hawaiiense* and *Schiedea diffusa* ssp. *macraei* and includes the wet and mesic forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet and mesic forest ecosystems. Although Section 9 is not known to be occupied by *Stenogyne cranwelliae,* this section contains unoccupied habitat that is essential for the conservation of this species because it (1) is habitat for the species, (2) provides at least one of the physical or biological features essential for the conservation of the species, and (3) contributes to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for the species. For recovery, *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, pp. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of this species and that this section contains one or more of the physical or biological features that are essential to the conservation of the species. Approximately 101 ac (41 ha) of this section overlap designated critical habitat for the federally endangered plant *Argyroxiphium kauense* (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003) and for the picture-wing fly *Drosophila ochrobasis* Unit 5 (Upper Kahuku) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

Cyrtandra nanawaleensis, Phyllostegia floribunda—Section 10

Section 10 consists of wet forest and wet grassland and shrubland ecosystems from Kahauale'a to Wao Kele o Puna near the east rift zone of Kīlauea Volcano in the district of Puna. Lands within this section include approximately 100 percent in State ownership and less than 1 percent in private/other ownership (see table 3, above). Section 10 is comprised of two units: Unit 28 is a critical habitat unit within unit Hawaii 28 (see 50 CFR 17.99(k)), which was previously designated for another plant species; and Unit 46 is a newly designated critical habitat unit depicted on Map 115. Lands within this section are almost entirely under State ownership managed by the State of Hawaii within the Kahauale'a Natural Area Reserve and the State of Hawaii Office of Hawaiian Affairs within the Wao Kele o Puna Forest Reserve. The State lands within this section are managed under the Wao Kele o Puna Comprehensive Management Plan (Nālehualawaku'ulei 2017, entire) and the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 26–37; Nālehualawaku'ulei 2017, entire).

Section 10 is occupied by the plants *Cyrtandra nanawaleensis* and *Phyllostegia floribunda* and includes the wet forest and wet grassland and shrubland, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest and wet grassland and shrubland ecosystems. Approximately 155 ac (63 ha) of this section overlap designated critical habitat for the federally endangered plant *Adenophorus periens* (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003).

Cyanea tritomantha, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 11 and Drosophila digressa—Unit 2

Section 11 and *Drosophila digressa*—Unit 2 consist of wet forest ecosystem from 'Ōla'a to Upper Waiākea on the eastern slope of Mauna Loa and partially on the northern slope of Kīlauea Volcano. Lands within this section and unit include approximately 25 percent in Federal ownership, 75 percent in State ownership, and less than 1 percent in private/other ownership (see table 3, above). Section 11 is comprised of three units: Unit 29 and Unit 30 are critical habitat units within unit Hawaii 29 and unit Hawaii 30 (see 50 CFR 17.99(k)), which were previously designated for other plant species; and Unit 51 is a newly designated critical habitat unit depicted on Map 118. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the Hilo Forest Reserve Kūkūau Section, 'Ōla'a Forest Reserve Mountain View Section, Upper Waiākea Forest Reserve, Waiākea Forest Reserve, Pu'u Maka'ala Natural Area Reserve, and Waiākea 1942 Lava Flow Natural Area Reserve. All Federal lands in this section and unit are managed by the National Park Service within the Hawai'i Volcanoes National Park. The State lands within this section and unit are managed under the Pu'u Maka'ala Natural Area Reserve Management Plan (DLNR–DOFAW 2013, entire) and the Three Mountain Alliance's Management Plan (TMA 2007, entire). The Federal lands within this section and unit are managed under the Hawai'i Volcanoes National Park General Management Plan (National Park Service 2015, 2016, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section and unit, see table 6 (National Park Service 2015, 2016, entire; DLNR–DOFAW 2013, p. 21; DLNR–DOFAW 2022, entire; TMA 2007, pp. 40–43).

Section 11 is occupied by the plants *Cyanea tritomantha, Phyllostegia floribunda, Pittosporum hawaiiense,* and *Schiedea diffusa* ssp. *macraei,* and *Drosophila digressa*—Unit 2 is occupied by the picture-wing fly *Drosophila digressa.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 11 is not known to be occupied by *Stenogyne cranwelliae,* this section contains unoccupied habitat that is essential for the conservation of this species because it (1) is habitat for the species, (2) provides at least one of the physical or biological features essential for the conservation of the species, and (3) contributes to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for the species. For recovery, *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, pp. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of this species and that this section contains one or more of the physical or biological features that are essential to the conservation of the species. Approximately 14,695 ac (5,947 ha) of this section and unit overlap designated critical habitat for the federally endangered plants *Clermontia peleana, Cyanea stictophylla, Cyrtandra giffardii, Phyllostegia velutina,* and *Sicyos alba* (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003), and for the picture-wing fly *Drosophila mulli* Unit 1 ('Ōla'a Forest) and Unit 3 (Waiākea Forest) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 12 and Drosophila digressa—Unit 9

Section 12 and *Drosophila digressa*—Unit 9 consist of wet forest ecosystem in Ho'okena on the southwestern slopes of Mauna Loa. Newly designated critical habitat for Section 12 is entirely within critical habitat Unit 37 depicted on Map

106 and includes approximately 100 percent Federal land with less than 1 ac (less than 1 ha) of land that is privately owned or has other ownership (see table 3, above). Lands within this section and unit are almost entirely managed by the Service within Hakalau Forest National Wildlife Refuge's Kona Forest Unit and in accordance with the Hakalau Forest National Wildlife Refuge Comprehensive Conservation Plan (Service 2010, pp. 2–13–2–19, 2–33–2–40). The State lands within this section and unit are managed under the Three Mountain Alliance Management Plan (TMA 2007, pp. 47–50). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section and unit, see table 6, above (Service 2010, entire; TMA 2007, pp. 26–37).

Section 12 is occupied by the plant *Cyanea marksii.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 12 is not known to be occupied by *Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* or *Stenogyne cranwelliae,* and *Drosophila digressa*—Unit 9 is not known to be occupied by *Drosophila digressa,* this section and unit contain unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one of the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Phyllostegia floribunda* and *Schiedea diffusa* ssp. *macraei* each need at least 10 populations, with at least 500 reproducing individuals per population; *Pittosporum hawaiiense* needs at least 10 populations, each with at least 400 reproducing individuals; and *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, pp. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. Approximately 1,482 ac (600 ha) of this section and unit overlap designated critical habitat for the picture-wing fly *Drosophila heteroneura* Unit 2 (Kona Refuge) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

Drosophila digressa—Unit 4

Drosophila digressa—Unit 4 consists of mesic forest ecosystem at Manukā on the southern slopes of Mauna Loa, with 100 percent of lands in State ownership (see table 3, above). All State-owned lands in this unit are managed by the State of Hawaii as part of the Manukā Natural Area Reserve, under the Manukā Natural Area Reserve Draft Management Plan (DLNR–DOFAW 1992, entire) and the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this unit, see table 6, above (DLNR–DOFAW 1992, entire).

Drosophila digressa—Unit 4 is occupied by the picture-wing fly *Drosophila digressa* and includes the mesic forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the mesic forest ecosystem. This entire unit (167 ac, 67 ha) overlaps designated critical habitat for the federally endangered plants *Colubrina oppositifolia, Diellia erecta* (now listed as *Asplenium dielerectum*), *Flueggea neowawraea, Gouania vitifolia, Neraudia ovata,* and *Pleomele hawaiiensis* (now listed as *Dracaena konaensis*) (see 50 CFR 17.99(k) and 68 FR 39624, July 2, 2003).

Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 13 and Drosophila digressa—Unit 5

Section 13 and *Drosophila digressa*—Unit 5 consist of wet forest ecosystem from Kīpāhoehoe to Honomalino on the southwestern slopes of Mauna Loa. Lands within this section and unit include approximately 12 percent in State ownership and 88 percent in private/other ownership (see table 3, above). Newly designated critical habitat for Section 13 is entirely within critical habitat Unit 41 depicted on Map 110. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the Kīpāhoehoe Natural Area Reserve and South Kona Forest Reserve Kapua-Manukā Section. Some private lands are owned by The Nature Conservancy, within the Kona Hema Preserve. The State lands within this section and unit are managed under the Kīpāhoehoe Natural Area Reserve Management Plan (DLNR–DOFAW 2002, entire) and the Three Mountain Alliance Management Plan (TMA 2007, entire). The Nature Conservancy's land is managed under the Forest Stewardship Management Plan for the Kona Hema Preserve (The Nature Conservancy 2017, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section and unit, see table 6, above (DLNR–DOFAW 2002, entire).

Section 13 is occupied by the plants *Cyanea marksii, Phyllostegia floribunda,* and *Pittosporum hawaiiense.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 13 is not known to be occupied by *Schiedea diffusa* ssp. *macraei* and *Stenogyne cranwelliae,* and *Drosophila digressa*—Unit 5 is not known to be occupied by *Drosophila digressa,* this section and unit contains unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one of the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Schiedea diffusa* ssp. *macraei* needs at least 10 populations, each with at least 500 reproducing individuals, and *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, pp. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. There is no designated critical habitat for other listed species within this section and unit.

Cyanea tritomantha, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa ssp. macraei, Stenogyne cranwelliae—Section 14 and Drosophila digressa—Unit 3

Section 14 and *Drosophila digressa*—Unit 3 are entirely overlapping and consist of wet and mesic forest ecosystems at Kahuku on the southern

slopes of Mauna Loa. Newly designated critical habitat for Section 14 is comprised of a single unit of newly designated critical habitat, Unit 42 depicted on Map 111. Lands within this section and unit include approximately 100 percent in Federal ownership and less than 1 percent in State ownership (see table 3, above). Federal lands are managed by the National Park Service within the Hawai'i Volcanoes National Park in accordance with the Hawai'i Volcanoes National Park General Management Plan (National Park Service 2015, 2016, entire). All State-owned lands in this section and unit are managed by the State of Hawaii, are part of the Ka'ū Forest Reserve, and are managed under the Ka'ū Forest Reserve Management Plan (DLNR–DOFAW 2012, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section and unit, see table 6, above (TMA 2007, pp. 26–37; DLNR–DOFAW 2012, pp. 1–3; DLNR 2017, pp. 3–5).

Section 14 is occupied by the plants *Pittosporum hawaiiense* and *Schiedea diffusa* ssp. *macraei.* This section and unit include the wet and mesic forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet and mesic forest ecosystems. Although Section 14 is not known to be occupied by the plants *Cyanea tritomantha, Phyllostegia floribunda,* or *Stenogyne cranwelliae,* or by the picture-wing fly *Drosophila digressa* in *Drosophila digressa*—Unit 3, this section and unit contain unoccupied habitat that is essential for the conservation of these species because they (1) are habitat for these species, (2) provide at least one of the physical or biological features essential for the conservation of each of these species, and (3) contribute to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Cyanea tritomantha* and *Phyllostegia floribunda* each need at least 10 populations, with at least 500 reproducing individuals per population, and *Stenogyne cranwelliae* needs at least 20 populations, each with at least 500 reproducing individuals (Service 2022a, pp. 43–44). *Drosophila digressa* needs at least 10 stable populations for recovery (Service 2022a, p. 49). Therefore, we are reasonably certain that this section and unit will contribute to the conservation of these species and that this section and unit contain one or more of the physical or biological features that are essential to the conservation of these species. Approximately 681 ac (275 ha) of this section and unit overlap designated critical habitat for the picture-wing fly *Drosophila heteroneura* Unit 3 (Lower Kahuku) (see 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008).

Cyrtandra nanawaleensis—Section 15

Section 15 consists of wet forest ecosystem at Kamā'ili near the east rift zone of Kīlauea Volcano in the district of Puna. Lands within this section are entirely under State ownership managed by the State of Hawaii within the Keau'ohana Forest Reserve (see table 3, above). Section 15 is comprised of one unit: Unit 47, which is a newly designated critical habitat unit depicted on Map 116. The State lands within this section are managed under the Three Mountain Alliance's Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 40–43).

Section 15 is occupied by the plant *Cyrtandra nanawaleensis* and includes the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. There is no designated critical habitat for other listed species within the section.

Cyrtandra nanawaleensis—Section 16

Section 16 consists of wet forest ecosystem in Pāhoa near the east rift zone of Kīlauea Volcano in the district of Puna. Lands within this section include approximately 99 percent under State ownership and 1 percent in private/other ownership (see table 3, above). Section 16 is comprised of one unit: Unit 48, which is a newly designated critical habitat unit depicted on Map 116. All State-owned lands in this section are managed by the State of Hawaii as part of the Nānāwale Forest Reserve, under the Three Mountain Alliance's Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 40–43).

Section 16 is occupied by the plant *Cyrtandra nanawaleensis* and includes the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. There is no designated critical habitat for other listed species within the section.

Cyrtandra nanawaleensis—Section 17

Section 17 consists of wet and mesic forest and mesic grassland and shrubland ecosystems at Malama-Kī near the east rift zone of Kīlauea Volcano in the district of Puna. Lands within this section include approximately 99 percent under State ownership and 1 percent in private/other ownership (see table 3, above). Section 17 is comprised of one unit: Unit 49, which is a newly designated critical habitat unit depicted on Map 117. State-owned lands within this section are managed by the State of Hawaii within the Malama-Kī Forest Reserve, under the Three Mountain Alliance's Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 40–43).

Section 17 is occupied by the plant *Cyrtandra nanawaleensis* and includes the wet forest, mesic forest, and mesic grassland and shrubland; the moisture regime; and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest, mesic forest, and mesic grassland and shrubland ecosystems. There is no designated critical habitat for other listed species within the section.

Cyrtandra nanawaleensis—Section 18

Section 18 consists of wet and mesic forest and mesic grassland and shrubland ecosystems at Kapoho near the east rift zone of Kīlauea Volcano in the district of Puna. Lands within this section are entirely under State ownership (see table 3, above). Section 18 is comprised of one unit: Unit 50, which is a newly designated critical habitat unit depicted on Map 117. State-owned lands within this section are managed by the State of Hawaii within the Nānāwale Forest Reserve Halepua'a section, under the Three Mountain Alliance's Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 40–43).

Section 18 is occupied by the plant *Cyrtandra nanawaleensis* and includes the wet forest, mesic forest, and mesic grassland and shrubland; the moisture regime; and canopy, subcanopy, and

understory native plant species identified as the physical or biological features in the wet forest, mesic forest, and mesic grassland and shrubland ecosystems. There is no designated critical habitat for other listed species within the section.

Schiedea hawaiiensis—Section 19

Section 19 consists of dry forest ecosystem adjacent to the Pōhakuloa Training Area in the saddle of Maunakea, Mauna Loa, and Hualālai. Lands within this section are entirely in State ownership (see table 3, above). Designated critical habitat for Section 19 is entirely within critical habitat Unit 55 depicted on Map 122. The State-owned lands in this section include the Puʻu Anahulu Game Management Area and are managed under the Three Mountain Alliance Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section, see table 6, above (DLNR–DOFAW 2015, entire; TMA 2007, pp. 51–55).

Section 19 is not known to be occupied by *Schiedea hawaiiensis,* but this section includes the dry forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the dry forest ecosystems. This section also provides an area for potential population establishment, which is essential for the conservation of *Schiedea hawaiiensis* because 10 populations are identified as part of the recovery criteria, but only 1 wild population and 3 reintroduced populations are extant. Although Section 19 contains unoccupied habitat for *Schiedea hawaiiensis,* we have determined this area is essential for the conservation of this species because it (1) is habitat for this species, (2) provides at least one of the physical or biological features essential for the conservation of this species, and (3) contributes to the area of habitat needed to reestablish wild populations within their range in support of the species' recovery criteria. At least 10 populations, each with at least 500 reproducing individuals, are necessary for the species' recovery (Service 2022a, pp. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of this species and that this section contains one or more of the physical or biological features that are essential to the conservation of this species. Section 19 does not overlap with existing critical habitat for other listed species.

Cyanea marksii, Schiedea diffusa ssp. macraei—Section 20 and Drosophila digressa—Unit 6

Section 20 and *Drosophila digressa*—Unit 6 consist of wet forest ecosystem from Miloliʻi to Honomalino on the southwestern slopes of Mauna Loa. Lands within this section and unit are entirely in State ownership (see table 3, above). Newly designated critical habitat for Section 20 is entirely within critical habitat Unit 56 depicted on Map 123. All State-owned lands in this section and unit are managed by the State of Hawaii as part of the South Kona Forest Reserve Kapua-Manukā Section, under the Three Mountain Alliance's Management Plan (TMA 2007, entire). For general land use, threats, and special management considerations or protection measures to reduce or alleviate the threats within this section and unit, see table 6, above (DLNR–DOFAW 2022, entire; TMA 2007, pp. 47–50).

Drosophila digressa—Unit 6 is occupied by the picture-wing fly *Drosophila digressa.* This section and unit include the wet forest, the moisture regime, and canopy, subcanopy, and understory native plant species identified as the physical or biological features in the wet forest ecosystem. Although Section 20 is not known to be occupied by *Cyanea marksii* and *Schiedea diffusa* ssp. *macraei,* this section contains unoccupied habitat that is essential for the conservation of these species because it (1) is habitat for these species, (2) provides at least one of the physical or biological features essential for the conservation of each of these species, and (3) contributes to the area of habitat needed to reestablish wild populations within their range in support of recovery criteria for each of these species. For recovery, *Cyanea marksii* and *Schiedea diffusa* ssp. *macraei* each need at least 10 populations, each with at least 500 reproducing individuals (Service 2022a, pp. 43–44). Therefore, we are reasonably certain that this section will contribute to the conservation of these species and that this section contains one or more of the physical or biological features that are essential to the conservation of these species. There is no critical habitat for other endangered or threatened species within this section and unit.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they authorize, fund, or carry out is 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.

We published a final rule revising the definition of destruction or adverse modification on August 27, 2019 (84 FR 44976). Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species.

Compliance with the requirements of section 7(a)(2) of the Act is documented through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, 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 and/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 Service 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 set forth requirements for Federal agencies to reinitiate consultation if any of the following four conditions occur: (1) the amount or extent of taking specified in the incidental take statement is exceeded; (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) the identified action is

subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (4) a new species is listed or critical habitat designated that may be affected by the identified action. The reinitiation requirement applies only to actions that remain subject to some discretionary Federal involvement or control. As provided in 50 CFR 402.16, the requirement to reinitiate consultations for new species listings or critical habitat designation does not apply to certain agency actions (*e.g.,* land management plans issued by the Bureau of Land Management in certain circumstances).

Destruction or Adverse Modification of Critical Habitat

The key factor related to the destruction or adverse modification determination is whether implementation of the proposed Federal action directly or indirectly alters the designated critical habitat in a way that appreciably diminishes the value of the critical habitat as a whole for the conservation of the listed species. As discussed above, the role of critical habitat is to support the physical or biological features essential to the conservation of a listed species and provide for the conservation of the species.

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 violate section 7(a)(2) of the Act by destroying or adversely modifying such habitat, or that may be affected by such designation.

Activities that we may, during a consultation under section 7(a)(2) of the Act, consider likely to destroy or adversely modify the critical habitat designated in this final rule include, but are not limited to, Federal actions that result in the removal or significant modification of designated critical habitat, or that would pose a risk of fire. Such activities may include military training activities with potential to cause wildland fires. We anticipate that most Federal activities that may cause effects to the critical habitat we are designating in this rule will also cause effects to the listed species, and as such we will already be in consultation with the Federal agency as to whether or not the activity jeopardizes the listed species. The exception is Section 19 (Unit 55), which we are designating as critical habitat for *Schiedea hawaiiensis* but that section is not occupied by any of the 12 species addressed in this rulemaking. As there is not already a section 7 consultation nexus based solely on the effects to these species (in the absence of them in the area presently), the effects of a Federal proposed action that could remove the physical or biological features essential to the conservation of the species—specifically, the associated native plant genera that are part of a functioning ecosystem in which *S. hawaiiensis* occurs or has historically occurred—would trigger section 7(a)(2) consultation because of the critical habitat designation. Within occupied areas, we do not anticipate recommending any project modifications to avoid destruction or adverse modification of critical habitat that would be different from those for avoiding jeopardy.

Exemptions

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

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

(1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;

(2) A statement of goals and priorities;

(3) A detailed description of management actions to be implemented to provide for these ecological needs; and

(4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, 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 (DoD), or designated for its use, that are subject to an INRMP prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.

We consult with the military on the development and implementation of INRMPs for installations with listed species. *Schiedea hawaiiensis* is the only species with a completed, Service-approved INRMP for DoD lands located within the range of its critical habitat designation, as described below.

Approved INRMPs

Pōhakuloa Training Area, 132,193 ac (53,497 ha)

The Pōhakuloa Training Area (PTA) is the sole installation under DoD jurisdiction on the island of Hawai'i. The PTA is located in the north-central portion on the island of Hawai'i, west of the Humu'ula Saddle, in an area formed by the convergence of three volcanic mountains: Mauna Kea, Mauna Loa, and Hualālai. The PTA INRMP provides for wildlife management and habitat enhancement for four federally listed animal species and 20 federally listed plant species, including *Schiedea hawaiiensis,* found within the PTA (PTA 2020, entire).

The current PTA INRMP provides specific protections for *S. hawaiiensis.* Conservation actions to benefit *S. hawaiiensis* include collection and storage of seed from both wild and cultivated plants, propagation of plants from seed that are planted into suitable off-site habitat, and quarterly monitoring of plants to gauge the efficacy of management actions. All known wild *S. hawaiiensis* individuals are protected in fenced enclosures and are monitored at least annually. Seeds from wild and propagated *S. hawaiiensis* plants have been collected and stored, and hundreds of propagated *S. hawaiiensis* individuals have been outplanted at the PTA and in protected, off-site native habitats. With partnering agencies, the DoD constructed 15 fenced units encompassing all known wild individuals of *S. hawaiiensis* in addition to other high-priority species in the PTA. Combined, these units protect roughly 37,300 ac (15,095 ha) of predominantly native forest from ungulates. The DoD also controls invasive plants and rodents within these fenced areas. The INRMP incorporates recommendations made by the Service to reduce fire risk. For example, wildland fires caused by military training activities are minimized by managing vegetation along a system of

fuel breaks and by controlling invasive grasses, which function as fine fuels, in buffers around occurrences of *S. hawaiiensis* and other listed species.

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the identified lands are subject to the PTA INRMP and that conservation efforts identified in the INRMP will provide a benefit to *S. hawaiiensis.* Therefore, lands within this installation are exempt from critical habitat designation under section 4(a)(3) of the Act. As such, and as we indicated in our March 29, 2023, proposed rule (88 FR 18756), we are not including approximately 22,730 ac (9,198 ha) of habitat in this final critical habitat designation because of this exemption.

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 impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. Exclusion decisions are governed by the regulations at 50 CFR 424.19 and the Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act (hereafter, the ''2016 Policy''; 81 FR 7226, February 11, 2016)—both of which were developed jointly with the National Marine Fisheries Service (NMFS). We also refer to a 2008 Department of the Interior Solicitor's opinion entitled, ''The Secretary's Authority to Exclude Areas from a Critical Habitat Designation under Section 4(b)(2) of the Endangered Species Act'' (M–37016). We explain each decision to exclude areas, as well as decisions not to exclude, to demonstrate that the decision is reasonable.

The Secretary may exclude any particular area if she determines that the benefits of such exclusion outweigh the benefits of including such area as part of the critical habitat, unless she 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 the determination to exclude a particular area, 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.

We describe below the process that we undertook for deciding whether to exclude any areas—taking into consideration each category of impacts and our analysis of the relevant impacts.

Exclusions Based on Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. In order to consider economic impacts, we prepared an incremental effects memorandum (IEM) and screening analysis which, together with our narrative and interpretation of effects, we consider our economic analysis of the critical habitat designation and related factors (Service 2023o, entire; Industrial Economics, Incorporated (IEc) 2023a, entire). The economic analysis addressed probable economic impacts of critical habitat designation for the 12 Hawai'i species. Following the close of the comment period, we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Additional information relevant to the economic analysis of the critical habitat designation for the 12 Hawai'i species is summarized below and available in the screening analysis for the 12 Hawai'i species (IEc 2023a, entire), available at *https://www.regulations.gov.*

In our economic screening analysis (IEc, 2023a, entire), we identified probable incremental economic impacts associated with the critical habitat designation of the 12 Hawai'i Island species that have a Federal nexus (Service 2023o, entire). Because we are designating as critical habitat one area (*Cyanea marksii, Schiedea diffusa* ssp. *macraei*—Section 20 and *Drosophila digressa*—Unit 6) in this final rule that is in addition to the designation we originally proposed, we considered the economic impacts of the addition in our final economic screening analysis and concluded that the total incremental costs of this final critical habitat designation are not expected to change relative to those projected for our proposed designation (IEc 2023b, p. 1).

Critical habitat designation generally will not affect activities that do not have any Federal involvement. Under section 7 of the Act, Federal agencies are required to consult with the Service on activities they fund, permit, or implement that may affect the species or its critical habitat. When this final rule is effective (see **DATES**, above), Federal agencies will be required to consider the effects of their actions on the designated critical habitat of the 12 Hawai'i Island species. If the Federal action may affect critical habitat, our consultations will include measures to avoid the destruction or adverse modification of critical habitat.

In our IEM, we distinguished between the economic effects that result from the species being listed versus those attributable to the critical habitat designation. The following specific circumstances in this case help to inform our evaluation: (1) the essential physical or biological features identified for critical habitat are the same features essential for the life requisites of the species; and (2) any actions that would likely adversely affect the essential physical or biological features of critical habitat are also likely to adversely affect any one of the 12 Hawai'i Island species, if present. In general, most of the economic effects result from the listing of the species in the first instance, rather than resulting from the designation of critical habitat. The IEM outlines our rationale concerning this limited distinction between baseline conservation efforts resulting from the listing of the species and the incremental impacts of the designation of critical habitat for these species. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of this designation of critical habitat.

The critical habitat designation for the 12 Hawai'i Island species includes 21 distinct areas, subdivided into 42 units, totaling approximately 119,326 ac (48,289 ha). Lands within the designation are under Federal (27 percent), State (69 percent) and private/other (4 percent) ownership. All units except one were occupied by one or more of the 12 species at the time of listing. The single unoccupied unit (*Schiedea hawaiiensis*—Section 19) is not located in the PTA, and any incremental costs to minimize wildfire risk to Section 19 (Unit 55) because of military training is dependent upon the U.S. Army's proposed action to be described in their upcoming biological assessment. Overall, the incremental costs of designating critical habitat for the 12 Hawai'i Island species are likely to be limited to additional administrative effort to the consulting Federal agencies in conducting the adverse modification analysis. This additional administrative effort will be part of those section 7 consultations already required because of the Federal action's effects to listed species.

The additional administrative effort associated with considering critical

habitat during the section 7 consultation process was estimated using data regarding level of effort needed in past consultations, including efforts to provide technical assistance to Federal agencies short of requiring consultation, as well as efforts involving informal and formal consultation. We estimate up to six requests for technical assistance, one informal consultation, and two formal consultations annually over the next 10 years. The maximum annual cost associated with these consultations is estimated not to exceed $48,000 (2022 dollars). Therefore, the annual administrative burden is not expected to exceed the $200 million per year threshold that is considered economically significant under Executive Order (E.O.) 12866, as amended by E.O. 14094.

We anticipate that in general this critical habitat designation is not likely to add to our recommendations for project modifications during future section 7 consultations, as any such recommendations would likely be as a result of considering effects to the species in the first place. However, in some instances, we may recommend modifications associated specifically with minimizing adverse effects to the designated critical habitat in order to ensure the Federal activities will not result in the destruction or adverse modification of critical habitat.

For example, for activities with a Federal nexus that would involve entry into critical habitat that is susceptible to rapid ʻōhiʻa death (ROD), we anticipate recommending disinfecting gear to limit the transmission of fungal pathogens associated with ROD, and limiting trampling or damage to ʻōhiʻa in native-dominated forest areas. Disinfecting and other ROD control protocols are already part of best practices promoted by the Service and widely adopted by other agencies and conservation organizations. Therefore, such recommendations are unlikely to result in incremental costs because they are already part of standard protocols absent critical habitat.

In unpredictable cases, a Federal agency may need to act to save human lives in response to volcanic activity or other such emergencies involving acts of God, disasters, casualties, national defense or security emergencies. In doing so this may result in effects to listed species and critical habitat. We expect the Federal agency would use the emergency consultation procedures available, including obtaining technical advice and recommendations from the Service for minimizing adverse effects during emergency response activities whenever possible, and subsequently consulting with the Service (see 50 CFR 402.05). We may determine that the emergency response may adversely modify critical habitat and recommend restoration activities to address the damage to habitat that would not be undertaken absent a critical habitat designation. If time allows, the Service may also be involved in designing the emergency response in order to minimize the potential for adverse effects on critical habitat, for example, for emergency access road placement. Data are not available to forecast costs associated with modifications to activities or restoration actions following emergency response efforts during volcanic activity or other unpredictable events. Even if historical costs were available, the incremental costs associated with any given emergency response activity are likely to vary widely and be highly fact- and context-specific.

The probable incremental economic impacts of the critical habitat designations for the 12 Hawaiʻi Island species are expected to be limited to additional administrative effort as well as minor costs of conservation efforts resulting from a small number of future section 7 consultations. This limited incremental economic impact is due to a large portion (94 percent) of the critical habitat designation being occupied by one or more of the 12 Hawaiʻi Island species and thus would require consultation for the species anyway (regardless of critical habitat), making additional incremental economic impacts of critical habitat designation limited mostly to administrative costs. At approximately $30,000 or less per consultation, the burden resulting from the designation of critical habitat for the 12 Hawaiʻi Island species, based on the anticipated annual number of consultations and associated consultation costs, is not expected to exceed a total of $48,000 in most years, across all affected parties, including the Service and other Federal agencies, and any other involved party. These costs incorporate requests for technical assistance and informal and formal consultation. We are not aware of any State or local regulations that would add additional requirements to private activities as a result of the Federal designation of critical habitat. Thus, the annual administrative burden is low.

Although we do not anticipate incremental costs outside of the section 7 consultation process, additional incremental costs may occur if landowners or buyers perceive that the designation of critical habitat will restrict land or water use activities in some way and, therefore, lower the value or use of the land. Although we acknowledge the potential for these types of speculation-based costs, the likelihood of these potential future effects is uncertain, and data with which to estimate incremental costs are unavailable. Similarly, there may be economic impacts associated with the perceived beneficial effects of critical habitat on land values. However, the likelihood and magnitude of those such effects are also uncertain.

In summary, while the specific costs of critical habitat designation for the 12 Hawaiʻi Island species are subject to uncertainty, it is unlikely that this rule will generate costs exceeding $200 million in a single year. Therefore, this rule is unlikely to meet the threshold for an economically significant rule, with regard to costs, under E.O. 12866, as amended by E.O. 14094.

As discussed above, we considered the economic impacts of the critical habitat designation, and the Secretary is not exercising her discretion to exclude any areas from this designation of critical habitat for the 12 Hawaiʻi species based on economic impacts.

Exclusions Based on Impacts on National Security and Homeland Security

In preparing this rule, we determined that there are no lands within the designated critical habitat for the 12 Hawaiʻi species that are owned or managed by the DoD or Department of Homeland Security, and, therefore, we anticipate no impact on national security or homeland security. We did not receive any additional information during the public comment period for the proposed designation regarding impacts of the designation on national security or homeland security that would support excluding any specific areas from the final critical habitat designation under authority of section 4(b)(2) and our implementing regulations at 50 CFR 424.19, as well as the 2016 Policy.

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. To identify other relevant impacts that may affect the exclusion analysis, 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 (SHAs), or candidate conservation agreements with assurances (CCAAs), or whether there are non-permitted conservation

agreements and partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at whether Native Hawaiian Community conservation plans or partnerships, Native Hawaiian Organization resources, or government-to-government relationships of the United States with indigenous entities may be affected by the designation. We also consider any State, local, social, or other impacts that might occur because of the designation.

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive due to the protection from destruction or adverse modification 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 State or Federal laws that may apply to critical habitat. In the case of the 12 Hawai'i species, the benefits of critical habitat include public awareness of the presence of these species and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for these species due to the requirement to consult with the Service to avoid destroying or adversely modifying critical habitat.

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation, or in the continuation, strengthening, or encouragement of partnerships. Additionally, continued implementation of an ongoing management plan that provides equal to or more conservation than a critical habitat designation would reduce the benefits of including that specific area in the critical habitat designation.

We evaluate the existence of a conservation plan when considering the benefits of inclusion. 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.

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 that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction of the species. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

We evaluated whether certain lands in the proposed critical habitat designation are appropriate for exclusion from this final designation under section 4(b)(2) of the Act. In our March 29, 2023, proposed rule (88 FR 18756), we identified the areas we were considering for exclusion based largely on their conservation management; we received no additional requests from entities seeking additional exclusions in comments on the proposed rule. If the analysis indicates that the benefits of excluding lands from this final designation outweigh the benefits of designating those lands as critical habitat, then the Secretary may exercise her discretion to exclude those lands from the final designation. In the paragraphs below, we provide our analysis of the areas being excluded from this designation under section 4(b)(2) of the Act.

Private or Other Non-Federal Conservation Plans or Agreements and Partnerships, in General

We sometimes exclude specific areas from critical habitat designations based in part on the existence of private or other non-Federal conservation plans or agreements and their attendant 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. A non-exhaustive list of factors that we will consider for non-permitted plans or agreements is shown below. These factors are not required elements of plans or agreements, and all items may not apply to every plan or agreement.

a. 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.

b. The extent of public participation in the development of the conservation plan.

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

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

e. The demonstrated implementation and success of the chosen mechanism.

f. The degree to which the plan or agreement provides for the conservation of the essential physical or biological features for the species.

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

h. 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.

Watershed Partnerships—One factor we considered in our exclusion analysis is whether the landowner participates in a watershed partnership. In 2003, the State of Hawaii formally established the Hawai'i Association of Watershed Partnerships, which consists of more than 60 public and private landowners throughout the State; these landowners are committed to long-term protection and conservation of watershed areas. These watershed partnerships each have a conservation management plan that is updated every several years to include measurable objectives and a budget. Financial support for the watershed partnerships includes various long-term State funds and other Federal and private sources. Of the 10 watershed partnerships in operation, 3 have lands within the critical habitat designation: Mauna Kea Watershed Alliance, Kohala Watershed Alliance, and Three Mountain Alliance. These watershed partnerships fund and conduct conservation efforts, including ungulate control and removal, and invasive weed management, that support one or more of the 12 Hawai'i Island species. The specific management plan associated with each watershed alliance or partnership is described in ''Non-

Permitted Conservation Plans, Agreements, or Partnerships,'' below.

Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act

HCPs for incidental take permits under section 10(a)(1)(B) of the Act provide for partnerships with non-Federal entities to minimize and mitigate impacts to listed species and their habitat. In some cases, HCP permittees agree to do more for the conservation of the species and their habitats on private lands than designation of critical habitat would provide alone. We place great value on the partnerships that are developed during the preparation and implementation of HCPs.

CCAAs and SHAs are voluntary agreements designed to conserve candidate and listed species, respectively, on non-Federal lands. In exchange for actions that contribute to the conservation of species on non-Federal lands, participating property owners are covered by an ''enhancement of survival'' permit under section 10(a)(1)(A) of the Act, which authorizes incidental take of the covered species that may result from implementation of conservation actions, specific land uses, and, in the case of SHAs, the option to return to a baseline condition under the agreements. We also provide enrollees assurances that we will not impose further land-, water-, or resource-use restrictions, or require additional commitments of land, water, or finances, beyond those agreed to in the agreements.

When we undertake a discretionary section 4(b)(2) exclusion analysis, we will always consider areas covered by an approved CCAA/SHA/HCP, and we anticipate consistently excluding such areas if incidental take caused by the activities in those areas is covered by the permit under section 10 of the Act and the CCAA/SHA/HCP meets *all* of the following three factors (see the 2016 Policy for additional details):

a. The permittee is properly implementing the CCAA/SHA/HCP and is expected to continue to do so for the term of the agreement. A CCAA/SHA/HCP is properly implemented if the permittee is, and has been, fully implementing the commitments and provisions in the CCAA/SHA/HCP, implementing agreement, and permit.

b. The species for which critical habitat is being designated is a covered species in the CCAA/SHA/HCP, or very similar in its habitat requirements to a covered species. The recognition that we extend to such an agreement depends on the degree to which the conservation measures undertaken in the CCAA/SHA/HCP would also protect the habitat features of the similar species.

c. The CCAA/SHA/HCP specifically addresses the habitat of the species for which critical habitat is being designated and meets the conservation needs of the species in the planning area.

The critical habitat designation as proposed included areas that are covered by the following permitted plan providing for the conservation of 7 of the 12 Hawai'i Island species, as specified below:

Safe Harbor Agreement Trustees of the Estate of Bernice P. Bishop, DBA, Kamehameha Schools Keauhou and Kīlauea Forest Lands Hawai'i Island, Hawai'i (Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement), June 2017—The permit holder for this SHA is Kamehameha Schools. Kamehameha Schools was established in 1887, through the will of Princess Bernice Pauahi Paki Bishop. Kamehameha Schools owns more than 362,000 ac (146,496 ha) of land throughout Hawaii, and part of Kamehameha Schools' mission is to protect Hawaii's environment through recognition of the significant cultural value of this land and its unique flora and fauna. In 2017, the SHA was approved by the Service and Hawaii Department of Land and Natural Resources for the Kamehameha School's Keauhou and Kīlauea Forest lands, which comprise 32,280 ac (13,063 ha) on the east slope of Mauna Loa Volcano, on the island of Hawai'i.

Under the SHA, koa (*Acacia koa*) tree silviculture will be conducted, including stand improvement through selective harvest and establishment of new or improvement of existing forest in formerly logged areas and degraded pasture lands (Kamehameha Schools 2017, pp. 22–23). The conservation actions of Kamehameha Schools benefit habitat for *Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* by promoting forest regeneration, which increases soil-water retention capacity and improves ecosystem resilience to drying climate conditions; controlling feral ungulates, which reduces trampling of and predation on these plants, including the host plants of *Drosophila digressa;* controlling weeds, which improves recruitment of native trees, including those that host *Drosophila digressa;* and taking actions that reduce the incidence of fire, which benefits forest habitat for these species by minimizing damage to that habitat by wildfire.

We considered the following areas for exclusion from the critical habitat designation on Hawai'i Island based on this permitted plan:

Plant Unit 51 and Drosophila digressa—Unit 2—The Kamehameha Schools are responsible for 93 ac (38 ha) of land included in the proposed critical habitat designation for Unit 51 which overlap a portion of *Drosophila digressa*—Unit 2. Conservation management actions on these lands occur under the Kamehameha Schools Keauhou and Kīlauea Forest Lands SHA. This SHA is implemented effectively; specifically addresses habitat for *Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa;* and meets the conservation needs for these species in the planning area. In addition to this SHA, this area in Unit 51 is also covered under two non-permitted conservation plans, the Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program and the Three Mountain Alliance Management Plan (as described below). Both non-permitted conservation plans are summarized below in ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' We provide a detailed balancing analysis for 93 ac (38 ha) in Unit 51 and *Drosophila digressa*—Unit 2 for exclusion from the final critical habitat designation because conservation actions occurring on the ground, including forest restoration, fire control measures, ungulate fence installation and maintenance, and control of invasive introduced plants, provide a conservation benefit to 7 of the 12 Hawai'i Island species, as specified below.

Non-Permitted Conservation Plans, Agreements, or Partnerships

Shown below is a non-exhaustive list of factors that we consider in evaluating how non-permitted plans or agreements affect the benefits of inclusion or exclusion. These are not required elements of plans or agreements. Rather, they are some of the factors we may consider, and not all of these factors apply to every plan or agreement.

(i) The degree to which the record of the plan, or information provided by proponents of an exclusion, supports a conclusion that a critical habitat designation would impair the realization of the benefits expected from the plan, agreement, or partnership.

(ii) The extent of public participation in the development of the conservation plan.

(iii) The degree to which agency review and required determinations (*e.g.,* State regulatory requirements) have been completed, as necessary and appropriate.

(iv) Whether NEPA compliance was required.

(v) The demonstrated implementation and success of the chosen mechanism.

(vi) The degree to which the plan or agreement provides for the conservation of the physical or biological features that are essential to the conservation of the species.

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

(viii) 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 critical habitat designation includes areas that are covered by the following non-permitted plans providing for the conservation of one or more of the 12 Hawai'i Island species as specified below:

I. Watershed Partnerships

a. Mauna Kea Watershed Alliance and the Mauna Kea Watershed Management Plan

The Mauna Kea Watershed Alliance Watershed Partnership is a coalition of private and public landowners and supporting agencies working to protect and restore watershed areas on Mauna Kea Volcano, Hawai'i (Mauna Kea Watershed Alliance 2022, entire). Lands that are managed by the Mauna Kea Watershed Alliance include more than 500,000 ac (202,343 ha) on Mauna Kea Volcano on the island of Hawai'i. The Mauna Kea Watershed Alliance's shared vision is to protect and enhance watershed ecosystems, biodiversity, and natural resources through responsible management while promoting economic sustainability and providing recreational, subsistence, educational, and research opportunities. Staff of the Mauna Kea Watershed Alliance work cooperatively with landowners of the alliance to achieve this shared vision. Accordingly, fencing and ungulate control, control of introduced plants that are invasive, and reforestation efforts are conducted on lands within the Mauna Kea Watershed Alliance (Stewart 2010, p. viii). Ungulate control benefits habitat for *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* by reducing the trampling of and predation on these plants, including the host plants of *Drosophila digressa,* leading to improved forest regeneration. Nonnative plant control improves recruitment of native trees, including host plants of *Drosophila digressa,* and reforestation provides greater areas of native plant associations that contribute to habitat and increases soil-water retention capacity, improving ecosystem resilience to drying climate conditions.

b. Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan

The Kohala Watershed Partnership is a coalition of private and public landowners and supporting agencies whose goal is to show improvements in water and environmental quality by enabling comprehensive and sustainable watershed management projects that address the threats to the watershed, while maintaining its integrity and protecting its economic, socio-cultural, and ecological resources (Kohala Watershed Partnership (KWP) 2007, p. 3). Lands that are managed by Kohala Mountain Watershed Management Plan include approximately 68,000 ac (27,519 ha) of forest and grass lands on the windward and leeward slopes of the Kohala Volcano on the island of Hawai'i (KWP 2007, p. 3). Conservation measures of this plan benefit habitat for *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* by promoting native forest and shrubland regeneration and increasing soil-water retention capacity through control of feral ungulates and weed control that improves recruitment of native trees and shrubs. Wildfire management and response benefits coastal habitat, forest, and shrubland habitats used by these species by minimizing fire damage (KWP 2007, pp. 62–82).

c. Three Mountain Alliance Watershed Partnership and the Three Mountain Alliance Management Plan

The Three Mountain Alliance Watershed Partnership is a coalition of private and public landowners and supporting agencies that are working to protect and restore watershed areas on Hawai'i Island (Three Mountain Alliance Management Plan (TMA) 2007, entire). Lands that are managed by the Three Mountain Alliance are 1,116,300 ac (451,751 ha) on Mauna Loa, Kīlauea, and Hualālai volcanoes or roughly 45 percent of the island of Hawai'i. Project funding for the Three Mountain Alliance currently comes from Three Mountain Alliance members (primarily the Service, Hawaiis DOFAW, and Kamehameha Schools) and outside grants. Other Three Mountain Alliance members provide in-kind services to accomplish priority projects, for example, inmate labor or sharing personnel and equipment (TMA 2007, p. 56). Management under the Three Mountain Alliance Management Plan includes the following conservation actions: (1) strategic fencing and removal of ungulates; (2) regular monitoring for ungulates after fencing; (3) monitoring of habitat recovery; (4) surveys for rare taxa prior to new fence installations; (5) invasive, nonnative plant control; (6) reestablishment of native plant species; and (7) activities to reduce the threat of wildfire. Ungulate control reduces damage to native forests, including to host plants of *Drosophila digressa;* control of nonnative, invasive plants and out-planting of native plants, including host plants of *Drosophila digressa,* improves recruitment of native trees; and fire suppression activities reduce the damage from wildfires to habitats used by *Cyanea marksii, Cyanea tritomantha, Cyrtandra wagneri, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa.*

II. Other Partnerships

a. Parker Ranch Sustainable Forestry Initiative

Parker Ranch was founded in 1847, and currently encompasses more than 100,000 ac (40,469 ha) of land in the Hamakua, North Kohala, and South Kohala Districts on Mauna Kea and the Kohala Mountains on the island of Hawai'i. Parker Ranch recognizes forest health as a key indicator of overall ecosystem health and, as result, announced in 2021 that it is seeking to collaborate with public and private partners to develop sustainable forestry programs on its lands (Parker Ranch 2021, entire).

For its Waipunalei lands on the eastern slope of Mauna Kea, Parker Ranch is developing a sustainable forestry program and is seeking to rehabilitate forest areas damaged by cattle grazing. In 2021, Parker Ranch fenced the Waipunalei Forestry Unit, a 1,500-ac (607-ha) parcel, and is removing feral grazing animals.

Waipunalei is managed to reduce threats to the native forest ecosystem and increase native forest canopy. Over the next 3 years, thousands of native seedlings will be planted, and weeds will be controlled across approximately 650 ac (263 ha) within the Waipunalei Forestry Unit (Parker Ranch 2023, pers. comm.).

For its Waiemi lands on the Kohala Mountains, Parker Ranch is providing essential access and support to the State Department of Land and Natural Resources for priority watershed projects in Pu'u o Umi Natural Area Reserve and is supporting erosion control efforts above Pelekane Bay (Parker Ranch 2021, pers. comm.).

Additionally, Parker Ranch is a member of the Mauna Kea Watershed Alliance (see ''a. Mauna Kea Watershed Alliance and the Mauna Kea Watershed Management Plan,'' above). Koa forestry benefits forest habitat used by *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* by establishing new or improving forest in formerly logged areas and degraded pasture lands, increasing soil-water retention capacity, and improving ecosystem resilience to drying climate conditions through control of feral ungulates and weed control that improves recruitment of native trees, including the host plants of *Drosophila digressa.*

b. Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program

Kamehameha Schools owns more than 362,000 ac (146,496 ha) of land throughout Hawai'i. Part of Kamehameha Schools' mission is to protect Hawaii's environment through recognition of the significant cultural value of this land and its unique flora and fauna. Accordingly, Kamehameha Schools established a sustainable stewardship policy to guide the use of its lands through their ʻĀina Pauahi Natural Resources Management Program that includes the protection and conservation of natural resources, water resources, and ancestral places (Kamehameha Schools 2022, entire).

Between 2000 and 2015, Kamehameha Schools increased active stewardship of native ecosystems by over 35-fold, from 3,000 ac (1,124 ha) to 136,000 ac (55,037 ha); engaged in community collaborations to leverage external resources in support of culturally appropriate land stewardship; and developed and implemented its 2012 natural resource and cultural resource management plans representing Kamehameha Schools' responsibility to conduct prudent stewardship of the ʻāina (land). Kamehameha Schools manages some of its forested lands for income generation through sustainable koa and ʻiliahi or sandalwood (*Santalum album*) forestry and collaborates with county and other landowners in fire response planning to protect natural resources from fires. Fire suppression protects native forests and shrubland habitats from wildfire. These actions promote regeneration of native forests that support the 12 Hawai'i Island species.

c. Department of Hawaiian Home Lands ʻĀina Mauna Legacy Program

The Department of Hawaiian Home Lands is governed by the Hawaiian Homes Commission Act of 1920, enacted by the U.S. Congress to protect and improve the lives of native Hawaiians. The Hawaiian Homes Commission Act of 1920 created a Hawaiian Homes Commission to administer certain public lands, called Hawaiian homelands, for native Hawaiian homesteads. These lands are not considered public lands in the general sense. The primary responsibilities of the Department of Hawaiian Home Lands are to serve its beneficiaries and to manage its extensive land trust, which consists of more than 200,000 ac (80,937 ha) on the islands of Hawai'i, Maui, Moloka'i, Lāna'i, O'ahu, and Kaua'i.

The goal of the Department of Hawaiian Home Lands' ʻĀina Mauna Legacy Program is to restore and protect approximately 56,000 ac (22,662 ha) of native Hawaiian forest on Mauna Kea Volcano on the island of Hawai'i that is ecologically, culturally, and economically self-sustaining for the Hawaiian Home Lands Trust, its beneficiaries, and the community (Department of Hawaiian Home Lands 2009, p. 7). The Department of Hawaiian Home Lands ʻĀina Mauna Legacy Program describes activities to be conducted on Department of Hawaiian Home Lands lands over the next 100 years, including native forest restoration and sustainable koa forestry; invasive plant control and remnant invasive species eradication; nonnative wildlife control and management (*i.e.,* feral ungulate control); road system, fencing, and water systems infrastructure development and maintenance; and research and community outreach.

Some forest areas in lands managed under the ʻĀina Mauna Legacy Program are degraded by a history of cattle grazing. Koa tree silviculture is in initial stages and will be conducted (at least during the next 100 years) on lands under this management designation, including stand improvement through selective harvest and establishment of new or improved forest in formerly logged areas and degraded pasture lands. Koa silviculture benefits habitat for the 12 species addressed in this final critical habitat designation by establishing new or improved forest, increasing soil-water retention capacity, and improving ecosystem resilience to drying climate conditions. Ungulate control reduces damage to ʻōhiʻa forests, maintains forest health, and prevents ungulates from degrading habitat for the 12 species addressed in this final critical habitat designation. Control of nonnative, invasive plants and out-planting of native plants improves recruitment of native trees.

d. The Nature Conservancy Forest Stewardship Management Plan for the Kona Hema Preserve

The Nature Conservancy Kona Hema Preserve was established in 1999, in the South Kona District of the island of Hawai'i. It is comprised of 8,076 ac (3,268 ha) in four management units. The management program for Kona Hema Preserve is documented in The Nature Conservancy's Forest Stewardship Management Plan for the Kona Hema Preserve, which details management measures to protect, restore, and enhance rare plants and animals and their habitats within the preserve and in adjacent areas (The Nature Conservancy 2017, entire).

The primary management goals for the Kona Hema Preserve are to: (1) prevent degradation of native forest and shrubland by reducing feral ungulate damage; (2) improve or maintain the integrity of native ecosystems in selected areas of the preserve by reducing the effects of nonnative plants; (3) conduct small mammal control and reduce the negative impacts of small mammals where possible; (4) monitor and track the biological and physical resources in the preserve, evaluate changes in these resources over time, and encourage biological and environmental research; (5) prevent extinction of rare species in the preserve; (6) build public understanding and support for the preservation of natural areas, and enlist volunteer assistance for preserve management; and (7) protect the resources from fires in and around the preserve. Ungulate control reduces damage to ʻōhiʻa forests, maintains forest health, and prevents ungulates from degrading habitat for the 12 species addressed in this final critical habitat designation. Fire suppression reduces the damage from wildfires and provides protection for

forest and shrubland habitat. Invasive plant control improves recruitment of native trees, and small mammal control, particularly rat (*Rattus* spp.) control, reduces the potential for seed predation by rats on the plant species addressed in this final critical habitat designation.

Permitted and Non-Permitted Plans in Critical Habitat Units

The Nature Conservancy manages 986 ac (399 ha) of land in plant Unit 41 and *Drosophila digressa*—Unit 5 that we identified as lands we were considering for exclusion in our March 29, 2023, proposed rule (88 FR 18756). The Nature Conservancy benefits habitat of *Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae,* in plant Unit 41, and *Drosophila digressa* in *Drosophila digressa*—Unit 5, with conservation and management activities through The Nature Conservancy's Forest Stewardship Management Plan for the Kona Hema Preserve, and the Three Mountain Alliance Watershed Partnership and the Three Mountain Alliance Management Plan, described above. The Nature Conservancy lands in plant Unit 41 and *Drosophila digressa*—Unit 5 are within their Kona Hema Preserve, where they are actively conducting ungulate removal and native forest restoration, including invasive weed removal, to improve the habitat for all six species listed above.

We had considered excluding the 986-ac (399-ha) parcel of Nature Conservancy land in plant Unit 41 and *Drosophila digressa*—Unit 5, but during the comment period on our March 29, 2023, proposed rule (88 FR 18756), we received a request from The Nature Conservancy to include their 986-ac (399-ha) parcel in our final critical habitat designation, rather than exclude it. The Nature Conservancy expects that the inclusion of their Kona Hema Preserve lands in this final critical habitat designation will increase their potential to develop partnerships and implement conservation in the future for these species or for other federally listed and sensitive species in neighboring parcels.

Therefore, because the 986 ac (399 ha) owned by The Nature Conservancy in plant Unit 41 and *Drosophila digressa*—Unit 5 meets the definition of critical habitat for *Cyanea marksii, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa,* and The Nature Conservancy supports the inclusion of their parcel in our designation, we are including this parcel in our final critical habitat designation without further investigation into potential benefits from excluding it.

In the following discussion, we describe each of the parcels by landowner where we have conducted a balancing analysis and evaluated the benefits of inclusion in the critical habitat designation, the benefits of exclusion, our determination of whether the benefits of exclusion or inclusion are greater, and if exclusion would result in the extinction of the species. Specifically, we explain the benefit to the species of the watershed partnerships, permitted plans, or other non-permitted conservation plans, agreements, or partnerships, as well as other conservation actions implemented on certain lands that we have included in our balancing analysis and how the non-permitted conservation or management plans satisfy the non-exhaustive list of factors provided above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships'' that we may choose to consider in our evaluation. We indicate the acreage in each unit that we are excluding from the critical habitat designation based on our analysis.

I. Parker Ranch Lands

Parker Ranch manages two parcels of land (403 ac (163 ha) and 372 ac (151 ha)) in Units 52 and 54, respectively. These parcels were identified as lands we were considering for exclusion in our March 29, 2023, proposed rule (88 FR 18756). As stated in table 3, the boundary for *Drosophila digressa*—Unit 1 is identical to Section 1 (plant Units 3 and 52, combined).

In the March 29, 2023, proposed rule, we reference an additional area of 547 ac (221 ha) in plant Unit 3 that is owned and managed by Parker Ranch but would not be considered for exclusion because it overlaps with existing critical habitat already designated for other species. During that proposed rule's public comment period, we held several meetings with Parker Ranch to answer questions regarding the critical habitat designation and obtain additional information concerning the management of their lands. During those discussions, Parker Ranch was supportive of the exclusion of their lands we were considering in Units 52 and 54, and was not interested in having the remaining 547 ac (221 ha) that are already designated for other species be a part of that exclusion. Further, we received no subsequent request from Parker Ranch that the 547-ac (221-ha) area be excluded, and therefore it remains in this final critical habitat designation.

Conservation and management activities on Parker Ranch lands in Units 52 and 54, as well as *Drosophila digressa*—Unit 1, include those associated with Parker Ranch's Sustainable Forestry Initiative and Mauna Kea Watershed Alliance (see ''a. Parker Ranch Sustainable Forestry Initiative'' under II. *Other Partnerships* and ''*a. Mauna Kea Watershed Alliance and the Mauna Kea Watershed Management Plan*'' *under I. Watership Partnerships,* above). Conservation measures of Parker Ranch, through its Sustainable Forestry Initiative, benefit habitat for all species within Units 52 and 54 including *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa.*

Parker Ranch lands in Unit 52 are within their Waipunalei Forestry Unit, where Parker Ranch is actively conducting ungulate removal and native forest restoration, including invasive weed removal to support the habitat for all eight species within Unit 52. In Unit 54, within its Waiemi lands, Parker Ranch is providing essential access and support to the Hawaii State Department of Land and Natural Resources for priority watershed projects in Pu'u o Umi Natural Area Reserve and is supporting erosion control efforts above Pelekane Bay (Parker Ranch 2021, pers. comm.). Additionally, Parker Ranch is a member of the Mauna Kea Watershed Alliance (see ''*a. Mauna Kea Watershed Alliance and the Mauna Kea Watershed Management Plan*'' *under I. Watership Partnerships,* above). Parker Ranch's koa forestry activities benefit forest habitat used by *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* by establishing new or improved forest in formerly logged areas and degraded pasture lands, increasing soil-water retention capacity, and improving ecosystem resilience to drying climate conditions through control of feral ungulates and weed control that improves recruitment of native trees, including the host plants of *Drosophila digressa.*

Based on Parker Ranch's management, Parker Ranch's Sustainable Forestry Initiative and participation in the Mauna Kea Watershed Alliance, we evaluated 403 ac (163 ha) in Unit 52 and *Drosophila digressa*—Unit 1, and 372 ac (151 ha) in Unit 54, of lands owned by Parker Ranch to determine if excluding these lands from the final critical habitat designation is appropriate.

Benefits of Inclusion—Parker Ranch

The principal benefit of including an area in critical habitat designation is the requirement under section 7(a)(2) of the Act that Federal agencies ensure, in consultation with the Service, that actions that they fund, authorize, or carry out are not likely to result in the destruction or adverse modification of any designated critical habitat. Federal agencies must also consult with the Service on actions that may affect a listed species and refrain from actions that are likely to jeopardize the continued existence of such species. If the Service determines that the Federal action is likely to jeopardize the continued existence of the species, or result in the destruction or adverse modification of critical habitat, it will identify reasonable and prudent alternatives to the Federal action to avoid such results. The Service's analysis of effects to critical habitat (to determine whether destruction or adverse modification is likely) is a separate and different analysis from the Service's analysis of the effects to the species to determine whether jeopardy to the species is likely. Therefore, the difference in outcomes of these two analyses represents the regulatory benefit of critical habitat.

For some actions, the outcome of these analyses will be similar, because effects from a Federal action to habitat will often also result in effects to the species. However, the regulatory standards are distinct for each. For the jeopardy analysis, the Service evaluates whether the action reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species. For the destruction or adverse modification analysis for critical habitat, the Service evaluates whether the action results in a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of the listed species. Thus, the critical habitat designation can confer additional protection to a species other than listing alone, particularly if the proposed Federal action does not itself impact individuals of the species, but does impact its critical habitat. Therefore, critical habitat designation may provide a regulatory benefit for *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* on lands owned by Parker Ranch in plant Units 52 and 54, and *Drosophila digressa*—Unit 1.

Another possible benefit of including lands in critical habitat is public education regarding the potential conservation value of an area that may help focus conservation efforts on areas of high conservation value for certain species. We consider any information about *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* and their habitat that reaches a wide audience, including parties engaged in conservation activities, to be valuable. Designation of critical habitat would provide educational benefits by informing Federal agencies and the public about the presence of the species in these units.

Therefore, because activities with a Federal nexus will require section 7 consultations, and because of the occurrence of these species on Parker Ranch lands, it is expected that there may be some, but limited, benefits from including Parker Ranch lands in plant Units 52 and 54, and in *Drosophila digressa*—Unit 1, in the critical habitat designation. The principal benefit of any designated critical habitat is that activities in and affecting such habitat require consultation under section 7 of the Act. Such consultation would ensure that adequate protection is provided to avoid destruction or adverse modification of critical habitat.

Benefits of Exclusion—Parker Ranch

The benefits of excluding two parcels—one in plant Unit 52 and *Drosophila digressa*—Unit 1 (403 ac (163 ha)) and the other in plant Unit 54 (372 ac (151ha))—owned by Parker Ranch from this designation of critical habitat include: (1) the continued implementation of conservation plans (Parker Ranch's Sustainable Forestry Initiative and the Mauna Kea Watershed Management Plan) that include actions that benefit *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa;* (2) strengthening of our effective partnership with Parker Ranch and other neighboring landowners to promote voluntary, proactive conservation of *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* and their habitats; (3) allowance for continued meaningful collaboration and cooperation in working toward species recovery, including conservation benefits that might not otherwise occur; and (4) encouragement of developing and implementing conservation and management plans in the future for these species or other federally listed and sensitive species.

In some cases, the designation of critical habitat on (or adjacent to) private lands may reduce the likelihood that landowners will support and carry out conservation actions (Main et al. 1999, pp. 1,263–1,265; Bean 1998, p. 10706). The magnitude of this negative outcome is amplified in situations where active management measures (such as reintroduction, fire management, and control of invasive species) are necessary for species conservation (Bean 1998, pp. 10706–10708). We find that the exclusion of these specific areas of non-federally owned lands from this critical habitat designation can contribute to the species' recovery and provide a superior level of conservation than critical habitat designation can provide alone. We have also found that, where consistent with the discretion provided by the Act, it is necessary to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove et al. 1996, pp. 1–15; Bean 1998, entire). Additionally, partnerships with non-Federal landowners are vital to the conservation of these species, especially on non-Federal lands; therefore, the Service is committed to supporting and encouraging such partnerships through the recognition of positive conservation contributions.

Excluding lands owned and managed by Parker Ranch in plant Unit 52 and *Drosophila digressa*—Unit 1, and in plant Unit 54, from critical habitat will help foster the partnerships the landowners and land managers have developed with Federal and State agencies and local conservation organizations, will encourage the continued implementation of voluntary conservation actions for the benefit of the species and their habitats 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. Therefore, we consider the positive effect of excluding from critical habitat areas managed by active conservation partners to be a significant benefit of exclusion.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Parker Ranch

We evaluated approximately 403 ac (163 ha) in Unit 52 and *Drosophila digressa*—Unit 1, and 372 ac (151 ha) in Unit 54, owned by Parker Ranch for exclusion from this designation of critical habitat. We determined the benefits of excluding these lands outweigh the benefits of including them as critical habitat for 12 species on Hawai'i Island. While Parker Ranch may receive Federal grants (actions which carry a Federal nexus) occasionally, all areas of Parker Ranch lands being evaluated for exclusion are occupied by one or more of the 12 species addressed in this final rule. Because these areas are occupied, the few section 7 consultations that may occur would include an analysis of the effects to the species under the jeopardy analysis, as described above. We expect that conservation measures that the Service would consider in addressing effects to the species under a jeopardy analysis would be very similar to those to address effects to the critical habitat under an adverse modification analysis. As such, we conclude that the additional regulatory and educational benefits of including these lands as critical habitat are relatively small because of the limited distinction between actions to avoid jeopardy and adverse modification. These marginal regulatory benefits of inclusion are further reduced by the existence of conservation plans and implemented actions, which include habitat conservation that addresses the special management considerations. Furthermore, the potential educational and informational benefits of critical habitat designation on areas of the Parker Ranch containing the physical and biological features essential to the conservation of *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* would be minimal because the landowners have demonstrated their knowledge of the species and their habitat needs in the process of developing conservation partnerships with the Service and others.

In contrast, the benefits derived from excluding the lands owned by Parker Ranch and enhancing our partnership with this landowner are 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 Hawaii, a State with relatively little Federal land ownership but many species of conservation concern. Excluding these areas on the Parker Ranch from critical habitat will help foster the partnerships Parker Ranch has developed with Federal and State agencies and local conservation organizations, and will encourage the continued implementation of voluntary conservation actions for the benefit of *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* and their habitats.

The current active conservation efforts on Parker Ranch lands in Unit 52 (*Drosophila digressa*—Unit 1) and Unit 54 benefit these species, satisfying factor (vi) of the section 4(b)(2) exclusion analysis, as described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The partnerships and management plans are longstanding and have demonstrated implementation and success, and we have a reasonable expectation that the conservation management strategies or actions in the plans will be implemented, satisfying factors (v) and (vii) described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The Parker Ranch's Sustainable Forestry Initiative and the Mauna Kea Watershed Management Plan include multiple objectives that satisfy factor (viii) described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships'' by promoting monitoring and adaptive management to ensure conservation measures are effective. 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 these areas of Hawai'i and in other locations for the benefit of other endangered or threatened species.

Management by Parker Ranch through participation in the Mauna Kea Watershed Management Plan and implementation of their Sustainable Forestry Initiative provides significant habitat protection for *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa.* We find that excluding areas from critical habitat that are under these long-term conservation and management plans to protect the habitat that supports these species will preserve our partnership with Parker Ranch in the State of Hawaii and will encourage future collaboration towards conservation and recovery of listed species. In summary, these partnership benefits to the subject species outweigh the small potential regulatory, educational, and ancillary benefits of including Parker Ranch lands in this final critical habitat designation.

Exclusion Will Not Result in Extinction of the Species—Parker Ranch

We determined that the exclusion of approximately 403 ac (163 ha) in Unit 52 and *Drosophila digressa*—Unit 1, and 372 ac (151 ha) in Unit 54, owned by Parker Ranch from this designation of critical habitat will not result in the extinction of *Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* or *Drosophila digressa.* Protections afforded to these species based on their listed status, and afforded to their habitats by the management and conservation plans, provide assurances that these species will not go extinct as a result of excluding these lands from the critical habitat designation.

An important consideration as we evaluate these exclusions and their potential effect on the species in question is that a critical habitat designation does not necessarily require affirmative actions to restore or actively manage critical habitat for the benefit of listed species; the regulatory effect of critical habitat is that Federal agencies must ensure (though consultation with the Service) that any activity they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. It is, therefore, advantageous for the conservation of these species to support the proactive efforts of non-Federal landowners who are contributing to the further enhancement of essential habitat features that support recovery of listed species through exclusion of their lands from a critical habitat designation. The jeopardy standard of section 7 of the Act will continue to provide protection to listed species in these areas when there is a Federal nexus.

II. Laupāhoehoe Nui Lands

Laupāhoehoe Nui manages two parcels of land (134 ac (54 ha) and 134 ac (54 ha)) in Units 53 and 54, respectively. These parcels were

identified as lands we were considering for exclusion in our March 29, 2023, proposed rule (88 FR 18756).

Conservation and management activities on Laupāhoehoe Nui lands in Units 53 and 54 include those associated with the Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan (see ''*b. Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan*'' *under I. Watershed Partnerships,* above). Conservation measures of Laupāhoehoe Nui, through the Kohala Mountain Watershed Management Plan, benefit habitat for all species within Units 53 and 54 including *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.*

Laupāhoehoe Nui lands in Unit 53 are managed by the Kohala Mountain Watershed Management Plan, where the Kohala Watershed Partnership is actively conducting ungulate removal and native forest restoration, including invasive weed removal to support the habitat for *Bidens hillebrandiana* ssp. *hillebrandiana.* In Unit 54, within its Upper Laupāhoehoe Nui Watershed Reserve, Laupāhoehoe Nui and the Kohala Watershed Partnership protected 2,000 ac (809 ha) important for aquifer recharge areas on Kohala Mountain, globally rare montane bog ecosystems, seabird nesting areas, and rare and endangered native plants (The Kohala Center 2019, p. 3). Laupāhoehoe Nui's Upper Laupāhoehoe Watershed Reserve benefits forest habitat used by *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* by restoring native forest in degraded lands, increasing soil-water retention capacity, and improving ecosystem resilience to drying climate conditions through control of feral ungulates and weed control that improves recruitment of native trees.

Based on Laupāhoehoe Nui's management of its land under the Kohala Mountain Watershed Management Plan and participation in the Kohala Watershed Partnership, we evaluated 134 ac (54 ha) in Unit 53 and 134 ac (54 ha) in Unit 54 of lands owned by Laupāhoehoe Nui to determine if excluding these lands from the final critical habitat designation is appropriate.

Benefits of Inclusion—Laupāhoehoe Nui

As described above under ''Benefits of Inclusion—Parker Ranch,'' the principal benefit of including an area in critical habitat designation is the requirement of Federal agencies to consult with the Service on actions that may affect the critical habitat. This allows the Service to assess whether Federal actions authorized, funded, or carried out are likely to result in the destruction or adverse modification of designated critical habitat and, if so, to identify alternatives to avoid that result; this is in addition to assessing whether the Federal action is likely to jeopardize the listed species. Thus, the critical habitat designation may provide greater benefits to the species than the listing would alone. Therefore, critical habitat designation may provide a regulatory benefit for *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* on lands owned by Laupāhoehoe Nui in Units 53 and 54.

Another possible benefit of including lands in critical habitat is public education regarding the potential conservation value of an area that may help focus conservation efforts on areas of high conservation value for certain species. We consider any information about *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitats that reaches a wide audience, including parties engaged in conservation activities, to be valuable. Designation of critical habitat would provide educational benefits by informing Federal agencies and the public about the presence of the species in these units.

Therefore, because activities with a Federal nexus will require section 7 consultations, and because of the occurrence of these species on Laupāhoehoe Nui lands, it is expected that there may be some, but limited, benefits from including Laupāhoehoe Nui lands in Units 53 and 54 in the critical habitat designation. The principal benefit of any designated critical habitat is that activities in and affecting such habitat require consultation under section 7 of the Act. Such consultation would ensure that adequate protection is provided to avoid destruction or adverse modification of critical habitat.

Benefits of Exclusion—Laupāhoehoe Nui

The benefits of excluding two parcels—one in Unit 53 (134 ac (54 ha)) and the other in Unit 54 (134 ac (54 ha))—owned by Laupāhoehoe Nui from this designation of critical habitat include: (1) the continued implementation of the conservation plan (Kohala Mountain Watershed Management Plan) that include actions that benefit *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae;* (2) strengthening of our effective partnership with Laupāhoehoe Nui and other neighboring landowners to promote voluntary, proactive conservation of *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitat; (3) allowance for continued meaningful collaboration and cooperation in working toward species recovery, including conservation benefits that might not otherwise occur; and (4) encouragement of developing and implementing conservation and management plans in the future for these species or other federally listed and sensitive species.

