
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 legislature further finds that this a matter of
6 statewide concern that falls under its purview pursuant to
7 article X, section 6, of the Hawaii State Constitution.

8 The purpose of this Act is to require the University of
9 Hawaii, in consultation with the commission on water resource
10 management, to develop a scope of work and cost analysis to
11 complete a flexible groundwater model; provided that the model
12 shall propose methods for determining the needs of traditional
13 and customary Native Hawaiian practices, climate change history
14 and projections, and groundwater dependent ecosystems.

15 SECTION 2. (a) The University of Hawaii, in consultation
16 with the commission on water resource management, shall develop
17 a scope of work and cost analysis to complete a flexible
18 groundwater model that proposes methods for determining the
19 needs of traditional and customary Native Hawaiian practices,
20 climate change projections, and groundwater dependent
21 ecosystems.



1 (b) The University of Hawaii, in consultation with the
2 commission on water resource management, shall submit a report
3 of its findings, recommendations, and scope of work and costs,
4 including any proposed legislation, to the legislature no later
5 November 1, 2023.

6 SECTION 3. This Act shall take effect on June 30, 3000.



Report Title:

Sustainable Groundwater Yields; Model; University of Hawaii;
Commission on Water Resource Management

Description:

Requires the University of Hawaii, in consultation with the commission on water resource management, to develop a scope of work and cost analysis to complete a flexible groundwater model that proposes methods for determining the needs of traditional and customary Native Hawaiian practices, climate change projections, and groundwater dependent ecosystems. Requires a joint report to be submitted to the legislature by 11/1/2023. Effective 6/30/3000. (HD1)

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