1) some of the names have been clarified (e.g., *Kalanaokuaiki* should be *Kulanaokuaiki*).

Many places within the park that have names are not so identified on these maps. Currently, the Hawaii Board on Geographic Names is reviewing only existing names that appear on the quadrangle maps. I'm sure the Board would be willing to review names that are in the GNIS but not on the quads, but I don't know how these names are then added to the quads (I think some of it is cartographer's discretion, but Vicki may have a better answer for this part of the answer). As far as names that neither appear on the quads nor the GNIS, someone would have to go through the process of applying to the Board on Geographic Names to add such names to the GNIS database.

Did the naming folks check with Big Island National Park personnel?

Melia Lane-Kamahele with the Honolulu NPS Office has been our liaison with the National Park Service. I believe she has been in touch with the Big Island NPS on name issues.

2) we are curious about why certain names were run together, like Kipukakeanabihopa or Kanenuiohamo? Does that indicate some sort of standard that place names have to be one word? Other place names like Mauna Ulu are still two words.

A subcommittee of the Board was formed to attempt to establish naming convention standards. The following are excerpts from their meeting. To accommodate the use of diacriticals in this excerpt, it is in a Hawaiian font that probably won't come through on the e-mail.

All agreed to keep "Placenames" as the starting point of the work to be done.
After restating the task requested by the USGS (correcting the orthography of those names currently on USGS quads of Hawai‘i), the sub-committee decided to clearly define the tasks at hand. The rest of the meeting focused on putting forth a "standard" by which Hawaiian place name orthographic corrections could be rationalized(?)

1. Should place names be compressed into one word?

The 1978 recommendations of the āHahului āŌlelo Hawai‘i p3 #11,12 provide conflicting information on this issue.

All agree to compound words into one word with few exceptions, Mauna Loa, Mauna Kea. Others discussed include Kalae, Kalihi Uka, and Koʻolau Poko.

2. Should place names with proper names in the middle be separated and capitalized?

All agreed to adopt the 1978 recommendations of the āHahului āŌlelo Hawai‘i p3 #8 with few exceptions taken on a case-by-case basis.

3. Should the generic geographic component of a place name describing a landform like pu‘u or kipuka be capitalized and separated?

After being reminded about the USGS email from Vicki Lucas regarding USBGN position on Generic/Specific names the members decided to continue compounding names with few exceptions that have explanations. ???? (I'm not sure where this one stands as the meeting adjourned quickly at this point.)

Subject: Re: Fwd: Re: I got a DRG
Author: "Vicki Lukas" <vlukas@usgs.gov>
Date: 11/22/99 8:46 AM

Hi Craig,

Well here are the first questions about how the names were decided upon. Could you give Jim K. and I some background with regard to his questions (attached)?

Thanks much,
vicki

Aloha vicki,
The problem with replying to my email should be fixed now. Fun with Lotus Notes, your future email program!
The problem with the islands being split into two UTM zones is for all products - DRGs, DOQQs, and DEMs. Actually the Maui 10m DEMs may have been in only one zone, but the Hawai`i island DEMs were definitely in two UTM zones.

I received the four new DRGs late yesterday. Looks pretty good, although we have several questions:

1) some of the names have been clarified (e.g., Kalanaokuaiki should be Kulanaokuaiki). Many places within the park that have names are not so identified on these maps. Did the naming folks check with Big Island National Park personnel?

2) we are curious about why certain names were run together, like Kipukakeanabihopa or Kanenuiohamo? Does that indicate some sort of standard that place names have to be one word? Other place names like Mauna Ulu are still two words. I realize that we shouldn't expect these to be perfect the first time around. What should be the procedure for us to communicate desired changes and/or errors to NMD?

Thanks again, this really feels like substantial progress!

jim

Hi Jim,

Hopefully you'll receive the data soon - let me know if not. In the meantime I have posted the Makaopuhi Crater DRG on anonymous FTP on pokey.wr.usgs.gov in the /pub/vlukas/makaopuhi_crater directory.