In some cases, the designation of critical habitat on (or adjacent to) private lands may reduce the likelihood that landowners will support and carry out conservation actions (Main et al. 1999, pp. 1,263–1,265; Bean 1998, p. 10706). The magnitude of this negative outcome is amplified in situations where active management measures (such as reintroduction, fire management, and control of invasive species) are necessary for species conservation (Bean 1998, pp. 10706–10708). We find that the exclusion of these specific areas of non-federally owned lands from this critical habitat designation can contribute to the species' recovery and provide a superior level of conservation than critical habitat designation can provide alone. We have also found that, where consistent with the discretion provided by the Act, it is necessary to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove et al. 1996, pp. 1–15; Bean 1998, entire). Additionally, partnerships with non-Federal landowners are vital to the conservation of these species, especially on non-Federal lands; therefore, the Service is committed to supporting and encouraging such partnerships through the recognition of positive conservation contributions.

Excluding lands owned and managed by Laupāhoehoe Nui in Units 53 and 54 from critical habitat will help foster the partnerships the landowners and land managers have developed with Federal and State agencies and local conservation organizations, will encourage the continued implementation of voluntary conservation actions for the benefit of the species and their habitats 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. Therefore, we consider the positive effect of excluding from critical habitat areas managed by active conservation partners to be a significant benefit of exclusion.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Laupāhoehoe Nui

We evaluated approximately 134 ac (54 ha) in Unit 53 and 134 ac (54 ha) in Unit 54 owned by Laupāhoehoe Nui for exclusion from this designation of critical habitat. We determined the benefits of excluding these lands outweigh the benefits of including them as critical habitat in this designation. We conclude that the additional regulatory and educational benefits of including these lands as critical habitat are relatively small because of the limited distinction between actions to avoid jeopardy and adverse modification. While Laupāhoehoe Nui may receive Federal grants (actions which carry a Federal nexus) from time to time, all areas of Laupāhoehoe Nui lands being evaluated are occupied by one or more of the 12 species addressed in this final rule. Therefore, the few section 7 consultations that may occur will include a jeopardy analysis, as described above, and conservation measures that apply to a jeopardy analysis are expected to be similar to those that apply to an adverse modification analysis. These marginal regulatory benefits are further reduced by the existence of conservation plans and implemented actions, which include habitat conservation that addresses the special management considerations. Furthermore, the potential educational and informational benefits of critical habitat designation on areas containing the physical and biological features essential to the conservation of *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* would be minimal because the landowner has demonstrated their knowledge of the species and their habitat needs in the process of developing conservation partnerships with the Service and others.

In contrast, the benefits derived from excluding the lands owned by Laupāhoehoe Nui and enhancing our partnership with this landowner are 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 Hawaii, a State with relatively little Federal land ownership 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 hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitats on these lands.

The current active conservation efforts on Laupāhoehoe Nui lands in Units 53 and 54 benefit these species, satisfying factor (vi) of the section 4(b)(2) exclusion analysis, as described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The partnership and management plan are longstanding and have demonstrated implementation and success, and we have a reasonable expectation that the conservation management strategies or actions in the plan will be implemented, satisfying factors (v) and (vii) described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The Kohala Mountain Watershed Management Plan includes multiple objectives that satisfy factor (viii) described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships'' by promoting monitoring and adaptive management to ensure conservation measures are effective. In addition, this partnership not only provides 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 these areas of Hawaii and in other locations for the benefit of other endangered or threatened species.

Management by Laupāhoehoe Nui through participation in the Kohala Mountain Watershed Management Plan and Kohala Watershed Partnership provides significant habitat protection for *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.* We find that excluding areas from critical habitat that are under long-term conservation and management plans to protect the habitat that supports these species will preserve our partnership with Laupāhoehoe Nui in the State of Hawaii and will encourage future collaboration towards conservation and recovery of listed species. In summary, these partnership benefits to the subject species outweigh the small potential regulatory, educational, and ancillary benefits of including the Laupāhoehoe Nui lands in this final critical habitat designation.

Exclusion Will Not Result in Extinction of the Species—Laupāhoehoe Nui

We determined that the exclusion of approximately 134 ac (54 ha) in Unit 53 and 134 ac (54 ha) in Unit 54 owned by Laupāhoehoe Nui from this designation of critical habitat will not result in the extinction of *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* or *Stenogyne cranwelliae.* Protections afforded to these species based on their listed status, and afforded to their habitats by the management and conservation plan, provide assurances that these species will not go extinct as a result of excluding these lands from the critical habitat designation.

An important consideration as we evaluate these exclusions and their potential effect on the species in question is that a critical habitat designation does not necessarily require affirmative actions to restore or actively manage critical habitat for the benefit of listed species; the regulatory effect of critical habitat is that Federal agencies must ensure (through consultation with the Service) that any activity they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. It is, therefore, advantageous for the conservation of these 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 of their lands from a critical habitat designation. The jeopardy standard of section 7 of the Act will continue to provide protection to listed species in these areas when there is a Federal nexus.

III. State Department of Hawaiian Home Lands

State Department of Hawaiian Home Lands manages one parcel of land (36 ac (15 ha)) in Unit 54. This parcel was identified as land we were considering for exclusion in our March 29, 2023, proposed rule (88 FR 18756).

Conservation and management activities on the Department of Hawaiian Home Lands include those associated with the Kohala Mountain Watershed Partnership and the Kohala Watershed Management Plan, December 2007 (see ''*b. Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan*'' *under I. Watershed Partnerships,* above). Conservation measures of the Department of Hawaiian Home Lands through the Kohala Mountain Watershed Management Plan benefit habitat used by *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.*

Based on Department of Hawaiian Home Lands management and participation in the Kohala Mountain Watershed Partnership, we evaluated 36 ac (15 ha) of lands owned by the Department of Hawaiian Home Lands in Unit 54 to determine if excluding these lands from the final critical habitat designation is appropriate.

Benefits of Inclusion—Department of Hawaiian Home Lands

As described above under ''Benefits of Inclusion—Parker Ranch,'' the principal benefit of including an area in critical habitat designation is the requirement of Federal agencies to consult with the Service on actions that may affect the critical habitat. This allows the Service to assess whether Federal actions authorized, funded, or carried out are likely to result in the destruction or adverse modification of designated critical habitat and, if so, to identify alternatives to avoid that result; this is in addition to assessing whether the Federal action is likely to jeopardize the listed species. Thus, critical habitat designation may provide greater benefits to the recovery of a species than the listing would alone. Therefore, critical habitat designation may provide a regulatory benefit for *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* on lands owned by the Department of Hawaiian Home Lands in Unit 54.

Another possible benefit of including lands in critical habitat is public education regarding the potential conservation value of an area that may help focus conservation efforts on areas of high conservation value for certain species. We consider any information about *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitats that reaches a wide audience, including parties engaged in conservation activities, to be valuable. Designation of critical habitat would provide educational benefits by informing Federal agencies and the public about the presence of the species in these units.

Therefore, because activities with a Federal nexus will require section 7 consultations, and because of the occurrence of these species on Department of Hawaiian Home Lands, it is expected that there may be some, but limited, benefits from including Department of Hawaiian Home Lands in Unit 54 in the critical habitat designation. The principal benefit of any designated critical habitat is that activities in and affecting such habitat require consultation under section 7 of the Act. Such consultation would ensure that adequate protection is provided to avoid destruction or adverse modification of critical habitat.

Benefits of Exclusion—Department of Hawaiian Home Lands

The benefits of excluding the 36–ac (15–ha) parcel owned by the Department of Hawaiian Home Lands in Unit 54 from this designation of critical habitat include: (1) the continued implementation of conservation plans (Kohala Mountain Watershed Management Plan) that include actions that benefit *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae;* (2) strengthening of our effective partnership with the Department of Hawaiian Home Lands and other neighboring landowners to promote voluntary, proactive conservation of *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitats; (3) allowance for continued meaningful collaboration and cooperation in working toward species recovery, including conservation benefits that might not otherwise occur; and (4) encouragement of developing and implementing conservation and management plans in the future for these species or other federally listed and sensitive species.

In some cases, the designation of critical habitat on (or adjacent to) private lands may reduce the likelihood that landowners will support and carry out conservation actions (Main et al. 1999, pp. 1,263–1,265; Bean 1998, p. 10706). The magnitude of this negative outcome is amplified in situations where active management measures (such as reintroduction, fire management, and control of invasive species) are necessary for species conservation (Bean 1998, pp. 10706–10708). We find that the exclusion of these specific areas of non-federally owned lands from this critical habitat designation can contribute to the species' recovery and provide a superior level of conservation than critical habitat designation can provide alone. We have also found that, where consistent with the discretion provided by the Act, it is necessary to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove et al. 1996, pp. 1–15; Bean 1998, entire). Additionally, partnerships with non-Federal landowners are vital to the conservation of these species, especially on non-Federal lands; therefore, the Service is committed to supporting and encouraging such partnerships through the recognition of positive conservation contributions.

Excluding lands owned and managed by the Department of Hawaiian Home Lands in Unit 54 from critical habitat will help foster the partnerships the landowners and land managers have developed with Federal and State agencies and local conservation organizations, will encourage the continued implementation of voluntary conservation actions for the benefit of the species and their habitats 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. Therefore, we consider the positive effect of excluding from critical habitat areas managed by active conservation partners to be a significant benefit of exclusion.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Department of Hawaiian Home Lands

We evaluated 36 ac (15 ha) in Unit 54 owned by the Department of Hawaiian Home Lands for exclusion from this designation of critical habitat. We determined the benefits of excluding these lands outweigh the benefits of including them as critical habitat in this designation. We conclude that the additional regulatory and educational benefits of including these lands as critical habitat are relatively small because of the limited distinction between actions to avoid jeopardy and adverse modification. While the Department of Hawaiian Home Lands may receive Federal grants (actions which carry a Federal nexus) occasionally, all areas of Department of Hawaiian Home Lands being evaluated are occupied by one or more of the 12 species addressed in this final rule. Therefore, the few section 7 consultations that may occur will include a jeopardy analysis, as described above, and conservation measures that apply to a jeopardy analysis are expected to be similar to those that apply to an adverse modification analysis. These marginal regulatory benefits are further reduced by the existence of conservation plans and implemented actions, which include habitat conservation that addresses the special management considerations. Furthermore, the potential educational and informational benefits of critical habitat designation on areas containing the physical and biological features essential to the conservation of *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* would be minimal because the Department of Hawaiian Home Lands has demonstrated their knowledge of the species and their habitat needs in the process of developing conservation partnerships with the Service and others.

In contrast, the benefits derived from excluding the lands owned by the Department of Hawaiian Home Lands and enhancing our partnership with this landowner 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 Hawaii, a State with relatively little Federal land ownership but many species of conservation concern. Excluding these areas from critical habitat will help foster the partnerships the Department of Hawaiian Home Lands and its associated landowners 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 *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitats on this land.

The current active conservation efforts on Department of Hawaiian Home Lands in Unit 54 benefit these species, satisfying factor (vi) of the section 4(b)(2) exclusion analysis, as described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The partnerships and management plans are longstanding and have demonstrated implementation and success, and we have a reasonable expectation that the conservation management strategies or actions in the plans will be implemented, satisfying factors (v) and (vii) described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The Kohala Mountain Watershed Management Plan includes multiple objectives that satisfy factor (viii) described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships'' by promoting monitoring and adaptive management to ensure conservation measures are effective. 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 these areas of Hawai'i and in other locations for the benefit of other endangered or threatened species.

Management by Department of Hawaiian Home Lands through participation in the Kohala Mountain Watershed Partnership and the Kohala Watershed Management Plan provides significant habitat protection for *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.* We find that excluding areas from critical habitat that are under long-term conservation and management to protect the habitats of these species will preserve our partnership with the Department of Hawaiian Home Lands in the State of Hawaii and will encourage future collaboration towards conservation and recovery of listed species. In summary, these partnership benefits to the subject species outweigh the small potential regulatory, educational, and ancillary benefits of including the Department of Hawaiian Home Lands parcels in this final critical habitat designation.

Exclusion Will Not Result in Extinction of the Species—Department of Hawaiian Home Lands

We determined that the exclusion of approximately 36 ac (15 ha) in Unit 54 owned by the Department of Hawaiian Home Lands from this designation of critical habitat will not result in the extinction of *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* or *Stenogyne cranwelliae.* Protections afforded to these species based on their listed status, and afforded to their habitats by the management and conservation plans, provide assurances that these species will not go extinct as a result of excluding these lands from the critical habitat designation.

An important consideration as we evaluate these exclusions and their potential effect on the species in question is that a critical habitat designation does not necessarily require affirmative actions to restore or actively manage critical habitat for the benefit of listed species; the regulatory effect of critical habitat is that Federal agencies must ensure (through consultation with the Service) that any activity they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. It is, therefore, advantageous for the conservation of these 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 of their lands from a critical habitat designation. The jeopardy standard of section 7 of the Act will continue to provide protection to listed species in these areas when there is a Federal nexus.

IV. Kahua Ranch Lands

Kahua Ranch manages 605 ac (245 ha) of land in Unit 54. This area was identified as land we were considering for exclusion in our March 29, 2023, proposed rule (88 FR 18756).

Conservation and management activities on Kahua Ranch lands in Unit 54 include those associated with Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan (see ''*b. Kohala Watershed Partnership and the Kohala Mountain Watershed*

Management Plan'' under I. Watershed Partnerships, above). Conservation measures of Kahua Ranch, through the Kohala Mountain Watershed Management Plan, benefit habitat for all species within Unit 54, including *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.*

Kahua Ranch lands in Unit 54 are managed according to the Kohala Mountain Watershed Management Plan. In Unit 54, within its Pu'u Pili Biodiversity Preserve, Kahua Ranch, the Kohala Watershed Partnership, and volunteers protected Kahua Ranch lands important for aquifer recharge areas on Kohala Mountain, globally rare cloud forest ecosystems, forest birds, and rare and endangered native plants (The Kohala Center 2019, p. 3). Additionally, Kahua Ranch is a member of the Kohala Watershed Partnership (see ''*b. Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan*'' *under I. Watershed Partnerships,* above). Kahua Ranch's Biodiversity Preserve benefits forest habitat used by *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* by restoring native forest in degraded pasture lands, increasing soil-water retention capacity, and improving ecosystem resilience to drying climate conditions through control of feral ungulates and weed control that improves recruitment of native trees.

Based on Kahua Ranch's management of its land under the Kohala Mountain Watershed Management Plan and participation in the Kohala Watershed Partnership, we evaluated 605 ac (245 ha) of lands owned by Kahua Ranch in Unit 54 to determine if excluding these lands from the final critical habitat designation is appropriate.

Benefits of Inclusion—Kahua Ranch

As described above under ''Benefits of Inclusion—Parker Ranch,'' the principal benefit of including an area in critical habitat designation is the requirement of Federal agencies to consult with the Service on actions that may affect the critical habitat. This allows the Service to assess whether Federal actions authorized, funded, or carried out are likely to result in the destruction or adverse modification of designated critical habitat and, if so, to identify alternatives to avoid that result; this is in addition to assessing whether the Federal action is likely to jeopardize the listed species. As such, critical habitat designation may provide greater benefits to the species than the listing would alone. Therefore, critical habitat designation may provide a regulatory benefit for *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* on lands owned by Kahua Ranch in Unit 54.

Another possible benefit of including lands in critical habitat is public education regarding the potential conservation value of an area that may help focus conservation efforts on areas of high conservation value for certain species. We consider any information about *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitats that reaches a wide audience, including parties engaged in conservation activities, to be valuable. Designation of critical habitat would provide educational benefits by informing Federal agencies and the public about the presence of the species in these units.

Therefore, because activities with a Federal nexus will require section 7 consultation, and because of the occurrence of these species on Kahua Ranch lands, it is expected that there may be some, but limited, benefits from including Kahua Ranch lands in Unit 54 in the critical habitat designation. The principal benefit of any designated critical habitat is that any activities with a Federal nexus occurring in or affecting such habitat require consultation under section 7 of the Act. Such consultation would ensure that adequate protection is provided to avoid destruction or adverse modification of critical habitat.

Benefits of Exclusion—Kahua Ranch

The benefits of excluding 605 ac (245 ha) owned by Kahua Ranch in Unit 54 from this designation of critical habitat include: (1) the continued implementation of conservation plans (The Kohala Mountain Watershed Management Plan) that include actions that benefit *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae;* (2) strengthening of our effective partnership with Kahua Ranch and other neighboring landowners to promote voluntary, proactive conservation of *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitats; (3) allowance for continued meaningful collaboration and cooperation in working toward species recovery, including conservation benefits that might not otherwise occur; and (4) encouragement of developing and implementing conservation and management plans in the future for these species or other federally listed and sensitive species.

In some cases, the designation of critical habitat on (or adjacent to) private lands may reduce the likelihood that landowners will support and carry out conservation actions (Main et al. 1999, pp. 1,263–1,265; Bean 1998, p. 10706). The magnitude of this negative outcome is amplified in situations where active management measures (such as reintroduction, fire management, and control of invasive species) are necessary for species conservation (Bean 1998, pp. 10706–10708). We find that the exclusion of these specific areas of non-federally owned lands from this critical habitat designation can contribute to the species' recovery and provide a superior level of conservation than critical habitat designation can provide alone. We have also found that, where consistent with the discretion provided by the Act, it is necessary to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove et al. 1996, pp. 1–15; Bean 1998, entire). Additionally, partnerships with non-Federal landowners are vital to the conservation of these species, especially on non-Federal lands; therefore, the Service is committed to supporting and encouraging such partnerships through the recognition of positive conservation contributions.

Excluding lands owned and managed by Kahua Ranch in Unit 54 from critical habitat will help foster the partnerships the landowners and land managers have developed with Federal and State agencies and local conservation organizations, will encourage the continued implementation of voluntary conservation actions for the benefit of the species and their habitats 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. Therefore, we consider the positive effect of excluding from critical habitat areas managed by active conservation partners to be a significant benefit of exclusion.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Kahua Ranch

We evaluated approximately 605 ac (245 ha) in Unit 54 owned by Kahua

Ranch for exclusion from the designation of critical habitat. We determined the benefits of excluding these lands outweigh the benefits of including them as critical habitat for the subject species on Hawai'i Island. We conclude that the additional regulatory and educational benefits of including these lands as critical habitat are relatively small because of the limited distinction between actions to avoid jeopardy and adverse modification. While Kahua Ranch may receive Federal grants (actions which carry a Federal nexus) occasionally, all areas of Kahua Ranch lands being evaluated are occupied by one or more of the 12 species addressed in this final rule. Therefore, the few section 7 consultations that may occur will include a jeopardy analysis, as described above, and conservation measures that apply to a jeopardy analysis are expected to be similar to those that apply to an adverse modification analysis. These marginal regulatory benefits are further reduced by the existence of conservation plans and implemented actions, which include habitat conservation that addresses the special management considerations. Furthermore, the potential educational and informational benefits of critical habitat designation on areas containing the physical and biological features essential to the conservation of *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* would be minimal because Kahua Ranch has demonstrated their knowledge of the species and their habitat needs in the process of developing conservation partnerships with the Service and others.

In contrast, the benefits derived from excluding the lands owned by Kahua Ranch and enhancing our partnership with this landowner are 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 Hawaii, a State with relatively little Federal land ownership 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 *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitats on these lands.

The current active conservation efforts on Kahua Ranch lands in Unit 54 benefit these species, satisfying factor (vi) of the section 4(b)(2) exclusion analysis, as described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The partnerships and management plans are longstanding and have demonstrated implementation and success, and we have a reasonable expectation that the conservation management strategies or actions in the plans will be implemented, satisfying factors (v) and (vii) described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The Kohala Mountain Watershed Management Plan includes multiple objectives that satisfy factor (viii) described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships'' by promoting monitoring and adaptive management to ensure conservation measures are effective. 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 these areas of Hawaii and in other locations for the benefit of other endangered or threatened species.

Management by Kahua Ranch through participation in the Kohala Watershed Partnership and implementation of the Kohala Mountain Watershed Management Plan provides significant habitat protection for *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.* We find that excluding areas from critical habitat that are under these long-term conservation and management plans to protect the habitat that supports these species will preserve our partnership with Kahua Ranch in the State of Hawaii and will encourage future collaboration towards conservation and recovery of listed species. In summary, these partnership benefits to the subject species outweigh the small potential regulatory, educational, and ancillary benefits of including the Kahua Ranch lands in this final critical habitat designation.

Exclusion Will Not Result in Extinction of the Species—Kahua Ranch

We determined that the exclusion of approximately 605 ac (245 ha) owned by Kahua Ranch in Unit 54 from this designation of critical habitat will not result in the extinction of *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* or *Stenogyne cranwelliae.* Protections afforded to these species based on their listed status, and afforded to their habitats by the management and conservation plans, provide assurances that these species will not go extinct as a result of excluding these lands from the critical habitat designation.

An important consideration as we evaluate these exclusions and their potential effect on the species in question is that a critical habitat designation does not necessarily require affirmative actions to restore or actively manage critical habitat for the benefit of listed species; the regulatory effect of critical habitat is that Federal agencies must ensure (through consultation with the Service) that any activity they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. It is, therefore, advantageous for the conservation of these 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 of their lands from a critical habitat designation. The jeopardy standard of section 7 of the Act will continue to provide protection to listed species in these areas when there is a Federal nexus.

V. Queen Emma Foundation Lands

Queen Emma Foundation owns and manages 475 ac (192 ha) in two parcels in Unit 54: one is 384 ac (155 ha), and the other is 91 ac (37 ha). The 91-ac (37-ha) parcel overlaps existing designated critical habitat for the federally endangered picture-wing fly, *Drosophila ochrobasis* (see *Drosophila ochrobasis*—Unit 4—Kohala Mountains West at 50 CFR 17.95(i) and 73 FR 73795, December 4, 2008). In our March 29, 2023, proposed rule (88 FR 18756), we stated that we were considering these parcels for exclusion from this final critical habitat designation. For the purposes of distinguishing between these two Unit 54 parcels in our balancing analysis below, we hereafter refer to the 91-ac (37-ha) parcel that overlaps designated critical habitat for *Drosophila ochrobasis* as the ''*D. ochrobasis* parcel,'' and the remaining

384-ac (155-ha) parcel of Unit 54 simply as the ''Unit 54 parcel.''

Conservation and management activities on Queen Emma Foundation lands in the Unit 54 parcel include those associated with the Kohala Watershed Partnership (see ''*b. Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan*'' *under I. Watershed Partnerships,* above) and the Pelekane Bay Watershed Restoration Project. The goal of this management plan and partnership is to improve the Kohala watershed's condition, and stewardship actions taken to achieve this goal include fencing to reduce feral ungulates, improving groundcover vegetation, and restoring native riparian forest and shrubland. Conservation measures of Queen Emma Foundation, through the Pelekane Bay Watershed Restoration Project and the Kohala Watershed Partnership, benefit habitat for all species in the Unit 54 parcel, including *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.* While the *D. ochrobasis* parcel would otherwise benefit from these same conservation measures, most management activities do not occur in the *D. ochrobasis* parcel because these 91 acres (37 ha) are made up of gulch areas with steep terrain which make the conservation activities that occur throughout the rest of Unit 54 impractical here.

Based on Queen Emma Foundation management and participation in the Kohala Watershed Partnership, we evaluated the two parcels of land owned by Queen Emma Foundation and considered for exclusion two parcels (384 ac (155 ha) in the Unit 54 parcel and 91 ac (37 ha) in the *D. ochrobasis* parcel) in Unit 54 separately, to determine if excluding those lands from the final critical habitat designation is appropriate.

Benefits of Inclusion—Queen Emma Foundation

As described above under ''Benefits of Inclusion—Parker Ranch,'' the principal benefit of including an area in critical habitat designation is the requirement of Federal agencies to consult with the Service on actions that may affect the critical habitat. This allows the Service to assess whether Federal actions authorized, funded, or carried out are likely to result in the destruction or adverse modification of designated critical habitat and, if so, to identify alternatives to avoid that result; this is in addition to assessing whether the Federal action is likely to jeopardize the listed species. Thus, critical habitat designation may provide greater benefits to the species than the listing would alone. Therefore, critical habitat designation may provide a regulatory benefit for *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* on lands owned by Queen Emma Foundation in the Unit 54 parcel and the *D. ochrobasis* parcel.

Another possible benefit of including lands in critical habitat is public education regarding the potential conservation value of an area that may help focus conservation efforts on areas of high conservation value for certain species. We consider any information about *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitats that reaches a wide audience, including parties engaged in conservation activities, to be valuable. Designation of critical habitat would provide educational benefits by informing Federal agencies and the public about the presence of the species in these units.

Therefore, because activities with a Federal nexus will require section 7 consultation, and because of the occurrence of these species on Queen Emma Foundation lands, it is expected that there may be some, but limited, benefits from including the Unit 54 parcel and the *D. ochrobasis* parcel of Queen Emma Foundation lands in the critical habitat designation. The principal benefit of any designated critical habitat is that activities in and affecting such habitat require consultation under section 7 of the Act. Such consultation would ensure that adequate protection is provided to avoid destruction or adverse modification of critical habitat.

Benefits of Exclusion—Queen Emma Foundation

The benefits of excluding the 384-ac (155-ha) Unit 54 parcel owned by Queen Emma Foundation from this designation of critical habitat include: (1) the continued implementation of conservation plans (Kohala Mountain Watershed Management Plan) that include actions that benefit *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae;* (2) strengthening of our effective partnership with Queen Emma Foundation and other neighboring landowners to promote voluntary, proactive conservation of *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitats; (3) allowance for continued meaningful collaboration and cooperation in working toward species recovery, including conservation efforts that might not otherwise occur; and (4) encouragement of developing and implementing conservation and management plans in the future for these species or other federally listed and sensitive species.

In some cases, the designation of critical habitat on (or adjacent to) private lands may reduce the likelihood that landowners will support and carry out conservation actions (Main et al. 1999, pp. 1,263–1,265; Bean 1998, p. 10706). The magnitude of this negative outcome is amplified in situations where active management measures (such as reintroduction, fire management, and control of invasive species) are necessary for species conservation (Bean 1998, pp. 10706–10708). We find that the exclusion of these specific areas of non-federally owned lands from this critical habitat designation can contribute to the species' recovery and provide a superior level of conservation than critical habitat designation can provide alone. We have also found that, where consistent with the discretion provided by the Act, it is necessary to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove et al. 1996, pp. 1–15; Bean 1998, entire). Additionally, partnerships with non-Federal landowners are vital to the conservation of these species, especially on non-Federal lands; therefore, the Service is committed to supporting and encouraging such partnerships through the recognition of positive conservation contributions.

Excluding the 384-ac (155-ha) Unit 54 parcel of land owned and managed by Kahua Ranch from critical habitat will help foster the partnerships the landowners and land managers have developed with Federal and State agencies and local conservation organizations, will encourage the continued implementation of voluntary conservation actions for the benefit of the species and their habitats 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. Therefore, we consider the positive

effect of excluding from critical habitat areas managed by active conservation partners to be a significant benefit of exclusion.

The benefits of excluding the *D. ochrobasis* parcel (91 ac (37 ha)) owned by Queen Emma Foundation from this designation of critical habitat are similar to those of the Unit 54 parcel, but to a lesser degree because most of the conservation management actions prescribed under the Kohala Mountain Watershed Management Plan are not implemented on the *D. ochrobasis* parcel. Even though the *D. ochrobasis* parcel and the Unit 54 parcel are both covered under the Kohala Mountain Watershed Management Plan, the steep terrain of the gulch areas that make up the *D. ochrobasis* parcel would make the actual implementation of conservation actions challenging, and would likely require specialized equipment to stablize gulch slopes and soils. As a result, most of the management activities associated with the Kohala Mountain Watershed Management Plan that the Queen Emma Foundation carries out throughout the rest of Unit 54 are not implemented in these 91 ac (37 ha) of steep gulch habitat. Therefore, the benefits of exclusion of the *D. ochrobasis* parcel are limited mostly to the potential to encourage effective partnerships with Queen Emma Foundation and other neighboring landowners.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Queen Emma Foundation, the Unit 54 Parcel

We evaluated the approximately 384-ac (155-ha) parcel owned by Queen Emma Foundation in Unit 54 for exclusion from this designation of critical habitat. We determined the benefits of excluding the Unit 54 parcel lands outweigh the benefits of including them as critical habitat in this designation. We conclude that the additional regulatory and educational benefits of including these lands as critical habitat are relatively small because of the limited distinction between actions to avoid jeopardy and adverse modification. While Queen Emma Foundation may receive Federal grants (actions which carry a Federal nexus) occasionally, all areas of Queen Emma Foundation lands being evaluated are occupied by one or more of the 12 species addressed in this final rule. Therefore, the few section 7 consultations that may occur will include a jeopardy analysis, as described above, and conservation measures that apply to a jeopardy analysis are expected to be similar to those that apply to an adverse modification analysis. These marginal regulatory benefits are further reduced by the existence of conservation plans and implemented actions in the Unit 54 parcel, which include habitat conservation that addresses the special management considerations. Furthermore, the potential educational and informational benefits of critical habitat designation on areas containing the physical and biological features essential to the conservation of *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* would be minimal in the Unit 54 parcel because the landowner has demonstrated their knowledge of the species and their habitat needs in the process of developing conservation partnerships with the Service and others.

In contrast, the benefits derived from excluding the Unit 54 parcel lands owned by Queen Emma Foundation and enhancing our partnership with this landowner are 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 Hawaii, a State with relatively little Federal land ownership but many species of conservation concern. Excluding the Unit 54 parcel 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 *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* and their habitats on these lands.

The current active conservation efforts on Queen Emma Foundation lands in the Unit 54 parcel benefit these species, satisfying factor (vi) of the section 4(b)(2) exclusion analysis, as described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The partnership and management plan are longstanding and have demonstrated implementation and success, and we have a reasonable expectation that the conservation management strategies or actions in the plans will be implemented, satisfying factors (v) and (vii) described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The Kohala Mountain Watershed Management Plan includes multiple objectives that satisfy factor (viii), described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships'' by promoting monitoring and adaptive management to ensure conservation measures are effective. In addition, this partnership not only provides 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 these areas of Hawai'i and in other locations for the benefit of other endangered or threatened species.

Management by Queen Emma Foundation through participation in the Kohala Mountain Watershed Management Plan and the Kohala Watershed Partnership provides significant habitat protection for *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae.* We find that excluding the Unit 54 parcel from critical habitat which is under a long-term conservation and management plan to protect the habitats that support these species, will preserve our partnership with the Queen Emma Foundation in the State of Hawaii and will encourage future collaboration towards conservation and recovery of listed species. In summary, the partnership benefits to the subject species in the Unit 54 parcel outweigh the small potential regulatory, educational, and ancillary benefits of including the Unit 54 parcel in this final critical habitat designation.

Benefits of Inclusion Outweigh the Benefits of Exclusion—Queen Emma Foundation, the *D. ochrobasis* Parcel

We evaluated the approximately 91-ac (37-ha) *D. ochrobasis* parcel owned by Queen Emma Foundation in Unit 54 for exclusion from this designation of critical habitat. We determined the benefits of including these lands outweigh the benefits of excluding them as critical habitat in this designation. We conclude that the additional regulatory and educational benefits of including the *D. ochrobasis* parcel as critical habitat outweigh the benefit afforded by the Kohala Mountain Watershed Management Plan, because most management activities under this plan cannot be carried out in this area due to practical concerns. Furthermore, the potential educational and informational benefits of critical habitat

designation on areas containing the physical and biological features essential to the conservation of *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* and *Stenogyne cranwelliae* within the riparian and gulch areas of the *D. ochrobasis* parcel would be relatively significant. In contrast, the benefits derived from excluding the lands owned by Queen Emma Foundation in the *D. ochrobasis* parcel would be limited to potentially enhancing partnerships. In addition, we held discussions with the Queen Emma Foundation regarding their land management activities in Unit 54 during the public comment period that followed our March 29, 2023, proposed rule (88 FR 18756). They confirmed at that time that the steep gulches that make up the 91 ac of the *D. ochrobasis* parcel restrict implementation of most of the habitat management activities that they perform on the rest of their lands in Unit 54, and they were amenable to those 91 ac being part of the critical habitat designation rather than excluded with the remaining 384 ac. In summary, we conclude that though minor, the potential regulatory, educational, and ancillary benefits of including the *D. ochrobasis* parcel in this final critical habitat designation outweigh the limited potential to enhance partnerships.

Exclusion Will Not Result in Extinction of the Species—Queen Emma Foundation, the Unit 54 Parcel

We determined that the exclusion of approximately 384 ac (155 ha) in the Unit 54 parcel owned by Queen Emma Foundation from this designation of critical habitat will not result in the extinction of *Cyanea tritomantha, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei,* or *Stenogyne cranwelliae.* Protections afforded to these species based on their listed status, and afforded to their habitats by the management and conservation plans, provide assurances that these species will not go extinct as a result of excluding these lands from the critical habitat designation.

An important consideration as we evaluate these exclusions and their potential effect on the species in question is that a critical habitat designation does not necessarily require affirmative action to restore or actively manage critical habitat for the benefit of listed species; the regulatory effect of critical habitat is that Federal agencies must ensure (though consultation with the Service) that any activity they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. It is, therefore, advantageous for the conservation of these 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 of their lands from a critical habitat designation. The jeopardy standard of section 7 of the Act will continue to provide protection to listed species in these areas when there is a Federal nexus.

VI. Kamehameha Schools Lands

Kamehameha Schools manages five parcels of land (155 ac (63 ha), 33 ac (13 ha), 176 ac (71 ha), 647 ac (262 ha), and 93 ac (38 ha)) in Units 52, 53, 54, 44, and 51, respectively. These parcels were identified as lands we were considering for exclusion in our March 29, 2023, proposed rule (88 FR 18756). As stated in table 3, the boundaries for *Drosophila digressa*—Units 1 and 2 are identical to Section 1 (plant Unit 52) and Section 11 (plant Unit 51), respectively.

