

**BEFORE THE
ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING**

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| IN THE MATTER OF REVISIONS TO |) | |
| WATER QUALITY RULES AND |) | STATEMENT OF |
| REGULATIONS, CHAPTER 25 |) | PRINCIPAL REASONS |
| SEPTIC TANKS, SOIL ABSORPTION |) | FOR ADOPTION |
| SYSTEMS, AND OTHER SMALL |) | |
| WASTEWATER SYSTEMS; AND CHAPTER |) | |
| 15, STANDARDS FOR THE USE OR |) | |
| SURFACE DISPOSAL OF BIOSOLIDS |) | |

INTRODUCTION

The Environmental Quality Council, pursuant to the authority vested in it by the Wyoming Statutes 35-11-112 (a)(i) has adopted revisions to the following chapters and sections of the Wyoming Water Quality Rules and Regulations: Chapter 15, Standards for the Use or Surface Disposal of Biosolids; and Chapter 25, Septic Tanks, Soil Absorption Systems, and other Small Wastewater Systems.

Section 35-11-302 (a) of the Environmental Quality Act (Act) states that the administrator, after receiving public comment and after consultation with the advisory board, shall recommend to the director rules, regulations, standards and permit systems to promote the purposes of this act. Such rules, regulations, standards and permit systems shall prescribe:

- (iii) Standards for the issuance of permits for construction, installation, modification or operation of any public water supply and sewerage system, subdivision water supply, treatment works, disposal system or other facility, capable of causing or contributing to pollution.
- (vi) In recommending any standards, rules, regulations, or permits, the administrator and advisory board shall consider all the facts and circumstances bearing upon the reasonableness of the pollution involved including:
 - (A) The character and degree of injury to or interference with the health and well being of the people, animals, wildlife, aquatic life and plant life affected;
 - (B) The social and economic value of the source of pollution;
 - (C) The priority of location in the area involved;
 - (D) The technical practicability and economic reasonableness of reducing or eliminating the source of pollution; and
 - (E) The effect upon the environment.

SUMMARY OF REVISIONS TO CHAPTER 15

Appendix C of Chapter 15, which was entitled General Statewide Permit for Land Application of Domestic Septage in Remote Areas, was relocated to a newly created Appendix B in Chapter 25. The title of the appendix was shortened to Land Application of Domestic Septage in Remote Areas. The remainder of Chapter 15 was repealed and the chapter is reserved. The repealed provisions are unnecessary as the U.S. Environmental Protection Agency (EPA) is currently the permitting authority for the use or surface disposal of biosolids in Wyoming. In cases where EPA opts to not issue a permit, the Water Quality Division will require a permit application to be submitted in accordance with Chapter 3 of the Water Quality Rules and Regulations. Standards applicable to those rare situations where EPA is not the lead permitting authority for surface disposal of biosolids are located in Chapter 11, Part E.

SUMMARY OF REVISIONS TO CHAPTER 25

Chapter 25 was renamed from Septic Tank and/or Soil Absorption Systems and other Small Wastewater Systems to Septic Tanks, Soil Absorption Systems, and Other Small Wastewater Systems. The chapter was reorganized by section to clarify and update small wastewater system requirements, as the regulations for small wastewater systems in Wyoming have not been significantly updated since they were first promulgated as part of Water Quality Rules and Regulations Chapter 11 in 1984. Chapter 25 was created in July 2012 when Part D of Chapter 11 was moved, without editing, to Chapter 25.

Section 1. Section 1 was renamed from *General* to *Authority*. The language previously contained in Section 1 was shifted to Section 2.

A description of the Water Quality Division's statutory authority to promulgate the rule was added to Section 1 since a summary of its promulgation authority was not included in Chapter 25 when it was created in July 2012.

Section 2. Section 2 was renamed from *Definitions* to *Objective*. The definitions for "building sewer" and "domestic sewage" previously contained in Section 2 were moved to Section 4 and edited as described below in Section 4. The remaining definitions previously located in Section 2 were removed as the terms are no longer referenced in the chapter.

The language previously located in Section 1 was moved to Section 2. This language was edited to reflect consistency in terminology with W.S. 35-11-103(c)(ix) and to specify the systems covered under the chapter. Language previously contained in Section 7(b) was moved to Section 2 and enhanced to clarify which types of systems will require the stamp of a Wyoming registered professional engineer. Language was also added to explain that the standards contained in Chapter 25 pertain to permits required under Water Quality Rules and Regulations Chapter 3 and Chapter 27.

