LAND USE COMPUSSION STATE OF HAWAII

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HFF Planners 733 Bishop Street, Suite 2590 Honolulu, HI 96813 ATTENTION: Mr. Ronald Sato, Senior Planner

State of Hawaii Land Use Commission Department of Business, Economic Development and Tourism PO Box 2359 Honolulu, HI. 96804 ATTENTION: Scott Derrickson

HMP is applying for a District Boundary Amendment under the guise that cemeteries are considered green, open space. But, in actuality, Hawaiian Memorial Park is far from that. There are significant reasons why cemeteries should not be allowed in conservation districts.

"We call our cemeteries parks and lawns and fields and greens. **Yet the American Graveyard hardly qualifies as a natural environment.** For all their landscaping aboveground, our cemeteries function less as verdant resting grounds of the dead than as **landfills for the materials** that infuse and encase them."

"Little Research has focused on the potential environmental consequences of depositing such large quantities of hazardous substances into cemetery grounds. Furthermore, no one is systematically testing cemetery groundwaters for formaldehyde pollution in the United States. EPA regulates it as a hazardous waste." (Harris, M., *Grave Matters*, page 38)

The 1998 World Health Organization (WHO) documented **THE IMPACT OF CEMETERIES ON THE ENVIRONMENT AND PUBLIC HEALTH.** The findings of research from Australia, Brazil, Europe and South Africa note that **most existing cemeteries were sited without thought given to potential risks** to the local environment and community. Please comment on the following questions that **WHO** presented:

What are safe distances between aquifers in various geological and hydrogeological situations?

Have there been any recorded disease outbreaks or epidemics caused by microorganisms seeping from cemeteries?

What is the epidemiological evidence for populations living near cemeteries?

Why and how do most of the microorganisms produced during the purification process, not appear in the groundwater beneath cemeteries?

Have you collected any existing regulations on cemetery siting and design from different countries to substantiate your claim that our neighborhood is a viable location for a cemetery?

What should be the desirable minimum thickness of the unsaturated zone beneath cemeteries?

Shouldn't new cemeteries or expansions be properly assessed from a geoscientific perspective prior to detailed design planning?

Dr. Dent, a world renowned hydrologist and engineering geologist, who was referenced in HMP 2008 DEIS, claims that "Almost nothing is known of decomposition in the tropical environment. Another area lacking in research." He was referenced again in 2018 DEIS (4-105), The study's initial results indicate decay products are measurable and could impact the environment.

HMP states that seals would **limit** seepage and associated decay products into the surrounding environment.

How long, on an average, will a concrete burial vault last underground?

How efficient are casket and burial vault seals near water sources and under harsh environmental conditions?

How long do rubber gaskets prevent seepage from exploding caskets due to the accumulated gases and fluids of the decomposing bodies?

How do you propose to deal with Differential Settlement of the memorial markers? This already happens so frequently at the Veteran's Cemetery.

Please clarify how 30,000 burial plots full of concrete vaults, toxic chemicals from caskets full of varnishes, sealers, preservatives, metal handles /ornaments and embalmed bodies with mercury from dental fillings, pacemakers, esophageal tubes and a host of medical products would be beneficial for our neighborhood and the surrounding environment. (*Disabled World - Cemeteries : Environmental Pollution and Groundwater Contamination, Rev. 2017-05-04*)At what environmental cost can you justify the deforestation, grading and filling in of a healthy watershed region?

I am opposed to the proposed cemetery expansion due to the significant environmental impacts that will result from the deforestation, grading and filling in of valuable conservation land. Although the acreage for the expansion has decreased, Hawaiian Memorial Park's siting for their expansion location seems inappropriate and does not reflect a desire to be good stewards of Hawaii's limited Land. The proposed expansion also does not portray HMP as a considerate neighbor who is concerned about potential safety and health risks to our community, Kawa Watershed Region and the receiving coastal waters of Kaneohe Bay.

Sincerely, Julianne The Creedy

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