

# SOLDIER CANYON WATER TREATMENT AUTHORITY

**To:** Soldier Canyon Water Treatment Authority Board

**From:** Mark Kempton, P.E., CWP

**Date:** July 11, 2024

**Re:** Summary of Per- and Polyfluoroalkyl Substances (PFAS) testing results for Soldier Canyon Water Treatment Authority's (SCWTA) raw and treated water supplies.

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PFAS are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s because of their useful properties. There are thousands of different PFAS, some of which have been more widely used and studied than others. One common characteristic of concern of PFAS is that many break down very slowly and can build up in people, animals, and the environment over time. Current scientific research suggests that exposure to certain PFAS may lead to adverse health outcomes in humans such as: Cancer effects, Weight effects, Immune System effects, Developmental effects, and Reproductive System effects. More information about PFAS can be found on the Environmental Protection Agency's (EPA) [website](#).

To understand what levels of PFAS that may or may not exist within Soldier Canyon Water Treatment Authority's raw water and finished treated water, the Authority performed PFAS testing in Summer 2023 and again in Summer 2024. The results of these tests are shown below as well as their relation to adopted Environmental Protection Agency (EPA) regulatory limits.

**Table 1 – PFAS Sampling Results for SCWTA**

| <b>POLYFLUOROALKYL SUBSTANCES (PFAS)</b>  | <b>Results*</b><br>July 2023-<br>Entry Point<br>Distribution | <b>Results*</b><br>June 2024-<br>Poudre<br>Raw | <b>Results*</b><br>June 2024-<br>Horsetooth<br>Raw | <b>Results*</b><br>June 2024- Entry<br>Point Distribution | <b>Maximum<br/>Contaminant Level*<br/>(MCL) or Hazard<br/>Index (HI)**</b> |
|---|--|--|--|---|--|
| PFOA-Perfluorooctanoic                    | ND   | ND   | ND   | ND  | 4.0 ppt  |
| PFOS-<br>Perfluorooctanesulfonic<br>acid  | ND   | ND   | ND   | ND  | 4.0 ppt  |
| PFHxS-<br>Perfluorohexanesulfonic<br>acid | ND   | ND   | ND   | ND  | 10 ppt/HI  |
| PFNA-Perfluorononanoic<br>acid            | ND   | ND   | 0.16   | ND  | 10 ppt/HI  |
| HFPO-DA-(GenX<br>Chemicals)               | ND   | ND   | ND   | ND  | 10 ppt/HI  |
| PFBS-<br>Perfluorobutanesulfonic<br>acid  | 0.23   | ND   | 0.36   | 0.00086   | HI = 1.0   |
| <b>HAZARD INDEX TOTAL</b>                 | <b>0.000115</b>  | <b>0.0</b>                                     | <b>0.01618</b>                                     | <b>0.0000004</b>  | <b>HI = 1.0</b>  |

\* Units = Parts per Trillion (ppt)

\*\* No Units

ND = Non-detect

The test results show that Soldier Canyons’ raw water supplies and corresponding treated water PFAS levels are well below the EPA’s regulatory maximum contaminant levels. To ensure that the Authority stays informed on PFAS levels in our source water, the regional [Upper Cache la Poudre Water Quality Monitoring Program](#) will start regularly monitoring for PFAS. The Authority will also coordinate closely with Northern Water to monitor Horsetooth Reservoir regularly for PFAS.

Other local entities such as the Cities of Greeley, Thornton, and Fort Collins have also tested both Horsetooth Reservoir and Poudre River water supplies and found similar results for PFAS. Soldier Canyon’s finished water PFAS results have also been replicated in independent testing by Fort Collins/Loveland Water District and ELCO Water district.