

BARE POINT WATER TREATMENT PLANT



The Bare Point Water Treatment Plant is located on the shores of Lake Superior and supplies potable water to the City of Thunder Bay. The upgraded treatment plant now contains state of the art ultra-filtration membrane technology. The City of Thunder Bay is proud to be the first ZeeWeed 1000 Version 3 plant of it's kind in the world.

Through a 1350mm diameter pipe located 733 metres out in the lake, raw water is fed by gravity into the plant, where up to four low lift pumps move the water to the filtration building. There the raw water is drawn thru the membrane filtration system via vacuum. This permeate water is then pumped into the clearwell where chlorine is added. The water flows thru baffles into the storage reservoirs. Five high lift vertical turbine pumps are able to pump up to 113.6 M litres into the City distribution system.

For tours call 683-8141 ext. 4

STATISTICS & FACTS



- Original Plant was constructed in 1913.
- First Plant expansion was in 1979.
- Plant capacity was 68.2 M litres.
- Plant process was gravity sand filtration.
- New Plant has a capacity of 113.6 M litres.
- New Plant process is ultra-filtration.
- New Plant contains 5 Zenon ultra-filtration units, 5 high lift vertical turbine pumps, 4 low lift pumps and 2 back-up generators.
- New Plant has 5.81 million litres storage.
- If the electrical cable from the Plant was laid out in a single line it would reach 17 kilometres.
- The piping used would reach 9 kilometres.
- The concrete could pave a road 14 kilometres in length.



Environment Division

Victoriaville Civic Centre

P O Box 800

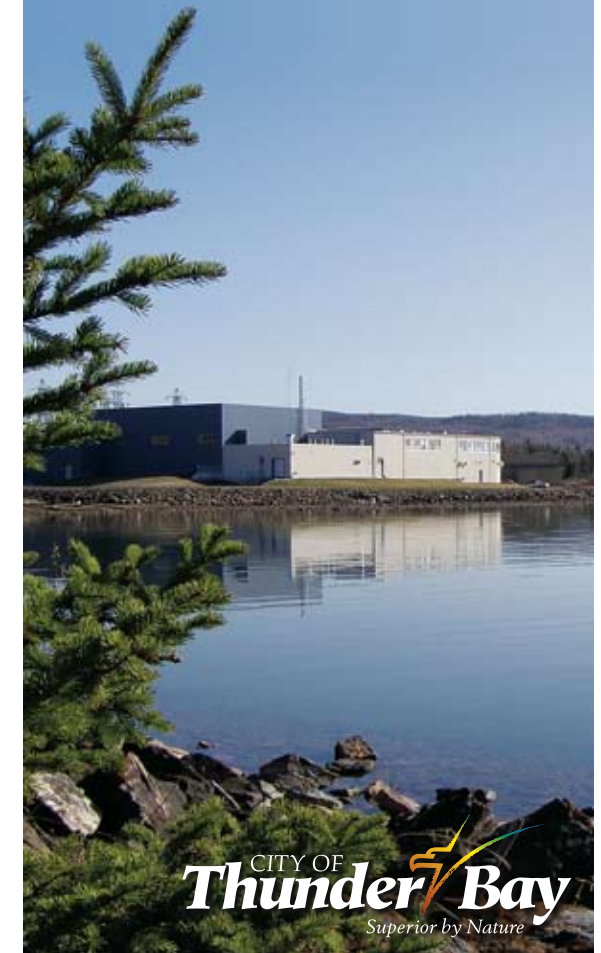
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Bare Point water treatment plant





Lake Superior



New Reservoirs under construction

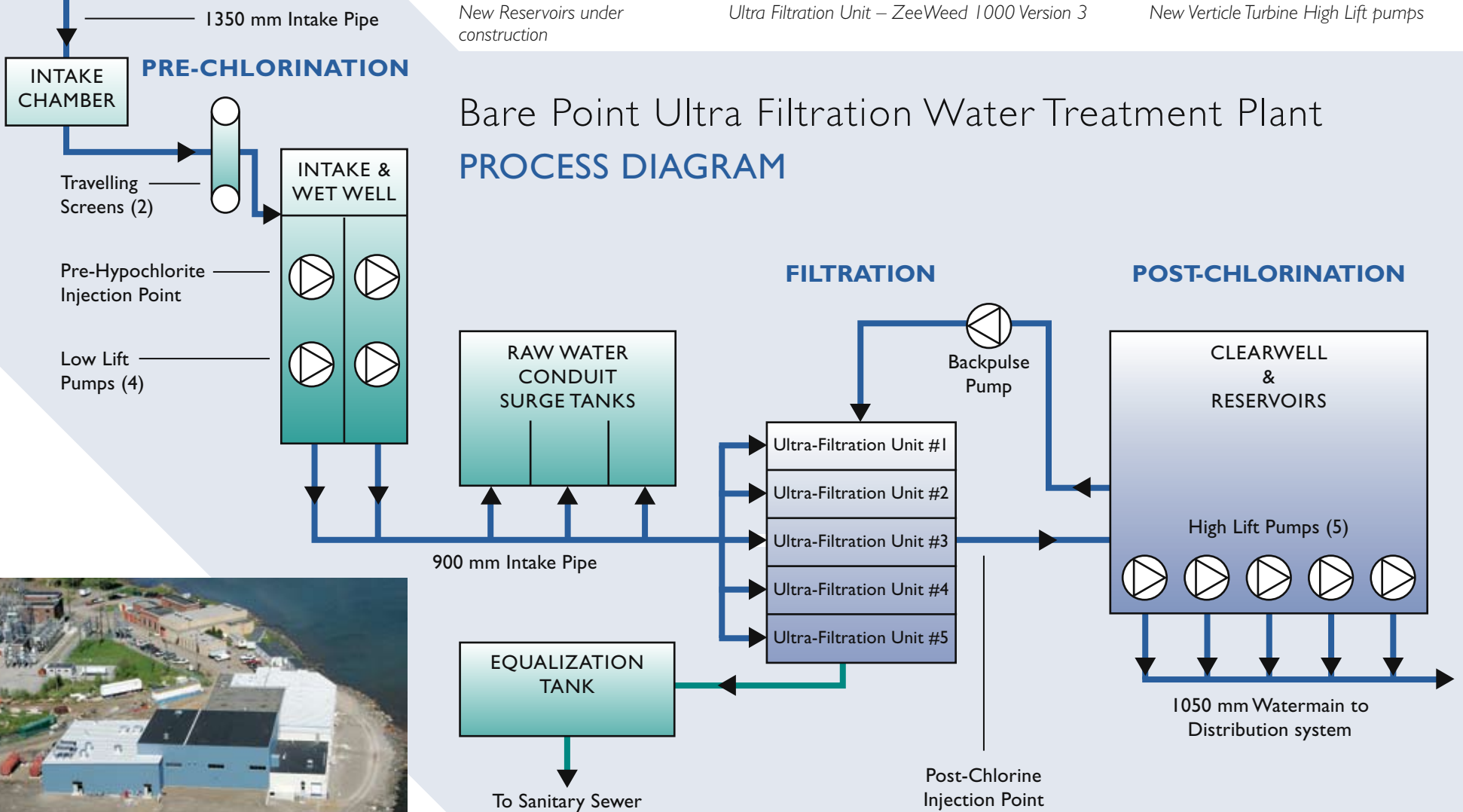


Ultra Filtration Unit – ZeeWeed 1000 Version 3



New Verticle Turbine High Lift pumps

Bare Point Ultra Filtration Water Treatment Plant PROCESS DIAGRAM



New Plant nearing completion