Conservation and management activities on Kamehameha Schools lands in Units 52, 53, 54, 44, and 51, as well as *Drosophila digressa*—Units 1 and 2, include activities associated with Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program Units 52, 53, 54, 44, 51, 1, and 2; Mauna Kea Watershed Alliance Units 52 and 1; Mauna Kea Watershed Management Plan Units 52 and 1; Kohala Watershed Partnership Units 53 and 54; Kohala Mountain Watershed Management Plan Units 53 and 54; the Three Mountain Alliance Management Plan Units 44, 51, and 2; and Safe Harbor Agreement Trustees of the Estate of Bernice P. Bishop, Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement Units 51 and 2 (see, above, *Safe Harbor Agreement Trustees of the Estate of Bernice P. Bishop, DBA, Kamehameha Schools Keauhou and Kīlauea Forest Lands Hawai'i Island, Hawai'i (Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement), June 2017* under ''Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act''; ''a. Mauna Kea Watershed Alliance and the Mauna Kea Watershed Management Plan,'' ''b. Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan,'' and ''c. Three Mountain Alliance Watershed Partnership and the Three Mountain Alliance Management Plan'' under I. *Watershed Partnerships* in ''Non-Permitted Conservation Plans, Agreements, or Partnerships''; and ''b. Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program'' under II. *Other Partnerships* in ''Non-Permitted Conservation Plans, Agreements, or Partnerships''). Conservation measures of Kamehameha Schools, through its Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program, benefit habitat for all species within Units 52, 53, 54, 44, and 51, as well as *Drosophila digressa*—Units 1 and 2, including *Bidens hillebrandiana* ssp. *hillebrandiana* (Unit 53), *Cyanea tritomantha* (Units 52, 54, 44, and 51), *Cyrtandra wagneri* (Unit 52), *Melicope remyi* (Units 52 and 54), *Phyllostegia floribunda* (Units 52, 54, and 51), *Pittosporum hawaiiense* (Units 52, 54, 44, and 51), *Schiedea diffusa* ssp. *macraei* (Units 52, 54, 44, and 51), *Stenogyne cranwelliae* (Units 52, 54, 44, and 51), and *Drosophila digressa* (Units 1 and 2). In total, Kamehameha Schools owns and manages 1,104 ac (447 ha) of lands that were proposed as critical habitat for 9 of the 12 species that are the subjects of this critical habitat designation. Of these lands owned by Kamehameha Schools, 155 ac (63 ha) are within Section 1 and *Drosophila digressa*—Unit 1; 33 ac (13 ha) are within Section 2; 176 ac (71 ha) are within Section 3; 647 ac (262 ha) are within Section 8; and 93 ac (38 ha) are within Section 11 and *Drosophila digressa*—Unit 2.

Conservation management activities on all 1,104 ac (447 ha) of these lands include those associated with the Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program, described below. On the 155 ac (63 ha) within Section 1 and *Drosophila digressa*—Unit 1, conservation management activities also include those associated with the Mauna Kea Watershed Alliance and the Mauna Kea Watershed Management Plan (see ''a. Mauna Kea Watershed Alliance and the Mauna Kea Watershed Management Plan'' under I. *Watershed Partnerships* in ''Non-Permitted Conservation Plans, Agreements, or Partnerships,'' above). On the 209 ac (85 ha) within Sections 2 and 3, conservation management activities also include those associated with the Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan (see ''b. Kohala Watershed Partnership and the Kohala Mountain Watershed Management Plan'' under I. *Watershed Partnerships* in ''Non-Permitted Conservation Plans, Agreements, or Partnerships,'' above). On the 740 ac (299 ha) within Sections 8 and 11 and *Drosophila digressa*—Unit

2, conservation management activities also include those associated with the Three Mountain Alliance Watershed Partnership and the Three Mountain Alliance Management Plan (see ''c. Three Mountain Alliance Watershed Partnership and the Three Mountain Alliance Management Plan'' under I. *Watershed Partnerships* in ''Non-Permitted Conservation Plans, Agreements, or Partnerships,'' above). The 93 ac (38 ha) within Section 11 and *Drosophila digressa*—Unit 2 are also covered by the Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement, described above under ''Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act.''

The conservation actions of Kamehameha Schools benefit habitat for *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* by promoting forest regeneration, which increases soil-water retention capacity and improves ecosystem resilience to drying climate conditions; controlling feral ungulates, which reduces trampling of and predation on these plants, including the host plants of *Drosophila digressa;* and controlling weeds, which improves recruitment of native trees, including those that host *Drosophila digressa* and support habitat for these species. Kamehameha Schools also takes actions that reduce the incidence of fire, which benefits forest habitat for these species by minimizing wildland fire risk.

Based on Kamehameha Schools' management; Kamehameha Schools ʻĀina Pauahi Natural Resources Management Program; and participation in the Mauna Kea Watershed Alliance, Mauna Kea Watershed Management Plan, Kohala Watershed Partnership, the Kohala Mountain Watershed Management Plan, the Three Mountain Alliance Management Plan, and the Safe Harbor Agreement Trustees of the Estate of Bernice P. Bishop (Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement), we evaluated the following lands owned by Kamehameha Schools and considered for exclusion to determine if excluding these lands from the final critical habitat designation is appropriate: 155 ac (63 ha), 33 ac (13 ha), 176 ac (71 ha), 647 ac (262 ha), and 93 ac (38 ha) in Units 52, 53, 54, 44, and 51, respectively, and *Drosophila digressa*—Unit 1 (155 ac (63 ha)) and Unit 2 (92 ac (37 ha)).

Benefits of Inclusion—Kamehameha Schools

As described above under ''Benefits of Inclusion—Parker Ranch,'' the principal benefit of including an area in critical habitat designation is the requirement of Federal agencies to consult with the Service on actions that may affect the critical habitat. This allows the Service to assess whether Federal actions authorized, funded, or carried out are likely to result in the destruction or adverse modification of designated critical habitat and, if so, to identify alternatives to avoid that result; this is in addition to assessing whether the Federal action is likely to jeopardize the listed species. Thus, critical habitat designation may provide greater benefits to the species than the listing would alone. Therefore, critical habitat designation may provide a regulatory benefit for *Bidens hillebrandiana* ssp. *hillebrandiana* (Unit 53), *Cyanea tritomantha* (Units 52, 54, 44, and 51) , *Cyrtandra wagneri* (Unit 52), *Melicope remyi* (Units 52 and 54), *Phyllostegia floribunda* (Units 52, 54, and 51), *Pittosporum hawaiiense* Units (52, 54, 44, and 51), *Schiedea diffusa* ssp. *macraei* (Units 52, 54, 44, and 51), *Stenogyne cranwelliae* (Units 52, 54, 44, and 51), and *Drosophila digressa* (Units 1 and 2) on lands owned by Kamehameha Schools in Units 52, 53, 54, 44, and 51, and *Drosophila digressa*—Units 1 and 2.

Another possible benefit is that the designation of critical habitat can serve to educate the landowner and public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Due to the reliance of these species on the remaining coastal, mesic forest, wet forest, and wet grassland and shrubland ecosystems, the relative importance of these parcels to the species is high, and any information about these nine species and their habitats that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable. Designation of critical habitat would provide educational benefits by informing Federal agencies and the public about the presence of the species in these units.

Therefore, because activities with a Federal nexus will require section 7 consultation, and because of the occurrence of these species on Kamehameha Schools lands, it is expected that there may be some, but limited, benefits from including Kamehameha Schools land in this final critical habitat designation. The principal benefit of any designated critical habitat is that activities occurring in or affecting such habitat require consultation under section 7 of the Act. Such consultation would ensure that adequate protection is provided to avoid destruction or adverse modification of critical habitat.

Benefits of Exclusion—Kamehameha Schools

The benefits of excluding the five parcels (155 ac (63 ha), 33 ac (13 ha), 176 ac (71 ha), 647 ac (262 ha), and 93 ac (38 ha) in Units 52, 53, 54, 44, and 51, respectively, and *Drosophila digressa* Units 1 (155 ac (63 ha)) and 2 (92 ac (37 ha))) owned by Kamehameha Schools from this designation of critical habitat include: (1) the continued implementation of conservation plans (ʻĀina Pauahi Natural Resources Management Program, the Mauna Kea Watershed Management Plan, the Kohala Mountain Watershed Management Plan, the Three Mountain Alliance Management Plan, and the Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement) that include actions that benefit *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa;* (2) strengthening of our effective partnership with Kamehameha Schools and other neighboring landowners to promote voluntary, proactive conservation of *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa* and their habitats; (3) allowance for continued meaningful collaboration and cooperation in working toward species recovery, including conservation benefits that might not otherwise occur; and (4) encouragement of developing and implementing conservation and management plans in the future for these species or other federally listed and sensitive species.

In some cases, the designation of critical habitat on (or adjacent to) private lands may reduce the likelihood that landowners will support and carry out conservation actions (Main et al. 1999, pp. 1,263–1,265; Bean 1998, p. 10706). The magnitude of this negative outcome is amplified in situations where active management measures

(such as reintroduction, fire management, and control of invasive species) are necessary for species conservation (Bean 1998, pp. 10706–10708). We find that the exclusion of these specific areas of non-federally owned lands from this critical habitat designation can contribute to the species' recovery and provide a superior level of conservation than critical habitat designation can provide alone. We have also found that, where consistent with the discretion provided by the Act, it is necessary to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove et al. 1996, pp. 1–15; Bean 1998, entire). Additionally, partnerships with non-Federal landowners are vital to the conservation of these species, especially on non-Federal lands; therefore, the Service is committed to supporting and encouraging such partnerships through the recognition of positive conservation contributions.

Excluding lands owned and managed by Kamehameha Schools in plant Units 52, 53, 54, 44, 51, and *Drosophila digressa* Units 1 and 2 from critical habitat will help foster the partnerships the landowners and land managers have developed with Federal and State agencies and local conservation organizations, will encourage the continued implementation of voluntary conservation actions for the benefit of the species and their habitats 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. Therefore, we consider the positive effect of excluding from critical habitat areas managed by active conservation partners to be a significant benefit of exclusion.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Kamehameha Schools

We evaluated approximately 1,104 ac (447 ha) of lands in Units 52, 53, 54, 44, 51, and *Drosophila digressa* Units 1 and 2, owned by Kamehameha Schools for exclusion from this designation of critical habitat. We determined the benefits of excluding these lands outweigh the benefits of including them as critical habitat for the subject species on Hawai'i Island. We conclude that the additional regulatory and educational benefits of including these lands as critical habitat are relatively small because of the limited distinction between actions to avoid jeopardy and adverse modification. While Kamehameha Schools may receive Federal grants (actions which carry a Federal nexus) from time to time, all areas of Kamehameha Schools lands being evaluated are occupied by one or more of the 12 species addressed in this final rule. Therefore, the few section 7 consultations that may occur will include a jeopardy analysis, as described above, and conservation measures that apply to a jeopardy analysis and an adverse modification analysis are expected to be similar. These marginal regulatory benefits are further reduced by the existence of conservation plans and implemented actions, which include habitat conservation that addresses the special management considerations. Kamehameha Schools' ʻĀina Pauahi Natural Resources Management Program includes the protection and conservation of natural resources, water resources, and ancestral places (Kamehameha Schools 2022, entire). Furthermore, the potential educational and informational benefits of critical habitat designation on areas containing the physical and biological features essential to the conservation of *Bidens hillebrandiana* ssp. *hillebrandiana* (Unit 53), *Cyanea tritomantha* (Units 52, 54, 44, and 51), *Cyrtandra wagneri* (Unit 52), *Melicope remyi* (Units 52 and 54), *Phyllostegia floribunda* (Units 52, 54, and 51), *Pittosporum hawaiiense* (Units 52, 54, 44, and 51), *Schiedea diffusa* ssp. *macraei* (Units 52, 54, 44, and 51), *Stenogyne cranwelliae* (Units 52, 54, 44, and 51), and *Drosophila digressa* (Units 1 and 2) would be minimal because the landowner has demonstrated their knowledge of the species and their habitat needs in the process of developing conservation partnerships with the Service and others.

In contrast, the benefits derived from excluding the lands owned by Kamehameha Schools and enhancing our partnership with this landowner 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 Hawaii, a State with relatively little Federal land ownership 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 hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae* and *Drosophila digressa* and their habitats on these lands.

The current active conservation efforts on Kamehameha Schools lands in Units 52, 53, 54, 44, 51 and *Drosophila digressa* Units 1 and 2 benefit these species, satisfying factor (vi) of the section 4(b)(2) exclusion analysis, as described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The partnerships and management plans are longstanding and have demonstrated implementation and success, and we have a reasonable expectation that the conservation management strategies or actions in the plans will be implemented, satisfying factors (v) and (vii) described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships.'' The Kamehameha Schools' ʻĀina Pauahi Natural Resources Management Program, the Mauna Kea Watershed Management Plan, the Kohala Mountain Watershed Management Plan, the Three Mountain Alliance Management Plan, and the Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor Agreement include multiple objectives that satisfy factor (viii) described above under ''Non-Permitted Conservation Plans, Agreements, or Partnerships'' by promoting monitoring and adaptive management to ensure conservation measures are effective. Kamehameha Schools established a sustainable stewardship policy to guide the use of its 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 these areas of Hawai'i and in other locations for the benefit of other endangered or threatened species.

Management by Kamehameha Schools through participation in the Mauna Kea Watershed Management Plan, the Kohala Mountain Watershed Management Plan, the Three Mountain Alliance Management Plan, and implementation of the ʻĀina Pauahi Natural Resources Management Program and the Kamehameha Schools Keauhou and Kīlauea Forest Lands Safe Harbor

Agreement provides significant habitat protection for *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* and *Drosophila digressa.* We find that excluding areas from critical habitat that are under long-term conservation and management plans to protect the habitat that supports these species will preserve our partnership with the Kamehameha Schools in the State of Hawaii and will encourage future collaboration toward conservation and recovery of listed species. In summary, these partnership benefits to the subject species outweigh the small potential regulatory, educational, and ancillary benefits of including the Kamehameha Schools land in this final critical habitat designation.

Exclusion Will Not Result in Extinction of the Species—Kamehameha Schools

We determined that the exclusion of approximately 155 ac (63 ha), 33 ac (13 ha), 176 ac (71 ha), 647 ac (262 ha), and 93 ac (38 ha) in Units 52, 53, 54, 44, and 51, respectively, and *Drosophila digressa* Units 1 (155 ac (63 ha)) and 2 (92 ac (37 ha)) owned by Kamehameha Schools from this designation of critical habitat will not result in the extinction of *Bidens hillebrandiana* ssp. *hillebrandiana, Cyanea tritomantha, Cyrtandra wagneri, Melicope remyi, Phyllostegia floribunda, Pittosporum hawaiiense, Schiedea diffusa* ssp. *macraei, Stenogyne cranwelliae,* or *Drosophila digressa.* Protections afforded to these species based on their listed status, and afforded to their habitats by the management and conservation plans, provide assurances that these species will not go extinct as a result of excluding these lands from the critical habitat designation. While some mitigation measures in the SHA are still underway, the primary habitat management and restoration goals established for these parcels under the SHA and other conservation management plans are being implemented, and Kamehameha Schools are in compliance with the terms and conditions of the SHA. Kamehameha Schools is fully aware of the importance of the ecosystems that provide the habitat for these nine species for which critical habitat was proposed on their lands and their organization routinely provides public education on these topics.

An important consideration as we evaluate these exclusions and their potential effect on the species in question is that a critical habitat designation does not necessarily require affirmative actions to restore or actively manage critical habitat for the benefit of listed species; the regulatory effect of critical habitat is that Federal agencies must ensure (through consultation with the Service) that any activity they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. It is, therefore, advantageous for the conservation of these 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 of their lands from a critical habitat designation. The jeopardy standard of section 7 of the Act will continue to provide protection to listed species in these areas when there is a Federal nexus.

Summary of Exclusions

As discussed above, based on the information provided by entities seeking exclusion, as well as any additional public comments we received on our March 29, 2023, proposed rule, 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. Table 7, below, summarizes the areas we are excluding from this critical habitat designation for the 12 Hawai'i Island species; the table provides approximate areas (ac, ha) of lands excluded from this critical habitat designation. In addition to the acres we evaluated for exclusion that are summarized in Table 7, we also evaluated 91 ac (37 ha) of Queen Emma Foundation land in Unit 54 (the *D. ochrobasis* parcel) for exclusion but did not ultimately exclude them.

TABLE 7—AREAS EXCLUDED FROM CRITICAL HABITAT DESIGNATION BY CRITICAL HABITAT UNIT

Plant section and unit	Drosophila unit	Landowner	Area excluded from critical habitat	
			Acres	Hectares
Section 1, Unit 52	Unit 1	Kamehameha Schools	155	63
Section 1, Unit 52	Unit 1	Parker Ranch Waipunalei, LLC	403	163
Section 2, Unit 53		Kamehameha Schools	33	13
Section 2, Unit 53		Laupāhoehoe Nui	134	54
Section 3, Unit 54		State Department of Hawaiian Home Lands.	36	15
Section 3, Unit 54		Kahua Ranch	605	245
Section 3, Unit 54		Kamehameha Schools	176	71
Section 3, Unit 54		Laupāhoehoe Nui	134	54
Section 3, Unit 54		Parker Ranch Waiemi, LLC	372	151
Section 3, Unit 54		Queen Emma Foundation	384	155
Section 8, Unit 44		Kamehameha Schools	647	262
Section 11, Unit 51	Unit 2	Kamehameha Schools	93	38
Totals			3,172	1,284

Required Determinations

Regulatory Planning and Review (Executive Orders 12866, 13563, and 14094)

Executive Order (E.O.) 14094 reaffirms the principles of E.O. 12866 and E.O. 13563 and states that regulatory analysis should facilitate agency efforts to develop regulations that serve the public interest, advance statutory objectives, and are consistent with E.O. 12866, E.O. 13563, and the Presidential Memorandum of January 20, 2021 (Modernizing Regulatory Review). Regulatory analysis, as practicable and appropriate, shall recognize distributive impacts and equity, to the extent permitted by law.

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.

E.O. 12866, as reaffirmed by E.O. 13563 and E.O. 14094, provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget (OMB) will review all significant rules. OIRA has determined that this rule is not significant.

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 of 1996 (SBREFA; 5 U.S.C. 801 *et seq.*), 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.

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 considered the types of activities that might trigger regulatory impacts under this designation as well as 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.

Under the RFA, as amended, and following recent court decisions, Federal agencies are required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself; in other words, the RFA does not require agencies to evaluate the potential impacts to indirectly regulated entities. 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. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies will be directly regulated by this designation. The RFA does not require evaluation of the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities will be directly regulated by this rulemaking, we certify that this 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 period on the March 29, 2023, proposed rule (88 FR 18756) that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Based on this information, we affirm our certification that this critical habitat designation will not have a 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 ''to the extent permitted by law'' when undertaking actions identified as significant energy actions (66 FR 28355; May 22, 2001). E.O. 13211 defines a ''significant energy action'' as an action that (i) is a significant regulatory action under E.O. 12866 (or any successor order, including most recently E.O. 14094 (88 FR 21879; April 11, 2023)); and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy. This rule is not a significant regulatory action under E.O. 12866 or 14094. Therefore, this action is not a significant energy action, and there is no requirement to prepare a statement of energy effects for this action.

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 finding:

(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 are not likely to 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) We do not believe that this rule will significantly or uniquely affect small governments. Small governments will be affected only to the extent that any of their programs receive Federal funds, require Federal permits, or otherwise are a result of federally authorized activities, in which case the Federal agency must ensure that the Federal action will not adversely affect the critical habitat. The majority of the critical habitat units are already managed for natural resource conservation by the Federal Government or the State of Hawaii, and most critical habitat units have co-occurring federally listed species that are already being considered by the State and municipalities as a result of any Federal actions proposed in the area. Therefore, 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 the 12 Hawai'i Island species in a takings implications assessment. The Act does not authorize us 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 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, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed and concludes that this designation of critical habitat for the 12 Hawai'i Island 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 summary impact 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. 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, this final rule does not have substantial direct effects either on the States, or on the relationship between the 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 or biological features of the habitat necessary for the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist State and local governments in long-range planning because they no longer have to wait for case-by-case section 7 consultations to occur.

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 will 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 Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule will 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 species, this final rule identifies the physical or biological features essential to the conservation of the 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 information collection requirements, and a submission to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) is not required. We may not conduct or sponsor and you are 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.)

Regulations adopted pursuant to section 4(a) of the Act are exempt from the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) and do not require an environmental analysis under NEPA. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This includes listing, delisting, and reclassification rules, as well as critical habitat designations. In a line of cases starting with *Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), the courts have upheld this position.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (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

federally recognized Tribes on a government-to-government basis. In accordance with Secretaries' 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 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. We have determined that no Tribal lands fall within the boundaries of the critical habitat designation for the 12 Hawai'i Island species, so no Tribal lands will be affected by this designation.

References Cited

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

Authors

The primary authors of this final rule are the staff members of the Fish and Wildlife Service's Species Assessment Team and the Pacific Islands Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

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

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. In § 17.11, in paragraph (h), amend the table ''List of Endangered and Threatened Wildlife'' by revising the entry for ''Fly, Hawaiian picture-wing (*Drosophila digressa*)'' under ''Insects'' to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
*	*	*	*	*
Insects				
*	*	*	*	*
Fly, Hawaiian picture-wing	*Drosophila digressa*	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.95(i).[CH]
*	*	*	*	*

■ 3. In § 17.12, in paragraph (h), amend the table ''List of Endangered and Threatened Plants'' by revising the entries for ''Bidens hillebrandiana ssp. hillebrandiana'', ''Cyanea marksii'', ''Cyanea tritomantha'', ''Cyrtandra nanawaleensis'', ''Cyrtandra wagneri'', ''Melicope remyi'', ''Phyllostegia floribunda'', ''Pittosporum hawaiiense'', ''Schiedea diffusa ssp. macraei'', ''Schiedea hawaiiensis'', and ''Stenogyne cranwelliae'' under ''Flowering Plants'' to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Scientific name	Common name	Where listed	Status	Listing citations and applicable rules
Flowering Plants				
*	*	*	*	*
Bidens hillebrandiana ssp. *hillebrandiana.*	Kookoolau	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
*	*	*	*	*
Cyanea marksii	Haha	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
*	*	*	*	*
Cyanea tritomantha	Aku	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
*	*	*	*	*
Cyrtandra nanawaleensis	Haiwale	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
*	*	*	*	*
Cyrtandra wagneri	Haiwale	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]

Scientific name	Common name	Where listed	Status	Listing citations and applicable rules
* *	*	*	*	* *
Melicope remyi	No common name	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Phyllostegia floribunda	No common name	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Pittosporum hawaiiense	Hoawa, haawa	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Schiedea diffusa ssp. *macraei*	No common name	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Schiedea hawaiiensis	Maolioli	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *
Stenogyne cranwelliae	No common name	Wherever found	E	78 FR 64638, 10/29/2013; 50 CFR 17.99(k).[CH]
* *	*	*	*	* *

■ 4. In § 17.95, amend paragraph (i) by adding an entry for ''Hawaiian picture-wing fly (*Drosophila digressa*)'' following the entry for ''Hawaiian picture-wing fly (*Drosophila differens*)'' to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(i) * * *

Hawaiian picture-wing fly (*Drosophila digressa*)

(1) Critical habitat units are depicted for Hawaii County, Hawaii, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of *Drosophila digressa* consist of the following components:

(i) In units 1, 2, 5, 6, 7, 8, and 9, the physical or biological features essential to the conservation of *Drosophila digressa* are the features of the wet forest ecosystem and consist of:

(A) Elevation of less than 7,218 feet (ft) (2,200 meters (m)).

(B) Annual precipitation that is greater than 98 inches (in) (250 centimeters (cm)).

(C) Substrate of very weathered soils to rocky substrate, basaltic lava, undeveloped soils, or developed soils.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

(ii) In unit 3, the physical or biological features essential to the conservation of *Drosophila digressa* are the features of both the wet forest ecosystem and the mesic forest ecosystem and consist of the physical and biological features described in paragraphs (2)(i)(A) through (F) and (2)(iii)(A) through (F) of this entry.

(iii) In unit 4, the physical or biological features essential to the conservation of *Drosophila digressa* are the features of the mesic forest ecosystem and consist of:

(A) Elevation of less than 6,562 ft (2,000 m).

(B) Annual precipitation of 39 to 150 in (100 to 380 cm).

(C) Substrate of rocky, shallow, organic muck soils; rocky talus soils; shallow soils over weathered rock; deep soils over soft weathered rock; or gravelly alluvium.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Charpentiera, Chrysodracon, Metrosideros, Myrsine, Nestegis, Pisonia, Santalum.*

(E) Subcanopy contains one or more of the following native plant genera: *Coprosma, Freycinetia, Leptecophylla, Myoporum, Pipturus, Rubus, Sadleria, Sophora.*

(F) Understory contains one or more of the following native plant genera: *Ctenitis, Doodia, Dryopteris, Pelea, Sadleria.*

(3) Existing humanmade features and structures, such as buildings, aqueducts, runways, roads, and other paved areas, and the land on which they are located existing within the legal boundaries on April 11, 2024, are not included in the critical habitat designation.

(4) Data layers defining map units were created based on summaries of occurrences and landcover layers including habitat characteristics that indicate the physical or biological features essential to the conservation of *Drosophila digressa*. Coordinates were created using World Geodetic System 1984 (WGS84). The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at *https://www.regulations.gov* at Docket No. FWS–R1–ES–2023–0017, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index map follows:

Figure 1 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (5)

Critical Habitat for Drosophila digressa

Hawaii Island, HI

Index Map

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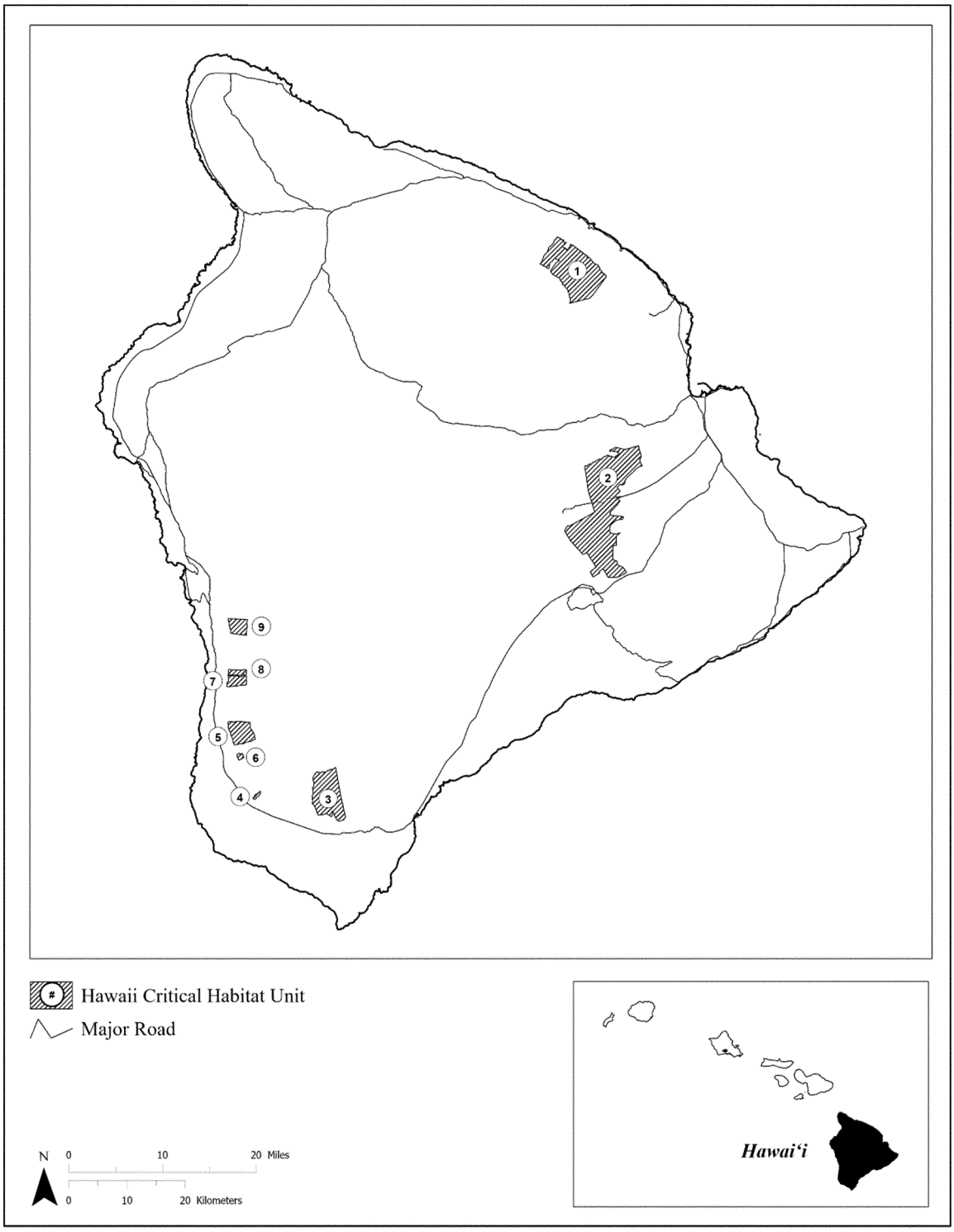


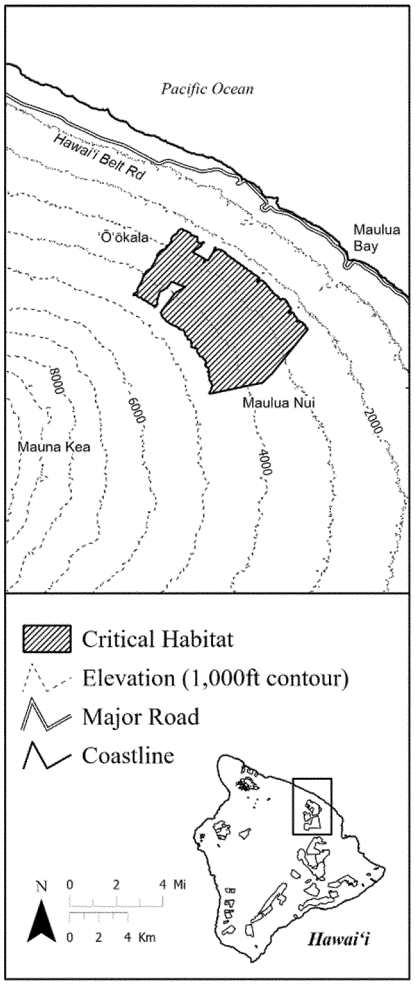
(6) *Drosophila digressa*—Unit 1; Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 1 consists of 15,714 ac (6,359 ha) of wet forest ecosystem from Ookala to Maulua Nui on the northeastern slope of Maunakea. Lands within this unit include approximately 4,098 ac (1,658 ha) in Federal ownership, 10,644 ac (4,308 ha) in State ownership, and 972 ac (394 ha) in private or other ownership. Federal lands within this unit are within the Hakalau Forest National Wildlife Refuge Hakalau Forest Unit. State lands within this unit are part of the Hilo Forest Reserve Humuula, Laupahoehoe, and Piha Sections; the Laupahoehoe Natural Area Reserve; and the Manowaialee Forest Reserve.

(ii) Map of *Drosophila digressa*—Unit 1 follows:

Figure 2 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (6)(ii)

Critical Habitat for Drosophila digressa
Hawaii Island, HI
Unit 1



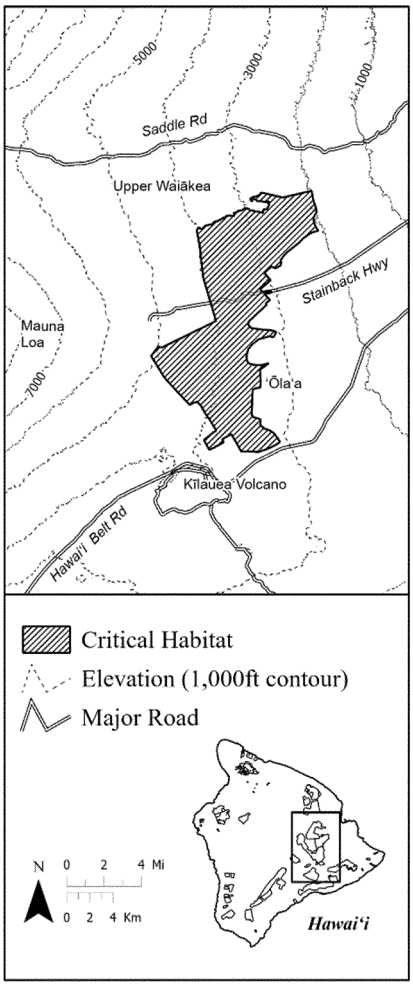
(7) *Drosophila digressa*—Unit 2; Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 2 consists of 31,998 ac (12,949 ha) of wet forest ecosystem from Olaa to Upper Waiakea on the eastern slope of Mauna Loa and partially on the northern slope of Kilauea Volcano. Lands within this unit include approximately 7,875 ac (3,187 ha) in Federal ownership, 23,897 ac (9,671 ha) in State ownership, and 226 ac (91 ha) in private or other ownership. Federal lands in this unit are within Hawaii Volcanoes National Park. State lands in this unit are part of the Hilo Forest Reserve Kukuau Section, Olaa Forest Reserve Mountain View Section, Upper Waiākea Forest Reserve, Waiākea Forest Reserve, Puu Makaala Natural Area Reserve, and Waiakea 1942 Lava Flow Natural Area Reserve.

(ii) Map of *Drosophila digressa*—Unit 2 follows:

Figure 3 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (7)(ii)

Critical Habitat for Drosophila digressa
Hawaii Island, HI
Unit 2



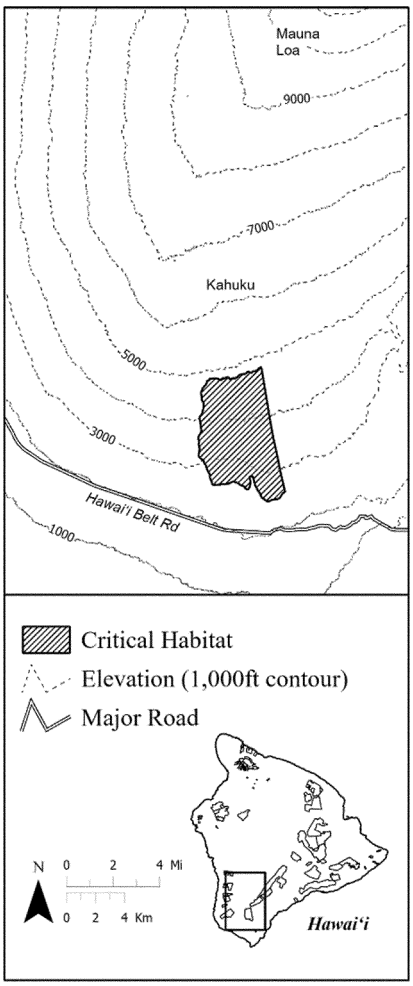
(8) *Drosophila digressa*—Unit 3; Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 3 consists of 8,781 ac (3,554 ha) of wet and mesic forest ecosystems at Kahuku on the southern slopes of Mauna Loa. Lands within this unit include approximately 8,773 ac (3,550 ha) in Federal ownership and 8 ac (3 ha) in State ownership. Federal lands within this unit are within Hawaii Volcanoes National Park. State-owned lands in this unit are part of the Ka'ū Forest Reserve.

