

NOTE: For the existing rule, all material to be deleted is placed in brackets and *[italic]* typeface and all new material is printed in **bold** typeface.

**Title 10 - DEPARTMENT OF NATURAL RESOURCES
Division 20 - Clean Water Commission
Chapter 6 – Permitting
DRAFT AMENDMENT**

10 CSR 20-6.030 **Treatment** *[Disposal]* of Wastewater in Residential Housing Developments

PURPOSE: The purpose of this amendment is to improve the organization of the rule by incorporating current terminology that will address the use of new technology and substance while reducing the potential for adverse effects to the environment and public health, thus aiding in sustainable planning of housing developments throughout the state.

PURPOSE: This rule sets forth requirements for **individuals and** developers of residential housing to determine the method of **domestic wastewater treatment** *[disposal]*. This rule applies to all new residential housing developments, **expansion of existing residential housing developments** and existing *[subdivisions]* **developments** that were required to comply with previous regulations which were effective June 30, 1974, June 26, 1975, *[or]* May 15, 1984, **or March 30, 1999**, but have not received department approval.

Unless exempted from this rule, the developer or individual(s) shall obtain written approval from the department for the method of domestic wastewater treatment prior to the sale, lease or the commencement of construction by the developer or any person.

Once a development receives written approval for the method of wastewater treatment under this rule, it is then the developer(s) or individual(s) responsibility to contact the appropriate state or local administrative authority authorized by statute, charter, or other form of enabling authority to issue permit(s) for the authorization to construct a specific domestic wastewater treatment system(s).

(1) General Requirements.

(A) Definitions.

1. Definitions as set forth in the Missouri Clean Water Law and 10 CSR 20-2.010 shall apply to those terms when used in this rule.

2. Centralized wastewater treatment system. A single sewer system and domestic wastewater treatment facility under common ownership and management for an entire development.

[2.]**3. Common promotional plan.** A plan, undertaken by one (1) or more persons, to offer **individual lots or units within a residential housing development** for sale or lease; where land **or units** [is] **are** offered for sale or lease by a person or group of persons acting in concert, and the land is contiguous or is known, designated or advertised as a common unit or by a common name or similar names, the land is presumed, without regard to the number of lots covered by each individual offering, as being offered for sale or lease as part of a common promotional plan. **State and county roads are not considered property boundaries for the purpose of this rule.**

[3]**4. Developer.** Any person who directly or indirectly, sells or leases or offers to sell or lease, any lots, **residential units, or recreational camping sites**, but shall not include any licensed broker or licensed salesman who is not a shareholder, director, officer or employee of a developer and who has no legal or equitable interest in the land.

5. Effluent. The liquid discharge of a septic tank or other domestic wastewater treatment device.

[4]**6. Limiting layer.** Any soil horizon(s) that will severely limit the soil's ability to treat or [dispose of] **control** effluent. The limiting layer may include a restrictive horizon, or permanent or seasonal high water table [as defined in 19 CSR 20-3.060 (1)(A)].

[5]**7. Lot.** Any portion, piece, division, unit or undivided interest in real estate, if the interest includes the right to the exclusive use of a specific portion of real estate, whether for a specific term or in perpetuity.

8. Onsite wastewater treatment system, individual. A system relying on the natural process and mechanical components to collect, treat and disperse effluent into the soil from individual residence on property owned by an individual(s) or entity.

9. Onsite wastewater treatment system, Cluster. A wastewater collection and treatment system(s), under common ownership and management that provides treatment and dispersal of effluent into the soil from two or more dwellings (units), but less than the entire development and is part of the same common promotional plan and/or operating location.

10. Operating location. All lands owned, operated or controlled by one (1) or more persons jointly or as tenants no matter if the land is contiguous or not, using common area(s) for the dispersal of effluent. State and county roads are not considered property boundaries for the purpose of this rule.

11. Residence. Any structure, dwelling, unit or shelter which is intended or used for human habitation as a permanent, vacation, or recreational home or building. The unit may be detached from other units or may be part of one or more attached units and

includes the right to the exclusive use of a specific portion of real estate, whether for a specific term or in perpetuity.

