
A BILL FOR AN ACT

RELATING TO WASTEWATER SYSTEMS.

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

1 SECTION 1. The legislature finds that cesspools are
2 contaminating the State's ground water, streams, drinking water,
3 and coastal ecosystems. Maintaining the cleanliness of the
4 State's waters is a matter of statewide concern that falls under
5 the legislature's obligation to enact laws pursuant to
6 article XI, section 7, of the Hawaii State Constitution. To
7 address the State's cesspool pollution, Act 125, Session Laws of
8 Hawaii 2017, required all cesspools to be upgraded or converted
9 to a septic system or aerobic treatment unit system, or
10 connected to a sewerage system before January 1, 2050, and
11 directed the department of health to investigate the number,
12 scope, and location of cesspools that required upgrade,
13 conversion, or connection based on their impact on public
14 health. Additionally, Act 132, Session Laws of Hawaii 2018,
15 established the cesspool conversion working group to develop a
16 long-range, comprehensive plan for the conversion of cesspools
17 statewide by 2050 and commissioned a statewide study of sewage



1 contamination in nearshore marine areas to further supplement
2 studies and reports conducted by the department of health on
3 cesspools. The cesspool conversion working group's 2021 Hawaii
4 cesspool hazard assessment and prioritization tool report
5 identified three prioritization categories: priority levels 1,
6 2, and 3. Priority level 1 includes areas in the State where
7 cesspools pose the greatest contamination hazard; priority level
8 2 includes areas where cesspools pose a significant
9 contamination hazard; and priority level 3 includes areas where
10 cesspools have a pronounced contamination hazard.

11 The 2021 Hawaii cesspool hazard assessment and
12 prioritization tool report also noted that the geographic
13 coverage of their evaluation only extended across the four main
14 Hawaiian Islands. It further noted that even though the islands
15 of Molokai, Lanai, and Niihau were also impacted by cesspool
16 concerns, these islands were not included in several key
17 datasets necessary for its analysis. Thus, the authors of the
18 2021 Hawaii cesspool hazard assessment and prioritization tool
19 report recommended that a ranking system for these islands also
20 be established.



1 The legislature further finds that the following
2 communities were labeled as priority level 1 areas by the 2021
3 Hawaii cesspool hazard assessment and prioritization tool
4 report: Haleiwa, Waimanalo Beach-Homesteads, Hauula-Kaaawa,
5 Makua Valley, Judd Hillside-Lowery Avenue, Waimea-Kahuku, Laie,
6 Kawaiiloa, Campbell High School, Kaena Point, Kalaheo Avenue,
7 Waianae Kai, and Nanakuli on Oahu; Halama, Kamaole, Kahoma,
8 Keawakapu, Kapalua, Launiupoko, and Spreckelsville on Maui;
9 Holualoa, Kailua, and Kawaihae-Waikoloa on Hawaii; and
10 Haena-Hanalei, Kekaha-Waimea, and Wailua Homesteads on Kauai.
11 In these areas where homes are not connected to wastewater
12 systems or are too remote to be connected to existing
13 infrastructure, new wastewater technologies and solutions are
14 necessary to transition away from environmentally hazardous
15 cesspools.

16 The legislature additionally finds that, according to
17 recent shoreline erosion management plans, south Molokai has the
18 highest concentration of Hawaiian homestead residential lots
19 located directly on the coast, having approximately fifty lots
20 within two and a half miles of noncontiguous shoreline. For
21 Molokai as a whole, the Molokai Health Center reports that forty



1 per cent of the population relies on subsistence farming,
2 hunting, and fishing, which means that having a clean and
3 healthy reef and nearshore environment is crucial for the health
4 of the community, especially the Native Hawaiian community. The
5 coastal plain of south Molokai is underlain by underground
6 rivers of fresh water flowing mauka to makai that affect the
7 fringing reef, an important food source for Native Hawaiians
8 residing on Molokai. A United States Geological Survey report
9 concluded that further inquiry into the range of nutrient
10 sources to groundwater and nutrient concentrations reaching the
11 coast in groundwater discharge will aid in future planning and
12 resource management. Molokai coastal homesteaders will be
13 financially challenged to convert cesspools to more modern
14 individual wastewater systems, as the median annual household
15 income averaged over the three department of Hawaiian home lands
16 coastal communities was \$42,396 in 2019, according to the
17 American Community Survey of 2019.

18 The legislature additionally finds that new wastewater
19 management solutions could greatly improve public health.
20 Technologies that are reaching a commercial scale for the first
21 time include solutions for individual homes, as well as



1 multi-unit dwellings, apartment buildings, and entire
2 communities. Large wastewater management systems can remove
3 sewage from multi-unit dwellings and apartment buildings. At
4 the municipal scale, these technologies can effectively treat
5 sewage from entire communities for a small fraction of the cost
6 of existing technology now employed in Hawaii. Self-contained,
7 self-powered, and self-cleaning toilets can be used in homes
8 that do not have the capacity to connect to the existing sewer
9 infrastructure. For example, the Puu Opae Kuleana Homestead
10 Settlement Plan, which will offer two hundred fifty homestead
11 lots in Waimea, Kauai, does not include a centralized wastewater
12 service or public water system, and the nearest wastewater
13 treatment plant is more than four miles away and thus could
14 benefit from new wastewater solutions. The Anahola Kuleana
15 Homestead Settlement Plan, which will offer one hundred fifteen
16 homestead lots in Kawaihau, Kauai, will similarly benefit from
17 new wastewater solutions.