(ii) Map of *Drosophila digressa*—Unit 3 follows:

Figure 4 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (8)(ii)

Critical Habitat for Drosophila digressa
Hawaii Island, HI
Unit 3



(9) *Drosophila digressa*—Unit 4; Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 4 consists of 167 ac (67 ha) of mesic forest ecosystem at Manuka on the southern slopes of Mauna Loa. Lands within this unit are entirely in State ownership and are part of the Manuka Natural Area Reserve.

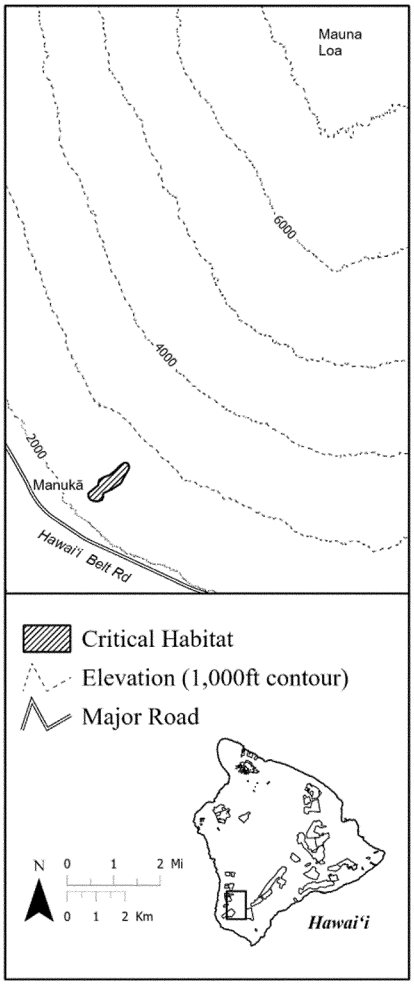
(ii) Map of *Drosophila digressa*—Unit 4 follows:

Figure 5 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (9)(ii)

Critical Habitat for Drosophila digressa

Hawaii Island, HI

Unit 4



(10) *Drosophila digressa*—Unit 5; Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 5 consists of 3,412 ac (1,381 ha) of wet forest ecosystem from Kipahoehoe to Honomalino on the southwestern slopes of Mauna Loa. Lands within this unit include approximately 411 ac (166 ha) in State ownership and 3,001 ac (1,214 ha) in private or other ownership. State-owned lands in this unit are part of the Kipahoehoe Natural Area Reserve and South Kona Forest Reserve Kapua-Manukā Section. Some private lands are owned by The Nature Conservancy, within the Kona Hema Preserve.

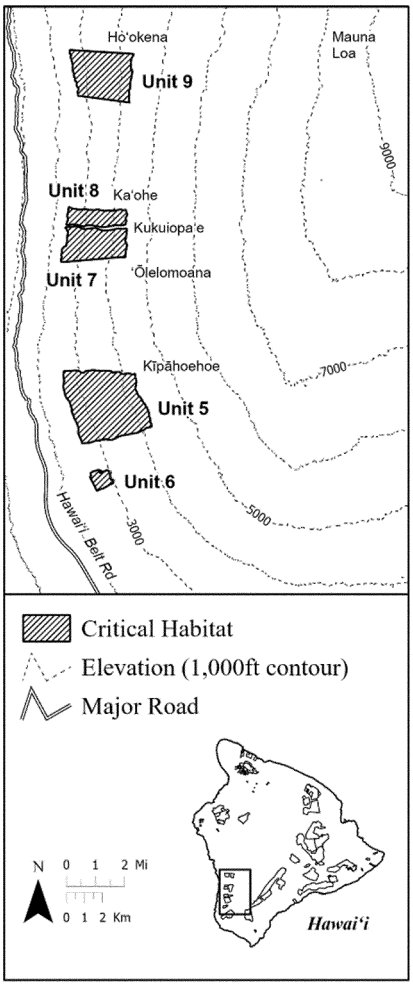
(ii) Map of *Drosophila digressa*—Unit 5, *Drosophila digressa*—Unit 6, *Drosophila digressa*—Unit 7, *Drosophila digressa*—Unit 8, and *Drosophila digressa*—Unit 9 follows:

Figure 6 to Hawaiian picture-wing fly (*Drosophila digressa*) paragraph (10)(ii)

Critical Habitat for Drosophila digressa

Hawaii Island, HI

Unit 5, Unit 6, Unit 7, Unit 8, and Unit 9



(11) *Drosophila digressa*—Unit 6; Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 6 consists of 224 ac (91 ha) of wet forest ecosystem from Milolii to Honomalino on the southwestern slopes of Mauna Loa. Lands within this unit are entirely in State ownership and are part of the South Kona Forest Reserve Kapua-Manuka Section.

(ii) Map of *Drosophila digressa*—Unit 6 is provided at paragraph (10)(ii) of this entry.

(12) *Drosophila digressa*—Unit 7; Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 7 consists of 1,346 ac (545 ha) of wet forest ecosystem from Kukuiopae to Olelomoana on the southwestern slopes of Mauna Loa. Lands within this unit include approximately 1,179 ac (477 ha) in State ownership and 167 ac (68 ha) in private or other ownership. State-owned lands in this unit are part of the South Kona Forest Reserve Kukuiopae Section.

(ii) Map of *Drosophila digressa*—Unit 7 is provided at paragraph (10)(ii) of this entry.

(13) *Drosophila digressa*—Unit 8; Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 8 consists of 661 ac (267 ha) of wet forest ecosystem in Kaohe on the southwestern slopes of Mauna Loa. Lands within this unit include approximately 352 ac (142 ha) in State ownership and 309 ac (125 ha) in private or other ownership. State-owned lands in this unit are part of the South Kona Forest Reserve, Kaohe Section and Kukuiopae Section.

(ii) Map of *Drosophila digressa*—Unit 8 is provided at paragraph (10)(ii) of this entry.

(14) *Drosophila digressa*—Unit 9; Hawaii County, Hawaii.

(i) *Drosophila digressa*—Unit 9 consists of 1,906 ac (771 ha) of wet forest ecosystem in Hookena on the southwestern slopes of Mauna Loa. Lands within this unit include 1,906 ac (771 ha) of Federal land within Hakalau Forest National Wildlife Refuge Kona Forest Unit and less than 1 ac (less than 1 ha) of land that is privately owned or has other ownership.

(ii) Map of *Drosophila digressa*—Unit 9 is provided at paragraph (10)(ii) of this entry.

* * * * *

■ 5. Amend § 17.99 by:
■ a. Revising paragraphs (k) introductory text and (k)(1);
■ b. Redesignating paragraphs (k)(115) and (116) as paragraphs (k)(238) and (239), respectively;
■ c. Redesignating paragraphs (k)(12) through (114) as paragraphs (k)(13) through (115), respectively;
■ d. Adding a new paragraph (k)(12);
■ e. Redesignating newly redesignated paragraphs (k)(15) through (115) as paragraphs (k)(18) through (118), respectively;
■ f. Adding new paragraphs (k)(15) through (17);
■ g. Redesignating newly redesignated paragraphs (k)(19) through (118) as paragraphs (k)(22) through (121), respectively;
■ h. Adding new paragraphs (k)(19) through (21);
■ i. Redesignating newly redesignated paragraphs (k)(32) through (121) as paragraphs (k)(33) through (122), respectively;
■ j. Adding a new paragraph (k)(32);
■ k. Redesignating newly redesignated paragraphs (k)(36) through (122) as paragraphs (k)(39) through (125), respectively;
■ l. Adding new paragraphs (k)(36) through (38);

■ m. Redesignating newly redesignated paragraphs (k)(40) through (125) as paragraphs (k)(43) through (128), respectively;
■ n. Adding new paragraphs (k)(40) through (42);
■ o. Redesignating newly redesignated paragraphs (k)(53) through (128) as paragraphs (k)(59) through (134), respectively;
■ p. Adding new paragraphs (k)(53) through (58);
■ q. Redesignating newly redesignated paragraphs (k)(79) through (134) as paragraphs (k)(81) through (136), respectively;
■ r. Adding new paragraphs (k)(79) and (80);
■ s. Redesignating newly redesignated paragraphs (k)(82) through (136) as paragraphs (k)(90) through (144), respectively;
■ t. Adding new paragraphs (k)(82) through (89);
■ u. Redesignating newly redesignated paragraphs (k)(91) through (144) as paragraphs (k)(92) through (145), respectively;
■ v. Adding a new paragraph (k)(91);
■ w. Redesignating newly redesignated paragraphs (k)(93) through (145) as paragraphs (k)(97) through (149), respectively;
■ x. Adding new paragraphs (k)(93) through (96);
■ y. Redesignating newly redesignated paragraphs (k)(110) through (149) as paragraphs (k)(112) through (151), respectively;
■ z. Adding new paragraphs (k)(110) and (111);
■ aa. Redesignating newly redesignated paragraphs (k)(116) through (151) as paragraphs (k)(117) through (152), respectively;
■ bb. Adding new paragraph (k)(116);
■ cc. Redesignating newly redesignated paragraphs (k)(119) through (152) as paragraphs (k)(121) through (154), respectively;
■ dd. Adding new paragraphs (k)(119) and (120);
■ ee. Redesignating newly redesignated paragraphs (k)(122) through (154) as paragraphs (k)(126) through (158), respectively;
■ ff. Adding new paragraphs (k)(122) through (125);
■ gg. Redesignating newly redesignated paragraphs (k)(134) through (158) as paragraphs (k)(136) through (160), respectively;
■ hh. Adding new paragraphs (k)(134) through (135);
■ ii. Redesignating newly redesignated paragraphs (k)(138) through (160) as paragraphs (k)(139) through (161), respectively;
■ jj. Adding a new paragraph (k)(138);
■ kk. Redesignating newly redesignated paragraphs (k)(141) through (161) as paragraphs (k)(145) through (165), respectively;
■ ll. Adding new paragraphs (k)(141) through (144);
■ mm. Redesignating newly redesignated paragraphs (k)(150) through (165) as paragraphs (k)(151) through (166), respectively;
■ nn. Adding a new paragraph (k)(150);
■ oo. Redesignating newly redesignated paragraphs (k)(152) through (166) as paragraphs (k)(153) through (167), respectively;
■ pp. Adding new paragraph (k)(152);
■ qq. Redesignating newly redesignated paragraphs (k)(155) through (167) as paragraphs (k)(156) through (168), respectively;
■ rr. Adding a new paragraph (k)(155);
■ ss. Redesignating newly redesignated paragraphs (k)(157) through (168) as paragraphs (k)(158) through (169), respectively;
■ tt. Adding a new paragraph (k)(157);
■ uu. Redesignating newly redesignated paragraphs (k)(159) through (169) as paragraphs (k)(160) through (170), respectively;
■ vv. Adding a new paragraph (k)(159);
■ ww. Adding new paragraphs (k)(171) through (237);
■ xx. Revising newly redesignated paragraph (k)(238); and
■ yy. In paragraph (l)(1), adding in alphabetical order entries for ''Family Asteraceae: *Bidens hillebrandiana* ssp. *hillebrandiana* (KOOKOOLAU)'', ''Family Campanulaceae: *Cyanea marksii* (HAHA)'', ''Family Campanulaceae: *Cyanea tritomantha* (AKU)'', ''Family Caryophyllaceae: *Schiedea diffusa* ssp. *macraei* (no common name)'', ''Family Caryophyllaceae: *Schiedea hawaiiensis* (MAOLIOLI)'', ''Family Gesneriaceae: *Cyrtandra nanawaleensis* (HAIWALE)'', Family Gesneriaceae: *Cyrtandra wagneri* (HAIWALE)'', ''Family Lamiaceae: *Phyllostegia floribunda* (no common name)'', ''Family Lamiaceae: *Stenogyne cranwelliae* (no common name)'', ''Family Pittosporaceae: *Pittosporum hawaiiense* (HOAWA, HAAWA)'', and ''Family Rutaceae: *Melicope remyi* (no common name)''.

The revisions and additions read as follows:

§ 17.99 Critical habitat; plants on the Hawaiian Islands, HI.

* * * * *

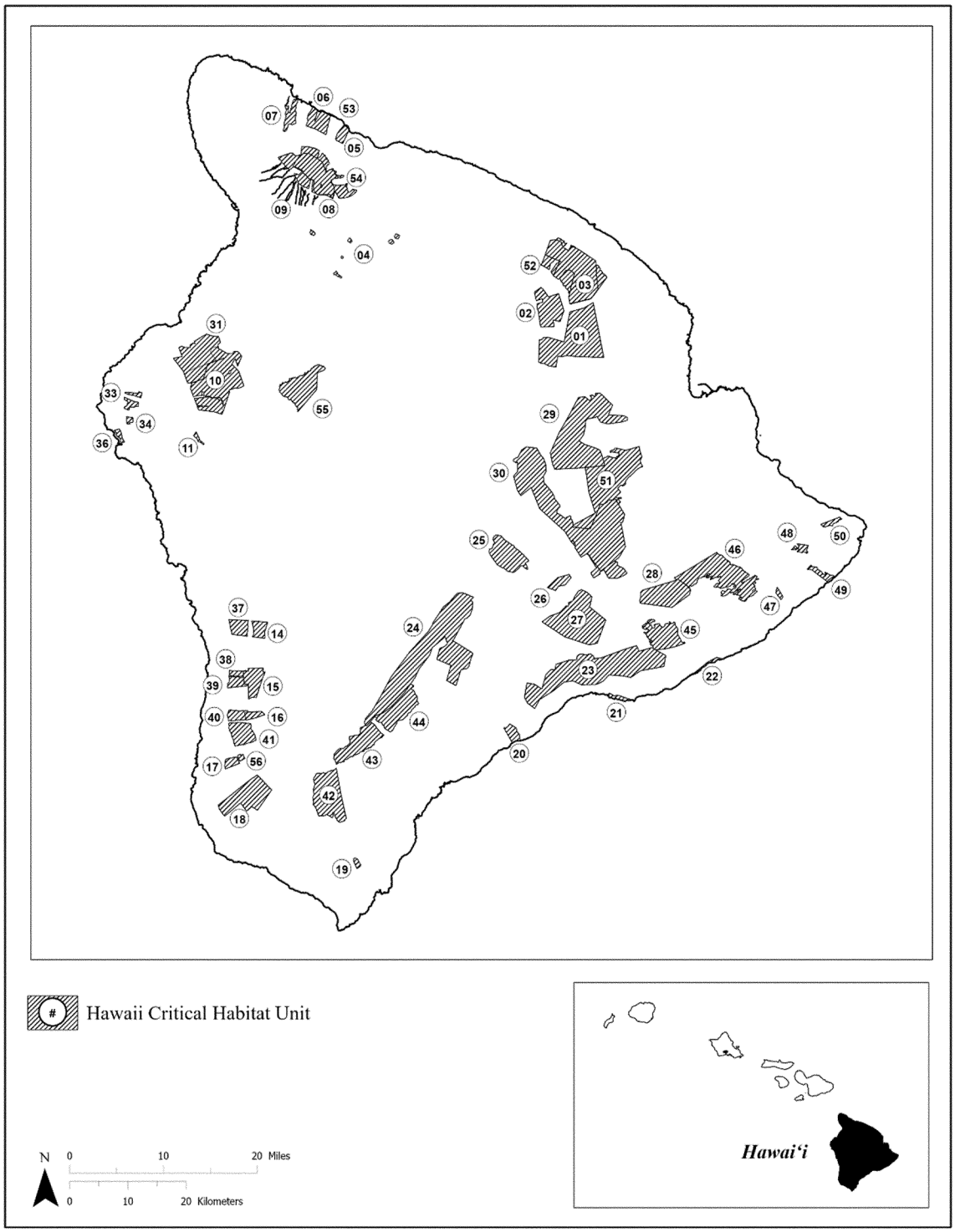
(k) *Maps and critical habitat unit descriptions for the island of Hawaii, HI.* Critical habitat units are described in this paragraph (k). Map coordinates were created using World Geodetic System 1984 (WGS84). The map in paragraph (k)(1) shows the general locations of the critical habitat units designated on the island of Hawaii. Existing humanmade features and structures, such as buildings, aqueducts, runways, roads, and other paved areas, and the land on which they are located existing within the legal boundaries on April 11, 2024 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) Index map follows:

Figure 1 to paragraph (k)

Map 1

Hawaii Critical Habitat—Island Index Map



* * * * *

(12) Hawaii 3—*Cyanea tritomantha*-a (12,059 ac; 4,880 ha).

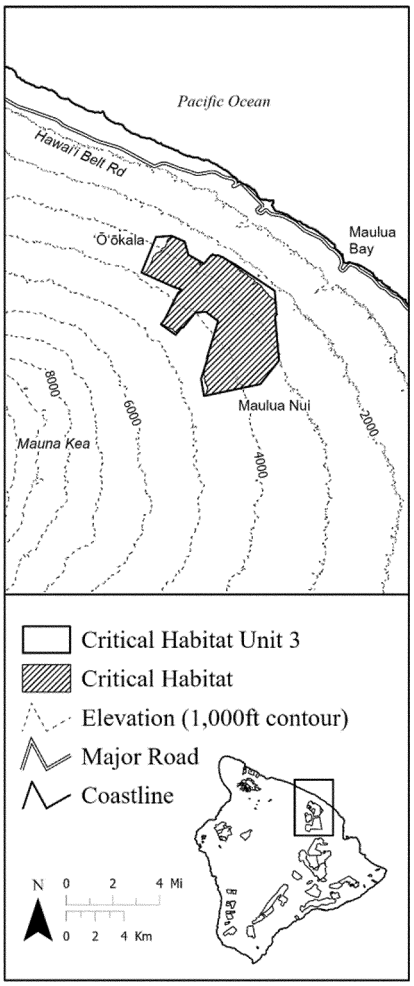
(i) This unit is also critical habitat for Hawaii 3—*Cyrtandra wagneri*-a, Hawaii 3—*Melicope remyi*-a, Hawaii 3—*Phyllostegia floribunda*-a, Hawaii 3—*Pittosporum hawaiiense*-a, Hawaii 3—*Schiedea diffusa* ssp. *macraei*-a, and Hawaii 3—*Stenogyne cranwelliae*-a (see paragraphs (k)(15), (k)(16), (k)(17), (k)(19), (k)(20), (k)(21), respectively, of this section).

(ii) Map 11a follows:

Figure 12 to paragraph (k)

Map 11a

Hawaii 3—*Cyanea tritomantha*-a, Hawaii 3—*Cyrtandra wagneri*-a, Hawaii 3—*Melicope remyi*-a, Hawaii 3—*Phyllostegia floribunda*-a, Hawaii 3—*Pittosporum hawaiiense*-a, Hawaii 3—*Schiedea diffusa* ssp. *macraei*-a, Hawaii 3—*Stenogyne cranwelliae*-a



* * * * *

(15) Hawaii 3—*Cyrtandra wagneri*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

(16) Hawaii 3—*Melicope remyi*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

(17) Hawaii 3—*Phyllostegia floribunda*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

* * * * *

(19) Hawaii 3—*Pittosporum hawaiiense*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

(20) Hawaii 3—*Schiedea diffusa* ssp. *macraei*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

(21) Hawaii 3—*Stenogyne cranwelliae*-a (12,059 ac; 4,880 ha). See paragraph (k)(12)(ii) of this section for the map of this unit.

* * * * *

(32) Hawaii 6—*Bidens hillebrandiana* ssp. *hillebrandiana*-a (2 ac; 1 ha).

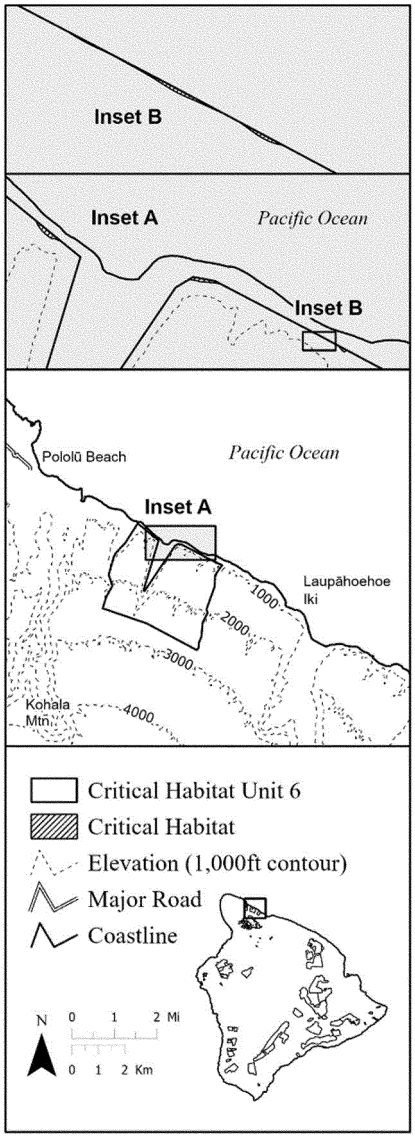
(i) [Reserved].

(ii) Map 24a follows:

Figure 26 to paragraph (k)

Map 24a

Hawaii 6—*Bidens hillebrandiana* ssp. *hillebrandiana*-a



* * * * *

(36) Hawaii 8—*Cyanea tritomantha*-b (6,805 ac; 2,754 ha).

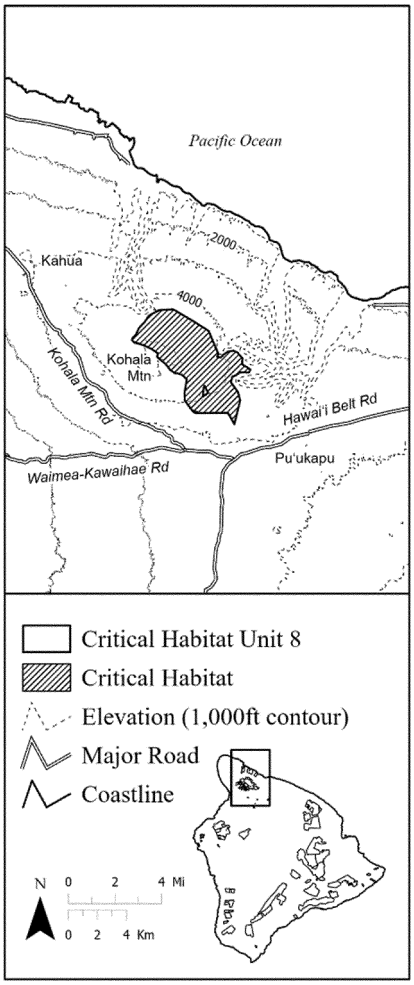
(i) This unit is also critical habitat for Hawaii 8—*Melicope remyi*-b, Hawaii 8—*Phyllostegia floribunda*-b, Hawaii 8—*Pittosporum hawaiiense*-b, Hawaii 8—*Schiedea diffusa* ssp. *macraei*-b, and Hawaii 8—*Stenogyne cranwelliae*-b (see paragraphs (k)(37), (k)(38), (k)(40), (k)(41), and (k)(42), respectively, of this section).

(ii) Map 27a follows:

Figure 30 to paragraph (k)

Map 27a

Hawaii 8—*Cyanea tritomantha*-b, Hawaii 8—*Melicope remyi*-b, Hawaii 8—*Phyllostegia floribunda*-b, Hawaii 8—*Pittosporum hawaiiense*-b, Hawaii 8—*Schiedea diffusa* ssp. *macraei*-b, Hawaii 8—*Stenogyne cranwelliae*-b



(37) Hawaii 8—*Melicope remyi*-b (6,805 ac; 2,754 ha). See paragraph (k)(36)(ii) of this section for the map of this unit.

(38) Hawaii 8—*Phyllostegia floribunda*-b (6,805 ac; 2,754 ha). See paragraph (k)(36)(ii) of this section for the map of this unit.

* * * * *

(40) Hawaii 8—*Pittosporum hawaiiense*-b (6,805 ac; 2,754 ha). See paragraph (k)(36)(ii) of this section for the map of this unit.

(41) Hawaii 8—*Schiedea diffusa* ssp. *macraei*-b (6,805 ac; 2,754 ha). See paragraph (k)(36)(ii) of this section for the map of this unit.

(42) Hawaii 8—*Stenogyne cranwelliae*-b (6,805 ac; 2,754 ha). See paragraph (k)(36)(ii) of this section for the map of this unit.

* * * * *

(53) Hawaii 9—*Cyanea tritomantha*-c (1 ac; <1 ha).

(i) This unit is also critical habitat for Hawaii 9—*Melicope remyi*-c, Hawaii 9—*Phyllostegia floribunda*-c, Hawaii 9—*Pittosporum hawaiiense*-c, Hawaii 9—*Schiedea diffusa* ssp. *macraei*-c, and

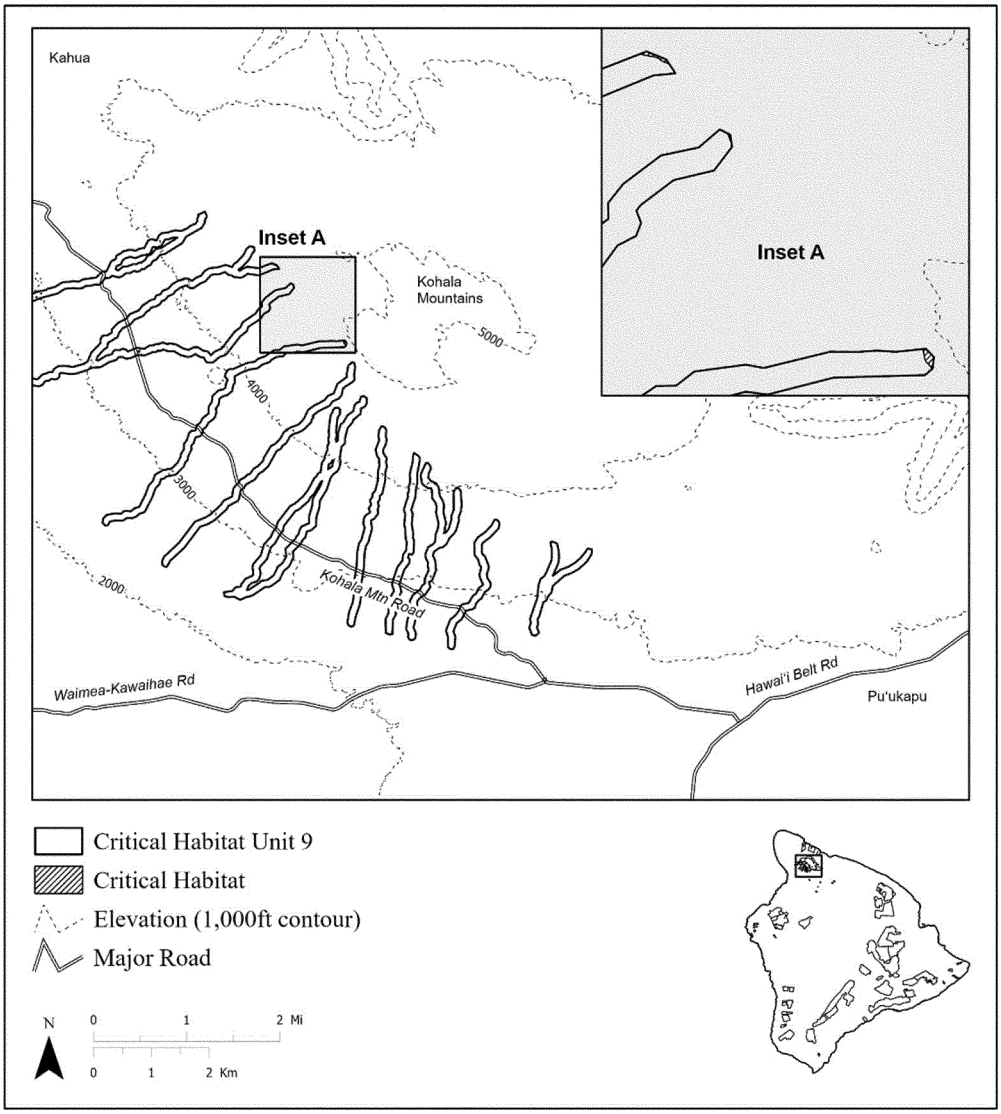
Hawaii 9—*Stenogyne cranwelliae*-c (see paragraphs (k)(54), (k)(55), (k)(56), (k)(57), and (k)(58) respectively, of this section).

(ii) Map 38a follows:

Figure 42 to paragraph (k)

Map 38a

Hawaii 9—*Cyanea tritomantha*-c, Hawaii 9—*Melicope remyi*-c, Hawaii 9—*Phyllostegia floribunda*-c, Hawaii 9—*Pittosporum hawaiiense*-c, Hawaii 9—*Schiedea diffusa* ssp. *macraei*-c, Hawaii 9—*Stenogyne cranwelliae*-c



(54) Hawaii 9—*Melicope remyi*-c (1 ac; <1 ha). See paragraph (k)(53)(ii) of this section for the map of this unit.

(55) Hawaii 9—*Phyllostegia floribunda*-c (1 ac; <1 ha). See paragraph (k)(53)(ii) of this section for the map of this unit.

(56) Hawaii 9–*Pittosporum hawaiiense*-c (1 ac; < 1 ha). See paragraph (k)(53)(ii) of this section for the map of this unit.

(57) Hawaii 9–*Schiedea diffusa* ssp. *macraei*-c (1 ac; < 1 ha). See paragraph (k)(53)(ii) of this section for the map of this unit.

(58) Hawaii 9–*Stenogyne cranwelliae*-c (1 ac; < 1 ha). See paragraph (k)(53)(ii) of this section for the map of this unit.

* * * * *

(79) Hawaii 15–*Cyanea marksii*-a-Section 4 (182 ac; 73 ha).

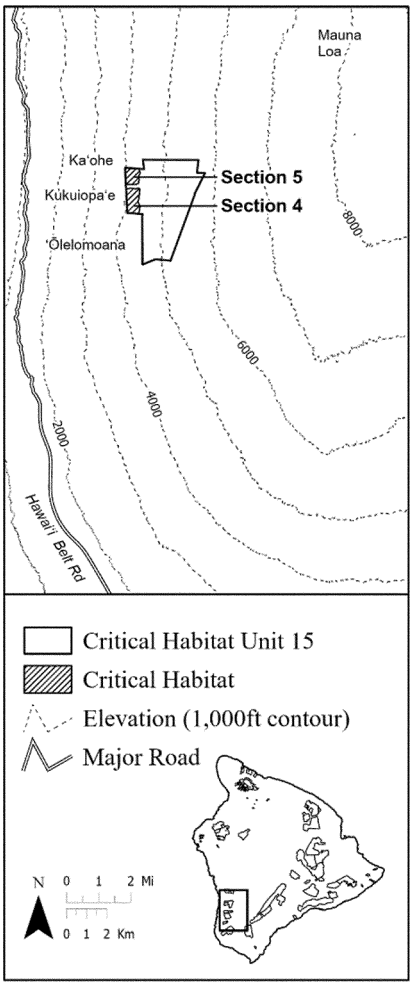
(i) This unit is also critical habitat for Hawaii 15–*Phyllostegia floribunda*-d-Section 4, Hawaii 15–*Pittosporum hawaiiense*-d-Section 4, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-d-Section 4, and Hawaii 15–*Stenogyne cranwelliae*-d-Section 4 (see paragraphs (k)(82), (k)(84), (k)(86), and (k)(88), respectively, of this section).

(ii) Map 58a follows:

Figure 60 to paragraph (k)

Map 58a

Hawaii 15–*Cyanea marksii*-a-Section 4, Hawaii 15–*Cyanea marksii*-b-Section 5, Hawaii 15–*Phyllostegia floribunda*-d-Section 4, Hawaii 15–*Phyllostegia floribunda*-e-Section 5, Hawaii 15–*Pittosporum hawaiiense*-d-Section 4, Hawaii 15–*Pittosporum hawaiiense*-e-Section 5, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-d-Section 4, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-e-Section 5, Hawaii 15–*Stenogyne cranwelliae*-d-Section 4, Hawaii 15–*Stenogyne cranwelliae*-e-Section 5



(80) Hawaii 15–*Cyanea marksii*-b-Section 5 (127 ac; 51 ha).

(i) This unit is also critical habitat for Hawaii 15–*Phyllostegia floribunda*-e-Section 5, Hawaii 15–*Pittosporum hawaiiense*-e-Section 5, Hawaii 15–*Schiedea diffusa* ssp. *macraei*-e-Section 5, and Hawaii 15–*Stenogyne cranwelliae*-e-Section 5 (see paragraphs (k)(83), (k)(85), (k)(87), and (k)(89), respectively, of this section).

(ii) See paragraph (k)(79)(ii) of this section for the map of this unit.

* * * * *

(82) Hawaii 15–*Phyllostegia floribunda*-d-Section 4 (182 ac; 73 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(83) Hawaii 15–*Phyllostegia floribunda*-e-Section 5 (127 ac; 51 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(84) Hawaii 15–*Pittosporum hawaiiense*-d-Section 4 (182 ac; 73 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(85) Hawaii 15–*Pittosporum hawaiiense*-e-Section 5 (127 ac; 51 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(86) Hawaii 15–*Schiedea diffusa* ssp. *macraei*-d-Section 4 (182 ac; 73 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(87) Hawaii 15–*Schiedea diffusa* ssp. *macraei*-e-Section 5 (127 ac; 51 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(88) Hawaii 15–*Stenogyne cranwelliae*-d-Section 4 (182 ac; 73 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

(89) Hawaii 15–*Stenogyne cranwelliae*-e-Section 5 (127 ac; 51 ha). See paragraph (k)(79)(ii) of this section for the map of this unit.

* * * * *

(91) Hawaii 16–*Cyanea marksii*-c (156 ac; 63 ha).

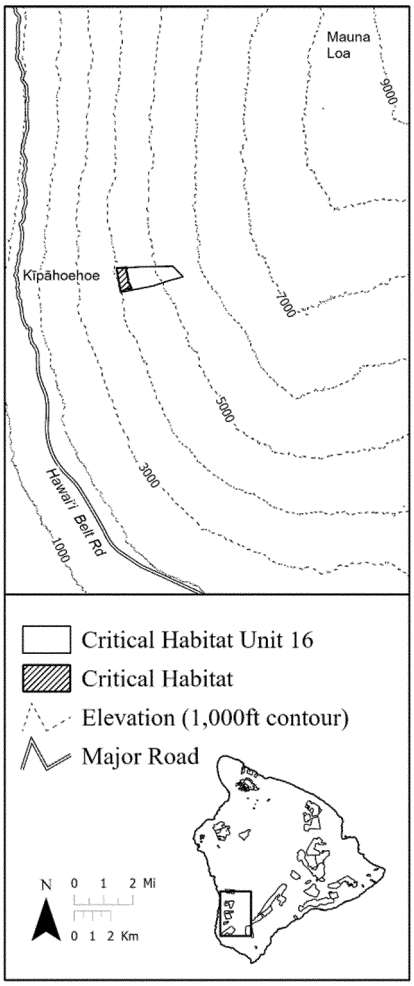
(i) This unit is also critical habitat for Hawaii 16–*Phyllostegia floribunda*-f, Hawaii 16–*Pittosporum hawaiiense*-f, Hawaii 16–*Schiedea diffusa* ssp. *macraei*-f, and Hawaii 16–*Stenogyne cranwelliae*-f (see paragraphs (k)(93), (k)(94), (k)(95), and (k)(96), respectively, of this section).