12. Residential housing development, multiple-family. One or more buildings, dwellings, units, or shelters for sale or lease as part of a common promotional plan or operating location, contiguous or not, where they are detached or part of one or more attached units that share the same domestic wastewater treatment system. A multiple-family development may include but not limited to multiple; individual residences, mobile homes, duplexes, quadplexes, recreational vehicle camping sites, hotel rooms, motel rooms, apartment units, dormitories, condominiums, etc.

13. Residential housing development, recreational. A development is considered recreational when land is sold or leased as part of a common promotional plan or operating location, whether contiguous or not for the purpose of camping in recreational vehicles for a specific term and prohibits continuous year round living and no cabins or structures are constructed that could be used for year round living.

[6]14. Residential [H]ousing [D]evelopment, **subdivision.** Any land which is divided or proposed to be divided into three (3) or more lots, whether contiguous or not, for the purpose of sale or lease as part of a common promotional plan or operating location.

15. Single-Family Lagoon (Wastewater Stabilization Pond). At minimum a sealed earthen basin which uses natural unaided biological processes to treat and stabilize domestic wastewater from an individual residence.

16. Soil Treatment Area. The physical location for the treatment and dispersal of effluent into the soil for the final physical, chemical and biological breakdown of it under aerobic conditions in unsaturated zone(s).

(B) Applicability

1. This rule applies to all developers of residential housing developments and individuals who propose to use individual onsite, cluster wastewater treatment systems, or a combination thereof, as the method of domestic wastewater treatment. This rule applies to all new residential housing developments, expansion of existing residential housing developments and existing developments that were required to comply with previous regulations which were effective June 30, 1974, June 26, 1975, May 15, 1984, or March 30, 1999, but have not received written approval from the department.

A. This rule applies to all existing developments that propose to change from a centralized domestic wastewater collection and treatment facility to individual onsite wastewater treatment systems, cluster systems or combination thereof.

B. Once a development receives written approval from the department for the method of wastewater treatment under this rule, it is then the individual's or

developer's responsibility to obtain the authorization to construct permit(s) from the appropriate state or local administrative authority which is authorized by statute, charter or other form of enabling authority, adopted standards for individual onsite wastewater treatment, individual single-family lagoons or domestic wastewater treatment systems with maximum daily flows of less than or equal to 3,000 gallons per day that disperse effluent into subsurface soil absorption systems.

[(B)] 2. Unless specifically provided otherwise, this rule shall apply to any developer or **individual** who owns or controls land and-

[1.] A. Develops or divides land into **three (3) or more** residential housing lots **each less than five (5) acres;**

B. Develops recreational developments that propose three (3) or more recreational vehicle camping sites;

C. Develops multiple-family developments that propose three (3) or more units;

[2] D. Resubdivides land into more lots, adds additional lots **or residential housing units** to which when added to an existing group *[of lots]* which are contiguous **or not**, or which are known, designated or advertised as a common unit or by a common name, as part of a common promotional plan **or operating location**, will in total constitute a residential housing development; *[and]*

[3] (I) [Any] [e]Expansion of three (3) or more lots **less than five (5) acres** in any subdivision or development will be subject to this rule~~].;~~

(II) Expands a recreational development with three (3) or more recreational vehicle camping sites;

(III) Expands a multiple-family development with three (3) or more units; or,

(IV) Any development that was required to comply with previous regulation which were effective June 30, 1974, June 26, 1975, May 15, 1984, or March 30, 1999, but have not received written approval from the department.