I will see what we can do about the projection issue. Was this a problem in the original set of CDs? I ask because I know in one of the datasets they didn't split the islands onto two zones - but I can't remember if it was DRGs, DEMs or what.

vicki

>>> <JKauahikaua@usgs.gov> 11/16 10:02 AM >>>

aloha Vicki,

I would be happy to post any others you want to see, but I haven't received any yet! I've been meaning to ask you about projections for DOQQs and DRGs. As you know, the Big Island and Maui are in an unfortunate position spanning two UTM zones. The DOQQs and DRGs are precisely projected according to what UTM zone they fall in. BUT that means that 2 of the nearly 80 or 90 Big Island and 2 of the Maui quads are projected differently from the rest and cannot be conveniently joined unless reprojected. For digital projects, it would make more sense to offer quads in one projection per island. Any chance this could be made policy for Hawai`i?

jim
Hi Jim,

Yesterday I asked if you could post one of the DRGs you will soon receive so I could download it. This morning I received the Makaopuhi Crater DRG from the production group, so no need to do that.

Thanks,

vicki
10 September 1998

MEMORANDUM

TO: Jim Martin, Superintendent
FROM: Bobby Camara
THROUGH: Laura Schuster
RE: HAVO Hawaiian Advisory Group Meeting and Fieldtrip, 9 Sept 98

Community members: Keolalani Hanoa, Pele Hanoa, John Kaiewe Jr, Charles Langlas, Abigail Api Oliveira, Clara Osorio, Kułulei Pavao, Victoria and Bernard Whitworth, Emma Kauhi, Lani (from QLT)

Participants from HAVO: Keola Awong, Bobby Camara, Faelyn Jardine, Laura Schuster

Purposes:
1. To determine a name for the new campground on the Hilina Pali Road.
2. To visit the “Keller Well” and decide whether or not the USGS well cleaning project is acceptable.

The group, joined by Superintendent Martin, first visited the site of the new campground. The access road, turnaround, and pit for a vault toilet had been worked on. After an orientation to the site, there was a discussion of the significance of place names, as well as geography of the area. The consensus of the group was that the name for the campground should be a traditional one, and that length or difficulty (or ease) of pronunciation should not be a factor.

We left the site, and lunched at the interpretive shed at the end of the Chain of Craters Road.

We briefly stopped at the palm trees within Panau, but did not get out of the car. The discussion was diverted to the topic of ohia vs koa that would be used for timber framing of hale pili. The only comment that I heard was that the area did not look safe.

The Keller Well, on the floor of the caldera, was visited after lunch. We discussed the project, the Project Review, and examined maps showing the visibility of the drill rig.

The group consensus was to allow the project, based on the following:
- that the project will last a week or so, (this was not an issue)
- that all mud and water used to reopen the well will be contained and transported off site,
- that there will be clear boundaries to prevent vehicle tracks from marring the surrounding area,
- that the threatened plant Silene sp, will be protected,
- that the presence of a 30 foot tall drill rig for a week was acceptable, even though it would be visible from a few places along Crater Rim Drive,
- and that the reopening of the well to allow the installation of scientific instruments for monitoring of Kilauea is for the public good.
The group then adjourned to the KVC Conference Room for a discussion of the name for the new campground. Four names were presented to the group for consideration. The names were either from USGS maps or 1870's Boundary Commission Testimony:

- **Puu Ohale** is a prominent large tumulus north of the campground, and is a USGS trig station
- **Kalanaokuaiki** is the name of the pali immediately south of the campground as shown on USGS topo maps
- **Kulanaokuaiki** and **Kulonokuaiki** are names of the pali taken from Boundary Commission testimony

The discussion centered on the meanings of the names, as well as the appropriateness of the various meanings to the place in question. “Puu Ohale” was discarded immediately because the group felt that it was too far away and not visible enough. The other three names, which are all variations of the same, were discussed at great length. Dictionaries and maps were consulted, and members of the group shared their thoughts and opinions. Possible reasons for the three variations in the “K” name were pointed out:

- The secretary for the Boundary Commission wrote down in longhand what s/he heard, and not necessarily what the speaker said. The two applicable testimonies in Park file were written in different hands.
- Over the years, the duplication of hand-drawn, and hand-lettered maps, often results in transcription errors.
- The meanings of the three variations are similar, and the words may be similar sounding.

