

**Company:** GSM (Italcementi Group)  
**Location:** Varennes sur Seine, France

**Objective** Develop the ecological potential of an alluvial quarry located in the valley of Seine, upriver from Fontainebleau.

**Context** The site is located in a vast alluvial plain and its ecological relevance is mentioned in several ecological protected areas (“Zones Naturelles d’Intérêt Ecologique Floristique et Faunistique”). Several studies confirmed the high ornithological potential of the site. The redevelopment of this area (230 hectares) was laid out (in the early 90s) in order to promote the biological diversity of the area and follows the same objective today.

**Solution** With the collaboration of local ornithological experts, research centres, and scientists several experimentations of ecological engineering have been implemented: the restoration of reed beds from local seed cultivation, creation of 4 sand and gravel small islands with different substrata...The successful preservation of biodiversity is taken into account in the framework of management planning.

**Result** The ecological restoration of the site encouraged the introduction and life of remarkable species: Sterne naine, Sterne pierregarin, Fuligule morillon, Grèbe castagneux, Vanneau huppé, Petit gravelot...  
The entire space now created a vast wetland zone, which is also a separating zone from a field with drinkable water resources.

