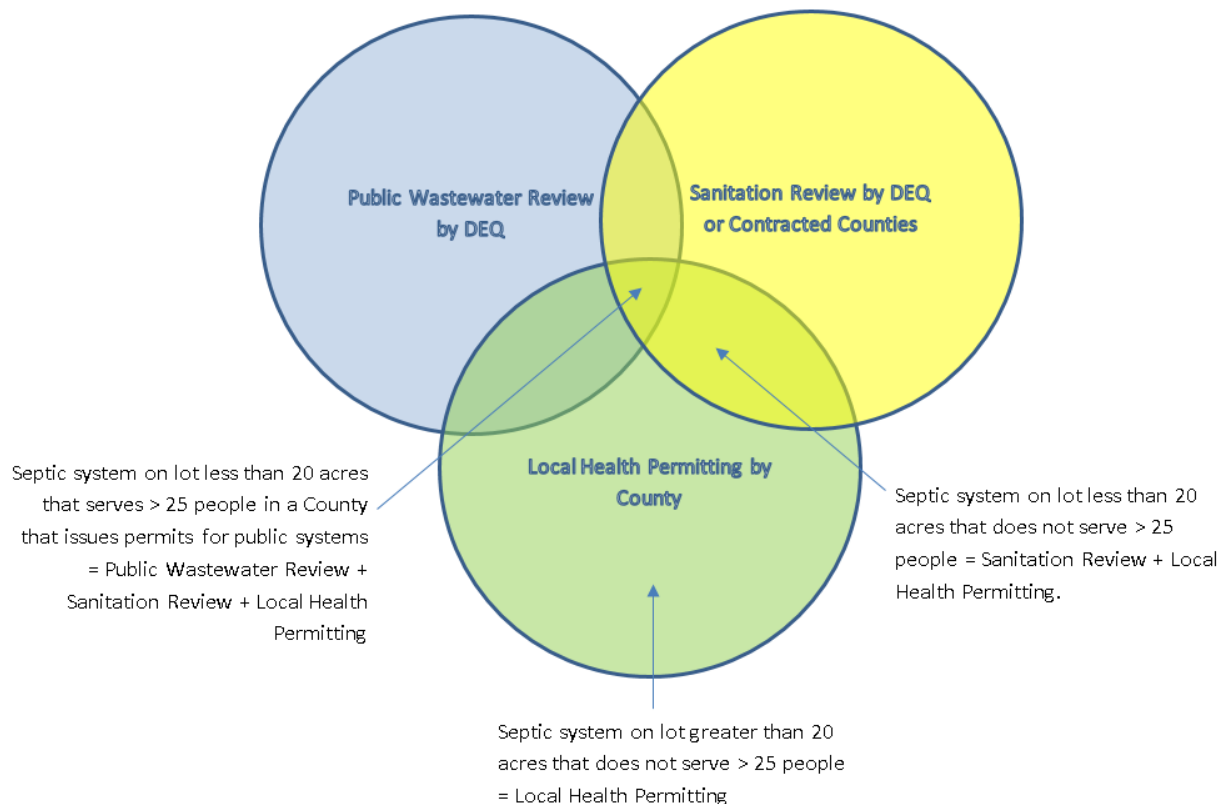


Septic system permitting in Montana

76-4-101. Public policy. It is the public policy of this state to extend present laws controlling water supply, sewage disposal, and solid waste disposal to include individual wells affected by adjoining sewage disposal and individual sewage systems to protect the quality and potability of water for public water supplies and domestic uses and to protect the quality of water for other beneficial uses, including uses relating to agriculture, industry, recreation, and wildlife.

75-6-101. Policy. It is the public policy of this state to protect, maintain, and improve the quality and potability of water for public water supplies and domestic uses.