[(C)] 3. The following subdivisions or residential housing developments **including recreational and multiple-family developments** are exempted:

[1.] A. Subdivisions in which control of more than twenty percent (20%) of the lots was permanently relinquished prior to July 1, 1974;

[2.] **B.** Subdivisions which were approved or exempted by the department under the subdivision regulations which were effective June 30, 1974, June 26, 1975, *[or]* May 15, 1984, **or March 30, 1999;**

[3.] **C.** Residential housing developments with less than 15 lots, in existence prior to *[the effective date of this rule]* **March 30, 1999; or,**

D. Residential housing developments with less than seven (7) lots, in existence prior to the effective date of this rule;

[4.] **E.** Lots of five (5) acres and larger in residential housing developments **that are;[.]**

(I) Used for individual residences only,

(II) Configured in a manner that will allow effective treatment and control of the effluent with a subsurface soil dispersal system, and

(III) Not to be subdivided into lots less than five acres by any individual without first securing written approval from the department for the method of domestic wastewater treatment.

[5.] **F.** Residential housing developments located in areas where the department has determined that the local administrative authority has a local program sufficient to meet the goals of this rule;

[6.] **4. If a developer or individual proposes a centralized wastewater collection and treatment system or cluster systems, with point discharge,** the requirements of this rule shall be considered met, provided that all other requirements of the Missouri Clean Water Law and regulations **are** *[can be]* satisfied and continuing authority, in accordance with 10 CSR 20-6.010, **is** *[will be]* established prior to the sale or lease of lots or the commencement of construction of residences:*[: and]*

A. Individual onsite wastewater treatment systems shall not be installed on any individual lot within a development that proposes or has a centralized wastewater collection and treatment system which is part of the same common promotional plan or operating location, unless a written waiver from the continuing authority has been provided and that method of wastewater treatment has received written approval from the department as described in section 2 of this rule.

B. Cluster systems shall not be installed within a development that proposes or has been permitted for a centralized wastewater treatment and collection system which is considered part of the same common promotional plan or operating location, unless a written waiver from the continuing authority has been obtained and the system(s) have received

written approval from the department for that method of wastewater treatment as described in section 4 of this rule.

- C. Cluster systems shall not be installed within a development that proposes or has received written approval for the use of individual onsite wastewater treatment systems on the individual lots which are part of the same common promotional plan or operating location, unless that method of wastewater treatment receives written approval from the department for that method of wastewater treatment as described in section 4 of this rule.**

[7.] 5. Recreational developments will be subject to section [(5)] (3) of this rule[.];

and

6. Multiple-family developments and cluster systems will be subject to section (4) of this rule.

*[(D)] 7. Unless exempted in this rule, the developer of any residential housing development shall obtain **written** approval from the department for the method of **domestic wastewater** [*sewage*] treatment and [*disposal*] **dispersal** to be used in the development prior to the sale or lease of any lot **or unit**, or the commencement of construction [*on any lot*] by the developer or any person. To obtain **written** approval **for a subdivision or recreational development that proposes individual onsite wastewater treatment systems on individual lots** the developer **or individual(s)** must submit to the appropriate [*DNR*] **Department of Natural Resources** office a copy of the geohydrologic evaluation, the soils report [*and the*], a plat map **and an application** as described in this rule. **To obtain written approval for recreational or multiple-family developments that propose the use of cluster systems with subsurface soil dispersal the developer or individual(s) must submit to the appropriate department office an engineering report as described in section (4) of this rule.***

*[1.] A. The developer may apply for approval to use individual [*on-site*] **onsite wastewater treatment systems on individual lots for an individual residence** in the proposed development provided that the minimum lot size is forty thousand (40,000) square feet **or greater**. For residential housing developments with lots of less than forty thousand (40,000) square feet, (0.92 acres), only a centralized **wastewater** [*sewage*] collection and treatment **system or cluster system(s)** are acceptable for the development. However, this minimum lot size does not apply to residential housing developments that do not require approval. [*Construction and operating permits will be required for central sewage collection and treatment systems.*]*

(I) Construction and operating permits will be required for all centralized or cluster wastewater treatment systems with a point discharge.

(II) Construction and operating permits will be required for all centralized wastewater treatment systems that disperse effluent into subsurface soil absorption fields when the maximum daily flow of domestic wastewater is greater than 3,000 gallons per day.

(III) Construction and operating permits will be required for cluster systems that disperse effluent into subsurface soil absorption fields when the maximum daily flows of domestic wastewater is 3,000 gallons per day or greater for the entire development which is part of the same common promotional plan or operating location.

