

Company: Lafarge. Location : Longueil Sainte-Marie, North France.

Objective To provide a solution to the problem of frequent flooding.

Context France's Picardy region is subject to regular flooding, notably when the Oise River overflows. Provided the soil is sufficiently impervious, former alluvial quarries can be used as flood control reservoirs. At Longueil Sainte-Marie, a 17-hectare site features all the requisite geological characteristics for conversion into a flood control basin.

Solution Lafarge, in partnership with national and local authorities, decided to create a flood control basin offering a total capacity of 600,000 m³, at the end of the quarry's useful life. A number of hydraulic installations – levees, channels and connecting trenches – were built. The banks were consolidated and made impervious, and a number of fragile areas stabilized with riprap. Trees were planted around the reservoir.

Results The flood control basin has been operational since 2001. This project, which has met the expectations of all stakeholders, is part of a broader flood control program which could be extended to other former quarries in order to boost total impoundment capacity to 10 million m³.

