

# METAL PLATE BONDING ON DAM STRUCTURE

ID: 9774

Industry: Water / Wastewater

Customer Location: KITCHENER

Application: VPF-Valves, Pipes and Fittings

Application Date: January 2025

Substrate: Carbon steel

Products: Belzona 1121 (Super XL-Metal), Belzona 5811 (Immersion Grade)

## Problem

Dam structure was badly worn by erosion of river running beneath and it required reinforcement. Due to the areas affected, welding was not an option. Engineering consulting company specified Belzona to bond metal plated to the structure for reinforcement and corrosion protection.



Structure before metal bonding.



Structure after metal bonding with Belzona 1121.



Perimeter of the bonded area coated with Belzona 5811.

## Application Situation

The area of repair of the dam structure was below a bridge and would be difficult for welding. Belzona was chosen as a safer and time efficient option with protection for a better longevity in mind.

## Application Method

Existing structure and plate was blasted to SSPC SP10 standard of cleanliness. Belzona 1121 was applied on both the structure and the plate for a wet on wet application. Due to freezing conditions, heater were put on to enable proper curing at favourable conditions. Belzona 5811 was then applied to seal the perimeter around the bonding area. Necessary inspections were carried out after few weeks and application was certified okay.

## Belzona Facts

Belzona was not only a cheaper option considering the application area and conditions, but was also efficient and protective of the structure.

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ISO 9001:2015

Belzona products are

FS 695214

manufactured under an ISO

ISO 14001:2015

9000 Registered Quality

EMS 695213

Management System.

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