

CARE Committee

From: County Clerk
Sent: Wednesday, September 14, 2022 12:40 PM
To: CARE Committee
Subject: FW: Written Testimony In support of RESOLUTION 22-206 Ma'alaea Mauka Acquisition via Eminent Domain
Attachments: Testimony of Robin Knox 9 14 2022 Ma'alaea Mauka.docx

From: Robin S. Knox <robin.s.knox@gmail.com>
Sent: Wednesday, September 14, 2022 12:09 PM
To: Kelly King <Kelly.King@mauicounty.us>
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Subject: Written Testimony In support of RESOLUTION 22-206 Ma'alaea Mauka Acquisition via Eminent Domain

Aloha Chair King and Committee members.

I experienced technical difficulty uploading my written testimony via e-comment. I am providing it to you via email. It includes photos showing the discharges of sediment into the harbor.

Mahalo for your consideration of my testimony.
Robin S. Knox, QEP

Testimony of Robin Knox

September 14, 2022

In support of RESOLUTION 22-206, AUTHORIZING PROCEEDINGS IN EMINENT DOMAIN FOR THE ACQUISITION OF MA'ALAEA MAUKA/POHAKEA WATERSHED (CARE-97)

My name is Robin Knox and I am a credentialed Qualified Environmental Professional certified in Water Quality. I support the resolution for acquisition of Ma'alaea Mauka/Pohakea watershed lands through eminent domain. These lands are not suitable for housing development due to the extreme fire hazards and environmental impacts of wastewater disposal, and increased impervious surface associated with development. These lands are, however, perfect for a variety of uses beneficial to our community including open space, recreation, wildfire mitigation, habitat restoration, conservation, and watershed management. This relatively flat land at the toe of a steep watershed is the best place to install best management practices to mitigate erosion of soil and delivery of sediment laden stormwaters and flash floods.

In February 2018, I collected data on stormwater flow and pollutant concentrations at the storm drain entering Ma'alaea Bay near the boat ramp. In a short stormwater runoff event, a volume of 3.4 million gallons came through that culvert carrying the pollutant masses indicated in the tables below. The monitored event resulted in the discharge of more than 167 tons of sediment in just 4 hours. The nutrients are associated with the sediment from watershed erosion. It should be noted that there are seven culverts carrying runoff to 4 drains that discharge to the harbor and the bay, and this was just one event monitored at one culvert.

| MASS | Parameter |
|---------|---|
| 20.08 | Orthophosphate [PO ₄ -3] (lbs-P) |
| 31.54 | Nitrate + Nitrite [NO ₃ - + NO ₂ -] (lbs-N) |
| 23.25 | Ammonia [NH ₄ +] (lbs-N) |
| 376.4 | Silicate [SiO ₄ -4] (lbs-Si) |
| 2.34 | Total Organic Phosphorous (lbs-P) |
| 67.43 | Total Organic Nitrogen (lbs-N) |
| 22.41 | Total Phosphorous (lbs-P) |
| 122.22 | Total Nitrogen (lbs-N) |
| 334,262 | Total Suspended Solids (lbs) |

The pollutant loads discharged with stormwater to the bay and harbor are harmful to aquatic life and result in pollutant concentrations that exceed what is allowed by the Hawaii Water Quality Standards. Additionally, the sediment accumulation in the harbor hinders navigation, and makes launching boats challenging due to the accumulation of sediments resulting in water less than 10 feet deep at the boat ramp. The presence of excessive sediment in the harbor and bay has a detrimental impact on businesses that operate vessels from the harbor. It can be seen from this data that there is a compelling need to manage erosion and sediment discharges from the Pohakea watershed. The acquisition of this land by

the County will allow watershed management and protection of ocean water quality in the public interest.

Figure 1 Culverts and drains discharging stormwater into Ma'alaea Bay and Harbor

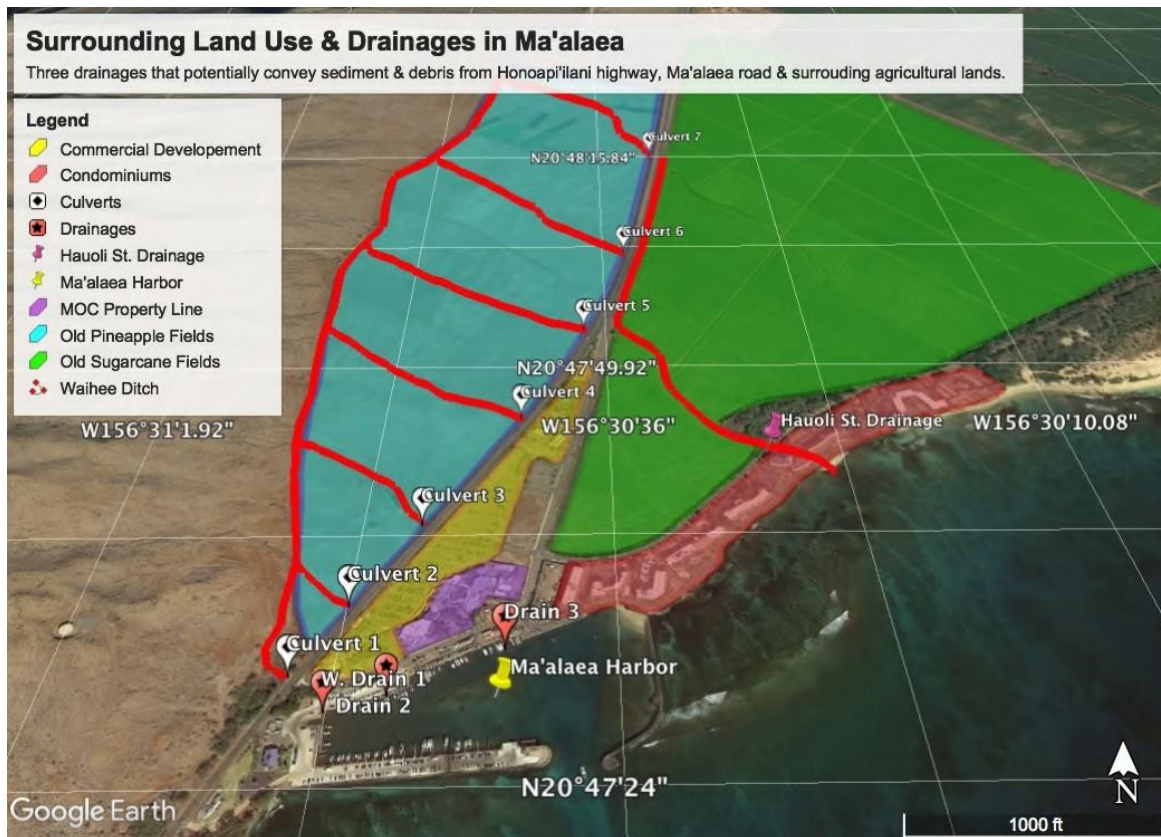


Figure 2 Discharge from Culvert under Honoapiilani Highway to West Stormwater Drain near Boat Ramp



Figure 3 Sediment laden stormwater entering the harbor from the West Drain



Figure 4 Sediment accumulation from culvert overflows onto parking lot near the boat ramp

