

FIELD REPORT

ISCO SUPPLIES AND SUPPORTS A RECORD BREAKING PROJECT



AN OPPORTUNITY TO SHINE

The needs of the new McLoughlin Point Wastewater Treatment Plant in Victoria, British Columbia presented an opportunity that would lead to the construction of the largest solid wall HDPE outfall in North America. The line stretched 1.92 km (1.2 miles) long and was primarily constructed with 2250 mm DR26 HDPE pipe. It featured several unique and innovative concepts from design to installation.

AECOM and its Joint Venture partner Graham Construction (AGJV) designed and facilitated the construction of the outfall with support from subcontracting partners Michels Canada and Vancouver Pile Driving Ltd., (VanPile).

THE HDPE ADVANTAGE

Initially, the project was designed with coated, lined, and cathodically protected steel pipe. However, during the design process, large diameter, high performance HDPE pipe manufactured to European ISO standards became available in North America. ISCO Industries supplied the 2250 mm pipe manufactured by Agru America in 16 meter sticks. HDPE was selected based on its long-term performance in the corrosive sea water environment, seismic resiliency, and its ease of construction. "From a cost perspective and, in my estimation, a risk perspective, HDPE is better," explained Russ Fogel with VanPile.

ISCO Regional Sales Manager Jeff Lore was involved with the project from design to completion. "We were faced

with some challenges because this was a design-build project," he explained. "We went through a lot of different diameters, a lot of different DR ratings for the pipe, and also making sure that we could find the right fusing location to build such a large diameter piping system."

THE ASSEMBLY SITE

An assembly site was set up in Nanoose Bay, north of Nanaimo, about 180 km by sea from the project site. A weather-resistant enclosure was set up around the Widos 26000 fusion machine. Sections of pipe were trucked to the site where experienced ISCO fusion technicians were able to complete two to three fusions per day for a total of more than 100 fused joints.

PROJECT

McLoughlin Point Wastewater Treatment Plant

LOCATION

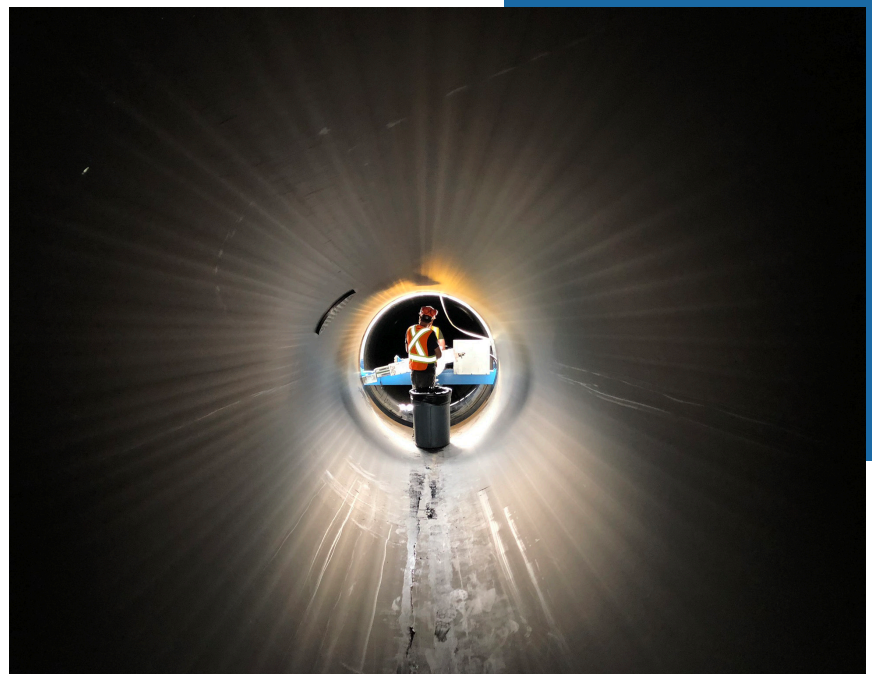
Victoria and Nanoose Bay, British Columbia

THE NEED

Offshore Outfall

SOLUTION

1.92 km of 2250mm DR26 HDPE





“It’s been perfect. Communication between each party has been great. Talking to Jeff and talking with the freighting company ISCO decided to go with, it’s all been great. Very positive.”



“We were expecting a maximum of two joints per day, but at a certain point, the fusion technicians were able to get three per day, so that really bumped up production and put us ahead of schedule,” explained Russell Rosenberg, an engineer on the project. “It’s been perfect. Communication between each party has been great. Talking to Jeff and talking with the freighting company that ISCO decided to go with, it’s all been great. Very positive.”

TRANSPORTING THE PIPE

The pipe was then towed off of the fusion machine and into the bay where concrete ballast weights were installed by crane. “Everything has been relatively seamless,” Fogel said. “It’s been textbook.”

Once the pipeline was assembled, it was pressure tested to ensure hydraulic integrity. It was then towed from

Nanoose Bay to the installation site over the course of two days. It was installed by “float and sink” methods in water up to 62 meters (203 feet) deep. It was approximately 1800 meters (5900 feet) long and included a 210 meter (690 foot) long, 36 port diffuser.

This project was an incredible demonstration of teamwork between multiple entities resulting in a record-breaking installation. The construction showcased what can be accomplished with ISCO and HDPE pipe.

See what ISCO can do for you at:
www.isco-pipe.com



100 Witherspoon Street
2West
Louisville, KY 40202