Kalana.o.kua.iki
kalana = a land division smaller than a moku;  o = of;  kua.iki = little back or spine

Kulana.o.kua.iki
kulana= to tilt, rock, reel, sway, toss and pitch; wobbly, shaky, unsteady

Külono.kua.iki
küloko = sheer, precipitous

The group felt that of three names / variations, “Kulanaokuaiki” is the most appropriate. To the collective mind, the name refers to the shaking of the “little back” (cliff face), during an earthquake. That region of the Park is seismically very active, with many earthquakes occurring along the fault line (pali).

**Thus, the group agreed by unanimous vote that the name of the new campground shall be Kulanaokuaiki.**

Discussion then arose regarding the name “Thurston Lava Tube”. We talked about the name Nāhuku, and about how there is no written reference to that name, other than its appearance in “Place Names of Hawai‘i”. The group felt that the cave deserved an appropriate Hawaiian name nevertheless. “Kaluaiki” (little pit or crater) is the name for the crater that contains the entrance to TLT.

The group agreed unanimously that the name Kaluaiki be given to TLT, and further, that the name should be written “Kaluaiki Lava Tube (Thurston Lava Tube)” on Park maps.
The group adjourned around 3:00 pm, Keola drove the group down to Keaau.

It was a great day.
Commencing at a pile of stones on the sea-shore at a place called Oki-oki-ahu, at the East corner of this land and running thence along the land of Apua,

Magnetic bearings **North 11d 15m  West 19392 feet**

to an ohia tree marked by two notches, and standing on the brow of the Poliokeawe Pali, at the lower end of a point of ohia just East of the Keauhou Road;

**North 20d 40m  West 13250 feet**
to an ohia marked at Ohiakuapuu, a large water cave

**North 11d 03m  East 8200 feet**
To ohia tree marked at Kaloi, the junction of the Puna and Keauhou roads. Thence along the land of Kahaualea

**North 35d 15m  West 16100 feet**
To Kaluaike crater on the volcano and Puna road

**North 6d 40m West 3600 feet**
To Pohakuloa Koa grove on the Hilo and Volcano road. Thence along Olaa;

**North 38d 20m West 37400 feet**
To the top of large hill known as Kulani. Thence along land of Waiakea;

**North 59d 45m West 17400 feet**
To above and opposite a small hill in the edge of the woods called Kipuu

**North 33d 00m West 17800 feet**
Along Waiakea in accordance with Websters survey

**South 45d 00m  West 31100 feet**
Along Humuula to a double hill on the mountain called Puuulaula, which presents somewhat this appearance from the volcano,

**South 57d 00m East 17200 feet**
To an island in the Aa flow. Thence down this large flow, which is the well defined boundary between this land and Kapapala;

**South 53d 35m East 46000 feet**
To a pile of stones by the side of the Volcano and Kau road 1556 feet South-West of a pile of stones on the top of the Wekahuna bluff;

**South 55d 00m East 5140 feet;**
To Halemaumau lake in the crater, 
This is the old South Lake;

**South 75d 30m East 6670 feet;**
To a pile of stones a little South of Keanakaakoi Crater;

**South 8d 50m East 7300 feet;**
To pile of stones on ahua at Kamokukolau;

**South 24d 30m East 11150 feet**
To a pile of stones on Kulanaokuaike pali, and on the edge of the Puna and Kau road;

**South 16d 40m East 30220 feet;**
To pile of stones on the sea shore at place called Makoloa, and old Heiau.
This place is 6111 feet East of the top of Kapukapu hill. Thence along the sea-shore to point of commencement.

