
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 article
6 XI, section 7, of the Hawaii State Constitution. To address the
7 State's cesspool pollution, Act 125, Session Laws of Hawaii
8 2017, required all cesspools to be upgraded or converted to a
9 septic system or aerobic treatment unit system, or connected to
10 a sewerage system before January 1, 2050, and directed the
11 department of health to investigate the number, scope, and
12 located of cesspools that required upgrade, conversion, or
13 connection based on their impact on public health.
14 Additionally, Act 132, Session Laws of Hawaii 2018, established
15 the cesspool conversion working group to develop a long-range,
16 comprehensive plan for conversion of cesspools statewide by 2050
17 and commissioned a statewide study of sewage contamination in



1 nearshore marine areas to further supplement studies and reports
2 conducted by the department of health on cesspools. The
3 cesspool conversion working group's 2021 Hawaii cesspool hazard
4 assessment and prioritization tool report identified three
5 prioritization categories: priority levels 1, 2, and 3.
6 Priority level 1 includes areas in the State where cesspools
7 pose the greatest contamination hazard; priority level 2
8 includes areas where cesspools pose a significant contamination
9 hazard; and priority level 3 includes areas where cesspools have
10 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 to 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 Kawaihoa, 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, with approximately fifty lots
20 within two and a half miles of discontiguous 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 Molokai Native
8 Hawaiians. A United States Geological Survey report concluded
9 that further inquiry into the range of nutrient sources to
10 groundwater and nutrient concentrations reaching the coast in
11 groundwater discharge will aid in future planning and resource
12 management. Molokai coastal homesteaders will be financially
13 challenged to convert from cesspools to more modern individual
14 wastewater systems, as the median annual household income
15 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 over four miles away and thus could benefit
14 from new wastewater solutions. The Anahola Kuleana Homestead
15 Settlement Plan, which will offer one hundred fifteen homestead
16 lots in Kawaihau, Kauai, will similarly benefit from new
17 wastewater solutions.

18 The legislature further finds that on an annual basis,
19 approximately one thousand individual wastewater system
20 applications are processed and reviewed. There are
21 approximately eighty-two thousand cesspools that will be

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

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



1 SECTION 2. (a) There is established a three-year new
2 wastewater system demonstration pilot program within the
3 university of Hawaii water resources research center.

4 (b) The university of Hawaii water resources research
5 center shall:

- 6 (1) Examine and demonstrate new wastewater technology
7 systems, ranging from individual toilets to
8 significantly larger multi-unit systems and options
9 for community scale solutions as appropriate, as well
10 as review and evaluate the affordability, feasibility,
11 and efficiency of the treatment technologies;
- 12 (2) Administer not less than four wastewater system
13 demonstration projects implementing new toilet and
14 sewage treatment technologies; provided that:
- 15 (A) Each project shall include a cesspool in an area
16 designated as a priority level 1 by the cesspool
17 conversion working group's prioritization tool
18 report;
- 19 (B) There shall be not less than one project in each
20 county; and

1 (C) There shall be not less than one project on the
2 island of Molokai;

3 (3) Document, validate, and summarize the various tests,
4 research, and outcomes of each wastewater 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. Each report shall
13 include:

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

16 (2) The number of cesspools converted pursuant to the
17 pilot program;

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

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



- 1 (5) Comments on whether the pilot program should be made
2 permanent; and
3 (6) Any other recommendations the university of Hawaii
4 water resources research center deems appropriate.
5 (d) The pilot program shall cease to exist on June 30,
6 2026.

7 SECTION 3. There is appropriated out of the general
8 revenues of the State of Hawaii the sum of \$ or so much
9 thereof as may be necessary for fiscal year 2023-2024 to
10 implement the new wastewater system demonstration pilot program
11 established pursuant to this Act.

12 The appropriation made by this section shall not lapse at
13 the end of the fiscal year for which the appropriation is made;
14 provided that all moneys from the appropriation unencumbered as
15 of June 30, 2026, shall lapse as of that date.

16 The sum appropriated shall be expended by the university of
17 Hawaii water resources research center, in cooperation and
18 consultation with the department of health, department of
19 Hawaiian home lands, and the university of Hawaii college of
20 engineering for the purposes of this Act.



1 SECTION 4. Notwithstanding section 342D-83, Hawaii Revised
2 Statutes, or any other law to the contrary, there is
3 appropriated out of the water pollution control revolving fund
4 the sum of:

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

11 (2) \$ or so much thereof as may be necessary for
12 fiscal year 2023-2024 and the same sum or so much
13 thereof as may be necessary for fiscal year 2024-2025
14 to fund one full-time equivalent (1.0 FTE) planner
15 position within the department of health's wastewater
16 branch.

17 The sums appropriated shall be expended by the department
18 of health to support approval of individual wastewater systems
19 applications.

20 SECTION 5. This Act shall take effect on July 1, 2050.

Report Title:

Cesspools; New Wastewater System Demonstration Pilot Project;
Report; Appropriations

Description:

Establishes a 3-year New Wastewater System Demonstration Pilot Program within the University of Hawaii Water Resources Research Center to examine and demonstrate new wastewater 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 reports to the Legislature. Appropriates funds for the pilot program. Appropriates funds for 1 full-time equivalent (1.0 FTE) engineer position and 1 full-time equivalent (1.0 FTE) planner position within the Department of Health's Wastewater Branch to support approval of individual wastewater systems applications. Effective 7/1/2050. (SD2)

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