(ii) Map 60a follows:

Figure 63 to paragraph (k)

Map 60a

Hawaii 16–*Cyanea marksii*-c, Hawaii 16–*Phyllostegia floribunda*-f, Hawaii 16–*Pittosporum hawaiiense*-f, Hawaii 16–*Schiedea diffusa* ssp. *macraei*-f, Hawaii 16–*Stenogyne cranwelliae*-f



* * * * *

(93) Hawaii 16–*Phyllostegia floribunda*-f (156 ac; 63 ha). See paragraph (k)(91)(ii) of this section for the map of this unit.

(94) Hawaii 16–*Pittosporum hawaiiense*-f (156 ac; 63 ha). See paragraph (k)(91)(ii) of this section for the map of this unit.

(95) Hawaii 16–*Schiedea diffusa* ssp. *macraei*-f (156 ac; 63 ha). See paragraph (k)(91)(ii) of this section for the map of this unit.

(96) Hawaii 16–*Stenogyne cranwelliae*-f (156 ac; 63 ha). See paragraph (k)(91)(ii) of this section for the map of this unit.

* * * * *

(110) Hawaii 23–*Phyllostegia floribunda*-g (9 ac; 4 ha).

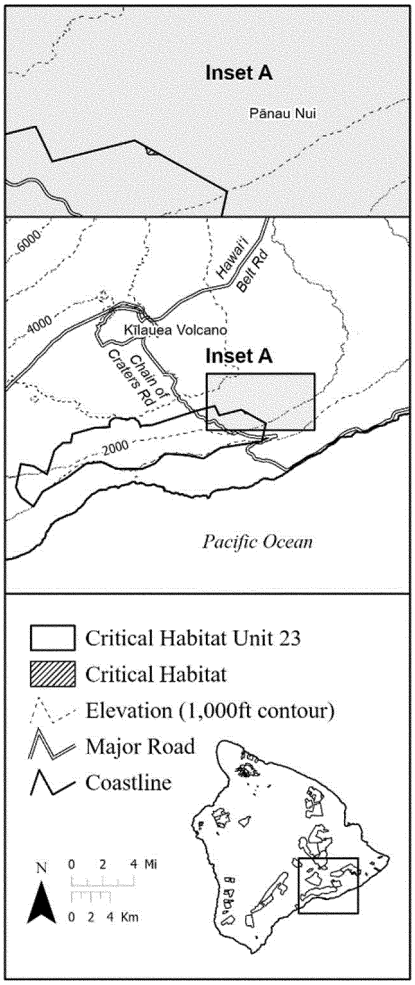
(i) This unit is also critical habitat for Hawaii 23–*Pittosporum hawaiiense*-g (see paragraph (k)(111) of this section).

(ii) Map 74a follows:

Figure 78 to paragraph (k)

Map 74a

Hawaii 23–*Phyllostegia floribunda*-g, Hawaii 23–*Pittosporum hawaiiense*-g



(111) Hawaii 23–*Pittosporum hawaiiense*-g (9 ac; 4 ha). See paragraph (k)(110)(ii) of this section for the map of this unit.

* * * * *

(116) Hawaii 24–*Cyanea tritomantha*-d-Section 8 (1,956 ac; 792 ha).

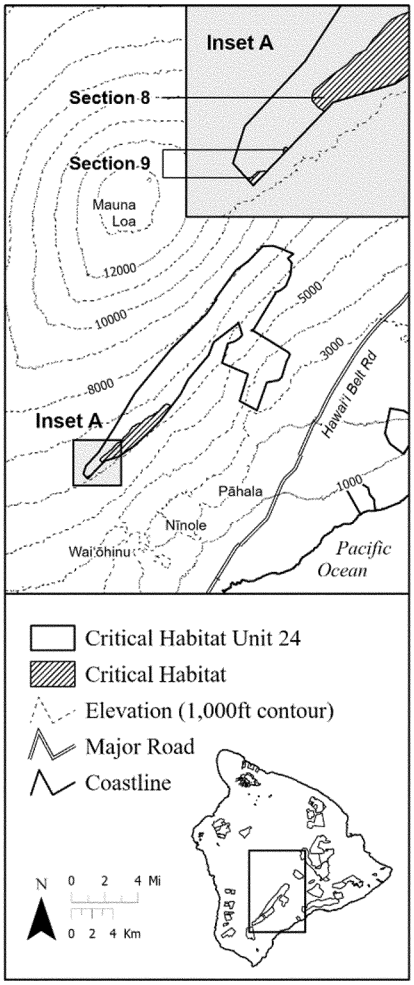
(i) This unit is also critical habitat for Hawaii 24–*Pittosporum hawaiiense*-h-Section 8, Hawaii 24–*Schiedea diffusa* ssp. *macraei*-g-Section 8, and Hawaii 24–*Stenogyne cranwelliae*-g-Section 8 (see paragraphs (k)(119), (k)(122), and (k)(124), respectively, of this section).

(ii) Map 78a follows:

Figure 83 to paragraph (k)

Map 78a

Hawaii 24–*Cyanea tritomantha*-d-Section 8, Hawaii 24–*Pittosporum hawaiiense*-h-Section 8, Hawaii 24–*Pittosporum hawaiiense*-i-Section 9, Hawaii 24–*Schiedea diffusa* ssp. *macraei*-g-Section 8, Hawaii 24–*Schiedea diffusa* ssp. *macraei*-h-Section 9, Hawaii 24–*Stenogyne cranwelliae*-g-Section 8, Hawaii 24–*Stenogyne cranwelliae*-h-Section 9



* * * * *

(119) Hawaii 24–*Pittosporum hawaiiense*-h-Section 8 (1,956 ac; 792 ha). See paragraph (k)(116)(ii) of this section for the map of this unit.

(120) Hawaii 24–*Pittosporum hawaiiense*-i-Section 9 (101 ac; 41 ha).

(i) This unit is also critical habitat for Hawaii 24–*Schiedea diffusa* ssp. *macraei*-h-Section 9 and Hawaii 24–*Stenogyne cranwelliae*-h-Section 9 (see paragraphs (k)(123) and (k)(125), respectively, of this section).

(ii) See paragraph (k)(116)(ii) of this section for the map of this unit.

* * * * *

(122) Hawaii 24–*Schiedea diffusa* ssp. *macraei*-g-Section 8 (1,956 ac; 792 ha). See paragraph (k)(116)(ii) of this section for the map of this unit.

(123) Hawaii 24–*Schiedea diffusa* ssp. *macraei*-h-Section 9 (101 ac; 41 ha). See paragraph (k)(116)(ii) of this section for the map of this unit.

(124) Hawaii 24–*Stenogyne cranwelliae*-g-Section 8 (1,956 ac; 792 ha). See paragraph (k)(116)(ii) of this section for the map of this unit.

(125) Hawaii 24–*Stenogyne cranwelliae*-h-Section 9 (101 ac; 41 ha). See paragraph (k)(116)(ii) of this section for the map of this unit.

* * * * *

(134) Hawaii 28–*Cyrtandra nanawaleensis*-a (155 ac; 63 ha).

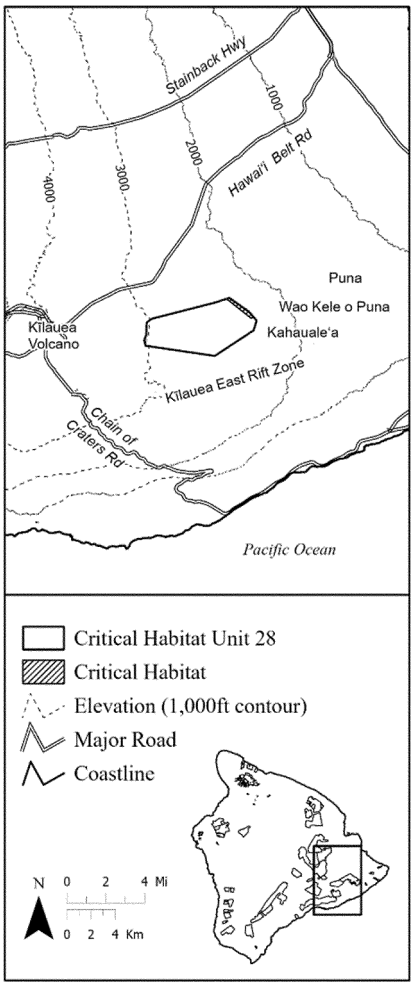
(i) This unit is also critical habitat for Hawaii 28–*Phyllostegia floribunda*-h (see paragraph (k)(135) of this section).

(ii) Map 89a follows:

Figure 95 to paragraph (k)

Map 89a

Hawaii 28–*Cyrtandra nanawaleensis*-a, Hawaii 28–*Phyllostegia floribunda*-h



(135) Hawaii 28–*Phyllostegia floribunda*-h (155 ac; 63 ha). See paragraph (k)(134)(ii) of this section for the map of this unit.

* * * * *

(138) Hawaii 29–*Cyanea tritomantha*-e (494 ac; 200 ha).

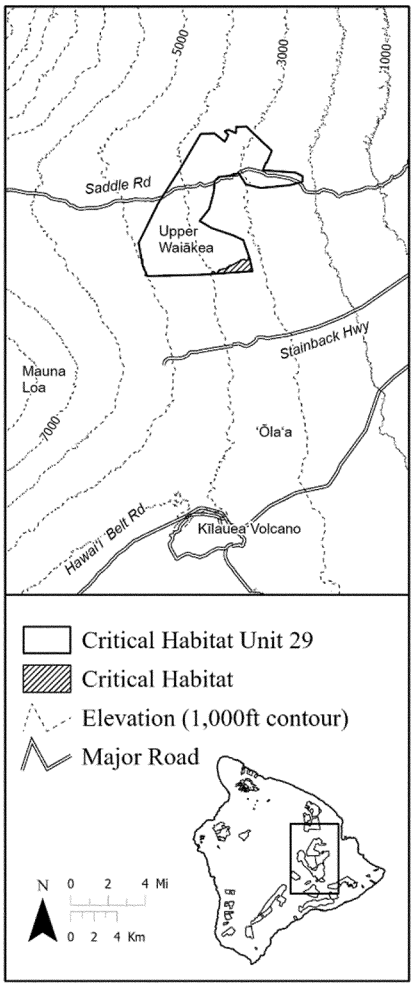
(i) This unit is also critical habitat for Hawaii 29–*Phyllostegia floribunda*-i, Hawaii 29–*Pittosporum hawaiiense*-j, Hawaii 29–*Schiedea diffusa* ssp. *macraei*-i, and Hawaii 29–*Stenogyne cranwelliae*-i (see paragraphs (k)(141), (k)(142), (k)(143), and (k)(144), respectively, of this section).

(ii) Map 91a follows:

Figure 98 to paragraph (k)

Map 91a

Hawaii 29–*Cyanea tritomantha*-e, Hawaii 29–*Phyllostegia floribunda*-i, Hawaii 29–*Pittosporum hawaiiense*-j, Hawaii 29–*Schiedea diffusa* ssp. *macraei*-i, Hawaii 29–*Stenogyne cranwelliae*-I



* * * * *

(141) Hawaii 29–*Phyllostegia floribunda*-i (494 ac; 200 ha). See paragraph (k)(138)(ii) of this section for the map of this unit.

(142) Hawaii 29–*Pittosporum hawaiiense*-j (494 ac; 200 ha). See paragraph (k)(138)(ii) of this section for the map of this unit.

(143) Hawaii 29–*Schiedea diffusa* ssp. *macraei*-i (494 ac; 200 ha). See paragraph (k)(138)(ii) of this section for the map of this unit.

(144) Hawaii 29–*Stenogyne cranwelliae*-i (494 ac; 200 ha). See paragraph (k)(138)(ii) of this section for the map of this unit.

* * * * *

(150) Hawaii 30–*Cyanea tritomantha*-f (13,730 ac; 5,556 ha).

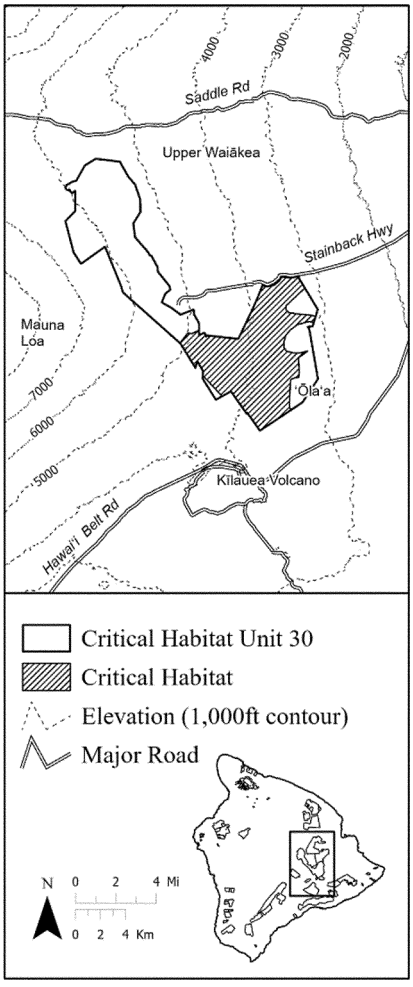
(i) This unit is also critical habitat for Hawaii 30–*Phyllostegia floribunda*-j, Hawaii 30–*Pittosporum hawaiiense*-k, Hawaii 30–*Schiedea diffusa* ssp. *macraei*-j, and Hawaii 30–*Stenogyne cranwelliae*-j (see paragraphs (k)(152), (k)(155), (k)(157), and (k)(159), respectively, of this section).

(ii) Map 98a follows:

Figure 106 to paragraph (k)

Map 98a

Hawaii 30–*Cyanea tritomantha*-f, Hawaii 30–*Phyllostegia floribunda*-j, Hawaii 30–*Pittosporum hawaiiense*-k, Hawaii 30–*Schiedea diffusa* ssp. *macraei*-j, Hawaii 30–*Stenogyne cranwelliae*-j



* * * * *

(152) Hawaii 30–*Phyllostegia floribunda*-j (13,730 ac; 5,556 ha). See paragraph (k)(150)(ii) of this section for the map of this unit.

* * * * *

(155) Hawaii 30–*Pittosporum hawaiiense*-k (13,730 ac; 5,556 ha). See paragraph (k)(150)(ii) of this section for the map of this unit.

* * * * *

(157) Hawaii 30–*Schiedea diffusa* ssp. *macraei*-j (13,730 ac; 5,556 ha). See paragraph (k)(150)(ii) of this section for the map of this unit.

* * * * *

(159) Hawaii 30–*Stenogyne cranwelliae*-j (13,730 ac; 5,556 ha). See paragraph (k)(150)(ii) of this section for the map of this unit.

* * * * *

(171) Hawaii 37–*Cyanea marksii*-d (1,906 ac; 771 ha)

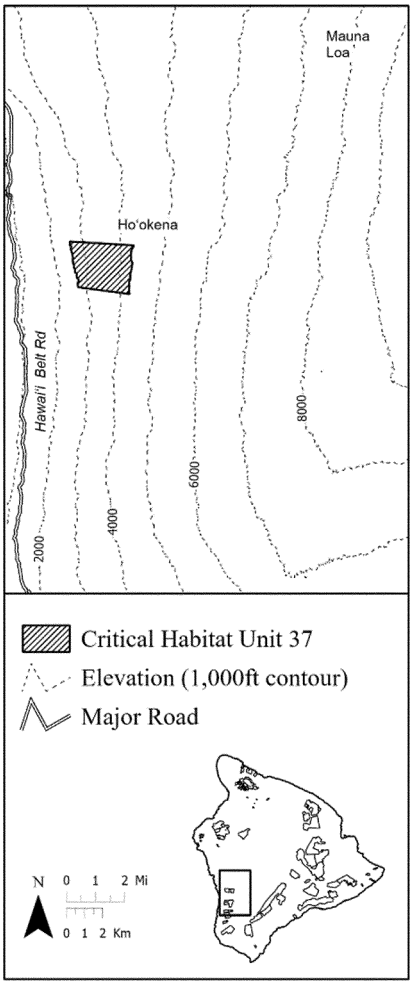
(i) This unit is also critical habitat for Hawaii 37–*Phyllostegia floribunda*-k, Hawaii 37–*Pittosporum hawaiiense*-l, Hawaii 37–*Schiedea diffusa* ssp. *macraei*-k, and Hawaii 37–*Stenogyne cranwelliae*-k (see paragraphs (k)(172), (k)(173), (k)(174), and (k)(175), respectively, of this section).

(ii) Map 106 follows:

Figure 114 to paragraph (k)

Map 106

Hawaii 37–*Cyanea marksii*-d, Hawaii 37–*Phyllostegia floribunda*-k, Hawaii 37–*Pittosporum hawaiiense*-l, Hawaii 37–*Schiedea diffusa* ssp. *macraei*-k, Hawaii 37–*Stenogyne cranwelliae*-k



(172) Hawaii 37–*Phyllostegia floribunda*-k (1,906 ac; 771 ha). See paragraph (k)(171)(ii) of this section for the map of this unit.

(173) Hawaii 37–*Pittosporum hawaiiense*-l (1,906 ac; 771 ha). See paragraph (k)(171)(ii) of this section for the map of this unit.

(174) Hawaii 37–*Schiedea diffusa* ssp. *macraei*-k (1,906 ac; 771 ha). See paragraph (k)(171)(ii) of this section for the map of this unit.

(175) Hawaii 37–*Stenogyne cranwelliae*-k (1,906 ac; 771 ha). See paragraph (k)(171)(ii) of this section for the map of this unit.

(176) Hawaii 38–*Cyanea marksii*-e (534 ac; 216 ha).

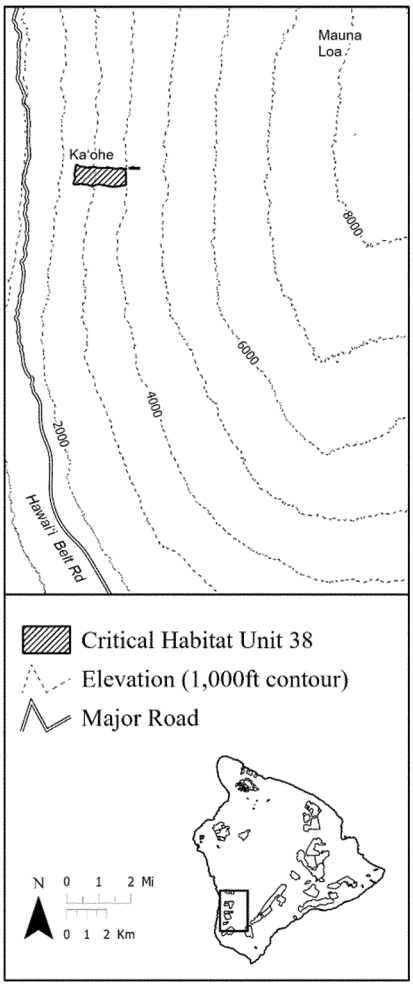
(i) This unit is also critical habitat for Hawaii 38–*Phyllostegia floribunda*-l, Hawaii 38–*Pittosporum hawaiiense*-m, Hawaii 38–*Schiedea diffusa* ssp. *macraei*-l, and Hawaii 38–*Stenogyne cranwelliae*-l (see paragraphs (k)(177), (k)(178), (k)(179), and (k)(180), respectively, of this section).

(ii) Map 107 follows:

Figure 115 to paragraph (k)

Map 107

Hawaii 38–*Cyanea marksii*-e, Hawaii 38–*Phyllostegia floribunda*-l, Hawaii 38–*Pittosporum hawaiiense*-m, Hawaii 38–*Schiedea diffusa* ssp. *macraei*-l, Hawaii 38–*Stenogyne cranwelliae*-l



(177) Hawaii 38–*Phyllostegia floribunda*-l (534 ac; 216 ha). See paragraph (k)(176)(ii) of this section for the map of this unit.

(178) Hawaii 38–*Pittosporum hawaiiense*-m (534 ac; 216 ha). See paragraph (k)(176)(ii) of this section for the map of this unit.

(179) Hawaii 38–*Schiedea diffusa* ssp. *macraei*-l (534 ac; 216 ha). See paragraph (k)(176)(ii) of this section for the map of this unit.

(180) Hawaii 38–*Stenogyne cranwelliae*-l (534 ac; 216 ha). See paragraph (k)(176)(ii) of this section for the map of this unit.

(181) Hawaii 39–*Cyanea marksii*-f (1,164 ac; 471 ha)

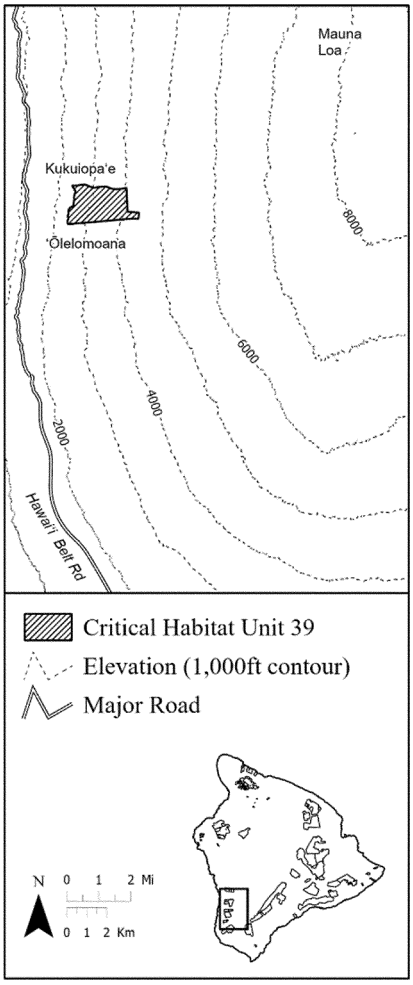
(i) This unit is also critical habitat for Hawaii 39–*Phyllostegia floribunda*-m, Hawaii 39–*Pittosporum hawaiiense*-n, Hawaii 39–*Schiedea diffusa* ssp. *macraei*-m, and Hawaii 39–*Stenogyne cranwelliae*-m (see paragraphs (k)(182), (k)(183), (k)(184), and (k)(185), respectively, of this section).

(ii) Map 108 follows:

Figure 116 to paragraph (k)

Map 108

Hawaii 39–*Cyanea marksii*-f, Hawaii 39–*Phyllostegia floribunda*-m, Hawaii 39–*Pittosporum hawaiiense*-n, Hawaii 39–*Schiedea diffusa* ssp. *macraei*-m, Hawaii 39–*Stenogyne cranwelliae*-m



(182) Hawaii 39–*Phyllostegia floribunda*-m (1,164 ac; 471 ha). See paragraph (k)(181)(ii) of this section for the map of this unit.

(183) Hawaii 39–*Pittosporum hawaiiense*-n (1,164 ac; 471 ha). See paragraph (k)(181)(ii) of this section for the map of this unit.

(184) Hawaii 39–*Schiedea diffusa* ssp. *macraei*-m (1,164 ac; 471 ha). See paragraph (k)(181)(ii) of this section for the map of this unit.

(185) Hawaii 39–*Stenogyne cranwelliae*-m (1,164 ac; 471 ha). See paragraph (k)(181)(ii) of this section for the map of this unit.

(186) Hawaii 40–*Cyanea marksii*-g (1,243 ac; 503 ha)

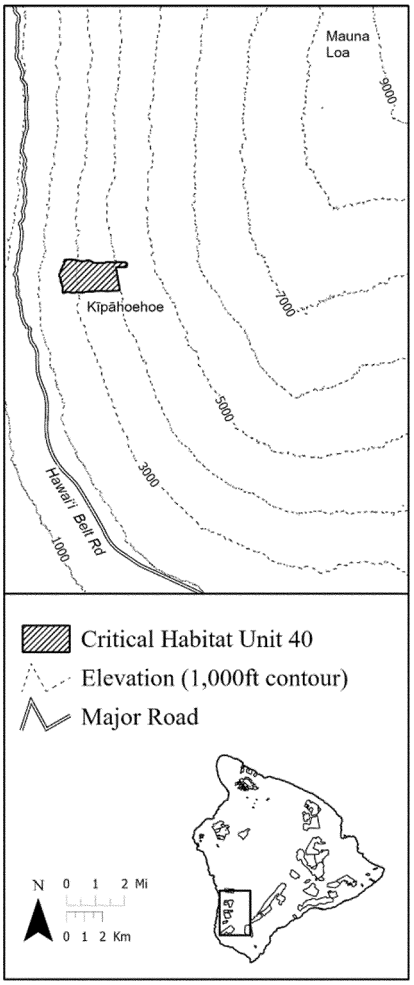
(i) This unit is also critical habitat for Hawaii 40–*Phyllostegia floribunda*-n, Hawaii 40–*Pittosporum hawaiiense*-o, Hawaii 40–*Schiedea diffusa* ssp. *macraei*-n, and Hawaii 40–*Stenogyne cranwelliae*-n (see paragraphs (k)(187), (k)(188), (k)(189), and (k)(190), respectively, of this section).

(ii) Map 109 follows:

Figure 117 to paragraph (k)

Map 109

Hawaii 40–*Cyanea marksii*-g, Hawaii 40–*Phyllostegia floribunda*-n, Hawaii 40–*Pittosporum hawaiiense*-o, Hawaii 40–*Schiedea diffusa ssp. macraei*-n, Hawaii 40–*Stenogyne cranwelliae*-n



(187) Hawaii 40–*Phyllostegia floribunda*-n (1,243 ac; 503 ha). See paragraph (k)(186)(ii) of this section for the map of this unit.

(188) Hawaii 40–*Pittosporum hawaiiense*-o (1,243 ac; 503 ha). See paragraph (k)(186)(ii) of this section for the map of this unit.

(189) Hawaii 40–*Schiedea diffusa* ssp. *macraei*-n (1,243 ac; 503 ha). See paragraph (k)(186)(ii) of this section for the map of this unit.

(190) Hawaii 40–*Stenogyne cranwelliae*-n (1,243 ac; 503 ha). See paragraph (k)(186)(ii) of this section for the map of this unit.

(191) Hawaii 41–*Cyanea marksii*-h (3,412 ac; 1,381 ha)

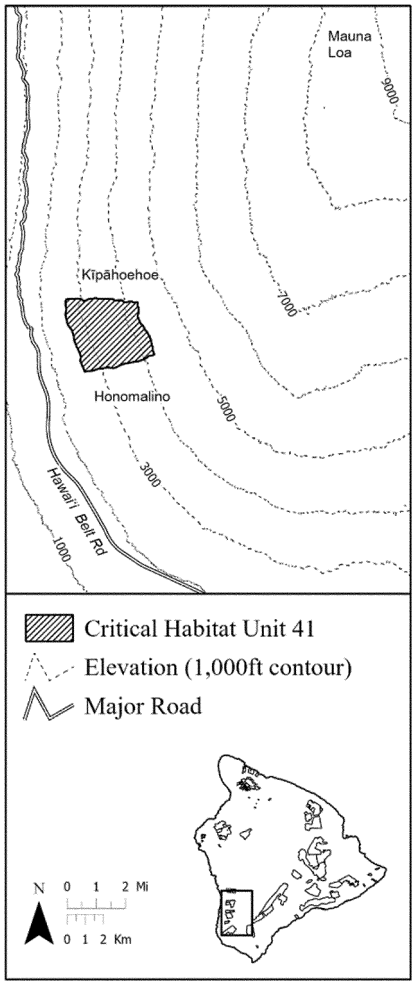
(i) This unit is also critical habitat for Hawaii 41–*Phyllostegia floribunda*-o, Hawaii 41–*Pittosporum hawaiiense*-p, Hawaii 41–*Schiedea diffusa* ssp. *macraei*-o, and Hawaii 41–*Stenogyne cranwelliae*-o (see paragraphs (k)(192), (k)(193), (k)(194), and (k)(195), respectively, of this section).

(ii) Map 110 follows:

Figure 118 to paragraph (k)

Map 110

Hawaii 41–*Cyanea marksii*-h, Hawaii 41–*Phyllostegia floribunda*-o, Hawaii 41–*Pittosporum hawaiiense*-p, Hawaii 41–*Schiedea diffusa* ssp. *macraei*-o, Hawaii 41–*Stenogyne cranwelliae*-o



(192) Hawaii 41–*Phyllostegia floribunda*-o (3,412 ac; 1,381 ha). See paragraph (k)(191)(ii) of this section for the map of this unit.

(193) Hawaii 41–*Pittosporum hawaiiense*-p (3,412 ac; 1,381 ha). See paragraph (k)(191)(ii) of this section for the map of this unit.

(194) Hawaii 41–*Schiedea diffusa* ssp. *macraei*-o (3,412 ac; 1,381 ha). See paragraph (k)(191)(ii) of this section for the map of this unit.

(195) Hawaii 41–*Stenogyne cranwelliae*-o (3,412 ac; 1,381 ha). See paragraph (k)(191)(ii) of this section for the map of this unit.

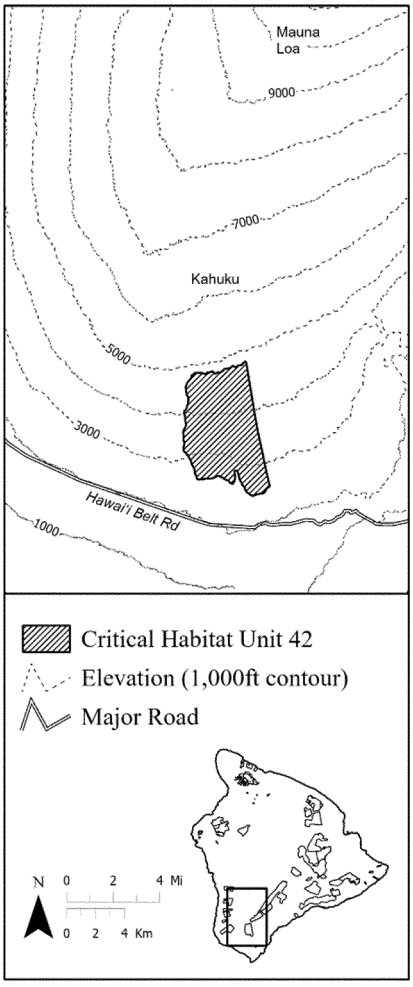
(196) Hawaii 42–*Cyanea tritomantha*-g (8,781 ac; 3,554 ha).

(i) This unit is also critical habitat for Hawaii 42–*Phyllostegia floribunda*-p, Hawaii 42–*Pittosporum hawaiiense*-q, Hawaii 42–*Schiedea diffusa* ssp. *macraei*-p, and Hawaii 42–*Stenogyne cranwelliae*-p (see paragraphs (k)(197), (k)(198), (k)(199), and (k)(200), respectively, of this section).

(ii) Map 111 follows:

Figure 119 to paragraph (k)

Map 111 Hawaii 42–Cyanea tritomantha-g, Hawaii 42–Phyllostegia floribunda-p, Hawaii 42–Pittosporum hawaiiense-q, Hawaii 42–Schiedea diffusa ssp. macraei-p, Hawaii 42–Stenogyne cranwelliae-p



(197) Hawaii 42–*Phyllostegia floribunda*-p (8,781 ac; 3,554 ha). See paragraph (k)(196)(ii) of this section for the map of this unit.

(198) Hawaii 42–*Pittosporum hawaiiense*-q (8,781 ac; 3,554 ha). See paragraph (k)(196)(ii) of this section for the map of this unit.

(199) Hawaii 42–*Schiedea diffusa* ssp. *macraei*-p (8,781 ac; 3,554 ha). See paragraph (k)(196)(ii) of this section for the map of this unit.

(200) Hawaii 42–*Stenogyne cranwelliae*-p (8,781 ac; 3,554 ha). See paragraph (k)(196)(ii) of this section for the map of this unit.

(201) Hawaii 43–*Pittosporum hawaiiense*-r (5,872 ac; 2,376 ha).

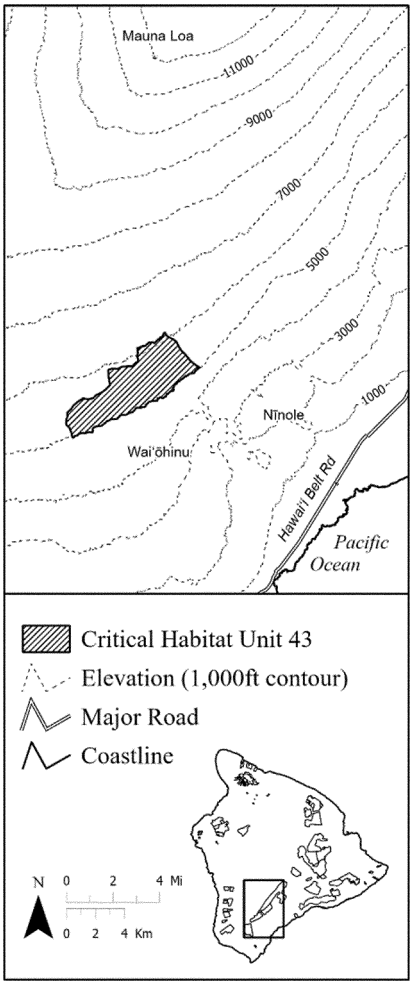
(i) This unit is also critical habitat for Hawaii 43–*Schiedea diffusa* ssp. *macraei*-q and Hawaii 43–*Stenogyne cranwelliae*-q (see paragraphs (k)(202) and (k)(203), respectively, of this section).

(ii) Map 112 follows:

Figure 120 to paragraph (k)

Map 112

Hawaii 43–*Pittosporum hawaiiense*-r, Hawaii 43–*Schiedea diffusa* ssp. *macraei*-q, Hawaii 43–*Stenogyne cranwelliae*-q



(202) Hawaii 43–*Schiedea diffusa* ssp. *macraei*-q (5,872 ac; 2,376 ha). See paragraph (k)(201)(ii) of this section for the map of this unit.

