

MINTURN NEWSLETTER

SPECIAL EDITION; WATER SERIES

Issue 3: Water Treatment



MINTURN'S CURRENT WATER TREATMENT SYSTEM:

Several years ago the State of Colorado required Minturn to decommission two of the three operational slow sand filters at the water treatment plant due to those filters not meeting state regulations. The Town now relies on the last remaining slow sand filter, along with two wells for treating and providing drinking water. The two wells have treated the town well (pun intended) and continue to function as designed. The wells were meant to supplement Minturn's municipal water system and more information is needed to understand their potential ability to satisfy the town's water demands.

In addition to the one slow sand filter and the two wells, Minturn also has the option to utilize a temporary cartridge filter. This is a back-up option that although is not ideal, allows the treatment plant to treat more surface water. This filter is meant to meet regulations and water production needs in the short term.

Between the two wells and the one slow sand filter, the water treatment system is capable of producing enough water to serve the current town size plus the buildout of a potential Eagle County Schools housing project in Maloit Park and an additional 70 single family homes in town. However, the current system, as it has been described, is not ideal as a long-term water treatment solution for the town given the volumetric production limitations and aging infrastructure.

MOVING FORWARD:

The Town Council had originally planned to build a membrane water treatment plant and simultaneously utilize a secondary water source, the Eagle River, for providing a new water treatment option while also providing redundancy to the system. This decision was made in 2019 as Option #2 of the 2019 Capital Improvement Plan. Since then, as we all have seen, construction prices have skyrocketed and what was once estimated to be an \$11M project has morphed into a \$25M+ project. The cost burden a \$25M project would place on the utility users was too high and so last year the Council commissioned a new analysis for making upgrades to the water treatment system. This analysis included the review of rehabilitating the existing slow sand filters, purchasing a conventional package plant or purchasing a membrane water treatment plant. None of the options included a secondary water source, but several of the options leave the door open for a secondary source in the future if desired.

In addition to the three options listed above, the Council has also requested a review of the current wells being utilized on Cross Creek and the ability to increase their production levels. That analysis will be underway beginning next week. There are two steps to the production analysis of the wells. The first step is to understand the volumetric production of the wells and then two, if volumetric production is deemed adequate, understanding if the wells can remain under the non-GWUDI categorization. GWUDI stands for ground water under direct influence. The wells are currently classified as non-GWUDI meaning the water coming from the wells does not require advanced water treatment. If the classification of the larger pumping capacity is determined GWUDI by the Colorado Department of Public Health and Environment, then the requirement for a water treatment plant would be triggered, which would eliminate the wells as the more affordable water option (this is a simplified explanation). Here are the estimated costs associated with the three options identified in the most recent Water Treatment Plant Analysis:

Alternative	Low Capital Cost (-15%)	High Capital Cost (+30%)	Annual O&M
A - Rehabilitation of Existing Slow Sand Filters	\$5.8M	\$8.9M	\$120K
B - Packaged Conventional Water Treatment Plant	\$10.5M	\$16.7M	\$200K
C - Membrane Water Treatment Plant	\$9.8M	\$14.9M	\$150K

The above table is taken from page 6 of the Minturn Water Treatment Plan Alternatives Analysis conducted by HDR, Inc and presented to the Council at the August 16, 2023 meeting. The full analysis can be found [here](#) and begins on page 30 of the packet. In addition to the costs above, the Town has been awarded \$3M in Congressionally Directed Spending funds for use toward a new membrane plant. If an alternative other than a membrane plate is determined, the Town can submit a request to the EPA asking for the \$3M to go toward a different water treatment option. The Town anticipates, but has not been able to confirm, that this request would be approved.

Public Discussion:

The Council is holding a public discussion tomorrow night during the regularly scheduled October 18th Council meeting covering the water rate impacts stemming from the three water treatment plant alternatives in the table above. [Here](#) is the link to the financial analysis conducted by UMB Financial and can be found on page 39 of the October 18th Council packet. No decisions on water treatment will be made tomorrow night. This will be a public discussion only with the goal of informing and educating.

Please call or email with questions. A robust , ongoing discussion with a variety of stakeholders will be very beneficial to this process. We greatly appreciate your participation.

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