New public wastewater systems or modification to existing public systems serving 25 people for 60 or more days a year require approval by the Department of Environmental Quality (DEQ) prior to construction. Septic systems on newly created lots that are less than 20 acres or have multiple spaces for RVs or mobile homes require approval by the DEQ or Counties contracted to do this work prior to recording a Plat or Certificate of Survey. Septic systems serving non-public facilities also require a permit from the Local Health Authority prior to construction. Some examples of cross jurisdictional permitting are shown below:



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Public Wastewater Laws. Septic systems that serve 25 or more people for any 60 days in a year are subject to review by DEQ under the Public Wastewater Laws, MCA 75-6.

Sanitation Act. Septic systems on parcels less than 20 acres or those that provide multiple permanent spaces for RVs or mobile homes are subject to review by DEQ or Contracted Counties under the Sanitation Act, MCA 76-4.

Local Health Authority. All non-public septic systems require a local health permit under MCA 50, regardless of whether they trigger Sanitation Act review. Some Counties also issue permits for public septic systems.

Non-degradation. All new or increased sources of pollution after April 29, 1993 require compliance with Montana's non-degradation laws and rules in MCA 75-5. For discharges to groundwater, the project must pass a nitrate sensitivity analysis and phosphorus breakthrough analysis. If surface water is located within ¼ to ½ mile depending on soil type, an adjacent to surface water trigger analysis is also required.

Allowed Disposal Systems. The following subsurface disposal systems are allowed for new drainfields:

- Standard absorption trenches
- Shallow capped absorption trenches
- At-grade absorption trenches
- Deep absorption trenches
- Evapotranspiration and evapotranspiration absorption beds
- Sealed pit privys when operated by local, state or federal government.
- Elevated sand mounds
- Subsurface drip
- Gravelless trenches (infiltrators)
- Sand-lined absorption trenches
- Waste segregation (composting or incinerating toilets + gray water disposal)

In addition to those allowed for new drainfields, replacement systems can use:

- Cut systems
- Fill systems
- Artificially drained systems
- Absorption beds
- Seepage pits
- Holding tanks operated by government or in facilities licensed by DPHHS

Treatment Systems. The following treatment systems are allowed for new drainfields:

- Recirculating trickling filters
- Intermittent sand filters
- Recirculating sand filters
- Aerobic wastewater treatment units
- Chemical nutrient reduction systems
- Experimental systems by waiver

Use of Innovative and Experimental Technology

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For treatment systems not specifically listed above, Circular DEQ-4 allows the use of experimental systems by waiver. Experimental systems have the following requirements:

1. The system must effectively treat wastewater to prevent groundwater contamination;
2. The system must be monitored and inspected quarterly;
3. The person selling property with an experimental system must disclose monitoring and maintenance requirements to the buyer; and
4. Continuous maintenance and operation must be provided for the life of the system.