(203) Hawaii 43–*Stenogyne cranwelliae*-q (5,872 ac; 2,376 ha). See paragraph (k)(201)(ii) of this section for the map of this unit.

(204) Hawaii 44–*Cyanea tritomantha*-h (5,884 ac; 2,381 ha).

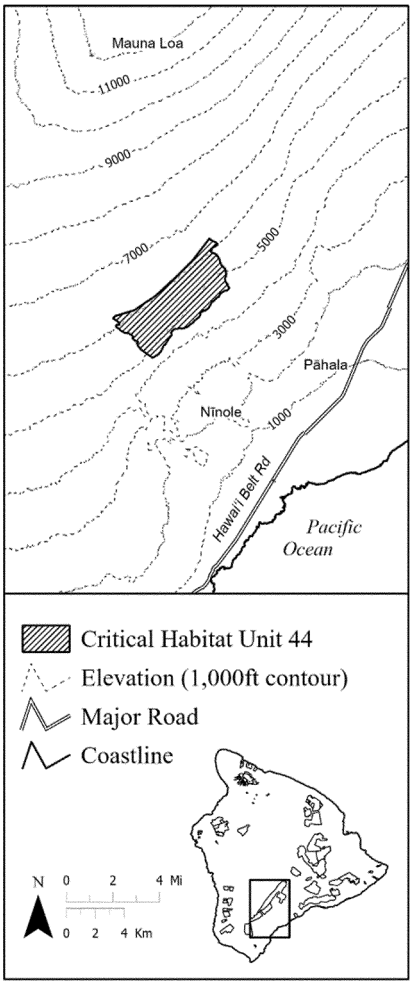
(i) This unit is also critical habitat for Hawaii 44–*Pittosporum hawaiiense*-s, Hawaii 44–*Schiedea diffusa* ssp. *macraei*-r, and Hawaii 44–*Stenogyne cranwelliae*-r (see paragraphs (k)(205), (k)(206), and (k)(207), respectively, of this section).

(ii) Map 113 follows:

Figure 121 to paragraph (k)

Map 113

Hawaii 44–*Cyanea tritomantha*-h, Hawaii 44–*Pittosporum hawaiiense*-s, Hawaii 44–*Schiedea diffusa* ssp. *macraei*-r, Hawaii 44–*Stenogyne cranwelliae*-r



(205) Hawaii 44–*Pittosporum hawaiiense*-s (5,884 ac; 2,381 ha). See paragraph (k)(204)(ii) of this section for the map of this unit.

(206) Hawaii 44–*Schiedea diffusa* ssp. *macraei*-r (5,884 ac; 2,381 ha). See paragraph (k)(204)(ii) of this section for the map of this unit.

(207) Hawaii 44–*Stenogyne cranwelliae*-r (5,884 ac; 2,381 ha). See paragraph (k)(204)(ii) of this section for the map of this unit.

(208) Hawaii 45–*Phyllostegia floribunda*-q (5,494 ac; 2,223 ha).

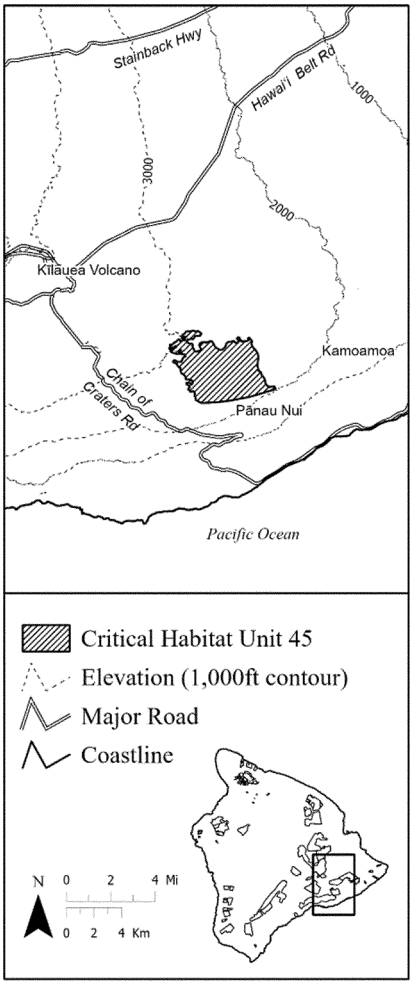
(i) This unit is also critical habitat for Hawaii 45–*Pittosporum hawaiiense*-t (see paragraph (k)(209) of this section).

(ii) Map 114 follows:

Figure 122 to paragraph (k)

Map 114

Hawaii 45–*Phyllostegia floribunda*-q, Hawaii 45–*Pittosporum hawaiiense*-t



(209) Hawaii 45–*Pittosporum hawaiiense*-t (5,494 ac; 2,223 ha). See paragraph (k)(208)(ii) of this section for the map of this unit.

(210) Hawaii 46–*Cyrtandra nanawaleensis*-b (12,219 ac; 4,945 ha)

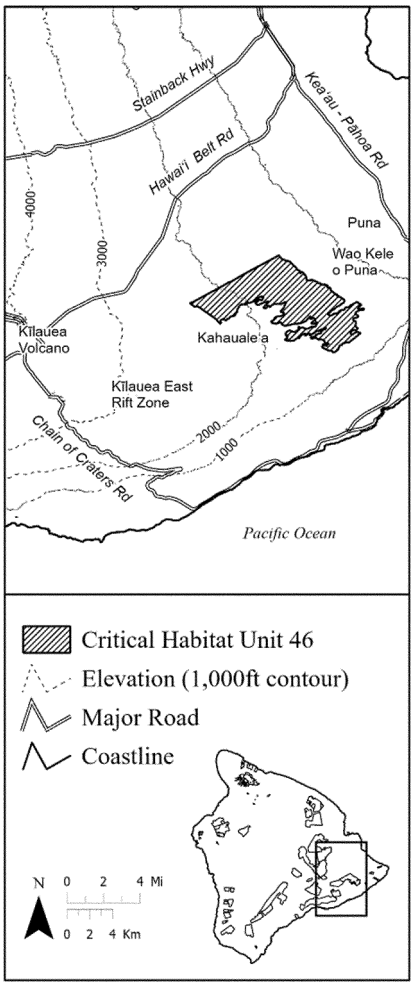
(i) This unit is also critical habitat for Hawaii 46–*Phyllostegia floribunda*-r (see paragraph (k)(211) of this section).

(ii) Map 115 follows:

Figure 123 to paragraph (k)

Map 115

Hawaii 46–*Cyrtandra nanawaleensis*-b, Hawaii 46–*Phyllostegia floribunda*-r



(211) Hawaii 46–*Phyllostegia floribunda*-r (12,219 ac; 4,945 ha). See paragraph (k)(210)(ii) of this section for the map of this unit.

(212) Hawaii 47–*Cyrtandra nanawaleensis*-c (274 ac; 111 ha)

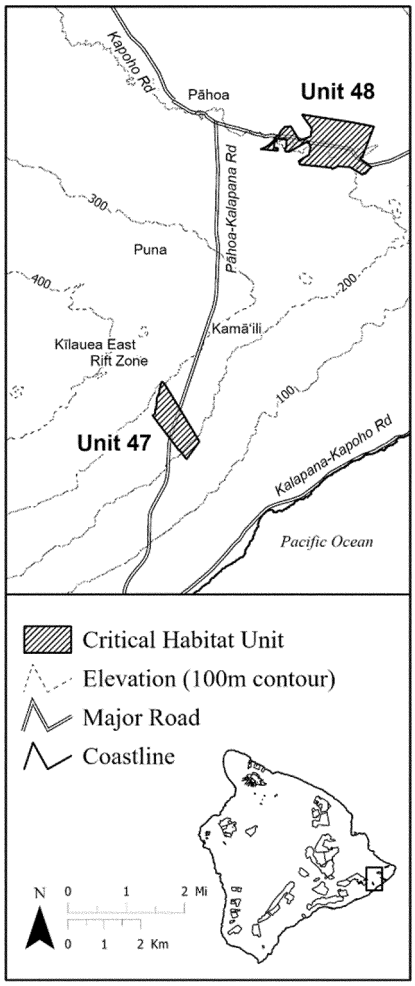
(i) [Reserved].

(ii) Map 116 follows:

Figure 124 to paragraph (k)

Map 116

Hawaii 47–*Cyrtandra nanawaleensis*-c, Hawaii 48–*Cyrtandra nanawaleensis*-d



(213) Hawaii 48–*Cyrtandra nanawaleensis*-d (589 ac; 238 ha). See paragraph (k)(212)(ii) of this section for the map of this unit.

(214) Hawaii 49–*Cyrtandra nanawaleensis*-e (875 ac; 354 ha)

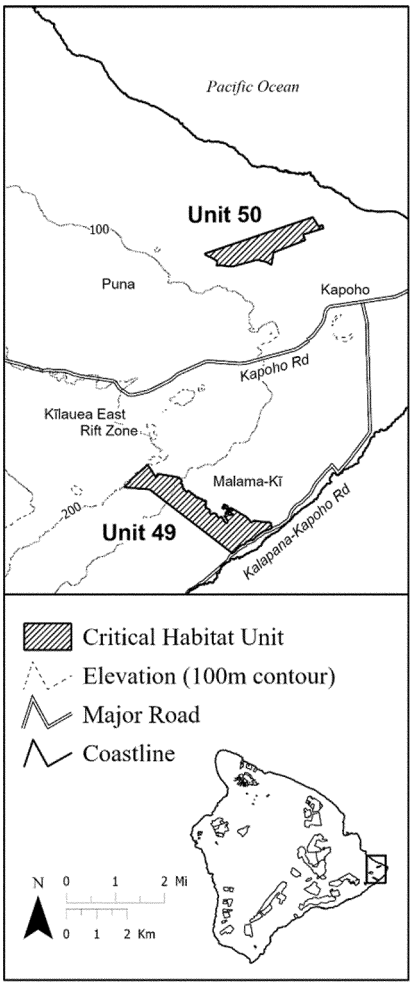
(i) [Reserved].

(ii) Map 117 follows:

Figure 125 to paragraph (k)

Map 117

Hawaii 49–*Cyrtandra nanawaleensis*-e, Hawaii 50–*Cyrtandra nanawaleensis*-f



(215) Hawaii 50–*Cyrtandra nanawaleensis*-f (562 ac; 227 ha). See paragraph (k)(214)(ii) of this section for the map of this unit.

(216) Hawaii 51–*Cyanea tritomantha*-i (17,774 ac; 7,193 ha).

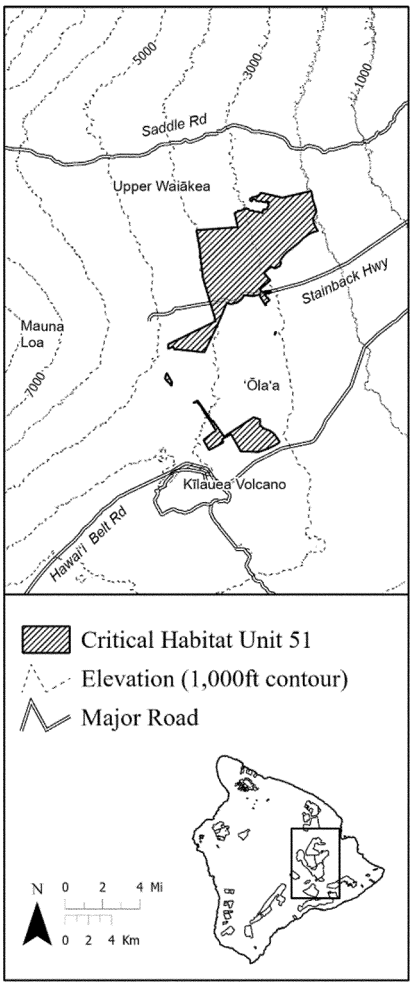
(i) This unit is also critical habitat for Hawaii 51–*Phyllostegia floribunda*-s, Hawaii 51–*Pittosporum hawaiiense*-u, Hawaii 51–*Schiedea diffusa* ssp. *macraei*-s, and Hawaii 51–*Stenogyne cranwelliae*-s (see paragraphs (k)(217), (k)(218), (k)(219), and (k)(220), respectively, of this section).

(ii) Map 118 follows:

Figure 126 to paragraph (k)

Map 118

Hawaii 51–*Cyanea tritomantha*-i, Hawaii 51–*Phyllostegia floribunda*-s, Hawaii 51–*Pittosporum hawaiiense*-u, Hawaii 51–*Schiedea diffusa* ssp. *macraei*-s, Hawaii 51–*Stenogyne cranwelliae*-s



(217) Hawaii 51–*Phyllostegia floribunda*-s (17,774 ac; 7,193 ha). See paragraph (k)(216)(ii) of this section for the map of this unit.

(218) Hawaii 51–*Pittosporum hawaiiense*-u (17,774 ac; 7,193 ha). See paragraph (k)(216)(ii) of this section for the map of this unit.

(219) Hawaii 51–*Schiedea diffusa* ssp. *macraei*-s (17,774 ac; 7,193 ha). See paragraph (k)(216)(ii) of this section for the map of this unit.

(220) Hawaii 51–*Stenogyne cranwelliae*-s (17,774 ac; 7,193 ha). See paragraph (k)(216)(ii) of this section for the map of this unit.

(221) Hawaii 52–*Cyanea tritomantha*-j (3,656 ac; 1,479 ha).

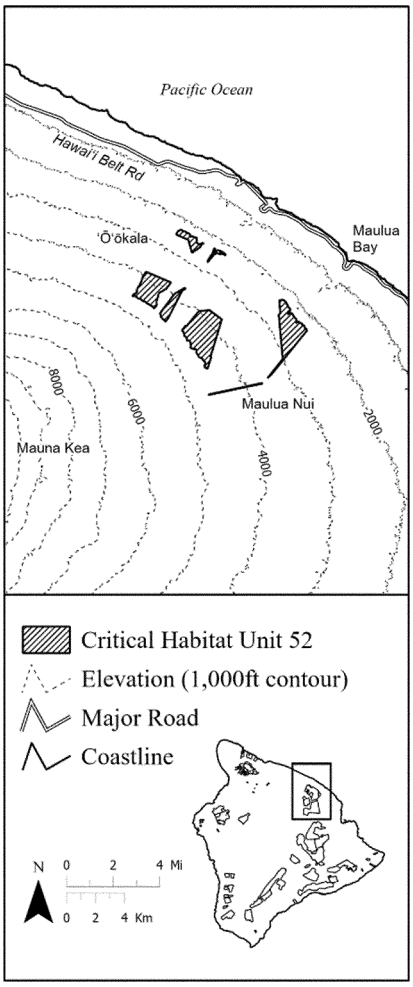
(i) This unit is also critical habitat for Hawaii 52–*Cyrtandra wagneri*-b, Hawaii 52–*Melicope remyi*-d, Hawaii 52–*Phyllostegia floribunda*-t, Hawaii 52–*Pittosporum hawaiiense*-v, Hawaii 52–*Schiedea diffusa* ssp. *macraei*-t, and Hawaii 52–*Stenogyne cranwelliae*-t (see paragraphs (k)(222), (k)(223), (k)(224), (k)(225), (k)(226), and (k)(227), respectively, of this section).

(ii) Map 119 follows:

Figure 127 to paragraph (k)

Map 119

Hawaii 52–*Cyanea tritomantha*-j, Hawaii 52–*Cyrtandra wagneri*-b, Hawaii 52–*Melicope remyi*-d, Hawaii 52–*Phyllostegia floribunda*-t, Hawaii 52–*Pittosporum hawaiiense*-v, Hawaii 52–*Schiedea diffusa* ssp. *macraei*-t, Hawaii 52–*Stenogyne cranwelliae*-t



(222) Hawaii 52–*Cyrtandra wagneri*-b (3,656 ac; 1,479 ha). See paragraph (k)(221)(ii) of this section for the map of this unit.

(223) Hawaii 52–*Melicope remyi*-d (3,656 ac; 1,479 ha). See paragraph (k)(221)(ii) of this section for the map of this unit.

(224) Hawaii 52–*Phyllostegia floribunda*-t (3,656 ac; 1,479 ha). See paragraph (k)(221)(ii) of this section for the map of this unit.

(225) Hawaii 52–*Pittosporum hawaiiense*-v (3,656 ac; 1,479 ha). See paragraph (k)(221)(ii) of this section for the map of this unit.

(226) Hawaii 52–*Schiedea diffusa* ssp. *macraei*-t (3,656 ac; 1,479 ha). See paragraph (k)(221)(ii) of this section for the map of this unit.

(227) Hawaii 52–*Stenogyne cranwelliae*-t (3,656 ac; 1,479 ha). See paragraph (k)(221)(ii) of this section for the map of this unit.

(228) Hawaii 53–*Bidens hillebrandiana* ssp. *hillebrandiana*-b (154 ac; 62 ha)

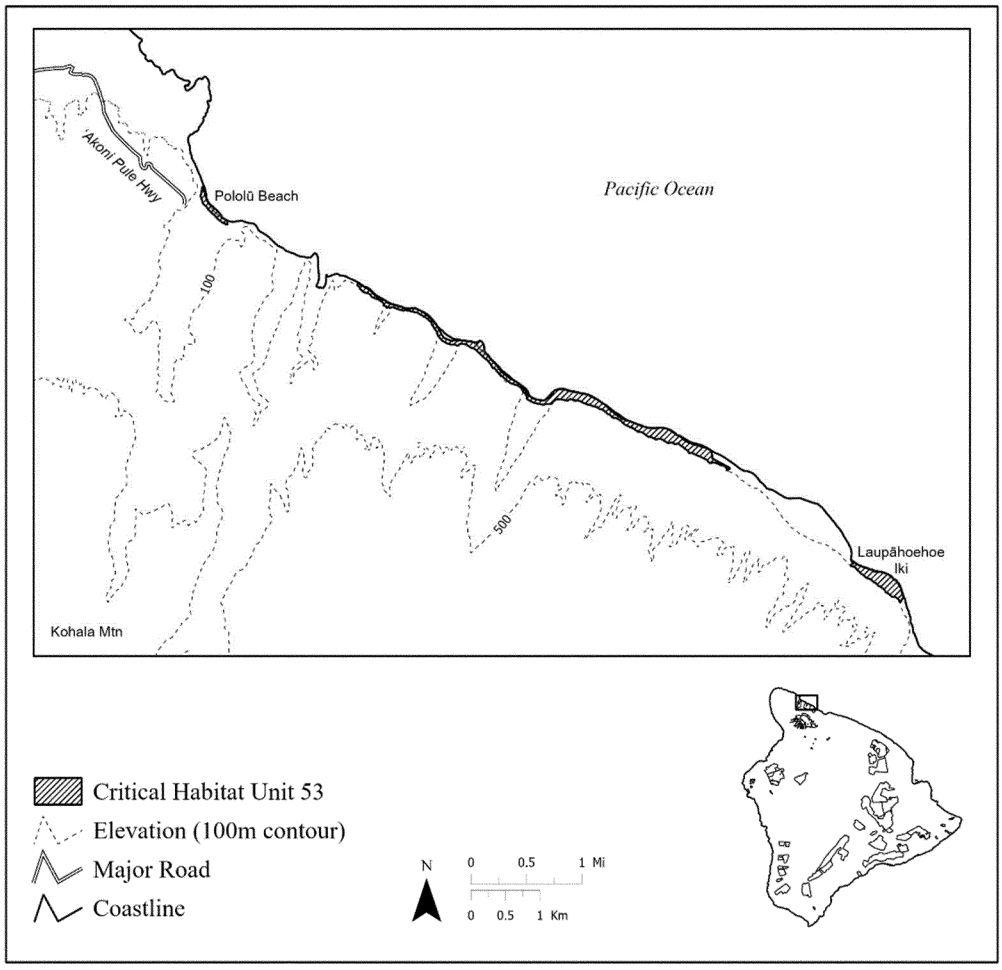
(i) [Reserved].

(ii) Map 120 follows:

Figure 128 to paragraph (k)

Map 120

Hawaii 53–*Bidens hillebrandiana* ssp. *hillebrandiana*-b


'Akoni Pule Hwy
Pololū Beach
Pacific Ocean
100
500
Laupāhoehoe Iki
Kohala Mtn
Critical Habitat Unit 53
Elevation (100m contour)
Major Road
Coastline
N
0 0.5 1 Mi
0 0.5 1 Km

(229) Hawaii 54–*Cyanea tritomantha*-k (5,945 ac; 2,406 ha).

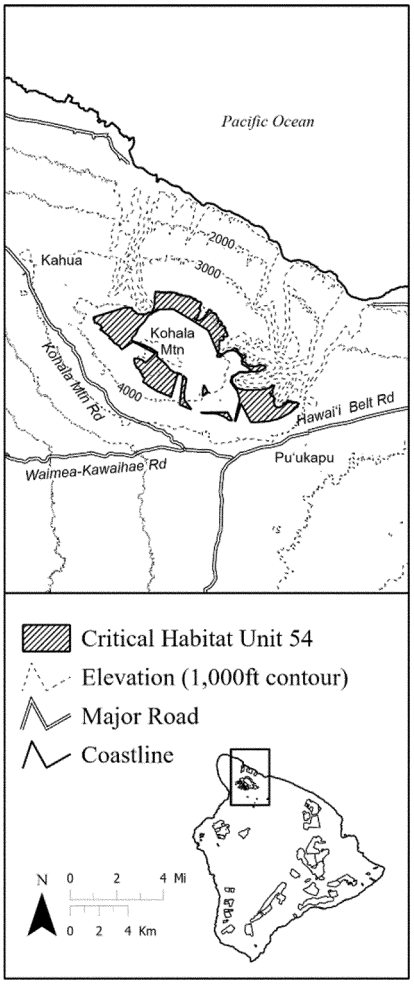
(i) This unit is also critical habitat for Hawaii 54–*Melicope remyi*-e, Hawaii 54–*Phyllostegia floribunda*-u, Hawaii 54–*Pittosporum hawaiiense*-w, Hawaii 54–*Schiedea diffusa* ssp. *macraei*-u, and Hawaii 54–*Stenogyne cranwelliae*-u (see paragraphs (k)(230), (k)(231), (k)(232), (k)(233), and (k)(234), respectively, of this section).

(ii) Map 121 follows:

Figure 129 to paragraph (k)

Map 121

Hawaii 54–*Cyanea tritomantha*-k, Hawaii 54–*Melicope remyi*-e, Hawaii 54–*Phyllostegia floribunda*-u, Hawaii 54–*Pittosporum hawaiiense*-w, Hawaii 54–*Schiedea diffusa* ssp. *macraei*-u, Hawaii 54–*Stenogyne cranwelliae*-u



(230) Hawaii 54–*Melicope remyi*-e (5,945 ac; 2,406 ha). See paragraph (k)(229)(ii) of this section for the map of this unit.

(231) Hawaii 54–*Phyllostegia floribunda*-u (5,945 ac; 2,406 ha). See paragraph (k)(229)(ii) of this section for the map of this unit.

(232) Hawaii 54–*Pittosporum hawaiiense*-w (5,945 ac; 2,406 ha). See paragraph (k)(229)(ii) of this section for the map of this unit.

(233) Hawaii 54–*Schiedea diffusa* ssp. *macraei*-u (5,945 ac; 2,406 ha). See paragraph (k)(229)(ii) of this section for the map of this unit.

(234) Hawaii 54–*Stenogyne cranwelliae*-u (5,945 ac; 2,406 ha). See paragraph (k)(229)(ii) of this section for the map of this unit.

(235) Hawaii 55–*Schiedea hawaiiensis*-a (6,822 ac; 2,761 ha)

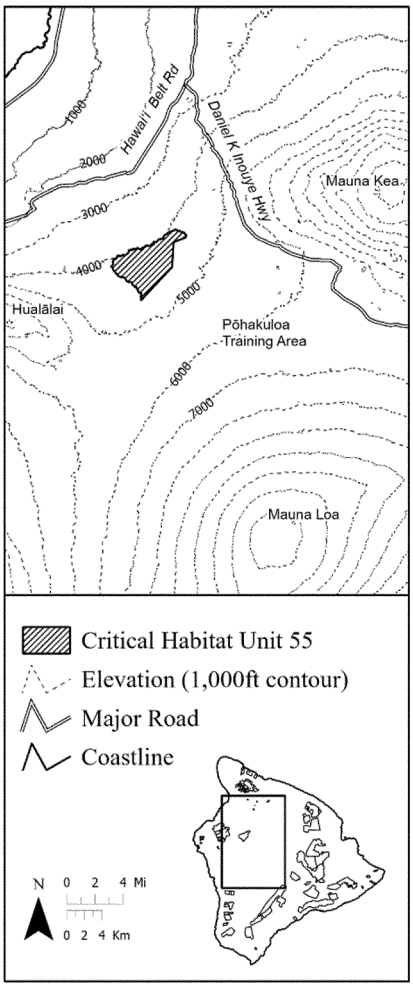
(i) [Reserved].

(ii) Map 122 follows:

Figure 130 to paragraph (k)

Map 122

Hawaii 55–*Schiedea hawaiiensis*-a



(236) Hawaii 56–*Cyanea marksii*-i (224 ac; 91 ha)

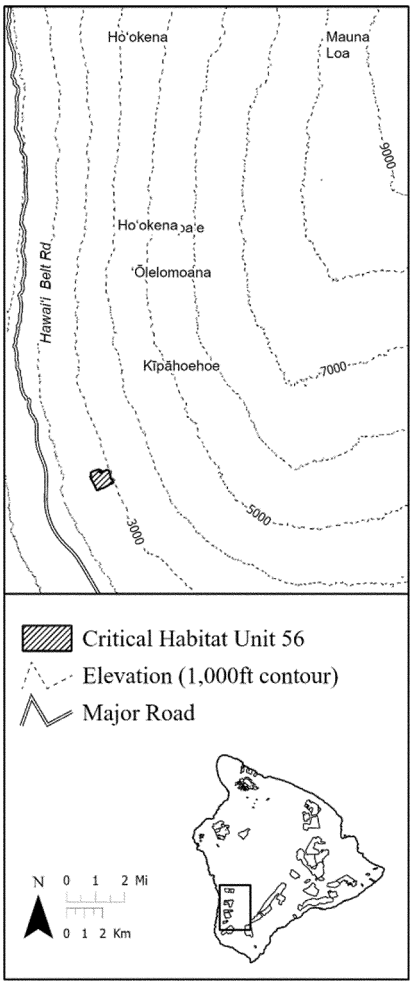
(i) This unit is also critical habitat for Hawaii 56–*Schiedea diffusa* ssp. *macraei*-v (see paragraph (k)(237) of this section).

(ii) Map 123 follows:

Figure 131 to paragraph (k)

Map 123

Hawaii 56–*Cyanea marksii*-i, Hawaii 56–*Schiedea diffusa* ssp. *macraei*-v



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(237) Hawaii 56–*Schiedea diffusa* ssp. *macraei*-v (224 ac; 91 ha). See paragraph (k)(236)(ii) of this section for the map of this unit.

(238) Table of Listed 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*.

Unit name	Species occupied	Species unoccupied
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—*Cyanea tritomantha*-a	*Cyanea tritomantha*	*Cyanea tritomantha*.
Hawaii 3—*Cyrtandra giffardii*-a	*Cyrtandra giffardii*	*Cyrtandra giffardii*.
Hawaii 3—*Cyrtandra tintinnabula*-a	*Cyrtandra tintinnabula*	*Cyrtandra tintinnabula*.
Hawaii 3—*Cyrtandra wagneri*-a	*Cyrtandra wagneri*	*Cyrtandra wagneri*.
Hawaii 3—*Melicope remyi*-a	*Melicope remyi*	*Melicope remyi*.
Hawaii 3—*Phyllostegia floribunda*-a	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 3—*Phyllostegia warshaueri*-a	*Phyllostegia warshaueri*	*Phyllostegia warshaueri*.
Hawaii 3—*Pittosporum hawaiiense*-a		*Pittosporum hawaiiense*.
Hawaii 3—*Schiedea diffusa* ssp. *macraei*-a		*Schiedea diffusa* ssp. *macraei*.
Hawaii 3—*Stenogyne cranwelliae*-a	*Stenogyne cranwelliae*	*Stenogyne cranwelliae*.
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-wahuensi*..
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—*Bidens hillebrandiana* ssp. *hillebrandiana*-a.	*Bidens hillebrandiana* ssp. *hillebrandiana*	*Bidens hillebrandiana* ssp. *hillebrandiana*.
Hawaii 6—*Nothocestrum breviflorum*-b	*Nothocestrum breviflorum*	*Nothocestrum breviflorum*.
Hawaii 7—*Dracaena konaensis*-a	*Dracaena konaensis*	*Dracaena konaensis*.
Hawaii 8—*Clermontia drepanomorpha*-a	*Clermontia drepanomorpha*	*Clermontia drepanomorpha*.
Hawaii 8—*Cyanea tritomantha*-b	*Cyanea tritomantha*	*Cyanea tritomantha*.
Hawaii 8—*Melicope remyi*-b		*Melicope remyi*.
Hawaii 8—*Phyllostegia floribunda*-b		*Phyllostegia floribunda*.
Hawaii 8—*Phyllostegia warshaueri*-b	*Phyllostegia warshaueri*	*Phyllostegia warshaueri*.
Hawaii 8—*Pittosporum hawaiiense*-b	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 8—*Schiedea diffusa* ssp. *macraei*-b	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei*.
Hawaii 8—*Stenogyne cranwelliae*-b	*Stenogyne cranwelliae*	*Stenogyne cranwelliae*.
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 9—*Cyanea tritomantha*-c	*Cyanea tritomantha*	*Cyanea tritomantha*.
Hawaii 9—*Melicope remyi*-c		*Melicope remyi*.
Hawaii 9—*Phyllostegia floribunda*-c		*Phyllostegia floribunda*.
Hawaii 9—*Pittosporum hawaiiense*-c	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 9—*Schiedea diffusa* ssp. *macraei*-c	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei*.
Hawaii 9—*Stenogyne cranwelliae*-c	*Stenogyne cranwelliae*	*Stenogyne cranwelliae*.
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—*Dracaena konaensis*-b	*Dracaena konaensis*	*Dracaena konaensis*.
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—*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*.

Unit name	Species occupied	Species unoccupied
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 marksii*-a Section 4	*Cyanea marksii*	*Cyanea marksii*.
Hawaii 15—*Cyanea marksii*-b—Section 5	*Cyanea marksii*	*Cyanea marksii*.
Hawaii 15—*Cyanea stictophylla*-a	*Cyanea stictophylla*	*Cyanea stictophylla*.
Hawaii 15—*Phyllostegia floribunda*-d—Section 4.	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 15—*Phyllostegia floribunda*-e—Section 5.		*Phyllostegia floribunda*.
Hawaii 15—*Pittosporum hawaiiense*-d—Section 4.	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 15—*Pittosporum hawaiiense*-e—Section 5.		*Pittosporum hawaiiense*.
Hawaii 15—*Schiedea diffusa* ssp. *macraei*-d—Section 4.		*Schiedea diffusa* ssp. *macraei*.
Hawaii 15—*Schiedea diffusa* ssp. *macraei*-e—Section 5.		*Schiedea diffusa* ssp. *macraei*.
Hawaii 15—*Stenogyne cranwelliae*-d—Section 4.		*Stenogyne cranwelliae*.
Hawaii 15—*Stenogyne cranwelliae*-e—Section 5.		*Stenogyne cranwelliae*.
Hawaii 16—*Cyanea hamatiflora* ssp. *carlsonii*-d	*Cyanea hamatiflora* ssp. *carlsonii*	*Cyanea hamatiflora* ssp. *carlsonii*.
Hawaii 16—*Cyanea marksii*-c	*Cyanea marksii*	*Cyanea marksii*.
Hawaii 16—*Cyanea stictophylla*-b	*Cyanea stictophylla*	*Cyanea stictophylla*.
Hawaii 16—*Phyllostegia floribunda*-f	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 16—*Pittosporum hawaiiense*-f		*Pittosporum hawaiiense*.
Hawaii 16—*Schiedea diffusa* ssp. *macraei*-f		*Schiedea diffusa* ssp. *macraei*.
Hawaii 16—*Stenogyne cranwelliae*-f		*Stenogyne cranwelliae*.
Hawaii 17—*Asplenium dielerectum*-a	*Asplenium dielerectum*	*Asplenium dielerectum*.
Hawaii 17—*Flueggea neowawraea*-a	*Flueggea neowawraea*	*Flueggea neowawraea*.
Hawaii 18—*Asplenium dielerectum*-b	*Asplenium dielerectum*	*Asplenium dielerectum*.
Hawaii 18—*Colubrina oppositifolia*-b	*Colubrina oppositifolia*	*Colubrina oppositifolia*.
Hawaii 18—*Dracaena konaensis*-c	*Dracaena konaensis*	*Dracaena konaensis*.
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 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—*Dracaena konaensis*-d	*Dracaena konaensis*	*Dracaena konaensis*.
Hawaii 23—*Phyllostegia floribunda*-g	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 23—*Pittosporum hawaiiense*-g	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
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—*Cyanea tritomantha*-d—Section 8	*Cyanea tritomantha*	*Cyanea tritomantha*.
Hawaii 24—*Melicope zahlbruckneri*-a		*Melicope zahlbruckneri*.
Hawaii 24—*Phyllostegia velutina*-a	*Phyllostegia velutina*	*Phyllostegia velutina*.
Hawaii 24—*Pittosporum hawaiiense*-h—Section 8.	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 24—*Pittosporum hawaiiense*-i—Section 9.	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 24—*Plantago hawaiensis*-a	*Plantago hawaiensis*	*Plantago hawaiensis*.
Hawaii 24—*Schiedea diffusa* ssp. *macraei*-g—Section 8.	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei*.
Hawaii 24—*Schiedea diffusa* ssp. *macraei*-h—Section 9.	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei*.
Hawaii 24—*Stenogyne cranwelliae*-g—Section 8.		*Stenogyne cranwelliae*.
Hawaii 24—*Stenogyne cranwelliae*-h—Section 9.		*Stenogyne cranwelliae*.
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 28—*Cyrtandra nanawaleensis*-a	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis*.
Hawaii 28—*Phyllostegia floribunda*-h	*Phyllostegia floribunda*	*Phyllostegia floribunda*.

