

IV. LAND OWNERSHIP AND USES

Ownership

All lands within the legal boundaries of Hawaii Volcanoes National Park are in Federal ownership. Additionally, some adjacent lands are in Federal ownership and under the protective custody of the National Park Service, but are not within the legal boundaries of the park.

The two areas delimited and the one area identified by the 1916 Act — the 34,531-acre Kilauea section (as revised by the 1928 Act), the 17,920-acre Mauna Loa section, and the 46,050-acre connecting strip — are entirely in Federal ownership. The 43,400-acre Kau Desert addition, authorized by the 1922 Act, is likewise in Federal ownership.

Of the two areas proposed as park additions by the 1938 Act, only one, the 5,730-acre Footprint extension, is entirely in Federal ownership. The other, the 49,340-acre Kalapana extension (when subsequently surveyed, its area was reduced by more than 1,100 acres), however, is not entirely in Federal ownership. Current National Park Service land status maps show the total area encompassed by the Kalapana extension to be 48,229 acres, of which 45,419 acres are in Federal ownership and thus in the park and 2,810 acres remain unacquired. As noted, a provision of the 1938 Act prevents these non-Federal lands from being considered to be within the legal boundaries of the park.

Similarly, not all of the lands proposed as additions by the 1951 Secretarial Order are in the park. The Secretary approved the addition of eight tracts in what is now Hawaii Volcanoes National Park encompassing 24,036 acres. National Park Service land status maps show this same area in ten tracts encompassing 24,019 acres. To date, 14,950 acres in five tracts have been acquired. The remaining lands are unacquired and thus not in the park. However, as noted, of the five, one, transferred by Executive Order 1540, even though acquired is not considered to be legally in the park because of the "adjacent or contiguous" proviso of the 1938 Act. This applies also to the other parcel transferred by Executive Order 1540 and subsequently approved by the 1953 Secretarial Order (see Legislative History, Administrative Directives section).

Based on Table A, a total of 207,643 acres of Federal lands are presently within the boundaries of Hawaii Volcanoes National Park. Additionally, there are a total of 9,654 acres of non-contiguous Federal lands which are outside of the park, but under the "protective custody" of the National Park Service. Finally, there are a total of 11,879 acres of non-Federal lands which have been authorized as additions to Hawaii Volcanoes National Park.

There are three major non-park uses presently operating within Hawaii Volcanoes National Park. These uses are described in the following three paragraphs.

HAWAII VOLCANOES NATIONAL PARK - Authorized additions

Kilauea Section

Total area: 34,531 acres

Ownership: Federal

NPS Tracts: 01-107 (28,745 acres)
 01-116 (3,239.10 acres)
 01-117 (2,526.20 acres)
 01-119 (20.60 acres)

Authority: 1916 Act (39 Stat. 432),
 1928 Act (45 Stat. 424), revised boundaries

Mauna Loa Section

Total area: 17,920 acres

Ownership: Federal

NPS Tracts: 01-101 (7,926 acres)
 01-102 (9,994 acres)

Authority: 1916 Act (39 Stat. 432)

Connecting Strip

Total area: 46,050 acres

Ownership: Federal

NPS Tracts: 01-103 (46,050 acres)

Authority: 1916 Act (39 Stat. 432)

Kau Desert

Total area: 43,400 acres

Ownership: Federal

NPS Tracts: 01-109 (40,348 acres)
 01-130 (3,052 acres)

Authority: 1922 Act (42 Stat. 503)

Footprint Extension

Total area: 5,730 acres

Ownership: Federal

NPS Tracts: 01-108 (5,730 acres)

Authority: 1938 Act (52 Stat. 781)

Kalaupapa Extension

Total area: 40,229 acres

Ownership: Federal (45,419 acres), non-Federal (2,810 acres)

