

## SAFF/DEFLUORO Pilot Study | Frequently Asked Questions

- **Q: What is the new structure in Tablyn Park?**
  - **A:** It is part of the State's (Minnesota Pollution Control Agency and Department of Natural Resources) temporary test, called a pilot study, funded by the 3M PFAS Settlement. This is a newly purchased technology called SAFF (surface-activated foam fractionation) that aims to remove and reduce per- and polyfluoroalkyl substances (PFAS) in groundwater and surface water, which are connected to drinking water resources in the area.
- **Q: How does it work?**
  - **A:** Housed in a shipping container on-site at Tablyn Park, this new PFAS technology is simple and secure. The technology blows air into PFAS-contaminated water, causing it to foam. Then, the foam is extracted from the water through foam fractionation (i.e., separation). The foam which contains PFAS is condensed into a small amount of liquid. A second technology that aims to reduce and destroy the PFAS waste, called DEFLUORO, will be used on the small volume of PFAS waste from the SAFF.
- **Q: What is DEFLUORO?**
  - **A:** The DEFLUORO technology is the second step in the process to reduce and destroy PFAS from water. Inside a secure trailer, a process called electrochemical oxidation will be used to break the carbon-fluorine bonds that form the backbone of every PFAS molecule in the liquid waste. With each pass through DEFLUORO, PFAS chemicals get shorter. Recirculating waste through the process continues to shorten PFAS until the reaction is exhausted. The end result is a much lower concentration of harmful PFAS, ultimately aimed at complete PFAS destruction—eliminating or minimizing the need for any waste disposal. If necessary, the waste would be evaluated, it will be disposed in accordance with applicable regulations. The secure DEFLUORO trailer will likely be temporarily located at the former Washington County landfill.
- **Q: Is it safe? Is there a possibility this will cause PFAS contamination in our neighborhood?**
  - **A:** Both technologies are incredibly safe and secure, and this pilot study will remove and reduce PFAS from water without any chemicals added back into the surface or groundwater. The State is working with city and county regulators to ensure safe handling practices in accordance with applicable regulations.
- **Q: If it's a pilot study, how do you know if it works?**
  - **A:** The basic principle of the SAFF system is to add regular, outdoor air into water and physically remove the PFAS from the water by making it foam. PFAS molecules want to be in the foam and are easily pulled from the water. The cleaner water will be discharged to the nearby creek. Other SAFF units around the world have been

successful in removing PFAS from water. The DEFLUORO system reduces and destroys the small amount of PFAS waste from the SAFF system. This two-step approach allows the agency to test how well each system works, individually. Other destructive technologies may be tested in the next one to two years for comparison. Additionally, the MPCA successfully tested these technologies in a laboratory setting using the water from this area of the East Metro.

- **Q: What company developed this?**

- **A:** The SAFF system was purchased from EPOC Systems Ltd, a U.S. subsidiary of Australian-based OPEC Systems, which developed the SAFF system. The MPCA has been working closely with this company to plan, set up, and deploy the technology. The DEFLUORO system is an emerging technology developed by AECOM, a U.S. company that has served as the primary contractor for the PFAS investigation conducted under the 3M Settlement.

- **Q: How long will this pilot study last?**

- **A:** The study will last one to two years. Tablyn Park is the first of multiple planned locations for the SAFF pilot testing, using multiple groundwater aquifers and surface water. Other locations include Raleigh Creek (potentially during the summer of 2023) and the Lake Elmo Park Reserve (potentially in the fall of 2023), where the technology may be tested over the next one to two years. The DEFLUORO unit will likely remain at the former Washington County landfill location throughout the pilot study.

- **Q: Explain how this is part of the 3M Settlement.**

- **A:** This work is funded through the 3M Settlement, which protects safe and sustainable drinking water resources for current and future generations. The State is conducting a source assessment and feasibility study in this area to better understand how a man-made flood-control system has contributed to the spread of PFAS contamination in this area. The flood-control system is called Project 1007 and was installed to drain flood waters and manage surface water from the Tri-Lakes area to the St. Croix River.
- The City of Lake Elmo has graciously agreed to host the State on its property for this study. Surface water and groundwater are very well connected in this region of Minnesota. This connection allowed PFAS contamination to pass from surface water to groundwater throughout the East Metro, which ultimately become drinking water resources. It is important to understand that the current drinking water provided to Lake Elmo residents is safe. Drinking water provided to residents will remain safe and unaffected by this pilot study.

- **Q: Is there anything else I should know?**

- **A:** This study is an exciting step forward for the East Metro and the future of PFAS cleanup in Minnesota. Results from this pilot program will inform drinking water cleanup decisions for years to come. The Pollution Control Agency, the Department of Health, and the Department of Natural Resources have been working tirelessly to ensure safe drinking water for all East Metro communities. This project is just one component of the greater strategy to remove PFAS contamination from drinking water resources with funds from the 3M Settlement.
- For more information, please visit the 3M East Metro [website](#).