Section 3. Section 3 was renamed from *Design Flows* to *Timing of Compliance with These Regulations*. The design flow requirements were moved from Section 3 to Section 5, and edited as described in Section 5 below.

New language was added concerning the timing of compliance for permitted systems.

Section 4. Section 4 was renamed from *Isolation* to *Definitions*. The isolation requirements previously located in Section 4 Table 2, 4(b), and 4(c) were moved to Section 7. Edits to these passages are described in Section 7 below.

The requirements previously located at Section 4(a)(ii) and Table 3 were moved to Section 19 and edited as described in Section 19 below.

The requirements previously located at Section 4(a) and 4(a)(i) were removed due to redundancy.

Of the definitions previously contained in Section 2, the existing definition for “building sewer” was retained. The previous definition for “domestic sewage” was rephrased to “domestic septage.” Obsolete terms were removed. New definitions were added for terms that have been newly added to the chapter.

Section 5. Section 5 was renamed from *Site Suitability* to *Design Flows*.

The site suitability requirements previously contained in Section 5(a), 5(b)(ii), 5(c)(ii), 5(e)(i), 5(e)(ii) and the previously untitled Percolation Rate/Maximum Slope table were moved to Section 7 and edited as described in Section 7 below.

Section 5(d) was moved to Section 8 and was edited as described in Section 8 below.

The requirements previously contained in section 5(b), 5(b)(i), 5(c), 5(c)(i), 5(c)(ii), and 5(c)(iii) were removed due to redundancy.

Figures 1 through 6 were removed from the chapter as the division plans to place them in a future guidance document.

The design flows which were moved from Section 3 to Section 5 were edited to more clearly differentiate between residential and non-residential facilities and to update the flow rates with consideration of current water use efficiency and historical data.

Section 6. Section 6 was renamed from *Building Sewer Pipes* to *Systems Not Specifically Covered by This Rule*.

The building sewer pipe requirements previously located at Section 6(b), 6(b)(i), 6(b)(ii), 6(b)(iii), 6(b)(v), and 6(b)(vi) were moved to Section 9 and edited as described in Section 9 below.

The passage previously located at Section 6(a) was removed due to obsolescence.

The passage previously located at Section 6(b)(iv) was removed due to redundancy.

New language was added to Section 6(a), 6(b), 6(b)(i), 6(b)(ii), 6(b)(iii), 6(b)(iv), and 6(c) that describes how new technologies and systems not specifically covered by the rule may be constructed and operated in compliance with the chapter.

Section 7. Section 7 was renamed from *Soil Absorption System Sizing* to *Site Suitability*. The soil absorption system sizing requirements previously located at Section 7(a) and Figure 7 were moved to Section 8 and edited as described in Section 8 below. Section 7(b) was removed due to redundancy.

Requirements previously located at Sections 4, 5, and 10 were moved to Section 7 and edited as follows:

The location requirements previously contained in Section 4(c) were moved to Section 7(a). Additional language describing location suitability was added for clarification.

Replacement area requirements previously contained in Section 10(a)(i) were moved to Section 7(b). The language was edited for clarity.

Requirements formerly located at Section 5(c)(i) and 5(c)(ii) were reconfigured and moved to Section 7(c) and 7(d). These passages were edited for clarity.

The passage previously located at Section 5(e), was moved to 7(e) and was clarified.

The passage previously located at Section 5(e)(i) was moved to 7(e)(i) and was simplified.

The untitled table previously located in Section 5 was given the title *Table 3. Slope and Percolation Rates for Absorption Systems* and was clarified.

Subparagraphs (ii) and (iii) were added to further clarify installation and placement provisions to prevent slope instability or down slope seepage.

The passage previously located at Section 5(e)(ii) was moved to Section 7(e)(iv) and was simplified.

The passages located at Section 7(f) and (7(f)(i) were added for clarity.

The requirements previously located in Section 5(a) were moved to Section 7(f)(ii) and were clarified.

The requirements previously located at Section 5(b)(ii) were moved to Section 7(f)(iii) and were clarified.

Isolation distance requirements previously contained in Section 4, in Table 2 were moved to Section 7(g) and renamed *Table 4 Minimum Horizontal Setbacks for Domestic Wastewater*.

Setback distances were added for public water supply wells in order to protect public water supplies.

The paragraph formerly located at 4(b) was moved to subscript 1 for new Table 4, and was then edited to correct cross references and for clarity.

A new passage was added for Table 4, Subscript 2 to explain requirements for systems that discharge to the same aquifer that supplies a public water supply well.