NPS Tracts: 01-113 (2,053 acres)
 01-115 (12,190 acres)
 01-121 (367 acres)
 01-122 (10,492 acres)
 01-123 (17,291.03 acres)
 01-124 (2,458 acres)
 01-125 (299 acres)
 01-131 (2,810.32 acres)
 01-132 (268.44 acres) 1/

Authority: 1938 Act (52 Stat. 781)

Ten Tracts Approved by the 1961 Secretarial Order

Total area: 24,019 acres

Ownership: Federal (14,950 acres - 14,594 acres
 within park boundary, 356 acres outside park);
 non-Federal (9,069 acres)

NPS Tracts: 01-104 (356.13 acres) 2/
 01-110 (0,190 acres)
 01-111 (1,990 acres)
 01-112 (62 acres)
 01-114 (6,324 acres) 3/
 01-118 (5,649.88 acres)
 01-127 (1,362.78 acres)
 01-128 (4.00 acres)
 01-129 (39.05 acres) 3/]

Authority: 1938 Act (52 Stat. 781)

Parcel (1961 S. O.):
 E (356.13 acres)
 C (0,190 acres)
 C-1 (1,990 acres)
 C-2 (62 acres)
 F (6,197 acres)*
 B-1 (5,794.88 acres)
 A (1,405.83 acres)

One Tract Approved by the 1963 Secretarial Order

Total area: 9,290 acres

Ownership: Federal

NPS Tracts: 01-104 (9,654.67 acres) Parcel [5 (356.13 acres)
 [6 (9,290.54 acres)

Authority: 1964 Act (78 Stat. 890) 4/

1/ Purchased under authority of the 1978 Act (92 Stat. 3467)

2/ NPS Tract 01-104 encompasses 9,654.67 acres and consists of the two parcels, 5 and 6, transferred by Territorial Executive Order 1540; the 1961 Secretarial Order included only the smaller of the two, the 356.13-acre Parcel 5. The 9,290.54-acre Parcel 6 was subsequently approved for transfer by the 1963 Secretarial Order.

3/ Purchased under authority of the 1969 Designated Species Act (83 Stat. 282).

4/ Designated Parcel 6 wilderness.

* Trustees of the Blatop Estate indicated that the larger Flamm was

About 11 miles of State highway crosses park lands along the northwestern portion of the Kilauea and Footprint sections. The State of Hawaii has an 80-foot wide easement along the right-of-way.

The U. S. Geological Survey's Hawaiian Volcano Observatory, located on a high point along the rim of Kilauea Crater, is operated under the terms of a memorandum of agreement originally signed in 1947 and updated in 1978. The update calls for the transfer of the present observatory building from USGS to the park for the establishment of an information and interpretation center. The transfer is to be effective upon completion of construction of a new observatory facility. This project has been funded by the National Park Service and will be located next to the existing one. Construction is scheduled to get underway by the middle of 1985. Upon completion of the new facility, the two agencies will enter into a new memorandum of agreement.

Within the Kilauea section of the park, the Department of Defense (U. S. Army) utilizes a 49-acre parcel of land as a recreational area for active and retired members of the Armed Forces and their families. The Kilauea Military Camp now exists in the park under the provisions of a special use permit drawn up by the Secretary of the Interior in 1936. The camp has been in existence since 1916 as a lease from the Bishop Estate. In 1920, the 49 acre parcel was transferred to the Territory of Hawaii and in 1921 to the National Park Service.

The following paragraphs discuss those lands which have been proposed as additions to the park, either by the authority of a specific Act of Congress, by the 1951 Secretarial Order, or by master plan recommendation, but are not yet within its legal boundaries.

As noted, there are lands proposed as additions to the park by the 1938 Act (Kalapana extension) that remain unacquired. However, nearly all of these non-Federal lands are no longer being considered as additions to the park. Much of this remaining area has been subdivided, contains paved and bulldozed roads and several residential structures. However, an undeveloped 144.20 acres (Parcel 15 of Tract 19 in the master plan) of the 2,810 acres (Tract 01-131 on the land status map) left unacquired are regarded as a necessary addition in order to protect the significant cultural values at Wahaula (heiaus, Hawaiian trails, village sites, and a canoe landing) and to complete the buffer from the adjacent subdivided lands and from the Kalapana Road.