[2.]B. [Only residential housing developments with seven (7) or more lots must receive approval for the method of sewage treatment and disposal prior to the sale or lease of any lots.] **Subdivisions and recreational developments that propose three (3) or more lots where each lot is less than five (5) acres utilizing individual onsite wastewater treatment, cluster systems or combination thereof must receive written approval for the method of wastewater treatment.**

8. Subdivisions and recreational developments that propose to expand by three (3) or more lots where each lot is less than five (5) acres and use individual onsite wastewater treatment, cluster systems or combination thereof must receive written approval from the department for the method of wastewater treatment prior to the sale, lease or the commencement of construction by the developer or any individual.

9. Recreational and multiple-family developments that propose to have three (3) or more units that use cluster systems with subsurface soil absorption fields must receive written approval from the department for the method of wastewater treatment prior to the sale, lease or the commencement of construction by the developer or any individual.

10. Recreational and multiple-family developments that propose to expand with three (3) or more units that use cluster systems with subsurface soil absorption fields must receive written approval from the department for the method of wastewater treatment prior to the sale, lease or the commencement of construction by the developer or any individual.

(2) Subdivisions

[(2)] **(A) Geohydrologic Evaluation**

*[(A)]***1. All developers and individuals required to comply [by] with this rule shall apply for a geohydrologic evaluation pertaining to the use of individual [on-site] onsite wastewater treatment systems [facilities] on individual lots from the Department of Natural Resources, [Division of Geology and Land Survey]Missouri Geological Survey, Geological Survey Program [(GSP)]. The evaluation will include a review of available geologic data and may include a field evaluation conducted by the [GSP] Geological Survey Program.**

[1]2. A written request for the geohydrologic evaluation must be submitted on forms provided by the department for a **Residential Housing Development (Subdivision)** and within forty-five (45) days the developer **or individual(s)** will be notified in writing by the department of the results.

[2]3. The request for a geohydrologic evaluation shall include **the requester's and property owner's signature**, a map of the proposed development along with the legal description, total number of acres and type of **drinking** water supply being proposed.

[3]4. The criteria contained in the document entitled *Residential Housing Development Geohydrologic Groundwater Evaluation Ranking, Department of Natural Resources [DNR], Division of Geology and Land Survey, Geological Survey Program, October 1997* shall be used to determine the minimum lot size as related to the geology and possibility of groundwater contamination in the area.

[(B)]5. Residential housing developments may be exempted from [obtaining] the geohydrologic evaluation in areas where bedrock and surficial materials exhibit low overall permeability and groundwater recharge is limited[,] or **where** the groundwater gradient is low and groundwater velocity is slow. A determination of whether a residential housing development meets the criteria for an exemption from obtaining a geohydrologic evaluation will be determined by [GSP] **the Geological Survey Program** based on the information supplied on the request form and data on file at [GSP] **the Geological Survey Program. Exemption from the geohydrologic evaluation does not excuse the developer or any other individual from further requirements of this rule.**

[(3)](B) Soils Report.

[(A)]1. A soils report for each residential housing development must be prepared by a soil scientist as defined in [19 CSR 20-3.080] **701.040 (2)e RSMo**. The report must indicate if the proposed systems **to be used on the individual lots [are] is either a subsurface soil absorption system or [other system] [(] a single-family lagoon [)]**. The soils report can be generated only after a thorough, systematic investigation of the soil properties and landscapes in the proposed development. Soil observation pits (backhoe or hand dug) dug to a depth to reveal the major soil horizons shall be utilized. The minimum number of pits shall be one every 10 acres, however, in developments with the majority of lots less than two acres, the minimum number of pits shall be one every five acres. **The minimum number of soil observation pits may be greater based upon the complexity of soils and landscapes within the proposed development.** These pits may be supplemented by soil borings to help determine the extent of similar soil properties. *[Profile descriptions which include horizon designations, depth, color, texture, structure, consistence, coarse fragments, mottling and other pertinent features shall be submitted.]*

A. Each soil profile description submitted shall include the following: describers name; date described; slope – aspect, gradient, shape and position; horizon – nomenclature, depth (thickness), boundary, matrix color, mottling - quantity,

orientation and size, redoximorphic features – kind, quantity and size, texture - percentage clay and sand (if needed), structure - type, size and grade, consistence, rock fragment – size and percentage; water table – depth and kind; drainage class; flooding - frequency and duration; ponding – frequency, depth and duration; vegetative cover; other pertinent features related to the treatment and control of the effluent within the soils.