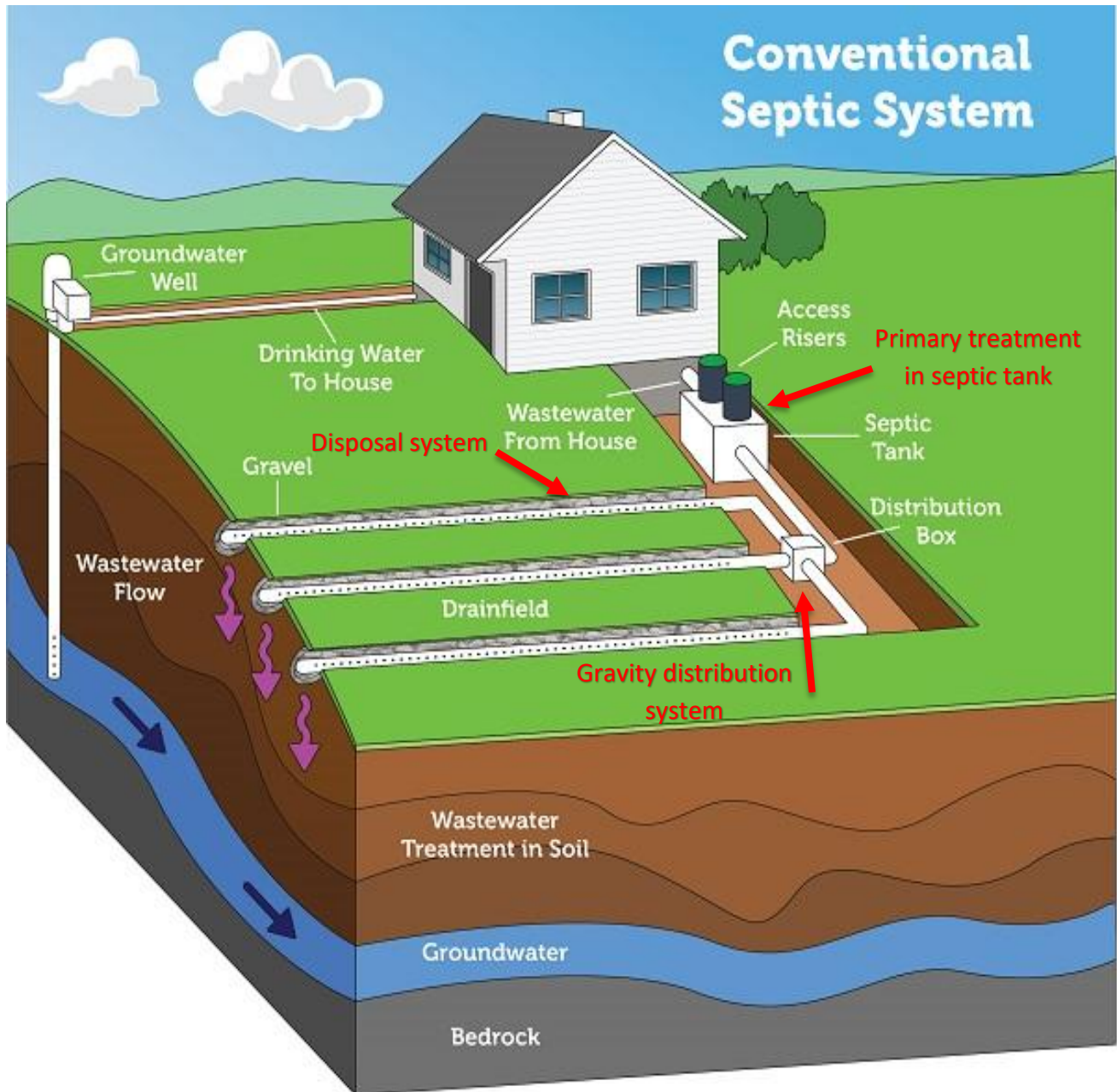
Distribution Systems. Effluent distribution may be either gravity or pressure (siphon or pump) dosed. The following types of systems require pressure dosing under Circular DEQ-4:

- Deep absorption trenches
- Intermittent sand filters
- Subsurface drip systems
- Systems with more than 500 lineal feet of distribution
- Systems with more than 1,000 square feet of distribution
- Systems installed in coarse material with a percolation rate faster than 3 mpi
- Elevated sand mounds
- At-grade systems
- Absorption beds
- Gravelless trenches greater than two feet in width
- Systems installed on slopes greater than 15%
- Systems installed in fast soil with less than six feet to a limiting layer

Counties may have more stringent requirements than those found in Circular DEQ-4. For example, Flathead County requires pressure dosing of all drainfields.

Challenges for septic system design and permitting

1. **Nondegradation.** Some properties have difficulty passing the nondegradation requirements. As a result, extra (Level 2) treatment is necessary to pass the requirements. Some properties also have difficulty passing the adjacent to surface water analysis.
2. **Separation to a limiting layer.** Department and Local Health rules require four feet of natural (undisturbed) soil between the absorption surface and a limiting layer like groundwater or bedrock. This standard is not waivable except for lots filed with Sanitary Restrictions prior to July 1, 1973.



Please note: Septic systems vary. Diagram is not to scale.

Level 2 treatment systems to reduce nitrogen. Recirculating trickling filters are most common secondary treatment installed in Montana.