Four tracts proposed as part of the 1951 Secretarial Order remain unacquired and outside of the park. The most important of these is a 5,650-acre tract owned by the Campbell Estate lying north of the Kilauea section of the park (Tract 22 in the master plan and 01-118 on the park's land status map). This is a roadless and presently unused area of superb native ohia and tree fern forest. Its acquisition has been a high priority for more than a decade because it contains endangered species habitat and has been identified by

biologists as an ecosystem not now adequately encompassed and protected in the national park system. The entire tract was identified by Congress in 1978 as "potential wilderness;" i.e., possessing all necessary attributes for wilderness designation excepting its non-Federal status. Its priority for acquisition has become even higher since 1982 when the tract was included as part of a larger area being proposed by the owner for geothermal energy development. Such development would significantly diminish the area's natural values and would ultimately affect biological resources within the adjacent park.

Also, the growing of marijuana on lands within this tract poses a serious problem not only because of the destruction of the native biota, but also because of the threat to public safety. The need to keep their operations undetected has motivated some growers to body trap their patches and physically intimidate anyone who inadvertently might come upon them.

Two other tracts, 1,990 acres and 62 acres in size, proposed for addition by the 1951 Secretarial Order are located below the Kau Desert section of the park (Tracts 26 and 27 in the master plan and 01-111 and 01-112 on the land status map). They encompass an area of considerable geologic interest, being located at the ocean end of the Southwest Rift Zone, and contain native grasses. Their addition would place the remainder of the Great Crack, a significant geologic feature, within the park. Moreover, they would provide foot access along the shoreline, connecting to existing park trails.

This area may be subject to future development for geothermal energy. Recently (March 1985), the State identified it as part of a proposed geothermal resource subzone. It is not known at this time whether or not there is any interest in developing the resource, nor is there any proof that it exists. These tracts would be lower in acquisition priority than the Campbell Estate tract, since the threat to their natural values is, at this time, not as imminent.

The National Park Service has publically pledged not to attempt to acquire these lands until the potential for geothermal energy development had been explored. Consequently, the acquisition of these two tracts has been deferred. The position of the National Park Service regarding these two tracts is as follows: If the area's geothermal potential is ascertained and its development is judged to be economically prudent, then the National Park Service would not seek to acquire these tracts. If either of these do not take place, then these lands should be added to the park. Both tracts were identified in 1978 as "potential wilderness".

The fourth unacquired tract within the 1951 proposed expansion encompassing 1,367 acres located between Kilauea Crater and the Upper Oloa Forest (Tract 20 in the master plan and 01-127 and 01-128 on the land status map). It is now in two ownerships: a 4-acre tract (01-128) and a 1,362.78-acre tract (01-127). The 4-acre tract was acquired by the State of Hawaii as part of their realignment for the highway which runs through the park. The adjacent 1,362.78-acre tract is now occupied by a golf course, agricultural lands, and a

small residential subdivision. Proposed for acquisition in order to make the Upper Oloa Forest contiguous with the park and thereby allowing it to become legally a part of the park, these two tracts are now judged to be unsuitable for inclusion in the park.

A fifth tract, proposed as an addition by the 1951 Secretarial Order, is presently in Federal ownership, but outside of park boundaries. This is the 356-acre parcel which was part of the Oloa Forest Reserve transferred in 1952 by Territorial Executive Order 1540.