Section 8. Section 8 was renamed from *Pretreatment* to *Soil Absorption System Sizing*. The pretreatment requirements were moved to Section 10 and were edited as described in Section 10 below.

The requirements previously located at Section 7(a) were moved to Section 8(a) and were updated to make the soil absorption system sizing calculations easier to understand.

The graph previously titled *Figure 7*, previously located in Section 7, was converted to an easier to read table format and was renamed *Table 5. Rates of Wastewater Application for Soil Absorption Systems Areas* with the percolation rates shown in ranges.

Calculations were added to Section 7(b)(i), 7(b)(ii), 7(b)(iii), and 7(b)(iv) to specify how to calculate the sizing for different trench or bed systems.

Language previously contained in subsection 5(d) was relocated to subsection 8(c) and edited to correct format inconsistencies and for clarity.

Section 9. Section 9 was renamed from *Dosing Systems Following Septic Tanks* to *Building Sewer Pipes*.

The requirements previously located at Section 9(a)(i), Table 4, and 9(a)(ii)(C) were moved to Section 10 and edited as described in Section 10 below.

The requirements previously located at Section 9(a), 9(a)(ii), Table 5, 9(a)(ii)(A), 9(a)(ii)(B), 9(a)(iii), 9(b), and 9(c) were removed as the passages were either obsolete or redundant.

The passage previously located at Section 6(b) was moved to Section 9. The date of the International Plumbing Code was updated and the passage was clarified.

The passage previously located at Section 6(b)(i) was moved to Section 9(a) and was updated to allow ASTM D-3034 SDR 35 plastic pipe.

The passage previously located at Section 6(b)(ii) was moved to Section 9(b) and was edited for clarity.

Section 9(c) was added to include requirements that will help prevent system failure.

The passage previously located at Section 6(b)(iii) was moved to Section 9(d) and was edited for clarity.

The passage previously located at Section 6(b)(v) was moved to Section 9(e) and was edited to prevent system failure.

The passage previously located at Section 6(b)(vi) was split and moved to Sections 9(f) and 9(g). The passage now located at Section 9(f) was edited to remove redundant language. The passage now located at Section 9(g) was edited for clarity.

Section 10. Section 10 was renamed from *Subsurface Treatment and Disposal Systems to Septic Tanks and Other Treatment Tanks*.

The requirements previously contained in Section 10 were moved and edited as described in Section 7 (above) and in Sections 11, 12, and 14 (below):

Section 10(a) was relocated to Section 12(a).

Section 10(a)(i) was relocated to Section 7(b).

Section 10(a)(iii) was relocated to Section 7(a).

Section 10(a)(iv) was split and relocated to Section 12(a)(vi)(B) and Section 12(a)(vi)(D).

Section 10 (a)(v) was relocated to Section 12(a)(vi)(A).

Section 10(a)(vii) was moved to Section 11(a)(i).

Section 10 (a)(viii) was relocated to Section 12(a)(vi)(C).

Section 10 (a)(ix) was relocated to Section 12(a)(iv).

Section 10 (a)(x) was relocated to Section 12(a)(vii)(A).

Section 10 (c), 10(c)(i), 10(c)(i)(A), 10(c)(i)(B) and 10(c)(i)(C) were relocated to Section 14.

Section 10 (d) was relocated to Section 12(a)(vi)(F).

Section 10 (e) was moved to Section 12(a)(x).

Section 10 (e)(i) was moved to Section 12(a)(x)(A).

Section 10 (e)(ii) was moved to Section 12(a)(x)(B).

Section 10 (e)(iii) was moved to Section 12(a)(x)(C).

Section 10(f) was moved to Section 12(a)(vii).

Sections 10(a)(ii) and 10(a)(vi) were removed as the requirements are redundant to other requirements in the chapter.

Section 10 (b) and 10(c)(iv) were removed as the requirements are no longer necessary.

The language previously located in Section 9 was moved to Section 10, was enhanced with language previously located in Sections 8 and 12, and was edited in the following manner:

Section 8(a) was moved to Section 10(a).

Section 8(a)(i) was moved to Section 10(a)(i) and was updated to include current materials. In order to prevent system failures, a passage was added to explain that the division or the delegated small wastewater program reviewing the application would review the prefabricated septic tank design for compliance with applicable construction standards.

The passages located at Section 10(a)(ii)(A), 10(a)(ii)(B), and 10(a)(ii)(C) were added to prevent tank damage or failure.