Containing an area of 50740 Acres.
RALyman
Commissioner of Boundaries 3\(^{d}\) JC
THE AHUPUAA OF KEAUHOU, DISTRICT OF KAU
1873

24 OCTOBER

TESTIMONY

Kenoi K. Sworn

I was born at Kapapala, Ka`u at the time of Kiholomua and lived on said land or adjoining lands until about Eleven years since. Am a kamaaina of Keauhou and know its boundaries; my father, Kaheana (now dead) told them to me when we used to go after uwau and geese. Kapapala bounds Keauhou on the South side Commencing at the seashore at a heiau called Makoloa, thence, the boundary between these two lands runs mauka to Lapo (Kuhalu is a small pali on Kapapala near the boundary). Lapo is the lower pali of the two. Thence to Hale o Lono, a hill above the pali. Thence to Pohakuloa, to an ohia tree on the pahoehoe; Thence to Kulanaokuaiki(e?), a pali kahuamanu where Kaina’s man jumped off. Thence to Aiaawa, ohia trees and awaawa. Thence to Kaaiwaa or Ahuahoiwale, a puu and ahu. Thence to Kamokukolau, an ohia grove. Thence the boundary runs to the South side of the crater, Keanakakoi. Thence to Wekahuna, crossing the crater of Kilauea a little to the South west of the highest part of the bluff (highest bank of the crater). Thence to Kilomoku, a small grove of koa and ohia; The large grove to the southwest being on Kapapala. Thence to Ohinale, a long grove of trees in aa. Thence to Keakaualoa, passing up the center of the aa flow. Thence along the Hilo side of the aa to Puukulua, two small hills the boundary passing between the two a little Kau and Hilo of Puu Ulaula (as I came along over the road today and was looking at the mountain, I saw I had made a mistake in saying Puu Ulaula was the boundary.) From Puu Kulua (I do not know what land cuts it off, Waimea perhaps) the boundary runs Kau and Hilo to Kaamaua an aa flow on the Hilo side of the mountain. Cannot say where it is exactly as it is a long time since I have been there. There the boundary turns makai towards Kilauea to the southwest side of Kipuu, the hill mauka of Kulani. Thence makai along Olaa to Kaloulukeapiha. Thence to Kaloi an open spot in the woods.
Thence to Kaolapalapa, a pali at the road.  
Thence along the road to Pohakuloa junction of the roads to Hilo and Keauhou.
Thence along the road along Keaau to Kaluake, a crater on the east side of the road on Kahaualea.
Thence along Kahaualea along the road to Kamamakalei, a large ohia on the Kau side of the road.
Thence makai along the road to Kilohana junction of Keauhou and Puna roads.
Thence along the land of Apua along the road to Ohiaakuapuu, a cave.
Thence through the bush to Kuehu, a cave on the road from Kau to Panau.
Thence to Opuohau, a cave.
Thence to Pali o Keawe to a kukui tree on the side of the pali.
Thence to Keamoku, a small flow of aa on the pahoehoe; the aa on Apua boundary is on the southwest side of it.
Thence to Hinanuhi, a pali from which you can see the seashore.
Thence down the pali to Kealaakahewahewa, an ahu at the makai road to Puna and Kau.
Thence to Okioki ahu, a pile of stones at the seashore, two piles of stones and a mawae.
The land of Keauhou is bounded on the makai side by the sea and has ancient fishing rights extending out to sea.

