

## **Minutes from July 23, 2008 Ka ūmana Drive Flood Project**

- The Natural Resources Conservation Service (NRCS) explained; because of cost and benefits of the various proposed phases of the Wailuku-Alenaio Watershed flood project, the best value for the Federal government is the Ka ūmana Drive Flood Project
- Federal funds are based on Congressional approval. This varies year- to-year dictating the amount and type of NRCS Flood project work.
- NRCS received money for planning. Expenses for the design and other preliminary work were requested for the 2009 fiscal year. Construction funds after that.
- NRCS pays for construction for flood control structures. However, NRCS does not pay for modifying roads or utilities. The County pays for this; acquires land, and is responsible for obtaining permits and maintaining drainage improvements.
- Existing flood zones are along Ka ūmana Drive. The Belt Collins Hawaii study follows the NRCS study, which proposes to build levees on the Hāmākua side of the existing homes, since the runoff is in the Hāmākua to Puna Direction.
- Puainako Street Extension was built after the 2000 floods. This road has the potential to prevent runoff from flowing onto Ka ūmana Drive.
- Water also flows from Puna to Hāmākua direction. The culvert along Wilder Road was examined. It is suspected to be the cause of flooding for homes along Ka ūmana Drive because of inadequate capacity. Replacement of this culvert is recommended.
- The excess runoff collecting within Ka ūmana Drive may result in damage to the homes along Ka ūmana Drive.
- An improvement under consideration includes rebuilding the ditch that diverts flow into Kaluiki Stream. The impact of this diversion is limited. It may reduce the flow toward the homes along Ka ūmana Drive.
- Although there are lava tubes in the area, the discharge into lava tubes are not utilized in the drainage improvement plan. Runoff is kept on the surface.
- **Other possible improvements:**
  - Replace the culvert on Akala Road. It is not adequate to handle the capacity. Field observations indicate excess overflows toward adjacent homes.
  - Improve the ditch on the Hāmākua side of homes makai, of Ka ūmana Caves.

From the environmental studies, the proposed improvements will not affect rare endangered plant or wildlife. There were a couple sightings of Hawaiian Hawk in the study area but these species are widespread in the region. Seabirds are known to fly over the area, although none was sighted, an assessment was conducted on Kaluiki Stream. Aquatic life is not significantly impacted. The archaeological survey's limited coverage revealed no significant features or sites in the area.

## **Questions:**

Diversion A— the diversion ditch is low on one side. Flooding occurs on the opposite side of my house because the ditch is not maintained, and erosion sets in. There is a breach in this ditch. *Answer: This is a reason for improving the ditch. One diversion will direct the flow into the existing Kaluiki Stream.*

Why water flow in to Wailuku River *Answer: It is a good idea. However, NRCS was not able to get the Federal money to pay for this project.*

Water has nowhere to go on Akala Road. It was huge. Does diverting water above Ka mana improve the situation? *Answer: Yes.*

Problem—water flows into their homes. We are losing huge amounts top soil. Are there any interim solutions to fix the problem? *Answer: This relates to the homeowners and stream maintenance issue. It is a tricky situation.*

Notice more water coming onto lower Ka ūmana below Chong Street. We have had three floods. Water flowed through my living room with a rapid flow through the backyard. What does a homeowner do?

I live above Chong Street—how high is the culvert? *Answer: 6'x6'.*

Diversion changed the flow of water. It does not run year round only when it rains, it floods. A lava tube was altered.

I live in the Chong subdivision next to the stream just above Chong Bridge. During the last storm, there was a lot of water in the stream and a few feet downstream, the flow narrowed.

Water is coming from the forest. Must get above Ka ūmana, above the forest and look at the total solutions

Cut into the forest no houses at the top. It rains an inch of water is same level as the garage in February *Answer: Any water affects lower Ka ūmana. Diversions should divert but no guarantees it will divert the water from flowing onto lower Ka ūmana.*

#### Statements by the community

1. We rely too much on Alenaio. Without diversion, water still flows into Chong Bridge.
2. Akolea Road—below Wilder—land belongs to the County. Water comes from and floods two homes.
3. Rapids come onto the Puainako Street extension. Water comes from Ka ūmana Drive.
4. Water pops up from the ground.

5. Water from upper Ka ūmana settles behind my house in a ditch 20' wide by 12' deep. The water was so strong it moved big boulders.
6. On Bay View Terrace Drive the land is sinking.
7. At the school above Ka ūmana Drive, water runs in the direction of Hāmākua to Puna, right above Wilder Road.
8. Rain comes from west Na'auao Street onto West Na'auao Street.