[1] **B.** The soils report shall contain a topographic map delineating the proposed development into the following slope categories: 0-2%, ~~[3-14]~~ **2-15%**, 15-30% and ~~[31]~~ **30%** and greater.

[2] **C.** The soils reports shall contain a [A] map delineating the depth of acceptable soil into the following categories: less than 18 inches, 18 to 30 inches over bedrock, 18 to 30 inches over a limiting layer, and greater than 30 inches [shall also be provided].

D. The location of all soil observation pits shall be included on the above referenced topographic and acceptable soils maps.

E. A general discussion describing the Soil Scientist findings and conclusions shall be included.

F. The soils report shall be signed and dated by the Soil Scientist responsible for the documentation contained within it.

[3] **2.** Table 1 shall be used to determine the minimum lot size based on soil properties and site conditions. More than fifty percent (50%) of each lot must be in a single acreage category or more than fifty percent (50%) may be in that and smaller acreage categories in order to use that minimum sized lot.

TABLE 1

Minimum Lot Size (Acres) for Soil Absorption Systems Based on Soil Depth and Slope

Acceptable Soil (inches)

		>30"	18-30" Limiting Layer	18-30" Bedrock	<18"
	0-2	0.92	2	2	3
Slope (%)	[3-14] 2-15	0.92	1	2	3
	15-30	1	2	3	5
	[31] 30	2	3	5	>5

		>30"	18-30" Limiting Layer	18-30" Bedrock	<18"
	+				

[4]A. Lots with less than eighteen inches (18") of acceptable soil should be evaluated carefully to determine if a soil absorption system will function properly on the site. It must be shown that mitigation of the limiting soil condition is a feasible option. *[Lots with less than twelve inches (12") of acceptable soil will not be approved for soil absorption systems, unless the limiting condition is a high water table and the soil scientist determines that water table lowering schemes may be effective.]*

[(B)] B. Acceptable soil will have the following properties:

[1] (I) Any structure except strong platy or massive;

[2] (II) Fifty percent (50%) and less coarse fragments (>2 mm);

[3] (III) No limiting layer; and

[4] (IV) Available area and landscape position suitable for an *[on-site]* **individual onsite wastewater treatment system or single-family lagoon.**

[(C)] C. *[Wastewater stabilization ponds (] Single-family lagoons [)]* may be allowed for the single-family residence wastewater treatment facilities if local regulations do not prohibit them.

[1] (I) Minimum lot size for **single-family** lagoons is two and one-half (2.5) acres; larger lot sizes are recommended in order to provide for all wastewater to be contained on the lot and handled in a manner that there will be no violation of the Missouri Clean Water Law and regulations.

(II) **There shall be no reduction for the use of single-family lagoons below that determined by either the geohydrologic evaluation or soils report.**

[2] (III) **The Soils Report** must show that the soils, available area and landscape position is suitable for **single-family** lagoons. A minimum of four feet (4') of soil is required if the natural soil is to be used as the liner. Strongly sloping areas should be avoided. Areas with slopes greater than fifteen percent (15%) will not be considered suitable for **single-family** lagoons **for the purpose of this rule.**

D. Minimum lot size:

[(4)](C) **Preliminary Plat Map.**

*[(A)]***1.** A **preliminary** map drawn to a scale of one inch (1") equals from fifty to two hundred feet (50- 200') showing the location of the individual lots, roads, existing **or proposed** wells, **ponds, streams** and known **or proposed** easements shall be provided **along with other site characteristics that could influence the treatment and control of the effluent within the development.** The number of lots, lot sizes, **nature of use** and type of **drinking** water supply shall also be provided. *[A copy of the United States Geological Survey topographic map and the soil map and legend from the United States Department of Agriculture County Soil Survey if available must be provided with the area of development clearly outlined.]*