The passage previously located at Section 8(a)(ii) was moved to Section 10(a)(iii).

Section 8(a)(ii)(A) was moved to Section 10(a)(iii)(A) and was edited for clarity. The capacity of 250 gallons per day was reduced to 150 gallons due to trends in reduced water usage.

Section 8(a)(ii)(B) was moved to Section 10(a)(iii)(B) and was edited for clarity. The retention time was changed from 36 to 48 hours for consistency with recommendations found in EPA's *Onsite Wastewater Treatment Systems Manual (2002)*.

Section 8(a)(iii) was moved to Section 10(a)(iv).

Section 8(a)(iii)(A) was split and moved to Section 10(a)(iv)(A), 10(a)(iv)(C) and 10(a)(iv)(E)(IV). Section 10(a)(iv)(A) was edited for clarity. Section 10(a)(iv)(C) was edited to change the minimum liquid depth from four feet to three feet for consistency with EPA's *Onsite Wastewater Treatment Systems Manual (2002)*.

Section 8(a)(iii)(B) was split and moved to Section 10(a)(iv)(B) and 10(a)(iv)(D). The passages were edited for clarity and to remove redundant language.

Section 8(a)(iii)(A) was moved to Section 10(a)(iv)(E) and was edited for clarity.

Sections 10(a)(iv)(E)(I), 10(a)(iv)(E)(II), 10(a)(iv)(E)(III) were added for consistency with EPA's *Onsite Wastewater Treatment Systems Manual (2002)*. The specifications were adjusted from the EPA recommendations and were blended with ASTM 1227. Both the EPA recommendations and the ASTM standards are rigorously developed, scientifically defensible standards. WDEQ/WQD blended the two sources together because the approved tank manufacturers indicated they would be unable to comply solely with the EPA recommendations without incurring significant financial burden due to costly redesigns of their concrete forms.

Section 10(a)(iv)(E)(IV) is a combination of a passage formerly located at Section 8(a)(iii)(A) and a passage formerly located at Section 8(a)(iii)(C). The specification formerly located at 8(a)(iii)(A) was adjusted from three inches to two inches for consistency with EPA's *Onsite Wastewater Treatment Systems Manual (2002)*. The newly combined subdivision was also edited for clarity.

Section 10(a)(v), 10(a)(v)(A), and 10(a)(v)(B) were added to clarify requirements for tanks placed in series, in order to achieve effective system treatment and to prevent system failure.

Section 8(a)(iv) was split and moved to Section 10(a)(vi) and 10(a)(vi)(A). The passage now located at Section 10(a)(vi) was edited for clarity. The passage was also edited to remove the cleanout requirements that would be prohibitive to already approved designs. The passage now located at 10(a)(vi)(A) was edited for clarity.

Section 10(a)(vi)(B) was added to ensure the riser would be easily accessible, but protective of the safety of children.

Section 10(vii) was added to specify that land application of domestic septage will be permitted as permit by rule, instead of by individual permit or general permit. Land application of domestic septage was formerly regulated under WQRR Chapter 15, Appendix C, but has been moved to Chapter 25, Appendix B. This new subsection cross references the new Appendix B.

Section 9(a) was moved to Section 10(b) and renamed *Dosing Tanks* for clarity.

Section 9(a)(i) was moved to Section 10(b)(i) and was edited for clarity.

Section 9(b), Table 4, was reorganized and renamed *Table 6. Dosing Tank Volume (gallons)*.

Section 9(a)(ii)(C) was moved to Section 10(b)(ii) and was simplified.

Section 10(b)(iii) and 10(b)(iv) were added to ensure effective operation of the system.

Section 12, *Holding Tanks*, was moved to Section 10(c).

Section 10(c)(i) was added to maintain consistency with requirements elsewhere in the chapter.

Section 12(a) was split. Part of the passage moved to Section 10(c)(ii) and was edited to remove inconsistent language and redundancies. The remaining passage was moved to Section 10(c)(iv).

Section 12(c) was moved to Section 10(c)(iii) and was edited to ensure pump truck access and edited to ensure tanks will not float due to high groundwater.

Section 12(e) was moved to Section 10(c)(v) and was edited for clarity.

Section 10(c)(vi) was added to direct applicants to the division's website for the design package related to holding tanks.

Section 8(c) was moved to Section 10(d) and was edited for clarity.

Section 8(c)(i) was moved to Section 10(d)(i) and was edited for clarity.

