

Rationale for the Proposed Revisions

To Department of Health

Administrative Rules,

Title 11, Chapter 62

Wastewater Systems

Department of Health

Environmental Management Division

Wastewater Branch

Honolulu, Hawai'i

September 2015

Background:

The Department of Health (DOH) has statutory authority to adopt rules that it deems necessary for the public health and safety respecting:

(1) **Nuisances**, foul or noxious odors, gases, vapors, waters in which mosquitoes breed or may breed, **sources of filth, and causes of sickness or disease**, within the respective districts of the State, and on board any vessel;

(3) Location, air space, ventilation, **sanitation, drainage, sewage disposal, and other health conditions** of buildings, courts, construction projects, excavations, pools, watercourses, areas, and alleys;

(4) Privy vaults and **cesspools**;

Hawai'i Revised Statutes (HRS) §§321-11. DOH also has statutory rulemaking authority under HRS §342D-4, which states:

In addition to any other power or duty prescribed by law and in this chapter, the director shall prevent, control, and abate water pollution in the State and **may control all management practices for domestic sewage, sewage sludge, and recycled water, whether or not the practices cause water pollution**. In the discharge of this duty, the director may adopt rules pursuant to chapter 91 necessary for the purposes of this chapter.

Hawai'i's administrative rules for wastewater systems date back to at least December 1988. They were revised in December 2004.

Proposed Revisions:

The Department of Health (DOH) is proposing to revise Hawai'i Administrative Rules (HAR), Title 11, Chapter 62, Wastewater Systems (hereinafter referred to as HAR 11-62), with the following changes, among other things:

1. Prohibiting the installation of new cesspools in all areas of the State. Currently, new cesspools are still allowed in parts of Hawaii and Maui Counties; up to 800 new cesspools are being installed each year. Hawaii is the only state that is still allowing new cesspools;
2. Adding requirements as the Legislature directed to implement Act 120 of 2015 for the certification of qualified cesspools and qualified expenses. Act 120 provides a temporary income tax credit of up to \$10,000 for the cost of upgrading or converting a qualified cesspool to a septic tank system or an aerobic treatment unit system, or connecting to a sewer system;
3. Clarifying that when a building modification would change the nature or quantity of the wastewater flowing into an individual wastewater system, DOH may require upgrading the system;

4. Revising the flow per capita requirements for restaurants, barber shops and beauty salons to clarify and reflect the present flow per capita data from other states for these types of establishments;
5. Changing definitions in §11-62-01 to clarify the meaning of terms used in the rules and delete terms no longer included;
6. Eliminating the “general permit” and clarifying that the Wastewater Branch of DOH issues construction approvals and approvals to use, not permits;
7. Clarifying that the individual wastewater system setback is from the shoreline certification, not the vegetation;
8. Clarifying requirements for operators of aerobic treatment units (individual wastewater systems that include a tank and an aeration device, piping and disposal system);
9. Adding restrictions to prevent the direct discharge of effluent from an aerobic treatment unit to groundwater;
10. Adding minimum contract requirements for the maintenance of an aerobic treatment unit and its disposal system;
11. Consolidating requirements for non-domestic wastewater (wastewater from agricultural, commercial or industrial operations);
12. Adding a requirement that effluent testing for private wastewater treatment plants shall be performed by an independent laboratory;
13. Streamlining by allowing engineers to submit certification statements for wastewater treatment works, (that is, sewers and treatment plants, not individual wastewater systems);
13. Adding reporting requirements for wastewater treatment works;
14. Restricting the use of seepage pits as soil absorption systems for treatment units;
15. Revising the requirement for onsite storage of treatment plant records from five to two years;
16. Adding the option to submit a recycled water application for a recycled water system;
17. Adding requirements for new users of recycled water obtaining access to an existing recycled water system;

18. Updating graywater system rules to be consistent with the State Plumbing Code;
19. Requiring that septic tank manholes be brought to grade and secured for better maintenance access;
20. Deleting requirement that septage pumpers submit quarterly reports;
21. Revising provisions of field citations (offers to settle smaller violations);
22. Revising spill reporting requirements;
23. Requiring new sludge treatment facilities greater than 100,000 gallons per day to dewater their sludge;
24. Deleting requirements for surface disposal of wastewater sludge because such disposal is not economical;
25. Revising the Molybdenum pollutant ceiling for sludge treatment from 15 mg/kg to 25 mg/kg; and
26. Revising the Nickel pollutant ceiling for sludge treatment from 100 mg/kg to 420 mg/kg.

