

**HYDRO QUEBEC - ROMAINE 4
EASTERN QUEBEC, QUEBEC, CANADA**

Snow Fences and Avalanche Protection

Problem

There was a high risk of an avalanche to a powerhouse and tail race at the Romaine 4 hydro electric dam in Quebec, Canada.

Solution

43 units of Erdox Neve snow pack supporting structures were designed and installed. These are the largest single point anchor snow pack supporting structure in North America.

There were several project constrains and challenges, including significant time limitations for on-site layout and installation. These “umbrella”-type panel systems were used due to the relative ease of layout on the convoluted slope, and to minimize anchoring and installation time. In order to further reduce on-site time, advanced GIS techniques and high-resolution drone-based LiDAR data was used to analyse snow distribution patterns, and complete much of the layout and design with desktop-based analysis.

Client: Hydro Quebec

Designer / Consultant: Cam Campbell, P.L.Eng., Brian Gould, P.Eng

Contractor: Hydro-Quebec; Alpine Solutions Avalanche

Products used (Qty.)

- Erdox Snow 43 units

Date of construction: 08/2019 - 11/2019



Erdox



Erdox



Erodex



Erodex