



SOLENO

Mastering Storm Water

1ST
DEVELOPER
OF SUSTAINABLE SOLUTIONS
FOR MASTERING STORM WATER



LES BASSINS
ROUGES

INSTALLATION OF A LARGE HDPE PUMPING STATION AT THE LES BASSINS ROUGES FARM

Pumping station: a tailor-made solution offered by Soleno.

As part of the Les Bassins Rouges cranberry bog expansion in Saint-Lucien, Mr. Jasmin Bilodeau, a contractor with KMB Excavation Inc. a division of the farm, was to build a high-density polyethylene (HDPE) pumping station, the first major installation on the farm. Sébastien Bélanger, owner of the farm, chose Soleno products because of the advantages of this economical, simple and quick installation device.

[READ MORE](#) ▼

THE CONTEXT

The installation of new cranberry bogs requires the installation of a closed water circuit through the construction of water basins; these are filled with runoff or snowmelt water. This water is stored in reservoirs and then used for field irrigation and flooding during harvest or frost. After flooding, the water is redirected to the ponds for future reuse. The closed water circuit system operates by gravity and pumping, ensuring water supply for field operations.

In order to optimize his yield for his third fall crop, and in anticipation of future expansions, Mr. Bélanger recommended the installation of a transfer reservoir to accelerate the flooding of his six fields spread over more than 34 hectares (85 acres). The development of two additional ponds and the installation of two additional pumps are also being considered to maximize harvest time when the site reaches its full potential.

THE SOLUTION

For the design of his pumping station, Mr. Bélanger opted for a customized conveyance solution offered by Soleno; an HDPE pumping station. Weholite pipes 2130 mm (84 in.) in diameter were used for this station. The contractor, Jasmin Bilodeau, installed 15 linear metres (50 feet) of HDPE pipe in a 21 m (70 feet) deep by 3.65 m (12 feet) wide trench on clay soil covered with a separation geotextile. In order to allow the installation of 3 pumps, 1200 mm (48 in) diameter Solflo Max chimney manholes, 5.18 m (17 ft) long, were welded to the Weholite pipes. Filled with sand, the station is also protected by a concrete structure to direct water, prevent erosion and support the pumps. This HDPE pumping station will collect water from the lake located on the bevel side of the fields and raise it to 6.7 m (22 ft) high to redirect it to the bogs for flooding.

THE BENEFITS

The design of a single-piece HDPE pumping station, made of Weholite pipes, does not require any additional connections, unlike an aluminum pumping station which would have required a connection to a pipe for water supply. This tailor-made solution has therefore led to substantial savings in cost, excavation and installation. Weholite pipes offer large diameters ranging from 450 mm (18 in) to 3355 mm (132 in). Their length, up to 15 metres, reduces installation time. They offer increased resistance to corrosion, abrasion, chemical agents and soil movement, preventing their degradation and ensuring the durability of the systems. High density polyethylene has an exceptional life of over 100 years. Its light weight facilitates handling and does not require the services of specialized contractors.

Happy with the result, Mr. Bilodeau points out that the construction of this pumping station will now allow him to flood a plantation of 10 hectares (25 acres) in only 24 hours whereas initially, with the sprinkler system, the complete flooding required 72 hours.



For more information and to learn more about our services and products, please visit www.soleno.com. Other case studies are also available.