Rationale for prohibiting new cesspools

Sewers and septic systems treat wastewater before discharging it to the environment, but cesspools generally do not.¹ Cesspools are little more than holes in the ground that discharge raw, untreated human waste directly into the subsoil, where it can spread and contaminate ground water, drinking water sources, streams and the ocean by releasing disease-causing pathogens and other harmful substances. The effluent from cesspools generally contains much higher concentrations of nitrogen, phosphorus, and fecal coliform bacteria than that of septic system effluent subjected to soil treatment.² **In order to protect public health and the environment, new cesspools should be prohibited.**

¹Any treatment that cesspool effluent receives is incidental, not by design, very site specific, and not practical to include in the regulatory process.

² An evaluation done by the Water Resources Research Center of the University of Hawai'i concluded that the effluent from cesspools contains concentrations about 15 to 90 times higher for nitrogen, 5 to 20 times higher for phosphorus, and 77,000 times higher for fecal coliform bacteria than that of septic system effluent subjected to soil treatment ("Onsite Wastewater Treatment Survey and Assessment – Prepared for the State of Hawaii, Department of Business, Economic Development and Tourism Office of Planning, Hawaii Coastal Zone Management Program; and the Department of Health," Water Resources Research Center, University of Hawaii and Engineering Solutions, Inc., March 2008).

Cesspool risks to human health and the environment.

Cesspools present risks to human health and the environment on every major island in the State of Hawai'i. There are approximately 88,000 cesspools currently in the State, with nearly 50,000 located on the Big Island, almost 14,000 on Kauai, over 12,000 on Maui, over 11,000 on Oahu and over 1,400 on Molokai. Each year an additional 800 new cesspools are approved for construction.

Hawai'i's cesspools release approximately 55 million gallons of untreated sewage into the ground each day. Untreated wastewater contains pathogens such as bacteria, protozoa and viruses that can cause gastroenteritis, Hepatitis A, conjunctivitis, leptospirosis, salmonellosis and cholera. Pharmaceuticals in wastewater, including disruptive hormones, also may adversely affect human health and aquatic organisms. Hawai'i's cesspools also release as much as 23,700 pounds of nitrogen and nearly 6,000 pounds of phosphorus into the ground each day, which can stimulate undesirable algae growth, degrade water quality, and impact coral reefs.

Studies performed for DOH designated receptors of concern as sensitive ecosystems that can potentially be adversely affected by cesspool effluent or areas where potential human contact with cesspool contaminated waters may occur.³ These studies considered three receptors of concern: (1) drinking water sources, (2) streams and watersheds, and (3) coastal waters. Setback zones were delineated around each receptor of concern based on either a fixed distance or a groundwater time of travel to the receptor of concern. The purpose of these studies was to identify the cesspools and other individual wastewater treatment systems that have the potential for adverse receptor of concern impact. The presence of a cesspool within a receptor of concern's setback zone is evaluated as having the potential for a negative impact on that receptor of concern.

Cesspool effluent can negatively impact drinking water wells by introducing biological and chemical contamination into the well's intake. Setbacks were delineated for public drinking water wells based on the groundwater time of travel to the well intake. A two-year time-of-travel setback for drinking water wells identifies those cesspools that have the potential to introduce chemical and biological contamination into a well. It is assumed that pathogens will not survive longer than 2 years, but chemical contamination can persist much longer. There are approximately 2,551 cesspools that are located in areas within a 2 year time of travel to the intake of a public drinking water well.

