

Oral Testimony to the Maui County Council, Water Resources Committee

Re: Maui Department of Water Supply Wellhead Protection Overlay District (WR-18)

Testimony given by Robert Whittier, HDOH Source Water Protection Geologist

Date: January 24, 2018

Good morning Chair Atay and members.

This testimony is submitted to present the Hawaii Department of Health's (DOH) position on the Wellhead Protection Overlay District (WHPOD) ordinance proposed by the Maui Department of Water Supply (MDWS). We would like to make four (4) points:

1. DOH supports Maui County's proposed Wellhead Protection Overlay District ordinance;
2. DOH believes that the County is the proper level for such an ordinance and it will not conflict with or be superseded by State regulations;
3. Such an ordinance is needed to fully protect drinking water wells from contamination; and
4. Numerical modeling done at the State level is the optimum method to delineate the Wellhead Protection Overlay Districts.

Point 1 - One of the many functions of DOH is to ensure that public drinking water sources are free from contamination. The State Wellhead Protection Program (WHPP) is one of the approaches used by DOH to ensure that contaminant free drinking water is delivered to the public. As such DOH supports this ordinance as a critical component of the State WHPP.

Point 2 - The development of the WHPPs commonly falls to the local government and the water system operator. Local governments frequently implement WHPPs using land use tools. For example Pennsylvania, Wisconsin, Utah, and Nebraska delegate wellhead protection to county and municipal governments and list zoning as a management tool. In Hawaii, delegating Wellhead Protection implementation to the county governments is even more logical since, unlike the other states, Hawaii's aquifers do not cross county boundaries.

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Point 3 - The current State and Federal laws have made great strides in preventing groundwater contamination and in improving groundwater quality. However, weaknesses such as the rate of new chemical development exceeding our ability to assess their health risks results in regulatory gaps. Having knowledge of activities occurring within well capture zones will enable Maui County to more fully assess contaminant risk and take actions to mitigate that risk.

Point 4 - To properly protect drinking water wells from contamination the path that water takes to the well must be estimated. The USGS MODFLOW and MODPATH modeling codes, are recognized as the optimum approach for delineating well capture zones. The zones are not exact since uncertainty is an inherent characteristic of modeling. The approach to dealing with uncertainty is to continually review and test the models. DOH does this through collaborations with the University of Hawaii on a wide variety of groundwater quality and modeling projects.

In summary, DOH supports the Maui WHPOD ordinance as a proactive measure to protect the drinking water supplies for Maui. This ordinance is needed to ensure that high quality of drinking water continues to be delivered to the residents by the Maui Department of Water Supply. This ordinance is in addition to and does not conflict with State and Federal efforts intended to protect groundwater.