Section 8(c)(ii) was moved to Section 10(d)(ii) and was edited to prevent septic system failure.

Section 10(d)(iii) and 10(d)(iv) were added to prevent septic system failure.

Section 8(c)(vi) was moved to Section 10(d)(v) and was edited for clarity.

Section 8(c)(iv) was moved to Section 10(d)(vi) and was edited to ensure access for cleaning.

Section 10(d)(vii) was added to ensure ease of maintenance.

Section 10(d)(viii) was added to prevent odor issues at the site of the grease interceptor, to prevent clogging of the system, and to prevent bypassing of the unit.

Section 10(d)(ix) was added to ensure the flow moves downhill, away from the facility.

Section 10(d)(x) was added to ensure grease and solids remain in the first compartment so that only liquids exit the second compartment. For systems without a partition to the top of the dividing wall, the extra baffle length ensures that liquid is drawn from the middle of the compartment, avoiding floating or settled solids that may have moved to the second compartment.

Section 10(d)(xi) was added to ensure the floating solids avoid transportation to the next compartment.

Section 10(d)(xii) was added to ensure regular maintenance of the system.

Section 10(d)(xiii) was added to ensure that the system is installed according to manufacturer directions and allows WDEQ/WQD to review the installation instructions with the application.

The sizing tables previously located in Section 8, underneath Section 8(c)(iii), were split out by industry for clarity, the cross references were updated, and the new sizing tables were moved to Section 10(d)(xiv) and Section 10(e)(i)(A)(IV).

Section 10(e) and 10(e)(i) were added to provide an area for specific requirements for interceptors such as laundries and car washes, as the previous rule only mentioned these facilities in the sizing tables.

Section 10(e)(i)(A) is a placeholder for the laundry requirements.

Section 10(e)(i)(A)(I) ensures the lint and silt are prevented from entering the septic system.

Section 10(e)(i)(A)(II) ensures the system is operated under ideal conditions.

Section 10(e)(i)(A)(III) ensures regular maintenance of the system.

Section 10(e)(i)(A)(IV) is based on the previously combined tables formerly located in 8(c)(iii). The table equation has been edited for clarity.

Section 10(e)(i)(B) is a placeholder for car wash requirements.

Section 10(e)(i)(B)(I) was added to ensure adequate interceptor sizing.

Section 10(e)(i)(B)(II) was added to prevent stormwater runoff.

Section 10(e)(i)(B)(III) was added for consistency with Water Quality Rules and Regulations Chapter 27, requirements for class 5C3 facilities.

Subsection (f) and accompanying paragraphs (i)-(iii) were added to provide a procedure for the abandonment of septic and holding tanks.

Section 11. Section 11 was renamed from *Evapotranspiration Beds* to *Effluent Distribution Devices*. The language concerning evapotranspiration beds from Section 11 was removed as these types of systems will be reviewed through Section 5, *Systems not Specifically Covered by these Standards*.

The introductory paragraph of Section 11 was added to explain the purpose of distribution boxes, flow divider tees, and drop boxes.

The requirements for distribution boxes that were previously located in Section 10(a)(vii) were moved to Section 11(a)(i) and were edited for clarity.

Section 11(a)(ii), 11(a)(iii), 11(a)(iv), and 11(a)(v) were added to ensure proper installation, maintenance, and operation of the distribution box.

Section 11(b) was added to provide an alternative to distribution boxes.

Section 11(c) was added to note that the requirements in Section 11(a)(i) through 11(a)(v) are applicable to drop boxes, to ensure proper installation, maintenance, and operation.

Section 12. Section 12 was renamed from *Holding Tanks* to *Standard Soil Absorption Systems*. The holding tank requirements were either removed or relocated to Section 10, as described in Section 10 above.

The passage formerly located at Section 10(a) was moved to Section 12(a) and was edited for clarity.

Section 12(a)(i) was added to outline that the expectation of the system is to effectively filter effluent and retain it underground. The passage also explains the basic process of effluent treatment.

The passage formerly located at Section 10(a)(ii) was moved to Section 12(a)(ii) and was edited for clarity. This passage ensures adequate treatment once the system is operational.

Section 12(a)(iii) was added to ensure adequate treatment once the system is operational.

The passage formerly located at Section 10(a)(ix) was moved to Section 12(a)(iv). The passage was edited for clarity and to specify the maximum soil cover depth is limited to five feet in order to encourage shallow soil absorption system depths.

Section 10(a)(v) was added to ensure proper installation of the system and prevention of unnecessary compaction which could adversely affect system performance.