Kaniakahanau is the high pali above Lapo on the southwest side of Kapapala. I remember a cave called Kapukalua. It is above Kilomoku on the pahoehoe. Oioli is a grove of trees in the aa. Ohiaale is the true boundary and is on the Hilo side of Oioli (witness is rested 10 minutes to give him an opportunity to think it over). The true boundary between Kapapala and Keauhou is at Puu Ike, a small hill between Puu Ulaula and Puu Kulua on the eastern slope of Mauna Loa. Kaolapalapa is the pali above the volcano road on the makai side as you go towards the junction of the Keauhou and Hilo road. Kaloi is on Keauhou. There used to be a road from Keauhou to Kilauea, passing Kamokukolau and coming along Kupinae at the foot of Makaulli pali. I have never heard that that road is the boundary between Keauhou and Kahaualea.
The ahupuaa of Keauhou, District of Kau. October 27, 1873.

Keliilohi K. Sworn

I was born at Keauhou ili of Kapapala at the time of Okuu and lived there till eight years since. I now live in Hilo. Am a kamaaina of Keauhou and know its boundaries. My kupuna and parents, (Kaialii was my Father) told me the boundaries. Keauhou is bounded at shore on the Hilo side by the land of Apua. A large pile of stones called Okiokiaho is on the boundary at the seashore.

Thence mauka to Papapakiikii on Oioina on the makai pali;

thence to Kokoaahu, a cave with waterholes.
Thence to Keamoku, an old kauhale.

Thence to Poli-o-Keawe, a kauhale and kukui tree on top of the pali,
Thence to Kapuulei, an old kauhale.
Thence to Opuohao, a cave,

thence to Kuehu, a kauhale, and cave with waterholes on Apua at the road from Kau to Puna,
thence to Ohiaakuapu, a cave where the boundary strikes the road from Keauhou to Kilauea.
thence to Kalai, the junction of the Keauhou and Puna roads, the mauka corner of Apua.

Thence Keauhou, I have always been told is bounded by Kahaualea,

thence the boundary runs up the road to a large ohia tree and two mounds on each side of the road this place is called Namanuakalei.

Thence to Kilohana, a resting place, palipali, and ohia tree.
Thence to Mawaeholopa, a crack in the road where sticks are laid across to form a bridge.

Thence to Kaluaiki, a crater on the Hamakua side of the road. I have heard that this crater is on Kahaualea.

Thence to Pohakuloa which is a junction of the Hilo, Puna and Kau roads.

Thence along the land of Olaa towards Kulani hill to a place called Kalai. Two open spots in the woods about as large as the courthouse yard. The one toward Hamakua being the smallest covered with hapu and ferns.

Thence to Kaloulukea, a palm tree.
Thence to Kulani hill.

Thence to Namaunamaka, a place where we used to catch birds.

Thence along the land of Waiakea to Kiipu, a hill.
Thence to Kaamamauloa a about as far as from here to Kalepolepo above the woods. This is as far as I know
the boundaries. I have heard that Waiakea bounds it on
the Hamakua side. There is a large mawae there that
runs mauka and makai.
Thence, the boundary runs up the mountain to Puumahoe
called Puuulaula and Puiiki at the junction of Keauhou
and Kapapala. Kapapala bounds this land on the Kau
side.
The boundary at shore is at the Eastern base of a hill
called Kuhalu.
Thence to Lapo,
Thence to Kalakuono,
Thence to the Kau side of Haleolono,
Thence to Limahina,
Thence to Kapuuwai, a water cave,
Thence to Kulonokuaiki, where Kaina’s man was killed by
jumping off of the pali.
Thence to Aiaawa.
Thence to Kahaualoa, at the old road to Kilauea.
Thence to Wepiipaa, a pali on the Kau side of
Keanakaakoi. Kamokukolau is on Keauhou.
Thence to Kilauea, passing around the south end of the
crater Wekahuna.
Thence mauka towards the mountain to Puaulo aa, to
Kauhiulii, the aa belonging to Kapapala and aa to this
land.
Thence to Kahiolo, aa, thence to Mokuloa, a large aa
flow;
Thence to Kapuna, a grove of small koa in the aa.
Thence to Kahoaka, a grove of koa above Keawewai.
Thence to Puulaula between this and Puiike.