Cesspool effluent entering a stream or coastal waters can introduce pathogens and increase the nutrient loads in the streams resulting in excessive plant growth. The 200 foot setback from the water in Act 120 does not cover all cesspools that may pollute

³"Human and Environmental Risk Ranking of Onsite Sewage Disposal Systems on Oahu, Hawaii," Robert B. Whittier of DOH and Aly I. El-Kadi of University of Hawai'i at Manoa, December 2009.

"Human Health and Environmental Risk Ranking of On-site Sewage Disposal Systems For the Hawaiian Islands of Kauai, Maui, Molokai and Hawai'i," Robert B. Whittier of DOH and Aly I. El-Kadi of University of Hawai'i at Manoa, June 2014.

groundwater, but at least encourages upgrading of those cesspools with the greatest potential to introduce both pathogen and nutrient contamination to waters.

The studies indicate that Hawai`i Island and Kauai have the most high risk areas for water quality degradation from on-site disposal systems:

- Hawai`i Island: the northeast coast and west coast from Hualalai to south of Captain Cook have elevated risk of harm to coastal waters and drinking water. Hilo has high concentrations of on-site disposal systems. Pahoia, Kapoho, Pahala, Naalehu, Hawai`i Ocean View Estates and Waimea are also areas with elevated risk.
- Kauai: in Wailua/Kapaa there is a dense clustering of on-site systems in perennial watersheds, and within a two-year travel time to the ocean, with higher risk of harm. The south shore from Poipu to Hanapepe and Nawiliwili also have high risks.
- Maui has elevated risks in coastal zones in Kaanapali, Kihei to Makena, Waihee/Waiehu and the coastal area fronting the northwest slope of Haleakala.
- On Oahu, Kahalu`u, Koolauloa, Pupukea-Sunset Beach, Diamond Head/Black Rock, and Waialua are the areas with highest risk.
- On Molokai, there is elevated risk near the coast fronting the unsewered areas near Kaunakakai.

Last in the Nation

Hawai`i is the only state in the US that still allows construction of new cesspools. Hawai`i has fallen behind all other states in eliminating cesspool pollution. Even Rhode Island, which has the second largest number of cesspools in the nation (25,000), banned the construction of new cesspools **46 years ago** in 1968. Rhode Island's Cesspool Act of 2007 mandates replacement of cesspools that are located within 200 feet of shoreline or wells.

Alternative to cesspools

When connection to a sewer system is not practical, a septic system should be installed to contain and treat wastewater before disposal. A septic system allows solids to settle in a tank where anaerobic organisms slowly digest organic solids and allow liquids to flow into a shallow absorption bed. A proper soil bed has a biologically active area in the first three feet of the soil layer where oxygen can support microorganism activity that neutralizes pathogens. The studies indicate that soil treatment is very effective in removing bacteria (fecal coliform was only 13 colony forming units (cfu) per 100 milliliters (mL) in leachate after soil treatment versus 1,000,000 cfu/mL for cesspools.) Septic systems with soil treatment also greatly reduce the amount of nitrogen and phosphorus compared to cesspools. An evaluation using the data from the Whittier and El-Kadi studies indicates that replacing cesspools with septic systems with soil treatment would reduce nitrogen discharges by more than 90% and phosphorus by more than 80%.

In contrast, when waste is delivered directly into subsoil that is too coarse or lacks oxygen, as usually happens with cesspools, biological activity to treat wastewater cannot be supported. Coarse, porous soil conditions and fractured lava or lava tubes are a problem particularly on the island of Hawai`i (Big Island), where the majority of the cesspools in the State are located. Porous rock cannot effectively filter wastewater but instead allows easy flow within tubes and caves, as documented by the Hawai`i Chapter of the National Speleological Society. As described above, there is elevated risk of contamination of drinking water sources, streams and watersheds, and coastal waters from cesspools.

