



August 15, 2019

Pat Goodover, Chair  
Seeley Lake Sewer District Board  
3360 Highway 83 N  
Seeley Lake, MT 59868

Dear Mr. Goodover and Board Members:

The Missoula City-County Health Board supports the resolution to require connection of all properties within the Seeley Lake Sewer District to the public sewer system as it becomes available. The Health Board is concerned about the nitrate levels in Seeley Lake's groundwater, and public sewer is a proven way to reduce the impact of septic system pollution in a community. However, in order to reap the benefit of public sewer, it is important that the number of connections be maximized.

Recent water quality data still show widespread elevated levels of nitrate in Seeley's groundwater. Some results exceed 10 mg/L, which is the maximum allowable concentration of nitrate in groundwater in Montana.<sup>1</sup> Studies have linked the nitrate pollution to the density of septic systems discharging wastewater in the area.<sup>2</sup> Conventional septic systems do well at removing viruses and bacteria from wastewater but they do not remove nitrate.

Nitrate levels are regulated in state waters due to the potential risks it can present to both human and environmental health. Consuming drinking water with elevated concentrations of nitrate can impact the body's ability to transport oxygen and result in severe illness or even death, especially in infants. Certain forms of cancer have also been linked to nitrate consumption. Fortunately, the majority of residents in the sewer district are not currently consuming high concentrations of nitrate in their drinking water because they get their water from the Seeley Lake public water system, which draws from the lake. However, Montana state law requires that the quality of state waters be protected equally for current and anticipated uses.<sup>3</sup> In other words, Seeley's groundwater quality is subject to the same water quality standards regardless of how it is currently being used.

Once introduced to surface waters, nitrate is primarily removed by aquatic plants. In surface waters, too much nitrogen can lead to excessive plant growth, which decreases oxygen levels, raises water temperatures, and can lead to significant declines in the overall health of a water

<sup>1</sup> 75-5-301, M.C.A. and MT DEQ Circular 7

<sup>2</sup> MT Bureau of Mines and Geology. 1998. Ground-Water Evaluation Seeley Lake, MT; Woessner W, et al. 1995. Cumulative Effects of Domestic Sewage Disposal on Groundwater of Missoula County: An Analysis of Carrying Capacity.

<sup>3</sup> 75-5-303, M.C.A.

body and the life it supports. This process is known as eutrophication and once a body of water becomes eutrophic it can be very difficult to reverse.

According to Montana Department of Environmental Quality's discharge permit, the public system currently being proposed will remove approximately 85% of the nitrate from Seeley's wastewater. This is very effective treatment that will help to ensure that state waters and public health are protected for years to come. However, properties not connected to the public sewer system will continue to discharge nitrate to groundwater at levels that may cause or contribute to further violations of state water quality laws.

We also want to recognize the District Board's dedicated efforts to keeping this sewer project moving forward. Sewering a small community is not an easy task. We were very pleased to learn that this project is nearing the point of bidding and construction.

If you have any questions or concerns regarding this letter, or this matter in general, please feel free to contact the Health Department at any time.

Sincerely,

A handwritten signature in blue ink that reads "Ross D. Miller". The signature is written in a cursive style with a large, stylized "M".

Ross Miller, Chair  
Missoula City-County Health Board



September 13, 2019

Seeley Lake Sewer District  
Attn: Pat Goodover, President  
3360 Highway 83 North  
Seeley Lake, MT 59868

Missoula City-County Health Department  
Environmental Health Division  
Attn: Shannon Therriault, Division Director  
301 West Alder  
Missoula, MT 59802

Missoula City County Board of Health  
Attn: Ross Miller, Chair  
Missoula City-County Health Department  
301 West Alder  
Missoula, MT 59802

RE: Seeley Lake Groundwater Quality

Dear Mr. Goodover, Ms. Therriault, and Mr. Miller;

As the administrative agency charged with regulating pollution in state waters, the Department of Environmental Quality (Department) is aware of the ongoing nitrate pollution in the Seeley Lake community. We are supportive of the efforts the Seeley Lake Sewer District (District) is taking to remedy this pollution by installing a centralized sewer system.

The Department's involvement at Seeley Lake has spanned many years. Most recently, we have been working with the District via plan and specification review of the proposed centralized collection and treatment system. In addition, we understand the District will likely take advantage of the Department's State Revolving Fund to assist with interim funding of the project to allow the District to cover the project's costs until their other sources of funding (primarily from USDA Rural Development) are made available.

Through this involvement, the Department has reviewed studies that show septic-caused nitrate contamination in the Seeley Lake community including monitoring information that shows elevated nitrate levels in groundwater with some nitrate concentration measurements that exceeded the maximum contaminant level of 10 mg/L. This data also shows the nitrate levels in the groundwater are trending upward.

The Department considers efforts to significantly reduce or eliminate ongoing discharge of individual and business wastewater systems to the aquifer to be the appropriate action to protect state waters, the environment, and public health. To that end, we understand that the District plans to bid Phase I and II of the project in January 2020 with the intent to start construction by Summer or Fall 2020. The work that the District has put forth is important and necessary to protect water quality, as is Missoula County's support toward accomplishing this goal.

The Department is aware that the District has suffered some setbacks in the past but is working to complete the project now. Because the proposed sewer project would directly remove the sources causing groundwater degradation, the Department urges the District to stay on course to complete the project. The funding package that the District has for this project is impressive, including \$9.7 million of grant money for the first two phases alone, most of which is provided by the USDA Rural Development Program. Further delays to the project would likely put the USDA grant funds for the project at risk.

Should circumstances arise that cause the District to abandon or delay efforts toward completing this project, the Seeley Lake community may lose its best option to remedy the nitrate pollution. That would not, however, remove the need for corrective action to protect state waters, the environment, and public health.

Given the opportunity currently available through the funding provided to the District, the Department commends and supports the District's efforts to remedy these problems through the locally-led solution of installing a centralized sewer system. Please let us know how the Department can continue to support this effort.

Respectfully,



Tim Davis, Administrator  
Water Quality Division  
Department of Environmental Quality