Section 10(a)(vi) was added to outline that standard trenches are subject to the requirements located at 10(a)(vi)(A) through 10(a)(vi)(F).

Section 10(a)(v) was relocated to Section 12(a)(vi)(A) and was changed to state the industry standards for clarity.

Section 10(a)(iv) was split and relocated to Section 12(a)(vi)(B) and Section 12(a)(vi)(D). Section 12(a)(vi)(B) was edited for clarity and to prevent installation of inappropriate materials.

Section 10(a)(viii) was relocated to Section 12(a)(vi)(C) and was edited to specify materials commonly used.

Section 12(a)(vi)(D), previously located at Section 10(a)(iv), was edited for clarity.

Section 12(a)(vi)(E) was added to prevent over excavation which can reduce treatment conditions.

Section 10(d) was relocated to Section 12(a)(vi)(F). The passage was edited for clarity and also to include reserve area allowances.

Section 10(f) was relocated to Section 12(a)(vii) and was edited to redirect applicants to Section 12(vi)(A) through 12(vi)(D) and to explain that standard beds are also subject to the requirements located at Section 12(vii)(A) through Section 12(vii)(D).

Section 10(a)(x) was relocated to Section 12(a)(vii)(A) and was edited for clarity, to specify the allowable percolation rate range, and to limit the allowable slope.

Section 12(a)(vii)(B) was added to ensure adequate treatment of the system.

Section 12(a)(vii)(C) was added to specify a special requirement for systems using gravity distribution, in order to ensure adequate treatment of the system.

Section 12(a)(vii)(D) was added to prevent unnecessary compaction to ensure adequate system treatment.

Section 12(a)(viii) through 12(a)(viii)(F) were added to include specific requirements for popular chamber systems.

Section 12(a)(ix) was added to include requirements for chambered bed systems.

Section 10(e) was moved to Section 12(a)(x) and was edited for clarity.

Section 10(e)(i) was moved to Section 12, subparagraph (a)(x)(A). The title “Separation” was removed as it is unnecessary language. The undisturbed soil maintained between adjacent walls was changed from three feet to six feet in order to prevent short circuiting and to allow for proper treatment.

Section 10(e)(ii) was moved to Section 12(a)(x)(B) and was edited for simplicity.

Section 10(e)(iii) was moved to Section 12(a)(x)(C) and was edited for simplicity.

Section 12(b) was added to direct applicants to the division’s website for the design package related to standard soil absorption systems.

Section 13. Section 13, *Privies* was renamed to *Pressure Distribution Systems*. The requirements for privies were moved to Section 15.

New requirements were added at Section 13(a) through Section 13(a)(v) for pressure distribution systems as these systems have become a commonly used alternative in settings where traditional beds would not be conducive to the soil conditions.

A paragraph was added at Section 13(b) to direct applicants to the division’s website for the design package related to pressure distribution systems.

Section 14. Section 14 was renamed from *Chemical Toilets* to *Sand Mound Systems*. The specifications concerning chemical toilets were removed due to limited permit issuance. Applications for chemical toilet permits will now be considered under the proposed revision to Section 5.

An introductory passage was added to explain the components of a sand mound system.

Section 14(a) was added to limit the site selection criteria for sand mound systems to areas with high groundwater levels, or areas having a bedrock or impervious clay layer of less than four feet below the bottom of the soil absorption system excavation, as the sand mound is used as an alternative for sites with these limiting factors.

Section 14(b), 14(b)(i), and 14(b)(ii) were added to specify the minimum vertical separation requirements and the allowable percolation rate range.

The language previously found in Section 10(c), was moved to Section 14(c) and was edited for clarity.

Section 10(c)(i) was moved to Section 14(c)(i) and was renamed to “Sand Layer” for clarity.

Section 14(c)(i)(A) was added to cross reference ASTM standard C-33.

Section 14(c)(i)(B) was added to ensure adequate treatment and to prevent system failure.

Section 14(c)(i)(C) was added to ensure adequate depth to high groundwater.

Section 14(c)(i)(C)(I) was added to specify a different depth for pressure distribution systems.

Section 14(c)(i)(D) was added to ensure proper installation.

Section 14(c)(i)(E) was added to ensure adequate treatment.

Section 10(c)(ii) was relocated to Section 14(c)(i)(F) and was edited for clarity.

Section 10(c)(i)(B) was relocated to Section 14(c)(i)(G) and was edited for clarity and to update the cross references.