Conclusion

Cesspools discharge untreated waste into the ground, causing risks to human health through drinking water sources, streams and near-shore waters. These risks will increase with the growing population if Hawai`i does not stop allowing the installation of new cesspools, and will continue if Hawai`i does not phase out cesspools. **The Department of Health seeks to protect public health and preserve our natural resources by proposing in these rules that no new cesspools be permitted.**

Rationale for other changes

The table below lists other changes proposed by DOH with the rationales for those changes:

Sections proposed for change	Rationales for proposed changes for HAR, Chapter 11-62
§11-62-01	Amend the preamble to reflect the present goals and objectives for the treatment and disposal of wastewater in the State of Hawai`i. Amendment explains a major new initiative, to prohibit the construction of new cesspools in the State. This proposed initiative will help protect our groundwater, drinking water and surface waters.
§11-62-02(c)	Change would clarify the relationship between the chapter 11-62 rules and the provisions in county codes, rules or ordinances.

Sections proposed for change	Rationales for proposed changes for HAR, Chapter 11-62
§11-62-03	<p>To make the definition of “Bedroom” easier to understand. Current definition is difficult to interpret.</p> <p>“Construction” is referenced in the rules but is not defined; a definition of the term would lead to greater consistency in program implementation.</p> <p>Deleting the definition of “CWDA maps” would be appropriate if new cesspools are prohibited because the maps then would not be needed.</p> <p>The definition of “General Permit” is no longer needed. The General Permit Program was terminated because the Wastewater Branch has decided not to seek delegation for the Wastewater Sludge Program with EPA. The General Permit was required as a condition of seeking delegation.</p> <p>Would add the definition of “Aerobic Treatment Unit” to have the same meaning as provided in the statute.</p> <p>Propose to revise the definition of “Graywater” to be consistent with section HRS 342D-1.</p> <p>Change the term defined from “Individual wastewater system” to “Individual wastewater systems”. Clarify the definition by listing the common types of systems.</p> <p>Would add the definition of “Large capacity cesspool” for information purposes and make it consistent with the definition used by EPA, which regulates large capacity cesspools.</p> <p>Would delete the definition of “Notice of Intent”. This definition applies to the General Permit Program that has been terminated by the Wastewater Branch.</p> <p>Would add the definition of “Public water systems” because it is referenced in the appendices and to ensure consistency with program implementation.</p> <p>Would add the definition of “Qualified Cesspool” to have the same meaning as provided in section HRS 342D-1 (Act 120).</p> <p>Would add the definition of “Qualified Expenses” to have the same meaning as provided in section HRS 342D-1 (Act 120).</p> <p>Would update the rules’ reference to the “Reuse Guidelines” to the latest version of the document.</p> <p>Would add the definition of “Residential large capacity cesspool” to have the same meaning as provided section HRS 342D-1.</p> <p>Would clarify the definition of “Seepage pit” to make it easier to understand. The current definition is unclear. Revised definition based on public comment.</p> <p>Would add the definition of “Septic System” to have the same meaning as provided in the statute.</p>