- A. Minimum lot size shall be the larger of the values calculated in the geohydrologic evaluation or the soils report. More than fifty percent (50%) may be in the smaller acreage categories in order to use the minimum sized lot based on the soils but the lot size shall not be less than the minimum acreage determined in the geohydrologic evaluation.**
- B. The individual lots shall be configured in such a manner to treat and control the effluent so there will be no violation of the Missouri Clean Water Law and regulations.**
- C. The individual lots are intended for individual residences and only one shall be constructed on each lot with an individual onsite wastewater treatment system.**
- D. A copy of the United States Geological Survey topographic map must be provided with the area of development clearly outlined;**
- E. A copy of the soil map and legend from the United States Department of Agriculture County Soil Survey must be provided with the area of development clearly outlined.**

[(5)] **(3)** Recreational Development.

(A) [A development is considered recreational when land is sold or leased for the purpose of camping in recreational vehicles.] **For the purpose of this rule, [I]**in order to be considered a recreational development, restrictive covenants must prohibit continuous year round living on the lot(s) **or camping site(s)** and no cabins or other structures will be allowed that could be used for year round residential purposes.

1. For the purpose of this rule it is considered continuous year round living when an individual (owner, developer, etc.) or any person(s) with their permission occupies the same residence (recreational vehicle camping site) within a development for more than one hundred and forty (140) days of any one calendar year. The occupancy does not need to be continuous, but the days are totaled together to determine whether occupancy exceeds one hundred and forty (140) days.

[1.] **2.** The minimum lot size for a recreational development that will use **an individual [on-site] onsite wastewater treatment system on an individual lot [facilities is twenty thousand (20,000) square feet]** shall be the same as evaluated and described in **Section (2)**. [No reduction will be allowed from the minimum lot size determined by the geohydrologic evaluation. A one-half (1/2) reduction in minimum lot size as indicated by the soils report may be allowed.]

[2.] **3.** In recreational developments where sewage collection [and treatment] is provided by sewage dump stations, the sewage dump stations shall require written approval by the department under this rule provided the maximum daily flow of domestic wastewater received by any individual or combination of “dump station” is less than or equal to **3,000 gallons per day**. [will be considered centralized sewage collection and treatment for the purposes of compliance with this rule]

[3] **4.** The developer must submit a copy of the restrictive covenants **with their application** [along with any plans for sewage dump stations or centralized sewage collection and treatment systems.] and they shall clearly prohibit continuous year round living on any lot or camp site and that no cabins or other structures will be allowed that could be used for year round residential purposes.

(B). If a developer or any individual(s) proposes the use of cluster systems with subsurface wastewater dispersal as the method of wastewater treatment in a recreational development on individual lots or a combination of lots they are required to receive written approval for that method of wastewater treatment as designated in **Section (4)** of this rule.

[(6)] **(4) Multiple-Family [Housing Units] Developments.**

(A) Residential housing developments that propose to build multiple-family housing [units] developments (duplexes, quadplexes, hotels, motels, recreational developments, etc.) or propose cluster systems that would serve individual residences on individual lots as the method of wastewater treatment shall submit an engineering report as described within this section [an engineers report in accordance with 10 CSR 20-8.020 Design of Small Sewage Works]. Each housing unit shall be considered equal to an [single family] individual residence for the purposes of compliance with this rule.

(B) The engineering report shall include the following.

