





### **OBJECTIVE**

In 2010 the project of building a 6 kms long conveyor belt, associated to a limestone quarry, took place on a dry area hosting an endangered species, *pusatilla rubra*; the environmental assessment highlighted the presence of a dozen of specimens.

Restoring a similar site, less than 3 kms away has been decided in order to boost the growing of *pulsatilla rubra*, and to strengthen the population of this flower.

# CONTEXT

In 2010, the industrial project of "Mépieu quarry", located in France, about 40 kms from Lyon, included an open pit limestone quarry and a 6kms long conveyor belt.

The complete project was subjected to an environmental permit; Different endangered species were identified during the environmental study, including a plant, *pulsatilla rubra*, on the conveyor belt trajectory.



#### **SOLUTIONS**

The surrounding landscape is a mixture of dry and wet lands, provided by different types of undergrounds: porous limestone and impermeable glacial moraines. A potential site heavily covered by blackthorn bushes was easily found some kilometres away from the initial *pulsatilla rubra* site.

Relying on the natural sleeping seeds bank of *pulsatilla rubra*, the restoration operations have been conducted in three stages:

- Re-opening of a 5 ha dry grassland including:
  - o cutting the most part of bushes, with a mulcher,
  - maintaining some bushes and hedges areas for nesting (birds and butterflies), approximately 5 ha
- Maintaining an open landscape, favourable to *pulsatilla rubra*:
  - Alternative grazing by mares and heifers, every spring and summer
- Annual survey.

### **OUTCOMES**

Each year, since 2015, a follow-up survey is conducted in an area, including the conveyor belt area, the restored site and some favourable sites around, including footpath sides.

The re-opening and the maintenance of the grassland have boosted the growing of seeds, which just needed the favourable conditions to develop; today, more than 35,000 specimens are estimated on the restored site, compared with the initial dozen specimens. Other rare flower species (orchids for instance) have profited from the operation and are now far exceeding their initial number.

Moreover, the participation of the stakeholders enables an easy and sustainable way to maintain dry grassland in a win to win partnership.

# **PARTNER**

Association Nature Nord Isère Lo Parvi (NGO) Local breeders and farmers

Contact: C-F LEMAITRE

Charles.lemaitre@vicat.fr