Sections proposed for change	Rationales for proposed changes for HAR, Chapter 11-62
§11-62-03	<p>Would add the definition of “Septic system” to clarify the meaning; the term is used in various areas of the chapter but not defined.</p> <p>Would clarify the definition of “Septic tank” to make it easier to understand. Current definition is difficult to interpret.</p> <p>Would update the definition of “Standard methods” to reference the latest edition of the publication.</p> <p>Would clarify the definition of “Subsurface disposal system” to make it easier to understand, read and apply. Removed injection well from the definition of a subsurface disposal system based on comment from the public In 2014.</p>
§11-62-05(a) and (b)	<p>Would clarify that all areas of the State are critical wastewater disposal areas (CWDA) and are not appropriate for construction of new cesspools.</p>
§11-62-06(a and b)	<p>Would correct grammar.</p>
§11-62-06(d)	<p>Would relocate §11-62-06(d) to consolidate requirements for non-domestic wastewater (from agricultural, commercial or industrial operations under new §11-62-07.</p>
§11-62-06(e)	<p>Would renumber as Section 11-62-06(d), delete reference to permit and add “Department approval to use.” The general permit program was terminated. The Department issues approvals to use and not general permits.</p> <p>Would add requirement that effluent testing shall be performed by an independent lab for private wastewater treatment systems for quality assurance and quality control purposes.</p>
§11-62-06(n)	<p>Would renumber as Section 11-62-06(m). Would revise this section to clarify when a wastewater system should be upgraded, adding when the director finds that a proposed building modification may change the nature or quantity of the wastewater flowing into the wastewater system such as when additional bedrooms are added to a dwelling or a restaurant is added to a shopping complex. These changes are being proposed to protect groundwater and surface waters from the discharge of wastewater from modified or failing systems. Cesspools do not provide adequate treatment of wastewater. When there is a building modification proposed to increase wastewater flows, cesspools serving the structure should be upgraded to wastewater systems that will provide adequate treatment of the wastewater. Would clarify that an owner has to satisfactorily address all of the deficiencies. The current language could potentially allow an owner to address one of many deficiencies.</p>
§11-62-06(q)	<p>Would renumber as Section 11-62-06(p), delete reference to permit, and add “Department approval to use”. The general permit program was terminated. The Department issues approvals to use and not general permits.</p>
§11-62-07	<p>Renumbered §11-62-07.1 to §11-62-07. Relocated §11-62-06(c) under this section to consolidate the requirements for non-domestic wastewater.</p>
§11-62-08(d)(1)	<p>Would clarify fencing requirement to prevent the public from gaining access to wastewater systems for safety and liability reasons.</p>

Sections proposed for change	Rationales for proposed changes for HAR, Chapter 11-62
§11-62-23.1(f)	Would require the owner's engineer instead of the owner to submit the one year certification statement based on the results and actual sampling of the treatment works. This will make it easier for the owners to allow their engineers to submit this information directly to the Department. This helps to streamline the process.
§11-62-24(b)(1)	Would add a new section to require new facilities > 100,000 gpd to have solids dewatering systems because facilities of this size should be capable of dewatering their sludge for disposal to a landfill, not rely on the counties to process their wastewater sludge.
§11-62-25(b)	Would restrict the use of seepage pits as soil absorption systems. Seepage pits should not be a way to avoid the injection well permitting process.
§11-62-25(d)	Included injection wells in this section there was a change made to the definition of "Surface Disposal System" as a result of a public comment in 2014.
§11-62-26	<p>Would add reporting requirements applicable to treatment works. This will assist the program with evaluating the performance of the wastewater treatment works. These requirements were provided in DOH's general permits; however, the permit program has since been terminated.</p> <p>Would exclude the requirement for the composite sampling of wastewater ponds. Effluent flows from ponds are not continuous, making it difficult to obtain a representative composite sample.</p> <p>Would delete the requirement of using the design flows and replace it with average daily flows throughout this section when performing effluent sampling. New plants often take time to achieve operation at design flow. Effluent testing should be based on average daily flows.</p> <p>Would clarify the need to maintain a log book at the wastewater treatment works, to help ensure that proper operation and maintenance is being performed at the facility.</p>
§11-62-26(c)(2)(ii)	Would delete requirement to monitor the control of chlorine dosage. DOH determined that this information was not necessary when evaluating the performance of the chlorination system.
§11-62-26(e), (f) and (g)	Would update the turbidity, dosage and transmittance requirements for R-1 based on the 2003 National Water Research Institute (NWRI) standards.
§11-62-26(h)	Would add requirement that the new acceptable design requirements and commissioning of new UV disinfection systems shall comply with the 2003 NWRI UV disinfection guidelines.
§11-62-27(b)	Would make grammatical change.
§11-62-27(d),(g) and (h)	Revised section to allow the submittal of a recycled water application form. Reference to the submittal of an engineering report and other requirements were deleted. The use of a recycled water application form simplifies the process of submitting an application for a recycled water project.

