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## A BILL FOR AN ACT

RELATING TO SUSTAINABLE GROUNDWATER YIELDS.

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:**

1           SECTION 1. The legislature finds that groundwater is the  
2 primary source of municipal water in the State. Most aquifers  
3 in the State occur as a dynamic lens-shaped body of freshwater  
4 that floats on denser sea water that is recharged through  
5 groundwater flows from inland areas. Because of the underlying  
6 seawater, groundwater pumping must be carefully managed to  
7 prevent saltwater intrusion. Changes in precipitation and  
8 evapotranspiration, or changes to groundwater and surface  
9 streams resulting from the drilling and pumping of wells, may  
10 reduce or alter the flow of freshwater through the aquifer,  
11 resulting in changes to the salinity of the pumped water.

12           The legislature further finds that the commission on water  
13 resource management uses a mathematical model to estimate how  
14 much water can be removed from an aquifer or other underground  
15 water structure without damaging the quantity or quality of  
16 water available. This estimate is the sustainable yield.

17 However, due to difficulties involved in numerical modeling and



1 an absence of detailed site-specific data, sustainable yield  
2 determination defaults to a simple analytical model.  
3 Additionally, conventional approaches fail to account for  
4 uncertainties, especially those related to freshwater recharge.

5 The purpose of this Act is to:

- 6 (1) Require the University of Hawaii to develop a flexible  
7 model for setting sustainable groundwater yields that  
8 is inclusive of the needs of traditional and customary  
9 Native Hawaiian practices, climate change history and  
10 projections, and groundwater seepage at the shoreline;  
11 and  
12 (2) Appropriate funds to develop the model.

13 SECTION 2. (a) The University of Hawaii shall develop a  
14 flexible model for setting sustainable groundwater yields. The  
15 model shall take into account the needs of traditional and  
16 customary Native Hawaiian practices, climate change history and  
17 projections, and groundwater seepage at the shoreline.

18 (b) The University of Hawaii shall submit a report of its  
19 findings, recommendations, and model for setting sustainable  
20 groundwater yields, including any proposed legislation, to the



# H.B. NO. 905

1 legislature no later than twenty days prior to the convening of  
2 the regular session of 2024.

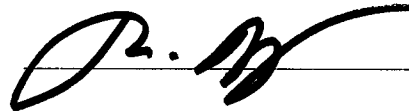
3 SECTION 3. There is appropriated out of the general  
4 revenues of the State of Hawaii the sum of \$ or so  
5 much thereof as may be necessary for fiscal year 2023-2024 for  
6 the University of Hawaii to develop a flexible model for setting  
7 sustainable groundwater yields.

8 The sum appropriated shall be expended by the University of  
9 Hawaii for the purposes of this Act.

10 SECTION 4. This Act shall take effect on July 1, 2023.

11

INTRODUCED BY:



JAN 23 2023



# H.B. NO. 905

**Report Title:**

Sustainable Groundwater Yields; Model; University of Hawaii;  
Appropriation

**Description:**

Requires the University of Hawaii to develop a flexible model for setting sustainable groundwater yields that is inclusive of the needs of traditional and customary Native Hawaiian practices, climate change history and projections, and groundwater seepage at the shoreline. Appropriates funds.

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