

UBC Emergency Water Trailer

Bi Pure Water completed a municipal emergency water treatment system for University of British Columbia. The purpose of this trailer is to have a standby source of water in the event of a storm or earth quake.



Figure 1: Exterior after installation



Figure 2: Interior of completed system

Key Features:

Water Source: Nearby rainwater supply

Peak Flow Rate: 100 L/min

Treatment:

1. Sand Media Vessels
2. Ultrafiltration (UF) membranes
3. Ultraviolet (UV) disinfection
4. Sodium Hypochlorite disinfection

Dimensions: 25 Ft x 8 Ft x 9 Ft

About the System

Designed and manufactured in Surrey, BC by Bi Pure Water Canada Inc., the PWTP system was factory fabricated as a modular unit in a trailer. This approach allows factory testing of the process and greatly reduces the construction time on site. Currently UBC receives its water from Metro Vancouver mountain reservoirs, a considerable delivery distance. UBC can now get water from a nearby rainwater supply, not connected to any fish bearing stream or ocean, and treat it for potable use.

When the system is not needed it will be supplying irrigation water without disinfection to UBC Botanical Garden, thus saving \$50,000 a year in water fees. The system will soon pay for itself.

Training

UBC building operations staff learned how to use the complete system. They first had to set up the pump into the nearby river. Then, setup an inflatable water tank that will be stored inside the trailer. After this, they had to check and turn the system on through the computer interface (HMI). Finally, they were taught how to replace filters and ultra-violet bulbs.



Figure 3: UBC Staff Setting System Up

Each of the treatment systems may be bypassed if required.



Figure 4: UBC Staff Changing Filter

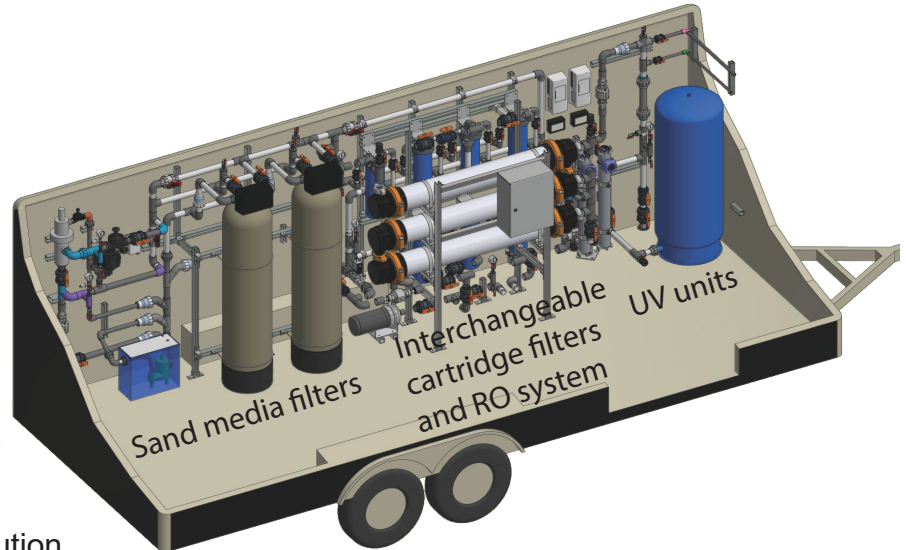


Figure 5: 3D CAD View of Trailer

BIPW specializes in reviewing water quality test results, analyzing customer needs and then prescribing the most cost-effective solution.

Our engineers and staff pilot, design, manufacture, install, start-up and commission package water & wastewater treatment plants. The operators are then trained and the plants can be serviced on a regular basis.

These package water treatment plants are cost-effective because:

- The water treatment plants are custom engineered to a specific water analysis and budget.
- The plant can be built in the Port Kells factory where the trained staff works.
- The completed water treatment plant is quality, leak- and flow- tested at the factory.



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