Sections proposed for change	Rationales for proposed changes for HAR, Chapter 11-62
§11-62-27(e)	New users of recycled water acquiring access to an existing recycled water system need to be made aware of the DOH requirements for use and approval prior to using recycled water. This new section will clarify this requirement.
§11-62-28	Revised requirement for onsite storage of plant records from five to two years. Storing five years of plant records onsite is not necessary for regulatory purposes.
§11-62-31.1(d)	Would prohibit the construction of new cesspools to protect groundwater and surface waters. See more detailed rationale for prohibiting new cesspools.
§11-62-31.1(g)	Would make this section consistent with the State Plumbing Code, which has current design standards for gray water systems.
§11-62-31.1(j)	Adding requirements for the certification of qualified cesspools and qualified expenses for the implementation of Act 120 that provides a temporary income tax credit for the cost of upgrading or converting a qualified cesspool to a septic tank system or an aerobic treatment unit system, or connecting to a sewer system.
§11-62-33.1(a)(3)	Would delete reference to the Ten State Standards and update the current applicable IAPMO standards for septic tanks.
§11-62-33.1(a)(5)	Would add design criteria for septic tank sizing greater than 1,000 gallons per day. This is needed for septic tank systems receiving variances to allow for tanks that are sized > 1,000 gallons.
§11-62-33.1(a)(7)	Would require that manholes to septic tanks be brought to grade. The cover shall be secured to prevent unauthorized entry/opening of the tank. This revision will allow for better access to a septic tank system for maintenance.
§11-62-33.1(a)(11)	Would delete reference to “permit” and replace it with “approval to use.” General permitting program terminated and permits are no longer being issued.
§11-62-33.1(b)(3)	Would add clarification for qualifications of certified operators that are authorized to maintain an aerobic treatment unit. Current requirement is vague and needs clarification.
§11-62-33.1(a)(3)	Would delete reference to the Ten State Standards and update the current applicable IAPMO standards for septic tanks.
§11-62-33.1(b)(4)	Would add section to clarify the minimum contract requirements for the maintenance of an aerobic treatment unit and its disposal system. This section is needed to ensure that proper maintenance of aerobic treatment units is performed by certified operators.
§11-62-33.1(b)(5)	Would delete reference to permittees and replace that with approved for use by the director. The general permit program was terminated. The Department issues approvals to use, not general permits.
§11-62-33.1(b)(6)	Would provide additional restrictions to prevent the direct discharge of pollutants to groundwater. A variance will be required for an aerobic treatment unit with disinfected effluent to discharge directly to groundwater. Direct discharges of aerobic treatment unit effluent to groundwater should be avoided if other disposal options are available. This revision will assist with reducing the pollutant load to groundwater sources and surface waters.

Sections proposed for change	Rationales for proposed changes for HAR, Chapter 11-62
§11-62-34(d)(3)(B)	Would clarify that extended cover was not needed if concrete rings were used for seepage pit construction.
§11-62-33.1(b)(4)	Would add section to clarify the minimum contract requirements for the maintenance of an aerobic treatment unit and its disposal system. This section is needed to ensure that proper maintenance of aerobic treatment units are performed by certified operators.
§11-62-36	Would prohibit the construction of new cesspools and delete as unnecessary the design standards for new cesspools. As explained in the more detailed rationale regarding cesspools, this change would help reduce groundwater and surface water pollution.
§11-62-37	Would clarify that DOH shall review individual wastewater systems before the Director signs a building permit.
§11-62-41 §11-62-47, §11-62-48, §11-62-50, §11-62-51, §11-62-54.01, §11-62-54.08, §11-62-55.01, §11-62-55.02, §11-62-55.03, §11-62-55.04, §11-62-55.05, §11-62-55.06, §11-62-55.07, §11-62-55.08, §11-62-56, §11-62-57.01, §11-62-57.02, §11-62-57.03, §11-62-57.04, §11-62-58	<p>Would remove reference to the general permit coverage, delete reference to permit, and add "Department approval to use". The general permit program was terminated. The Department issues approvals to use and not general permits.</p> <p>Would remove reference to surface disposal of wastewater sludge. It is not economically feasible to permit surface disposal sites in the State. Wastewater sludge is currently being disposed at permitted landfill sites.</p>
§11-62-62(b)	Would delete requirement that septage pumpers submit quarterly pumping reports to DOH. The purpose is to lessen reporting requirements for pumpers. Pumpers would need to maintain records and produce them to regulators on request.