18 The legislature further finds that approximately one
19 thousand individual wastewater system applications are processed
20 and reviewed each year. There are approximately eighty-two
21 thousand cesspools that will be required to be upgraded or



1 converted to an approved wastewater system or connected to a
2 sewer system by 2050 pursuant to section 342D-72, Hawaii Revised
3 Statutes. It is projected that individual wastewater system
4 applications may increase up to an additional three thousand to
5 five thousand applications per year to meet this mandate.

6 Accordingly, the purpose of this Act is to:

- 7 (1) Establish and appropriate funds to implement a
8 three-year new wastewater system demonstration pilot
9 program within the university of Hawaii water
10 resources research center to review, examine, and
11 demonstrate new wastewater technology systems;
12 implement those technologies in wastewater system
13 demonstration projects; and establish a ranking system
14 similar to the Hawaii cesspool prioritization tool for
15 the islands of Molokai, Lanai, and Niihau; and
- 16 (2) Appropriate moneys for two full-time equivalent
17 (2.0 FTE) positions within the department of health's
18 wastewater branch.

19 SECTION 2. (a) There is established a three-year new
20 waste management solution and cesspool system demonstration



1 pilot program within the university of Hawaii water resources
2 research center.

3 (b) The university of Hawaii water resources research
4 center, in consultation with the department of health,
5 department of Hawaiian home lands, the university of Hawaii
6 college of engineering, and all appropriate county agencies,
7 shall:

- 8 (1) Examine and demonstrate new wastewater and cesspool
9 technology systems, ranging from individual toilets to
10 significantly larger multi-unit systems and options
11 for community-scale solutions as appropriate, and
12 review and evaluate the affordability, feasibility,
13 and efficiency of the treatment technologies;
- 14 (2) Administer not less than four cesspool system
15 demonstration projects implementing new toilet and
16 sewage treatment technologies; provided that each
17 project shall include a cesspool in an area designated
18 as a priority level 1 by the cesspool conversion
19 working group's prioritization tool report; provided
20 further that there shall be no less than one project



1 in each county; provided further that there shall be
2 no less than one project on the island of Molokai;

3 (3) Document, validate, and summarize the various tests,
4 research, and outcomes of each cesspool system
5 demonstration project; and

6 (4) Establish a ranking system similar to the Hawaii
7 cesspool prioritization tool for the islands of
8 Molokai, Lanai, and Niihau.

9 (c) The university of Hawaii water resources research
10 center shall submit an annual report to the legislature no later
11 than twenty days prior to the convening of each regular session
12 for the duration of the pilot program. The reports shall
13 include:

14 (1) Information on the new wastewater and cesspool
15 technology systems reviewed and implemented;

16 (2) Cesspools converted pursuant to the pilot program;

17 (3) The costs incurred to convert each cesspool;

18 (4) Recommendations on how to improve the efficiency of
19 the pilot program;

20 (5) Whether the pilot program should be made permanent;

21 and



1 (6) Any other recommendations that the university of
2 Hawaii water resources research center deems
3 appropriate.

4 (d) The pilot program shall cease to exist on June 30,
5 2027.

6 SECTION 3. In accordance with section 9 of article VII, of
7 the Constitution of the State of Hawaii and sections 37-91 and
8 37-93, Hawaii Revised Statutes, the legislature has determined
9 that the appropriation contained in this Act will cause the
10 state general fund expenditure ceiling for fiscal year 2024-2025
11 to be exceeded by \$, or per cent. The reasons
12 for exceeding the general fund expenditure ceiling are that the
13 appropriation made in this Act is necessary to serve the public
14 interest and to meet the need provided for by this Act.

15 SECTION 4. There is appropriated out of the general
16 revenues of the State of Hawaii the sum of \$3,025,468 or so much
17 thereof as may be necessary for fiscal year 2024-2025 to
18 implement the new waste management solution and cesspool system
19 demonstration pilot program established pursuant to this Act.

20 The sum appropriated shall be expended by the university of
21 Hawaii water resources research center.



1 SECTION 5. There is appropriated out of the general
2 revenues of the State of Hawaii the sum of:

3 (1) \$89,500 or so much thereof as may be necessary for
4 fiscal year 2023-2024 and the same sum or so much
5 thereof as may be necessary for fiscal year 2024-2025
6 to fund one full-time equivalent (1.0 FTE) engineer V
7 position within the department of health's wastewater
8 branch; and

9 (2) \$82,700 or so much thereof as may be necessary for
10 fiscal year 2023-2024 and the same sum or so much
11 thereof as may be necessary for fiscal year 2024-2025
12 to establish one full-time equivalent (1.0 FTE)
13 engineer IV position within the department of health's
14 wastewater branch,

15 to support the approval of individual wastewater systems
16 applications and the new waste management solution and cesspool
17 system demonstration pilot program established pursuant to this
18 Act.

19 The sums appropriated shall be expended by the department
20 of health.

21 SECTION 6. This Act shall take effect on July 1, 2024.



Report Title:

UH; Cesspools; New Waste Management Solution and Cesspool System Demonstration Pilot Project; Report; Positions; Expenditure Ceiling; Appropriations

Description:

Establishes a 3-year new waste management solution and cesspool system demonstration pilot program within the University of Hawaii Water Resources Research Center to examine and demonstrate new wastewater and cesspool technology systems; implement those technologies in demonstration projects in areas across the State that are identified as priority level 1 in the 2021 Hawaii Cesspool Hazard Assessment and Prioritization Tool Report; and establish a similar ranking system for prioritization levels for the islands of Molokai, Lanai, and Niihau. Requires the University of Hawaii Water Resources Research Center to submit annual reports to the Legislature. Establishes positions. Declares that the general fund expenditure ceiling is exceeded. Makes appropriations. (SD1)

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