- 1. Nature of use (duplex, apartment, recreational development, individual residence on individual lots, etc.).**
- 2. If the system is to serve a recreational development, a copy of the restrictive covenants prohibiting continuous year round living shall be submitted. The covenants must also prohibit cabins or other structures from being used as year round residences.**

- 3. Documentation of ownership and responsibility. For the purpose of compliance with this rule the owner is defined as the individual(s) or entity responsible for the continued operation and maintenance activities required to ensure the dependable function and financial responsibility of the collection and treatment system(s) for the entire development;**
- 4. Description of the method of wastewater treatment, alternatives and why this method is proposed as compared to others, which are feasible and practical. The report must discuss the options and the reason for selecting the recommended treatment and dispersal system. If more than one cluster system using subsurface dispersal is proposed, documentation shall be submitted ensuring they act independently (collection, treatment and dispersal) along with why they are necessary.**
 - A. The detailed facility plans for each cluster system is not required as part of this report.**
- 5. Calculations of the maximum daily flows of domestic wastewater shall be determined by using the most current table(s) used by the state administrative authority authorized by statute to develop and maintain law and regulations governing onsite wastewater treatment systems with maximum daily flows of less than or equal to 3,000 gallons per day.**
 - A. Construction and operating permits from the department will be required for cluster systems that disperse effluent into subsurface soil absorption fields when the maximum daily flows of domestic wastewater is 3,000 gallons per day or greater for the entire development under the same common promotional plan or operating location. Individual onsite wastewater treatment systems serving individual residences shall not be used in these calculations.**
- 6. Description of the drinking water supply and placement along with set-back distances shall be included.**
- 7. All developer(s) or individual(s) required to comply with this rule shall apply for a geohydrologic evaluation as related to the use of subsurface soil absorption system from the Geological Survey Program. The evaluation will include a review of available geologic data and may include a field evaluation conducted by the Geological Survey Program.**
 - A. A written request for the geohydrologic evaluation must be submitted on forms provided by the department for a Liquid-Waste Treatment Facility/Site, and within forty-five (45) days the requester will be notified in writing by the department of the results.**

- B. The request for a geohydrologic evaluation shall include the requester's and property owner's signature, a map of the proposed soil treatment area along with the legal description, and the total number of acres and the type of the proposed soil treatment area.**

8. A thorough and systematic soil investigation conducted by a qualified Soil Scientist as defined in 701.040.1(2) e RSMo shall be included. Soil observation pits (backhoe or hand dug) must be dug to a depth to reveal the major soil horizons. The number of observation pits must be sufficient to adequately represent the soils and landscape of the primary and reserve soil treatment areas and is dependent upon the complexity of soils and landscapes within the proposed soil treatment area(s). The soil observation pits may be supplemented by soil borings to help determine the extent of similar soil properties.

- A. Each soil profile description submitted shall include the following: describers name; date described; slope – aspect, gradient, shape and position; horizon – nomenclature, depth (thickness), boundary, color, mottling - quantity, orientation and size, redoximorphic features – kind, quantity and size, texture - percentage clay and sand (as needed), rock fragment – size and percentage, structure - type, size and grade, consistence; water table – depth and kind; drainage class; flooding - frequency and duration; ponding – frequency, depth and duration; vegetative cover; other pertinent features related to the treatment and control of the effluent within the soils.**

- B. The soils report must contain a topographic map delineating the proposed soil treatment area(s) into the following categories: 0-2%, 2-15%, 15-30% and 30% and greater;**

- C. The soils report shall include a map delineating the depth of acceptable soils within the soil treatment area(s) into the following categories: less than 18 inches, 18 to 30 inches and greater than 30 inches over bedrock or a limiting layer shall also be included.**

- D. The soils report shall be signed and dated by the Soil Scientist responsible for the documentation contained within it.**

- 9. A discussion concerning the orientation of water movement through the soils including the linear loading rates, landscape drainage along with the influence of the adjacent and nearby soils and landscapes shall be included.**

10. A site map drawn to a scale of one inch (1") equals from fifty to two hundred feet (50-200') showing the location of the primary and reserve dispersal sites, including all setback distances shall be included. The map shall show all soil observation pits, supplemental borings, drinking water supply, existing and proposed easements, natural drainage ways, all known or proposed utilities, location of all multiple-family facilities and

other site characteristics that affect the design, installation, operation and maintenance of the treatment system(s).

