

Emergency Water Supply

Brandon, MB

January, 2016

BI Pure Water (Canada) Inc. was contracted by the City of Brandon to manufacture an emergency water supply trailer to their specifications. The purpose of the project was to provide a mobile water storage tank on a trailer that can be dispatched in an emergency to supply



The city of Brandon's emergency water supply trailer

water to residents in the case of either frozen water mains or water supply shutoff. This service of supplying emergency potable water is now more common in cold areas of Canada.

In winter, temperatures can reach -40 degrees C/F and frost penetrates the ground quickly. This causes water mains to freeze and shuts off the water supply to affected residences and businesses. The trailer would be parked in the area of the problem for residents to fill their water containers.

A propane heater is installed in the well insulated 2.6 meter (8.5 foot) wide x 4.9 meter (16 foot) long trailer. A stainless steel tank 2 meter (80") wide by 2.75 meter (108") long by 0.6

meter (24") high holds approximately 3320 Liters (730 Imperial Gallons) of potable water. A self-clos-

ing lever opens the valve to allow water to flow out by gravity.

"The City of Brandon's new portable emergency water trailer really does give us the ability to minimize the complications that not having ready access to City drinking water might create in a community," said City of Brandon Director of Public Works Ian Broome in a release. "For example, we could make it available to a school if City work on a watermain was interrupting its drinking water supply.

Or we could also use it if a certain building or facility's internal drinking water distribution infrastructure has been affected. We can also set it up in a neighbourhood if there are larger watermain issues that are being dealt with."

CASE STUDY

Broome notes that the trailer is thermostat-controlled, which allows for all-season use, and is designed with a spout that allows users to easily fill up their own water jugs with a supply of portable water for drinking or food preparation. However, given the trailer's maximum capacity, it is not meant to replace a commercial water supply or accommodate larger-volume household uses like laundry, dishes, or bathing.

"From an emergency response standpoint, the City of Brandon now has another tool in our toolbox to be able to respond to potential issues with the municipal water supply," adds City of Brandon Director of Risk & Emergency Management Brian Kayes. "Even though we hope not to make use of it, this equipment makes us better able to respond to these types of situations if they occur."



Stainless steel water tank and propane heater inside the insulated container

To BI Pure Water, sustainable infrastructure means providing adequate and reliable infrastructure of desired quality, in a manner that integrates economic growth, environmental protection and social development.

BI Pure Water (BIPW) specializes in reviewing water quality test results, analyzing customer needs and prescribing the most cost-effective solution. BIPW engineers pilot, design, manufacture, install, start-up and commission package water treatment plants. The operators are then trained and the plants can be serviced on a regular basis.

BIPW clients include federal, provincial and municipal governments, industrial, mine camps, private water systems, resorts and First Nations.

BI Pure Water specializes in custom engineered treatment systems:

- Years of water engineering expertise: electrical, mechanical and civil engineers specializing in water treatment on staff
- Custom designed to a specific water analysis and budget
- Systems are leak and flow tested at the factory, the PLC is operated and debugged before shipping for faster installation and start-up on site, lower total cost
- We don't sub-contract
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