The disposition of the tracts of land discussed in the preceding paragraphs is consistent with the recommendations of the 1975 master plan. The master plan also recommends the inclusion of that portion of the Upper Oloa Forest designated wilderness in 1978. The draft legislation prepared by the National Park Service in 1980 was in accord with the above master plan recommendations. However, the other lands proposed by the master plan -- i.e., the Hualalai and Mauna Loa areas plus the offshore waters -- are no longer considered to be viable additions to the park. The principle reason for adding these lands was protection of endangered bird species habitat, primarily the Hawaiian crow. In the intervening years, the crow population here has declined to numbers so low that scientists no longer feel the species can be maintained. The offshore waters appear to be adequately protected at this time.

The tracts of non-Federal lands described on Table B contain resource values which merit their inclusion within Hawaii Volcanoes

TABLE B.

NPS TRACT NO. / MASTER PLAN TRACT NO.	ACREAGE	REGISTERED OWNER	BIOLOGICAL VALUES	CULTURAL VALUES	THREATS	EXISTING USE	GEOLOGICAL VALUES
118/22	5649.88	James Campbell Trust Estate	Unimpacted native rain forest community - western two-thirds is mostly closed canopy ohia forest with tree fern understory, with smaller areas of scattered ohia with uluhe ground cover. Eastern one third (lower elevations) is mostly closed canopy ohia forest with tree fern and uluhe understory in the eastern one-third.	Unsurveyed - no record of archeological/ historical sites.	Development associated with geothermal energy production is being proposed on significant portions of this tract. Includes two power plants, at least one dozen drill sites (six wells/sites) and five to six miles of access road, not including improved roads to lay pipeline for wells. Invasion by feral pigs, rats, cattle, and exotic birds. Portions of the tract are being used to grow marijuana.	Undeveloped open space, water shed. Located on lands classified conservation district, limited (L) subzone.	Extension of the Chain of Craters rift zone, from Napau Crater eastward containing some of the most active geology on the earth.
			Native bird habitat for Iwi, apanane, amakihi, elepaio, hawk, and ou. The ou and the hawk are endangered species.				

NPS TRACT NO. /
 MASTER PLAN
 TRACT NO. ACREAGE REGISTERED OWNER BIOLOGICAL VALUES CULTURAL VALUES THREATS EXISTING USE GEOLOGICAL VALUES

111/26 1990.00 Seamountain-Hawaii Ranch Co., Inc. Pill grass and lava flows with little vegetation. Within boundaries of Puna Ka'u Historic District. Area is inhabited by feral goats who have caused extensive deterioration of native grasses and allowed the introduction and spread of alien species. Undeveloped open space. Portions being used to graze cattle. Located on lands classified agricultural district. Hawaii County is agriculture - 20-acre minimum lot size. Contains the ocean-end of the Great Crack, a major geologic feature associated with the park's volcanic activities.

*Within Healy's Endorsement Healy's Hill Trust
 Candidate's Endorsement 1/20th space (5)*

112/27 62.00 International Air Services Co., Ltd. Lava flows with little or no vegetation. Within boundaries of Puna Ka'u Historic District Area is inhabited by feral goats who have caused extensive deterioration of native grasses and allowed the introduction and spread of alien species. Undeveloped open space. Located on lands classified agricultural district. Hawaii County zoning is agriculture - 20-acre minimum lot size. Contains the tail end of the Great Crack, a major geological feature.

In March 1985, the State identified this area as part of a potential geothermal resource subzone.

NPS TRACT NO. /
 MASTER PLAN
 TRACT NO. ACREAGE REGISTERED OWNER BIOLOGICAL VALUES CULTURAL VALUES THREATS EXISTING USE GEOLOGICAL VALUES

-/19, Parcel 15 144.20 Roberts, Oliver K. and wife, Malzie K., et al. Closed lowland scrub, mostly low growing with some introduced shrubs. Within boundaries of Puna Ka'u Historic District. Unsurveyed but is known to contain Hawaiian archeological features, such as burial sites and houses None known at the present time. Undeveloped open space. Located on lands classified conservation district, resources (R) subzone. An unimproved road crosses the tract length-wise.