Unit name	Species occupied	Species unoccupied
Hawaii 29—*Clermontia peleana*-c	*Clermontia peleana*	*Clermontia peleana*.
Hawaii 29—*Cyanea platyphylla*-b	*Cyanea platyphylla*	*Cyanea platyphylla*.
Hawaii 29—*Cyanea tritomantha*-e	*Cyanea tritomantha*	*Cyanea tritomantha*.
Hawaii 29—*Cyrtandra giffardii*-b		*Cyrtandra giffardii*.
Hawaii 29—*Cyrtandra tintinnabula*-b		*Cyrtandra tintinnabula*.
Hawaii 29—*Phyllostegia floribunda*-i	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 29—*Pittosporum hawaiiense*-j	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 29—*Schiedea diffusa* ssp. *macraei*-i	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei*.
Hawaii 29—*Stenogyne cranwelliae*-i		*Stenogyne cranwelliae*.
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—*Cyanea tritomantha*-f	*Cyanea tritomantha*	*Cyanea tritomantha*.
Hawaii 30—*Cyrtandra giffardii*-c	*Cyrtandra giffardii*	*Cyrtandra giffardii*.
Hawaii 30—*Phyllostegia floribunda*-j	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 30—*Phyllostegia racemosa*-c		*Phyllostegia racemosa*.
Hawaii 30—*Phyllostegia velutina*-b	*Phyllostegia velutina*	*Phyllostegia velutina*.
Hawaii 30—*Pittosporum hawaiiense*-k	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 30—*Plantago hawaiensis*-c	*Plantago hawaiensis*	*Plantago hawaiensis*.
Hawaii 30—*Schiedea diffusa* ssp. *macraei*-j	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei*.
Hawaii 30—*Sicyos alba*-a	*Sicyos alba*	*Sicyos alba*.
Hawaii 30—*Stenogyne cranwelliae*-j		*Stenogyne cranwelliae*.
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*.
Hawaii 37—*Cyanea marksii*-d	*Cyanea marksii*	*Cyanea marksii*.
Hawaii 37—*Phyllostegia floribunda*-k		*Phyllostegia floribunda*.
Hawaii 37—*Pittosporum hawaiiense*-l		*Pittosporum hawaiiense*.
Hawaii 37—*Schiedea diffusa* ssp. *macraei*-k		*Schiedea diffusa* ssp. *macraei*.
Hawaii 37—*Stenogyne cranwelliae*-k		*Stenogyne cranwelliae*.
Hawaii 38—*Cyanea marksii*-e	*Cyanea marksii*	*Cyanea marksii*.
Hawaii 38—*Phyllostegia floribunda*-l		*Phyllostegia floribunda*.
Hawaii 38—*Pittosporum hawaiiense*-m		*Pittosporum hawaiiense*.
Hawaii 38—*Schiedea diffusa* ssp. *macraei*-l		*Schiedea diffusa* ssp. *macraei*.
Hawaii 38—*Stenogyne cranwelliae*-l		*Stenogyne cranwelliae*.
Hawaii 39—*Cyanea marksii*-f	*Cyanea marksii*	*Cyanea marksii*.
Hawaii 39—*Phyllostegia floribunda*-m	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 39—*Pittosporum hawaiiense*-n	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 39—*Schiedea diffusa* ssp. *macraei*-m		*Schiedea diffusa* ssp. *macrae*.
Hawaii 39—*Stenogyne cranwelliae*-m		*Stenogyne cranwelliae*.
Hawaii 40—*Cyanea marksii*-g	*Cyanea marksii*	*Cyanea marksii*.
Hawaii 40—*Phyllostegia floribunda*-n	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 40—*Pittosporum hawaiiense*-o		*Pittosporum hawaiiense*.
Hawaii 40—*Schiedea diffusa* ssp. *macraei*-n		*Schiedea diffusa* ssp. *macraei*.
Hawaii 40—*Stenogyne cranwelliae*-n		*Stenogyne cranwelliae*.
Hawaii 41—*Cyanea marksii*-h	*Cyanea marksii*	*Cyanea marksii*.
Hawaii 41—*Phyllostegia floribunda*-o	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 41—*Pittosporum hawaiiense*-p	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 41—*Schiedea diffusa* ssp. *macraei*-o		*Schiedea diffusa* ssp. *macraei*.
Hawaii 41—*Stenogyne cranwelliae*-o		*Stenogyne cranwelliae*.
Hawaii 42—*Cyanea tritomantha*-g		*Cyanea tritomantha*.
Hawaii 42—*Phyllostegia floribunda*-p		*Phyllostegia floribunda*.
Hawaii 42—*Pittosporum hawaiiense*-q	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 42—*Schiedea diffusa* ssp. *macraei*-p	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macrae*..
Hawaii 42—*Stenogyne cranwelliae*-p		*Stenogyne cranwelliae*.
Hawaii 43—*Pittosporum hawaiiense*-r	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 43—*Schiedea diffusa* ssp. *macraei*-q	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macrae*..
Hawaii 43—*Stenogyne cranwelliae*-q		*Stenogyne cranwelliae*.
Hawaii 44—*Cyanea tritomantha*-h	*Cyanea tritomantha*	*Cyanea tritomantha*.
Hawaii 44—*Pittosporum hawaiiense*-s	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.

Unit name	Species occupied	Species unoccupied
Hawaii 44—*Schiedea diffusa* ssp. *macraei*-r	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei*.
Hawaii 44—*Stenogyne cranwelliae*-r		*Stenogyne cranwelliae*.
Hawaii 45—*Phyllostegia floribunda*-q	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 45—*Pittosporum hawaiiense*-t	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 46—*Cyrtandra nanawaleensis*-b	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis*.
Hawaii 46—*Phyllostegia floribunda*-r	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 47—*Cyrtandra nanawaleensis*-c	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis*.
Hawaii 48—*Cyrtandra nanawaleensis*-d	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis*.
Hawaii 49—*Cyrtandra nanawaleensis*-e	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis*.
Hawaii 50—*Cyrtandra nanawaleensis*-f	*Cyrtandra nanawaleensis*	*Cyrtandra nanawaleensis*..
Hawaii 51—*Cyanea tritomantha*-i	*Cyanea tritomantha*	*Cyanea tritomantha*.
Hawaii 51—*Phyllostegia floribunda*-s	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 51—*Pittosporum hawaiiense*-u	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 51—*Schiedea diffusa* ssp. *macraei*-s	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei*.
Hawaii 51—*Stenogyne cranwelliae*-s		*Stenogyne cranwelliae*.
Hawaii 52—*Cyanea tritomantha*-j	*Cyanea tritomantha*	*Cyanea tritomantha*.
Hawaii 52—*Cyrtandra wagneri*-b	*Cyrtandra wagneri*	*Cyrtandra wagneri*.
Hawaii 52—*Melicope remyi*-d	*Melicope remyi*	*Melicope remyi*.
Hawaii 52—*Phyllostegia floribunda*-t	*Phyllostegia floribunda*	*Phyllostegia floribunda*.
Hawaii 52—*Pittosporum hawaiiense*-v		*Pittosporum hawaiiense*.
Hawaii 52—*Schiedea diffusa* ssp. *macraei*-t		*Schiedea diffusa* ssp. *macraei*.
Hawaii 52—*Stenogyne cranwelliae*-t	*Stenogyne cranwelliae*	*Stenogyne cranwelliae*.
Hawaii 53—*Bidens hillebrandiana* ssp. *hillebrandiana*-b.	*Bidens hillebrandiana* ssp. *hillebrandiana*	*Bidens hillebrandiana* ssp. *hillebrandiana*.
Hawaii 54—*Cyanea tritomantha*-k	*Cyanea tritomantha*	*Cyanea tritomantha*.
Hawaii 54—*Melicope remyi*-e		*Melicope remyi*.
Hawaii 54—*Phyllostegia floribunda*-u		*Phyllostegia floribunda*.
Hawaii 54—*Pittosporum hawaiiense*-w	*Pittosporum hawaiiense*	*Pittosporum hawaiiense*.
Hawaii 54—*Schiedea diffusa* ssp. *macraei*-u	*Schiedea diffusa* ssp. *macraei*	*Schiedea diffusa* ssp. *macraei*.
Hawaii 54—*Stenogyne cranwelliae*-u	*Stenogyne cranwelliae*	*Stenogyne cranwelliae*.
Hawaii 55—*Schiedea hawaiiensis*-a		*Schiedea hawaiiensis*.
Hawaii 56—*Cyanea marksii*-i		*Cyanea marksii*.
Hawaii 56—*Schiedea diffusa* ssp. *macraei*-v		*Schiedea diffusa* ssp. *macraei*

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(1) Plants on the island of Hawaii; Constituent elements.—(1) Flowering plants.

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Family Asteraceae: Bidens hillebrandiana ssp. hillebrandiana (KOOKOOLAU)

Hawaii 6—*Bidens hillebrandiana* ssp. *hillebrandiana*-a and Hawaii 53—*Bidens hillebrandiana* ssp. *hillebrandiana*-b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Bidens hillebrandiana* ssp. *hillebrandiana* on Hawaii Island. In units Hawaii 6—*Bidens hillebrandiana* ssp. *hillebrandiana*-a and Hawaii 53—*Bidens hillebrandiana* ssp. *hillebrandiana*-b, the physical and biological features of critical habitat in coastal ecosystem are:

(i) Elevation: Less than 984feet (ft) (300 meters (m)).

(ii) Annual precipitation: Less than 47 inches (in) (120 centimeters (cm)) to greater than 98 in (250 cm).

(iii) Substrate: Well-drained talus, calcareous slopes, dunes.

(iv) Canopy contains one or more of the following native plant genera: *Diospyros, Metrosideros, Myoporum, Pritchardia.*

(v) Subcanopy contains one or more of the following native plant genera: *Chenopodium, Gossypium, Heliotropium, Santalum, Scaevola.*

(vi) Understory contains one or more of the following native plant genera: *Eragrostis, Sesuvium, Sida, Sporobolus.*

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Family Campanulaceae: Cyanea marksii (HAHA)

Hawaii 15—*Cyanea marksii*-a-Section 4, Hawaii 15—*Cyanea marksii*-b-Section 5, Hawaii 16—*Cyanea marksii*-c, Hawaii 37—*Cyanea marksii*-d, Hawaii 38—*Cyanea marksii*-e, Hawaii 39—*Cyanea marksii*-f, Hawaii 40—*Cyanea marksii*-g, Hawaii 41—*Cyanea marksii*-h, and Hawaii 56—*Cyanea marksii*-i, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyanea marksii* on Hawaii Island. In units Hawaii 15—*Cyanea marksii*-a-Section 4, Hawaii 15—*Cyanea marksii*-b-Section 5, Hawaii 16—*Cyanea marksii*-c, Hawaii 37—*Cyanea marksii*-d, Hawaii 38—*Cyanea marksii*-e, Hawaii 39—*Cyanea marksii*-f, Hawaii 40—*Cyanea marksii*-g, Hawaii 41—*Cyanea marksii*-h, and Hawaii 56—*Cyanea marksii*-i, the physical and biological features of critical habitat in wet forest ecosystem are:

(i) Elevation: Less than 7,218 ft (2,200 m).

(ii) Annual precipitation: Greater than 98 in (250 cm).

(iii) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(iv) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(v) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(vi) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

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Family Campanulaceae: Cyanea tritomantha (AKU)

Hawaii 3—*Cyanea tritomantha*-a, Hawaii 8—*Cyanea tritomantha*-b, Hawaii 9—*Cyanea tritomantha*-c, Hawaii 24—*Cyanea tritomantha*-d-Section 8, Hawaii 29—*Cyanea tritomantha*-e, Hawaii 30—*Cyanea tritomantha*-f, Hawaii 42—*Cyanea tritomantha*-g, Hawaii 44—*Cyanea*

tritomantha-h, Hawaii 51—*Cyanea tritomantha*-i, Hawaii 52—*Cyanea tritomantha*-j, and Hawaii 54—*Cyanea tritomantha*-k, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyanea tritomantha* on Hawaii Island.

(i) In units Hawaii 3—*Cyanea tritomantha*-a, Hawaii 24—*Cyanea tritomantha*-d-Section 8, Hawaii 29—*Cyanea tritomantha*-e, Hawaii 30—*Cyanea tritomantha*-f, Hawaii 42—*Cyanea tritomantha*-g, Hawaii 44—*Cyanea tritomantha*-h, Hawaii 51—*Cyanea tritomantha*-i, and Hawaii 52—*Cyanea tritomantha*-j, the physical and biological features of critical habitat in wet forest ecosystem are:

(A) Elevation: Less than 7,218 ft (2,200 m).

(B) Annual precipitation: Greater than 98 in (250 cm).

(C) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

(ii) In units Hawaii 8—*Cyanea tritomantha*-b, Hawaii 9—*Cyanea tritomantha*-c, and Hawaii 54—*Cyanea tritomantha*-k, the physical and biological features of critical habitat in wet forest ecosystem are those provided above in paragraphs (i)(A) through (F) of this entry, and in wet grassland and shrubland ecosystem are:

(A) Elevation: 656 to 2,953 ft (200 to 900 m).

(B) Annual precipitation: 98 to 197 in (250 to 500 cm).

(C) Substrate: Older, weathered soils to younger, rocky substrates.

(D) Canopy contains one or more of the following native plant genera: *Ilex, Kadua, Melicope, Metrosideros, Myrsine.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Dubautia, Freycinetia, Hydrangea, Lobelia, Pipturus, Touchardia, Urera, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Carex, Cladium, Deschampsia, Dicranopteris, Eragrostis, Peperomia, Phyllostegia, Scaevola.*

* * * * *

Family Caryophyllaceae: Schiedea diffusa ssp. macraei (no common name)

Hawaii 3—*Schiedea diffusa* ssp. *macraei*-a, Hawaii 8—*Schiedea diffusa* ssp. *macraei*-b, Hawaii 9—*Schiedea diffusa* ssp. *macraei*-c, Hawaii 15—*Schiedea diffusa* ssp. *macraei*-d-Section 4, Hawaii 15—*Schiedea diffusa* ssp. *macraei*-e-Section 5, Hawaii 16—*Schiedea diffusa* ssp. *macraei*-f, Hawaii 24—*Schiedea diffusa* ssp. *macraei*-g-Section 8, Hawaii 24—*Schiedea diffusa* ssp. *macraei*-h-Section 9, Hawaii 29—*Schiedea diffusa* ssp. *macraei*-i, Hawaii 30—*Schiedea diffusa* ssp. *macraei*-j, Hawaii 37—*Schiedea diffusa* ssp. *macraei*-k, Hawaii 38—*Schiedea diffusa* ssp. *macraei*-l, Hawaii 39—*Schiedea diffusa* ssp. *macraei*-m, Hawaii 40—*Schiedea diffusa* ssp. *macraei*-n, Hawaii 41—*Schiedea diffusa* ssp. *macraei*-o, Hawaii 42—*Schiedea diffusa* ssp. *macraei*-p, Hawaii 43—*Schiedea diffusa* ssp. *macraei*-q, Hawaii 44—*Schiedea diffusa* ssp. *macraei*-r, Hawaii 51—*Schiedea diffusa* ssp. *macraei*-s, Hawaii 52—*Schiedea diffusa* ssp. *macraei*-t, Hawaii 54—*Schiedea diffusa* ssp. *macraei*-u, and Hawaii 56—*Schiedea diffusa* ssp. *macraei*-v, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Schiedea diffusa* ssp. *macraei* on Hawaii Island. In units Hawaii 3—*Schiedea diffusa* ssp. *macraei*-a, Hawaii 8—*Schiedea diffusa* ssp. *macraei*-b, Hawaii 9—*Schiedea diffusa* ssp. *macraei*-c, Hawaii 15—*Schiedea diffusa* ssp. *macraei*-d-Section 4, Hawaii 15—*Schiedea diffusa* ssp. *macraei*-e-Section 5, Hawaii 16—*Schiedea diffusa* ssp. *macraei*-f, Hawaii 24—*Schiedea diffusa* ssp. *macraei*-g-Section 8, Hawaii 24—*Schiedea diffusa* ssp. *macraei*-h-Section 9, Hawaii 29—*Schiedea diffusa* ssp. *macraei*-i, Hawaii 30—*Schiedea diffusa* ssp. *macraei*-j, Hawaii 37—*Schiedea diffusa* ssp. *macraei*-k, Hawaii 38—*Schiedea diffusa* ssp. *macraei*-l, Hawaii 39—*Schiedea diffusa* ssp. *macraei*-m, Hawaii 40—*Schiedea diffusa* ssp. *macraei*-n, Hawaii 41—*Schiedea diffusa* ssp. *macraei*-o, Hawaii 42—*Schiedea diffusa* ssp. *macraei*-p, Hawaii 43—*Schiedea diffusa* ssp. *macraei*-q, Hawaii 44—*Schiedea diffusa* ssp. *macraei*-r, Hawaii 51—*Schiedea diffusa* ssp. *macraei*-s, Hawaii 52—*Schiedea diffusa* ssp. *macraei*-t, Hawaii 54—*Schiedea diffusa* ssp. *macraei*-u, and Hawaii 56—*Schiedea diffusa* ssp. *macraei*-v, the physical and biological features of critical habitat in wet forest ecosystem are:

(i) Elevation: Less than 7,218 ft (2,200 m).

(ii) Annual precipitation: Greater than 98 in (250 cm).

(iii) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(iv) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(v) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(vi) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

* * * * *

Family Caryophyllaceae: Schiedea hawaiiensis (MAOLIOLI)

Hawaii 55—*Schiedea hawaiiensis*-a, identified in the legal descriptions in paragraph (k) of this section, constitutes critical habitat for *Schiedea hawaiiensis* on Hawaii Island. In unit Hawaii 55—*Schiedea hawaiiensis*-a, the physical and biological features of critical habitat in dry forest ecosystem are:

(i) Elevation: Less than 9,500 ft (2,900 m).

(ii) Annual precipitation: Less than 79 in (200 cm).

(iii) Substrate: Well-drained, sandy loams or loams from volcanic ash or cinder; weathered basaltic lava.

(iv) Canopy contains one or more of the following native plant genera: *Acacia, Colubrina, Diospyros, Erythrina, Melicope, Metrosideros, Myoporum, Myrsine, Sophora.*

(v) Subcanopy contains one or more of the following native plant genera: *Achyranthes, Euphorbia, Leptecophylla, Nototrichium.*

(vi) Understory contains one or more of the following native plant genera: *Dodonaea, Doryopteris, Heteropogon, Pellaea.*

* * * * *

Family Gesneriaceae: Cyrtandra nanawaleensis (HAIWALE)

Hawaii 28—*Cyrtandra nanawaleensis*-a, Hawaii 46—*Cyrtandra nanawaleensis*-b, Hawaii 47—*Cyrtandra nanawaleensis*-c, Hawaii 48—*Cyrtandra nanawaleensis*-d, Hawaii 49—*Cyrtandra nanawaleensis*-e, and Hawaii 50—*Cyrtandra nanawaleensis*-f, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyrtandra nanawaleensis* on Hawaii Island.

(i) In units Hawaii 28—*Cyrtandra nanawaleensis*-a, Hawaii 46—*Cyrtandra nanawaleensis*-b, Hawaii 47—*Cyrtandra nanawaleensis*-c, and Hawaii 48—*Cyrtandra nanawaleensis*-d, the physical and biological features of critical habitat in wet forest ecosystem are:

(A) Elevation: Less than 7,218 ft (2,200 m).

(B) Annual precipitation: Greater than 98 in (250 cm).

(C) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

(ii) In units Hawaii 49—*Cyrtandra nanawaleensis*-e and Hawaii 50—*Cyrtandra nanawaleensis*-f, the physical and biological features of critical habitat in wet forest ecosystem are those provided above in paragraphs (i)(A) through (F) of this entry, and in the mesic forest ecosystem and mesic grassland and shrubland ecosystem are:

(A) Elevation: Less than 6,562 ft (2,000 m) in mesic forest ecosystem, and 98 to 7,546ft (30 to 2,300 m) in mesic grassland and shrubland ecosystem.

(B) Annual precipitation: 39 to 150 in (100 to 380 cm) in mesic forest ecosystem, and 39 to 98 in (100 to 250 cm) in mesic grassland and shrubland ecosystem.

(C) Substrate: Rocky, shallow, organic muck soils; rocky talus soils; shallow soils over weathered rock; deep soils over soft weathered rock; and gravelly alluvium in mesic forest ecosystem; and shallow soils that frequently dry with rocky outcrops in mesic grassland and shrubland ecosystem.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Charpentiera, Chrysodracon, Metrosideros, Myrsine, Nestegis, Pisonia, Santalum* in mesic forest ecosystem; and *Coprosma, Metrosideros, Wilkesia* in mesic grassland and shrubland ecosystem.

(E) Subcanopy contains one or more of the following native plant genera: *Coprosma, Freycinetia, Leptecophylla, Myoporum, Pipturus, Rubus, Sadleria, Sophora* in mesic forest ecosystem; and *Dodonaea, Dubautia, Leptecophylla, Osteomeles, Sadleria, Vaccinium* in mesic grassland and shrubland ecosystem.

(F) Understory contains one or more of the following native plant genera: *Ctenitis, Doodia, Dryopteris, Pelea, Sadleria* in mesic forest ecosystem; and *Bidens, Carex, Deschampsia, Dicranopteris, Dryopteris, Eragrostis, Euphorbia, Lipochaeta* in mesic grassland and shrubland ecosystem.

* * * * *

Family Gesneriaceae: Cyrtandra wagneri (HAIWALE)

Hawaii 3—*Cyrtandra wagneri*-a and Hawaii 52—*Cyrtandra wagneri*-b, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Cyrtandra wagneri* on Hawaii Island. In units Hawaii 3—*Cyrtandra wagneri*-a and Hawaii 52—*Cyrtandra wagneri*-b, the physical and biological features of critical habitat in wet forest ecosystem are:

(i) Elevation: Less than 7,218 ft (2,200 m).

(ii) Annual precipitation: Greater than 98 in (250 cm).

(iii) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(iv) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(v) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(vi) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

* * * * *

Family Lamiaceae: Phyllostegia floribunda (no common name)

Hawaii 3—*Phyllostegia floribunda*-a, Hawaii 8—*Phyllostegia floribund*a-b, Hawaii 9—*Phyllostegia floribunda*-c, Hawaii 15—*Phyllostegia floribunda*-d-Section 4, Hawaii 15—*Phyllostegia floribunda*-e-Section 5, Hawaii 16—*Phyllostegia floribunda*-f, Hawaii 23—*Phyllostegia floribunda*-g, Hawaii 28—*Phyllostegia floribunda*-h, Hawaii 29—*Phyllostegia floribunda*-i, Hawaii 30—*Phyllostegia floribunda*-j, Hawaii 37—*Phyllostegia floribunda*-k, Hawaii 38—*Phyllostegia floribunda*-l, Hawaii 39—*Phyllostegia floribunda*-m, Hawaii 40—*Phyllostegia floribunda*-n, Hawaii 41—*Phyllostegia floribunda*-o, Hawaii 42—*Phyllostegia floribunda*-p, Hawaii 45—*Phyllostegia floribunda*-q, Hawaii 46—*Phyllostegia floribunda*-r, Hawaii 51—*Phyllostegia floribunda*-s, Hawaii 52—*Phyllostegia floribunda*-t, and Hawaii 54—*Phyllostegia floribunda*-u, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Phyllostegia floribunda* on Hawaii Island.

(i) In units Hawaii 3—*Phyllostegia floribunda*-a, Hawaii 15—*Phyllostegia floribunda*-d-Section 4, Hawaii 15—*Phyllostegia floribunda*-e-Section 5, Hawaii 16—*Phyllostegia floribunda*-f, Hawaii 29—*Phyllostegia floribunda*-i, Hawaii 30—*Phyllostegia floribunda*-j, Hawaii 37—*Phyllostegia floribunda*-k, Hawaii 38—*Phyllostegia floribunda*-l, Hawaii 39—*Phyllostegia floribunda*-m, Hawaii 40—*Phyllostegia floribunda*-n, Hawaii 41—*Phyllostegia floribunda*-o, Hawaii 51—*Phyllostegia floribunda*-s, and Hawaii 52—*Phyllostegia floribunda*-t, the physical and biological features of critical habitat in wet forest ecosystem are:

(A) Elevation: Less than 7,218 ft (2,200 m).

(B) Annual precipitation: Greater than 98 in (250 cm).

(C) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

(ii) In units Hawaii 8—*Phyllostegia floribund*a-b, Hawaii 9—*Phyllostegia floribunda*-c, Hawaii 23—*Phyllostegia floribunda*-g, Hawaii 28—*Phyllostegia floribunda*-h, Hawaii 45—*Phyllostegia floribunda*-q, Hawaii 46—*Phyllostegia floribunda*-r, and Hawaii 54—*Phyllostegia floribunda*-u, the physical and biological features of critical habitat in wet forest ecosystem are those provided above in paragraphs (i)(A) through (F) of this entry, and in wet grassland and shrubland ecosystem are:

(A) Elevation: 656 to 2,953 ft (200 to 900 m).

(B) Annual precipitation: 98 to 197 in (250 to 500 cm).

(C) Substrate: Older, weathered soils to younger, rocky substrates.

(D) Canopy contains one or more of the following native plant genera: *Ilex, Kadua, Melicope, Metrosideros, Myrsine.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Dubautia, Freycinetia, Hydrangea, Lobelia, Pipturus, Touchardia, Urera, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Carex, Cladium, Deschampsia, Dicranopteris, Eragrostis, Peperomia, Phyllostegia, Scaevola.*

(iii) In unit Hawaii 42—*Phyllostegia floribunda*-p, the physical and biological features of critical habitat in wet forest ecosystem are those provided above in paragraphs (i)(A) through (F) of this entry, and in mesic forest ecosystem are:

(A) Elevation of less than 6,562 ft (2,000 m).

(B) Annual precipitation of 39 to 150 in (100 to 380 cm).

(C) Substrate of rocky, shallow, organic muck soils; rocky talus soils; shallow soils over weathered rock; deep soils over soft weathered rock; or gravelly alluvium.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Charpentiera, Chrysodracon, Metrosideros, Myrsine, Nestegis, Pisonia, Santalum.*

(E) Subcanopy contains one or more of the following native plant genera: *Coprosma, Freycinetia, Leptecophylla, Myoporum, Pipturus, Rubus, Sadleria, Sophora.*

(F) Understory contains one or more of the following native plant genera: *Ctenitis, Doodia, Dryopteris, Pelea, Sadleria.*

* * * * *

Family Lamiaceae: Stenogyne cranwelliae (no common name)

Hawaii 3—*Stenogyne cranwelliae*-a, Hawaii 8—*Stenogyne cranwelliae*-b, Hawaii 9—*Stenogyne cranwelliae*-c, Hawaii 15—*Stenogyne cranwelliae*-d-Section 4, Hawaii 15—*Stenogyne cranwelliae*-e-Section 5, Hawaii 16—*Stenogyne cranwelliae*-f, Hawaii 24—*Stenogyne cranwelliae*-g-Section 8, Hawaii 24—*Stenogyne cranwelliae*-h-Section 9, Hawaii 29—*Stenogyne cranwelliae*-i, Hawaii 30—*Stenogyne cranwelliae*-j, Hawaii 37—*Stenogyne cranwelliae*-k, Hawaii 38—*Stenogyne cranwelliae*-l, Hawaii 39—*Stenogyne cranwelliae*-m, Hawaii 40—*Stenogyne cranwelliae*-n, Hawaii 41—*Stenogyne cranwelliae*-o, Hawaii 42—*Stenogyne cranwelliae*-p, Hawaii 43—*Stenogyne cranwelliae*-q, Hawaii 44—*Stenogyne cranwelliae*-r, Hawaii 51—*Stenogyne cranwelliae*-s, Hawaii 52—*Stenogyne cranwelliae*-t, and Hawaii 54—*Stenogyne cranwelliae*-u, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Stenogyne cranwelliae* on Hawaii Island. In units Hawaii 3—*Stenogyne cranwelliae*-a, Hawaii 8—*Stenogyne cranwelliae*-b, Hawaii 9—*Stenogyne cranwelliae*-c, Hawaii 15—*Stenogyne cranwelliae*-d-Section 4, Hawaii 15—*Stenogyne cranwelliae*-e-Section 5, Hawaii 16—*Stenogyne cranwelliae*-f, Hawaii 24—*Stenogyne cranwelliae*-g-Section 8, Hawaii 24—*Stenogyne cranwelliae*-h-Section 9, Hawaii 29—*Stenogyne cranwelliae*-i, Hawaii 30—*Stenogyne cranwelliae*-j, Hawaii 37—*Stenogyne cranwelliae*-k, Hawaii 38—*Stenogyne cranwelliae*-l, Hawaii 39—*Stenogyne cranwelliae*-m, Hawaii 40—*Stenogyne cranwelliae*-n, Hawaii 41—*Stenogyne cranwelliae*-o, Hawaii 42—*Stenogyne cranwelliae*-p, Hawaii 43—*Stenogyne cranwelliae*-q, Hawaii 44—*Stenogyne cranwelliae*-r, Hawaii 51—*Stenogyne cranwelliae*-s, Hawaii 52—*Stenogyne cranwelliae*-t, and Hawaii 54—*Stenogyne cranwelliae*-u, the physical and biological features of critical habitat in wet forest ecosystem are:

(i) Elevation: Less than 7,218 ft (2,200 m).

(ii) Annual precipitation: Greater than 98 in (250 cm).

(iii) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(iv) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(v) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(vi) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

* * * * *

Family Pittosporaceae: Pittosporum hawaiiense (HOAWA, HAAWA)

Hawaii 3—*Pittosporum hawaiiense*-a, Hawaii 8—*Pittosporum hawaiiense*-b, Hawaii 9—*Pittosporum hawaiiense*-c, Hawaii 15—*Pittosporum hawaiiense*-d-Section 4, Hawaii 15—*Pittosporum hawaiiense*-e-Section 5, Hawaii 16—*Pittosporum hawaiiense*-f, Hawaii 23—*Pittosporum hawaiiense*-g, Hawaii 24—*Pittosporum hawaiiense*-h-Section 8, Hawaii 24—*Pittosporum hawaiiense*-i-Section 9, Hawaii 29—*Pittosporum hawaiiense*-j, Hawaii 30—*Pittosporum hawaiiense*-k, Hawaii 37—*Pittosporum hawaiiense*-l, Hawaii 38—*Pittosporum hawaiiense*-m, Hawaii 39—*Pittosporum hawaiiense*-n, Hawaii 40—*Pittosporum hawaiiense*-o, Hawaii 41—*Pittosporum hawaiiense*-p, Hawaii 42—*Pittosporum hawaiiense*-q, Hawaii 43—*Pittosporum hawaiiense*-r, Hawaii 44—*Pittosporum hawaiiense*-s, Hawaii 45—*Pittosporum hawaiiense*-t, Hawaii 51—*Pittosporum hawaiiense*-u, Hawaii 52—*Pittosporum hawaiiense*-v, and Hawaii 54—*Pittosporum hawaiiense*-w, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Pittosporum hawaiiense* on Hawaii Island.

(i) In units Hawaii 3—*Pittosporum hawaiiense*-a, Hawaii 8—*Pittosporum hawaiiense*-b, Hawaii 9—*Pittosporum hawaiiense*-c, Hawaii 15—*Pittosporum hawaiiense*-d-Section 4, Hawaii 15—*Pittosporum hawaiiense*-e-Section 5, Hawaii 16—*Pittosporum hawaiiense*-f, Hawaii 23—*Pittosporum hawaiiense*-g, Hawaii 29—*Pittosporum hawaiiense*-j, Hawaii 30—*Pittosporum hawaiiense*-k, Hawaii 37—*Pittosporum hawaiiense*-l, Hawaii 38—*Pittosporum hawaiiense*-m, Hawaii 39—*Pittosporum hawaiiense*-n, Hawaii 40—*Pittosporum hawaiiense*-o, Hawaii 41—*Pittosporum hawaiiense*-p, Hawaii 45—*Pittosporum hawaiiense*-t, Hawaii 51—*Pittosporum hawaiiense*-u, Hawaii 52—*Pittosporum hawaiiense*-v, and Hawaii 54—*Pittosporum hawaiiense*-w, the physical and biological features of critical habitat in wet forest ecosystem are:

(A) Elevation: Less than 7,218 ft (2,200 m).

(B) Annual precipitation: Greater than 98 in (250 cm).

(C) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(E) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(F) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

(ii) In units Hawaii 24—*Pittosporum hawaiiense*-h-Section 8, Hawaii 24—*Pittosporum hawaiiense*-i-Section 9, Hawaii 42—*Pittosporum hawaiiense*-q, Hawaii 43—*Pittosporum hawaiiense*-r, and Hawaii 44—*Pittosporum hawaiiense*-s, the physical and

biological features of critical habitat in wet forest ecosystem are those provided above in paragraphs (i)(A) through (F) of this entry, and in mesic forest ecosystem are:

(A) Elevation: Less than 6,562 ft (2,000 m).

(B) Annual precipitation: 39 to 150 in (100 to 380 cm).

(C) Substrate: Rocky, shallow, organic muck soils; rocky talus soils; shallow soils over weathered rock; deep soils over soft weathered rock; gravelly alluvium.

(D) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Charpentiera, Chrysodracon, Metrosideros, Myrsine, Nestegis, Pisonia, Santalum.*

(E) Subcanopy contains one or more of the following native plant genera: *Coprosma, Freycinetia, Leptecophylla, Myoporum, Pipturus, Rubus, Sadleria, Sophora.*

(F) Understory contains one or more of the following native plant genera: *Ctenitis, Doodia, Dryopteris, Pelea, Sadleria.*

* * * * *

Family Rutaceae: Melicope remyi (no common name)

Hawaii 3—*Melicope remyi*-a, Hawaii 8—*Melicope remyi*-b, Hawaii 9—*Melicope remyi*-c, Hawaii 52—*Melicope remyi*-d, and Hawaii 54—*Melicope remyi*-e, identified in the legal descriptions in paragraph (k) of this section, constitute critical habitat for *Melicope remyi* on Hawaii Island. In units Hawaii 3—*Melicope remyi*-a, Hawaii 8—*Melicope remyi*-b, Hawaii 9—*Melicope remyi*-c, Hawaii 52—*Melicope remyi*-d, and Hawaii 54—*Melicope remyi*-e, the physical and biological features of critical habitat in wet forest ecosystem are:

(i) Elevation: Less than 7,218 ft (2,200 m).

(ii) Annual precipitation: Greater than 98 in (250 cm).

(iii) Substrate: Very weathered soils to rocky substrate, basaltic lava, undeveloped soils, developed soils.

(iv) Canopy contains one or more of the following native plant genera: *Acacia, Antidesma, Cheirodendron, Ilex, Melicope, Metrosideros, Myrsine, Pittosporum, Psychotria.*

(v) Subcanopy contains one or more of the following native plant genera: *Cibotium, Clermontia, Coprosma, Cyanea, Freycinetia, Hydrangea, Vaccinium.*

(vi) Understory contains one or more of the following native plant genera: *Adenophorus, Cibotium, Cyrtandra, Dicranopteris, Huperzia, Peperomia, Stenogyne.*

* * * * *

Stephen Guertin,

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

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