Section 14(c)(ii) through Section 14(c)(ii)(D) were added to specify requirements for the aggregate bed in order to ensure proper installation and adequate treatment of the system.

Section 14(c)(iii) and Section 14(c)(iii)(A) were added to specify the construction and dimensional requirements for the soil cap in order to ensure proper installation and adequate treatment of the system.

Section 10(c)(iii) was relocated to Section 14(c)(iii)(B) and was edited to specify that the soil cap be at least six inches thick and that vegetation such as native grasses be planted in the cap soil. This ensures proper construction of the mound and helps to control erosion.

Section 14(d) was added to direct applicants to the division's website for the design package related to sand mound systems.

Section 15. Section 15 was renamed from *Small Non-discharging Waste Stabilization Ponds* to *Small Wastewater Lagoons*.

Section 15(a) was edited for clarity.

Section 15(a)(i) was edited to note that lagoons are only allowed in areas where the annual evaporation exceeds the annual precipitation. This ensures low odor and low vector attraction of the pond.

Section 15(a)(ii) was edited for clarity and to include a separation to the seasonal high groundwater level. This ensures groundwater protection.

Section 15(a)(iii) was added to include a restriction on construction within the 100 year floodplain in order to prevent catastrophic failure of the system.

Section 15(b) was moved to Section 15(b)(i). A new introduction was added at Section 15(b) for clarity. The passage previously located at 15(b) that was moved to Section 15(b)(i) was edited for clarity, edited to include a property line setback to protect adjacent properties, and edited to update cross references.

Section 15(b)(ii) was added to require the use of a septic tank in order to maintain consistency with the rest of the chapter. The lagoon is replacing the soil absorption system only-not the septic tank.

Section 15(b)(iii) was added to prevent receipt of surface runoff in order to maintain the effectiveness of the lagoon.

Section 15(b)(iv) was added to encourage even water depth across entire footprint of the lagoon in order to maintain effective treatment and to control odors.

Section 15(b)(v) was added to ensure proper evaporation to prevent odors and vector attraction.

Section 15(d) was moved to Section 15(b)(vii). The factor of 1.3 was removed to prevent oversizing. The descriptions were clarified for the remaining factors in the equation.

Section 15(e)(i) was moved to Section 15(b)(viii). The passage was clarified and the minimum top width of the top of the dike was reduced to four feet, to prevent oversizing.

Section 15(e)(iii) was moved to Section 15(b)(ix) and edited for clarity.

Section 15(d)(ii) was moved to Section 15(b)(x). The passage was edited for clarity and the freeboard was reduced from five feet to two feet, to encourage effective operation of the system.

Section 15(b)(xii) was added to maximize the available solids deposition area and to improve treatment.

Section 15(b)(xiii) was added to ensure access for maintenance.

Section 15(b)(xiv) was added to prevent entrance by livestock, pets, and humans.

Section 15(c) was added to direct applicants to the division's website for the design package related to small wastewater lagoons.

Section 15(c), 15(c)(i), 15(c)(ii), and 15(e) were removed due to redundancy.

Section 16. Section 16 was renamed from *Commercial/Industrial Wastes* to *Privies or Outhouses*. The commercial/industrial waste requirements were moved to new Section 19 and retitled *Commercial and Industrial Wastes and/or Wastes Greater Than 2000 Gallons per Day*. The requirements for privies that were previously located in Section 13, were moved to Section 16 and edited as follows:

A new introductory passage was added that explains that privies or outhouses are permitted under the permit-by-rule process. Previously, privies had been permitted under the general permit process.

A new passage was added which requires privies to be sealed, water tight vaults, in order to prevent unwanted movement of the stored wastewater.

Section 13(b) was moved to Section 16(a) and was edited for clarity and to update the cross reference.

Section 13(d)(ii) was moved to Section 16(b).

A new passage was added to Section 16(c) which specifies the minimum capacity to prevent under sizing of the vault.

Section 13(a)(i) was moved to Section 16(d). The passage was edited for clarity and to specify required components to prevent access by flies and rodents.

Section 13(f)(iv) was moved to Section 16(e) and was edited for clarity.

Section 16(f) was added to prevent catastrophic failure.

Section 16(g) was added to require contact and location information for the owner in order that WDEQ/WQD may keep a record of these types of systems.

Section 13(a), 13(a)(ii), 13(a)(iii), 13(c), 13(d), 13(d)(i), 13(e), 13(f), 13(f)(i), 13(f)(ii), 13(f)(iii), and 13(g) were removed. These passages are no longer necessary due to the permitting system change from general permit to permit-by-rule.