National Park. These tracts are all legislatively authorized additions to the park -- one by being within the Kalapana extension and the other three by virtue of the "rounding out" provision of the 1938 Act. However, as noted, this same act prevents them from being included within the legal boundaries of the park. All four are judged to be in need of additional levels of protection to ensure the long-term protection of the resource values they contain.

Social/Cultural Characteristics of the Surrounding Community

The economy of the Island of Hawaii is based primarily on tourism and agriculture. Hawaii Volcanoes National Park is, by far, the largest single visitor attraction. Sugar cane and macadamia nuts are the major crops. Sugar is declining in importance because it cannot compete in international markets. Macadamia nut production appears to be increasing in importance. Cattle ranching, flower growing, and fishing are also important to the island's economy. Coffee is still grown, but it is not regarded as a major crop. The illegal growing of marijuana is thought to be the island's largest cash crop, but no accurate figures are available.

Unemployment is high (around 9 percent), due mostly to the decline in the sugar cane industry. Improvement of the island's economic condition is the chief goal of local elected officials. The production of electrical power from geothermal energy is looked upon by most residents and business people as a means to improve the island's economy. The electric power company on the island is interested in constructing a 13 Megawatt geothermal power plant by

no later than 1989; otherwise, they will be forced to construct another oil-fuel plant to meet energy needs.

Lands around the park are, with a few minor exceptions, in open space uses. The Mauna Loa Forest and Game Reserve and the Kapapala Forest Reserve abut the Mauna Loa and connecting strip sections of the park. At the eastern end of the connecting strip, lands abutting the park are leased by Bishop Estate and the State of Hawaii for ranching purposes. State lands adjoining to the Kau Desert section of the park are under grazing lease to private interests. Although grazing is generally regarded as a compatible use on adjacent lands, the park maintains more than 40 miles of boundary fences to keep out cattle and feral goats.

Immediately to the north of Kilauea Crater section of the park, in the vicinity of the Kilauea Military Camp, is the Volcano Golf Course and a small low-density residential subdivision. Both are located on lands within a tract proposed for inclusion in the park by the 1951 Secretarial Order.

At the eastern end of the Kalapana extension, land subdivision occurred some years ago. The subdivision, called Royal Gardens, has only had a few homes actually built on it, most of the lots remain unimproved. However, the area is crisscrossed with paved and bulldozed roads.

Many lots and several homes have recently (1983 to 1985) been covered by lava emanating from Kilauea's middle rift zone.

The residential community of Volcano is located just outside of the park a short distance from headquarters.

Lands lying next to the Kalapana extension between the community of Volcano and the Royal Gardens subdivision with a more than 12-mile common boundary with the park are owned by the Campbell Estate. These lands are presently undeveloped and encompass more than 25,000 acres. There is evidence that marijuana cultivation is taking place on lands adjacent to the park.

In early 1982, the landowner revealed plans for large-scale geothermal energy development on these lands. These plans, prepared by the True/Mid-Pacific Geothermal Venture, propose the immediate development of 25-Megawatts of electrical power from about five well clusters and a single power plant during a three to five-year period. Approximately 50 geothermal wells are proposed which would be sited approximately 1,000 feet from the park boundary. Four of the five power plants are to be within 4,000 feet. Long-range plans call for the eventual development of 250-Megawatts from 35 well clusters and five power plants. Since the lands on which the geothermal development is proposed are within a State conservation district, the owners must first obtain a conditional use permit from the Board of the Department of Land and Natural Resources.

Substantial portions of the lands being proposed for geothermal development have, since January 1983, been covered over by a series of lava flows emanating from along Kilauea's East Rift Zone. This

volcanic activity continues and shows no sign of abating, having completed its thirty-first phase in March 1985.

The potential for geothermal resource energy development in this area has not yet been proven, but developers appear determined to risk exploration and development. Success could mean replacing imported fossil fuel with geothermal steam as the generating fuel for electrical energy. Presently, imported oil generates about 90 percent of the State's electricity.

