### A Reliable Technology Platform for Industries and Municipalities

Open storage ponds containing collected firefighting foam can emit PFAS over time, reaching adjacent drinking water sources with the groundwater flow. Considering the non-biodegradable nature of PFAS, the following strategy can be applied.

## 1. Upstream: Remediation of contaminated groundwater wells

Contamination can include mixtures of PFOS, PFOA (Firefighting Foam), CHC (Chemical Refinery), PCB (Electronics Manufacturer), and Pb, Cd, Hg, As, Se, Zn (Steelwork). In this case and for process engineering and operation purposes, the remediation platform is designed in a circuit, interconnecting several treatment modules, each containing a different remediation procedure (exemplified 1P, 5Mx1, non-linear formation).

Inflow -> Module A -> Module B ->
-> Module C -> Module D -> Module E -> Water Outflow

## 2. Downstream: Treatment of municipal drinking water sources

Contamination can include PFOS and PFOA only (Volunteer Fire Brigade Drill, Town Anniversary). In this case and for process engineering and operation purposes, the remediation platform is designed in a circuit, interconnecting multiple treatment modules, each containing the same treatment method (exemplified 1P, 12Mx2, linear formation).

### The Modern Remediation Platform with Modular Plant Layout

Advantages of a modular remediation platform operating in an 1) industrial park and 2) local municipalities are diverse:

### **Secure Platform Operations, Robust System Workflows**

- ❖ Mature Platform Design based on >20 Years of Operational Excellence
- Optimized Plant Automation, Digital Workflow Management System
- High-Performance Components, Materials from Quality Manufacturers
- Operator Safety Training, Remote Plant-Monitoring-System, 24/7

### **Strong Plant Efficiency, Effective Treatment of PFAS Mixtures**

- Integration of Multiple Remediation Techniques, Modular Plant Design
- ❖ Platform operation > 6,000 h/a, exceptionally Maintenance-Friendly
- Compatible with existing Facility Infrastructure and Workflows

### **Easy Installation, Economical Plant Operation**

- Modular Construction, a few days for installation after site preparation
- Low energy and operating costs, multi-plant operation by plant operator

# **Project Planning and Plant Dimensioning**

System Operators receive the following support services, including

- Optimal plant capacity assessment, pollutant analysis
- Platform feasibility, including workflow layouts, treatment techniques
- Plant simulation, site inspection, definition service, installation needs
- ❖ Economic efficiency calculations, logistics, and transportation

At **MEDSTERN CANADA LLP**, we support Business-to-Business processes and provide technology transfer, planning, and project coordination support to Local Leaders in North America in their efforts to build, secure, and maintain drinking water infrastructures of excellence:

Interested in the topic of Modern Remediation Platform?

- Looking for established B2B Partners active in the Clean Water Sectors?
- ❖ Are you seeking support functions in Project Planning and Realization?
- ❖ A trusted guide to harmonize your Clean Tech B2B Partnerships?

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#### Abbreviations:

PFAS, Perfluoroalkyl and polyfluoroalkyl substances CHC, Chlorinated Hydrocarbons PCB, Polychlorinated Biphenyls

#Waterworks #Drinking\_Water #Clean\_Water #Groundwater\_Remediation #Municipal\_Drinking\_Water #Contaminated\_Sites #PFAS #PFOA #PFOS #CHC #PCB #Modern\_Remediation\_Platform #Modular\_Construction