Section 17. Section 17, *Greywater Systems*, is a new section. These systems are permitted under the permit-by-rule process.

Section 17(a) was added as a place holder for operation requirements.

The prohibitions in Section 17(a)(i) through 17(a)(i)(D) were added as protections towards groundwater and surface water, and were added for consistency with the purpose of the chapter.

Section 17(a)(ii) was added as a cross reference to the odor regulations of Wyoming Air Quality Rules and Regulations Chapter 2, Section 11.

Section 17(a)(iii) was added to ensure proper operation of the system.

Sections 17(b) through 17(b)(ii) were added to ensure appropriate sizing of the system.

Sections 17(c) through 17(c)(iii) were added to prevent back flow and to prevent human contact with greywater.

Sections 17(d) through 17(d)(iii) were added to protect adjacent property owners, drinking water sources, and surface water sources.

Section 17(e) was added to require contact and location information for the owner in order that WDEQ/WQD may keep a record of these types of systems.

Section 18. Section 18, *Operation and Maintenance*, is a new section.

Sections 18(a) through 18(f) were added to ensure regular maintenance and proper operation of small wastewater systems.

Section 19. Section 19, *Commercial and Industrial Wastes and/or Domestic Wastes Greater than 2000 Gallons per Day*, is a new section.

Section 16(a) was relocated to Section 19(a) and was edited for clarity and to update cross references.

Section 16(b) was relocated to Section 19(b) and was edited for simplicity.

Section 16(c) was relocated to Section 19(c) and was edited for simplicity.

Section 16(d) was relocated to Section 19(d) and was edited for clarity and for consistency.

Section 4(a)(ii) was relocated to Section 19(e) and was edited for clarity.

Table 3, previously located in Section 6, was moved to Section 19 and retitled *Table 7. Minimum Horizontal Setbacks for Commercial and Industrial Wastes in Feet*. The table was edited to include setbacks for public water supply wells.

Section 4(a)(iii) was relocated to the footnote for Table 7 and was edited to correct the cross references.

Footnote 2 was added to Table 7 to further explain requirements for systems which discharge to the same aquifer that supplies a public water supply well, as the original rule did not have specific setbacks to protect public water supplies.

Appendix A. The subtitle *Percolation Test Procedure* was added to Appendix A and the instructions were simplified.

Appendix B. Appendix B, *Land Application of Septage*, is a new appendix. Chapter 15, Standards for the Use or Surface Disposal of Biosolids, Appendix C, General Statewide Permit for Land Application of Domestic Septage in Remote Areas was moved to Chapter 25, Small Wastewater Systems, Appendix B, as described above. The language in the appendix was then edited:

The introductory paragraph was edited to remove redundant language.

The definitions were removed as they are redundant to definitions elsewhere in Water Quality Rules and Regulations.

Section 1(a)(i) was edited for clarity and to prevent transport of domestic waste.

Section 1(a)(ii) was edited for clarity.

Section 1(a)(iii) was edited for clarity and to remove redundancies.

The passage containing “site restrictions” was previously unnumbered. Numbers were added according to Secretary of State Rules on Rules.

Section 1(b)(iii) was edited for clarity.

Section 1(b)(v) was edited for clarity. The passage describing lime stabilization was removed as the passage is unnecessary.

Section 1(b)(vi) was edited for clarity.

The passage containing “crop restrictions” was previously unnumbered. Numbers were added according to Secretary of State Rules on Rules.

Section 1(c)(i) was edited for clarity.

Section 1(c)(ii) was edited for clarity

Section 1(c)(iii) was edited for clarity.

Section 1(c)(iv) was edited for clarity.

The passage containing “reporting requirements” was previously unnumbered. Numbers were added according to Secretary of State Rules on Rules.

Section 1(d)(i) was edited to correct the notification of the District Office to the District Engineer.

Section 1(d)(iii) was added to direct applicants to the division’s website for the worksheet related to land application of domestic septage.

The forms section of “Reporting Requirements” and the site sketch graphic were removed.

The Council finds that these regulations are reasonable and necessary to accomplish the policy and purpose of the Act, as stated in W.S. 35-11-102, and that they have been promulgated in accordance with rulemaking provisions of the Wyoming Administrative Procedures Act.

Dated this _____ day of _____, 2016.

Hearing Examiner – *Printed Name*
Wyoming Environmental Quality Council

Hearing Examiner – *Signed Name*
Wyoming Environmental Quality Council