- A. A copy of the United States Geological Survey topographic map must be provided.**
- B. A copy of the soil map and legend from the United States Department of Agriculture County Soil Survey must be provided with the area of development clearly outlined.**
- C. Other information as determined by the department.**
- D. The engineering report shall be signed, sealed and dated by a professional engineer in the state of Missouri.**

[(7)] **(5)** Department Review.

(A) The department shall determine if the requirements of this rule are satisfied for a subdivision, a recreational development, or a multiple-family development when the proposed method of wastewater treatment is individual onsite wastewater treatment systems, cluster systems or a combination thereof. *[Minimum lot size will be the larger of the values calculated in the geohydrologic evaluation if required or the soils report. Approval under this rule does not guarantee that each lot in the residential housing development will be approved for the installation of a soil absorption system.]*

(B) A written application for approval of the method of wastewater treatment must be submitted on forms provided by the department and within ninety (90) days of receipt of the completed requirements and any other documents or information required in this rule by the department, the department will approve or disapprove the method wastewater treatment and attach any conditions to an approval which it deems necessary to protect waters of the state in accordance with the Missouri Clean Water Law and regulations.

(C) The developer or individual(s) of any residential housing development required to obtain approval from the department, shall obtain written approval for the method of wastewater treatment and comply with all conditions and requirements set forth in writing by the department as contained in the Missouri Clean Water Law and corresponding regulations, prior to the sale or lease of any lot, recreational camping site or multiple-family unit or the commencement of construction within the development by any developer(s), owner(s) or any other individual(s).

(D) There shall be no deviation or change that may adversely affect the geohydrologic evaluation, soils report, lot sizes, number of lots, nature of use, number of multiple-family units, maximum gallons per day (cluster system) or the proposed drinking water supply for a residential housing development following departmental approval without first securing written approval of the proposed changes from the department.

(E) Approval under this rule does not guarantee that each lot in the residential housing development will be approved by the state or local administrative authority responsible for the permitting of individual onsite wastewater treatment(s), cluster systems or any combination thereof.

[(B) The developer of any residential housing development required to obtain approval from the department, shall obtain written approval and comply with all conditions and requirements set forth in writing by the department as contained in the Missouri Clean Water Law and corresponding regulations, prior to the sale or lease of any lot, or the commencement of construction on any lot by any developer(s), o] owner(s).]

[(C) There shall be no deviation or change that may adversely affect the geohydrologic evaluation, lot sizes, number of lots, nature of use, or the proposed water supply for a residential housing development following departmental approval without first securing written approval of the proposed changes from the department.]

[(D) Within ninety (90) days of receipt of the completed requirements and any other documents or information required in this rule by the department, the department will approve or disapprove the wastewater disposal plans and attach any conditions to an approval which it deems necessary to protect waters of the state in accordance with the Missouri Clean Water Law and regulations.]

[(E)](F) Any developer or person(s) owning any residential housing development or lots covered by this rule who has a proposal for **the method of wastewater treatment [disposal] denied, or any condition in an approval in all or in part, may appeal to the Missouri Clean Water Commission within thirty (30) days of issuance of the denial or conditioned approval.**

[(F)](G) Nothing in this rule shall preclude any local, municipal, county, or other lawful authority from establishing subdivision, sewer or single-family residence [on-site] **onsite wastewater treatment systems regulations and ordinances equal to or more stringent than those contained in this rule.**

[(G)](H) Compliance With Other Law. Nothing in this rule shall excuse any person from complying with or from liability for violations of, the Missouri Clean Water Law and regulations or any other laws of Missouri.

[(H)](I) Severability. If any section, paragraph, sentence, clause or phrase of this rule, or any part of each, be declared unconstitutional or invalid for any reason, the remainder of this rule shall not be affected and shall remain in full force and effect.

AUTHORITY: section 644.026, RSMo Supp. 1997.* Original rule filed June 14, 1974, effective June 24, 1974. Amended: Filed June 16, 1975, effective June 26, 1975. Rescinded and readopted: Filed Oct. 12, 1983, effective May 15, 1984. Rescinded and readopted: Filed July 13, 1998, effective March 30, 1999.

*Original authority 1972, amended 1973, 1987, 1993, 1995.

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