Sections proposed for change	Rationales for proposed changes for HAR, Chapter 11-62
§11-62-82	<p>Would clarify that the field citation section applies to the offer to settle and settlement amounts.</p> <p>Would clarify applicable sections that should be cited for spill violations.</p> <p>Would increase settlement amounts in order to deter several types of violations:</p> <p>for spills to waters, \$500 for first violation and \$2,000 for subsequent violations.</p> <p>for first and subsequent spill to ground violations double from \$100/\$250 to \$200/\$500, and apply those amounts as well to violations of rules for:</p> <ul style="list-style-type: none"> • improper operation and maintenance, • no ATU aerobic treatment unit contract, • failing to respond to department inspection reports, • having a cesspool without a concrete cover, • not having a secured manhole cover for the cesspool, and • a collapsed cesspool.
§11-62-82	<p>Would add a settlement amount of \$1,000 for the 1st violation and \$2,500 for a subsequent violation for constructing individual wastewater systems without the Department's approval to construct. This added amount should help deter any property owner from constructing illegal wastewater systems.</p> <p>These proposed changes will help the Department reduce groundwater and surface water pollution and protect public health and safety.</p>
Appendix A	<p>Would remove reference to the general permit coverage. The general permit program was terminated.</p>
Appendix B	<p>Would delete appendix in its entirety because it referred to the general permit coverage. The general permit program was terminated.</p>
Appendix C	<p>Would rename as Appendix B.</p> <p>Would amend Section 6 spill protocol to require that spills of RO water > 1,000 gallons must be reported to DOH.</p> <p>Would revise section 4.g to require that owner/agent of private wastewater systems report spills to DOH.</p> <p>Would revise Spill Protocol section 8, Monitoring of State Waters. Would delete fecal coliform testing requirement and replace it with enterococci testing to be consistent with HAR, chapter 11-54, Water Quality Standards.</p> <p>Would delete table on page 62-C-12 because it is not very useful for program implementation.</p>
Appendix D	<p>Would rename as Appendix C.</p>

Sections proposed for change	Rationales for proposed changes for HAR, Chapter 11-62
Appendix E	Would delete this appendix in its entirety, consistent with proposal to prohibit new cesspools Statewide. All areas of the State would be CWDAs.
Appendix F	<p>Would rename as Appendix D.</p> <p>Table 1 – would add flow per capita for barber shops and beauty salons and revise the flow per capita for restaurants. Basically reducing the flow per capita for these establishments. These changes are necessary to clarify and reflect the present flow per capita data based on other States design criteria for these types of establishments.</p> <p>Table 2 – would clarify that individual wastewater systems should be sited the required distance from the shoreline certification instead of the vegetation. The shoreline certification is a better method to determine where the shoreline starts than the vegetation line, which is not very reliable.</p> <p>Table IV – would revise the Molybdenum pollutant ceiling from 15 mg/kg to 25 mg/kg. Studies have shown that there are no adverse effects to human health with Molybdenum at 25 mg/kg. Facilities are currently having a difficult time meeting the current standards of 15 mg/kg.</p> <p>Tables IV and VII - Would revise the Nickel pollutant ceiling from 100 mg/kg to 420 mg/kg, s the value used in federal rules, 40 CFR 503.13, Table 1. Tables 2 & 3 also use 420 for cumulative loading rates. This value is also less than Hazard Evaluation and Emergency Response Office's Soil Action Level for Unrestricted use less than 150 meters from a surface water body of 760 mg/kg.</p>
Appendix E	Renamed form A to new Appendix E.