The long-range plan to develop 250-Megawatts envisions exporting most of the energy to other islands, including Oahu. Technology has not yet been developed which would transmit electrical power to other islands. The Island of Hawaii presently uses about 90-Megawatts total, about 60 percent coming from the burning of diesel, about 35 percent from the burning of sugar cane and wood chips and the remaining five percent from hydroelectric, geothermal and wind power. The burning of chips derived from native ohia trees has recently become a controversial issue on the Island of Hawaii.

Despite the risks, there is much to gain from the development of geothermal electrical power in Hawaii and the proposal has widespread support. While Hawaii Volcanoes' (and the Service's) position has been support of Hawaii's goal to become more energy self-sufficient through the development of alternative energy sources, grave concerns have been expressed regarding the total project's scale and proximity to the park. Adverse impacts

resulting from emissions, surface disturbance, noise, odor and vista impairment on the park would include: (1) deterioration of native plant and animal communities, and fragmentation of the ohia-fern forest essential for endangered native bird survival, (2) degradation of the wilderness quality of the east rift and Kalapana extension areas of the park, and (3) degradation of present and future visitors' perceptions of the national park.

In February 1983, in response to their application for permission to explore, drill, and develop geothermal energy, the Board of Land and Natural Resources granted the Campbell Estate a conservation district use permit to drill up to eight exploratory wells within a designated 800-acre area. The Volcano Community Association and others subsequently appealed the Board's decision in State court.

In June 1983, a State law was enacted, charging the Board of Land and Natural Resources with responsibility for assessing Hawaii's geothermal resources statewide for the purpose of designating subzones within which all future geothermal activities must take place. This law also allowed geothermal power production on conservation district lands.

In July 1984, public information meetings were held by the State in Volcano to hear that community's views on geothermal resource development. Similar meetings were held in other areas throughout the State. Generally, opposition was expressed by Volcano residents, citing the adverse effects of geothermal development on

the community, on nearby native forest and bird habitat, and the national park. In other areas, there was little opposition to geothermal development.

Based on the completed assessment of Hawaii's geothermal resources, the State published its report in August 1984 recommending that three areas, one on Maui and two on Hawaii, be designated as geothermal resource subzones. One of the two on Hawaii consists of a 5,300-acre tract within the area being proposed by the Campbell Estate for geothermal development. The proposed geothermal resource subzone boundary was located so as to provide a 2,000-foot wide buffer with the national park boundary.

Responding to the recommendation that the 5,300 acres next to the park be designated a geothermal resource subzone, the National Park Service, in October 1984, called for the State to consider exchanging their forest reserve lands located further down on the rift zone for the Campbell Estate lands located next to the park.

Based on the report's recommendation, the Board of Land and Natural Resources, in December 1984, issued its decision which included the following elements.

- a. Designation of the February 1983 limited exploration area as a geothermal resource subzone, conditioned upon cessation of volcanic activity in that area (to be determined by the Board).

- b. Request that a land exchange take place between Campbell Estate and the State; i.e., lands adjacent to the park being proposed for geothermal development to be exchanged for State forest reserve lands located further down on the rift zone. Lands exchanged, however, would not include Tract 22 (the 5,650 acres proposed as an addition to the park). The Board "strongly urges" the National Park Service to acquire Tract 22, essentially making that acquisition a condition to the exchange.
- c. State to assess the forest reserve lands down rift as a potential geothermal resource subzone. If, following the assessment, designation as a geothermal resource subzone does not result and the exchange does not take place, the entire 5,300-acre tract is to be designated.
- d. If the exchange takes place, the 5,300 acres (exclusive of Tract 22) shall be included and eliminated as a proposed geothermal resource subzone.

The Volcano Community Association and others have filed suit against the State over the use of conservation district lands for geothermal development.

With agreement on the mutual benefits accruing to each from the accomplishment of the proposed land exchange, the Pacific Area Office and representatives of the Campbell Estate met in January 1985 to discuss the steps each could take to further the exchange process.