



DEPARTMENT OF HEALTH

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HAWAII DEPARTMENT OF HEALTH RELEASES FINDINGS FROM SANITARY SURVEY OF MAHAULEPU ON KAUAI

HONOLULU – The Hawaii State Department of Health (DOH) is releasing Part 1 of a Sanitary Survey of Waiopili Ditch at Mahaulepu on Kauai. The study was conducted in response to concerns raised by the Surfrider Kauai Chapter about high enterococci bacteria levels in Waiopili Ditch, and their request to have the Ditch posted with warning signs.

“The Department of Health has investigated the high bacteria level in Waiopili Stream to see if it is caused by sewage, and our survey found no human sources,” said Keith Kawaoka, DOH deputy director of Environmental Health. “The high bacteria appear to be from animal sources and soil, enhanced by the natural canopy of trees that prevent sunlight from killing bacteria in the ditch. These sources present a considerably lower health risk than human sewage contamination.”

The sanitary survey was conducted in Mahaulepu Valley on Kauai – the site of a proposed dairy farm. The survey also focused on water quality in the man-made irrigation ditch, sometimes referred to as Waiopili Stream, in Mahaulepu Valley. The survey results showed high levels of enterococci bacterial, most likely from “background natural sources” such as sediment, feral and domesticated animals, decaying organic matter, birds, insects, vegetation and soil, and a canopy over Waiopili Ditch, but there was no indication of the more serious human fecal contamination.

The sanitary survey looked at the history of the area, geology, hydrology (how quickly water seeps through the ground), past and present land use and farming practices, feral and domestic animals, sewer systems, and cultural practices in the Mahaulepu watershed. The survey also looked at adjacent watershed activities that may be responsible for the high enterococci levels. In the adjacent Waikomo Watershed, better known as Poipu/Koloa Watershed, the study identified a large number of cesspools and injection wells, a Karst topography/lava tube system that may connect to Makauwahi Sinkhole/Cave next to Waiopili Ditch, and a sludge disposal practice that was used to grow forage.

Kawaoka added, “Based on what was discovered with part one of the survey, we have turned our attention to the more serious issue of human fecal contamination that may exist in the Poipu-Koloa watershed.”

The department has determined a need to look into the impacts of the large number of cesspools and injection wells identified by the survey in the Poipu-Koloa watershed. The department conducted additional tests with the U.S. Geological Survey to review wastewater compound, nutrients source tracking, and pharmaceuticals in the Poipu/Koloa and Mahaulepu Watersheds to confirm that human fecal contamination was not the cause of the high enterococci levels. At the recommendation of the U.S. Environmental Protection Agency Region 9, the department is reviewing a contract with UC Berkeley Laboratories to conduct high tech molecular testing using their PhyloChip technology to better understand the enterococci levels present in the area.

The Sanitary Survey of Waiopili Ditch at Mahaulepu on Kauai is available at <http://health.hawaii.gov/cwb/files/2016/03/160328-DOH-CWB-Water-Monitoring-Mahaulepu-Sanitary-Survey.pdf>

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