

## CASE STUDY

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### Developing a Biodiversity Action Plan (BAP) for the "Soto Pajares" quarry in a Natura 2000 site



CEMEX is currently successfully managing an active quarry in an area heavily-designated under European law. Deftly balancing the complex and demanding tasks of gravel extraction with both biodiversity conservation and environmental protection.

An agreed plan and buy-in from key stakeholders such as the Regional Park authority and national and local NGOs, with key input from SEO/BirdLife (the BirdLife Partner in Spain) helps to ensure that the project will continue to benefit wildlife and people for generations to come.

- ▲ Desk-based assessment of the site to get an idea of the biodiversity value of the site. Priority species were highlighted, especially those that might potentially be present in the extraction area, artificial ponds and other habitats connected to the quarry.
- ▲ Process improvement on water management, which favoured the creation of new shallow water bodies within the site, and therefore increased significantly the variety and quality of habitats.
- ▲ Collaborative Studies of Flora and Fauna, with a special focus on birds as a Special Protected Area under the Birds Directive means it has a rich avifauna.
- ▲ Sustainability Commission and Educational Activities.



GRAVERA SOTO PAJARES

## KEY FACTS about the Aggregates Industry

- ▲ Aggregates are sand, gravel (including marine aggregates), crushed rock, recycled and manufactured aggregates.
- ▲ Aggregates are used to construct **Europe's essential infrastructure** including homes, roads, railways, schools and hospitals.
- ▲ The treatment of aggregates, which are **inert materials**, is mechanical.
- ▲ Aggregate operations are normally subject to an Environmental Impact Assessment and complex administrative processing: **rehabilitation is planned in advance** and there are financial guarantees if needed.
- ▲ Good practices and best techniques are applied to manage biodiversity: more than 150 biodiversity cases studies available online ([www.uepg.eu](http://www.uepg.eu)) demonstrate the compatibility of aggregates extraction, environmental protection and biodiversity management.



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## Quarries, pits and biodiversity



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EU Transparency Register: 15340821653-49

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## The Life Cycle of a Quarry or Pit

A quarry (hard rock) or a pit (sand or gravel) has a long life-time:

- ▲ **Before extraction** – Includes the exploration phase, the environmental impact assessment and the authorisation process.
- ▲ **Extraction** – Conducted together with rehabilitation.
- ▲ **Rehabilitation** – aims at giving a new function to the land: nature conservation, agriculture, forestry, leisure, etc.

UEPG Members are contributing to the Circular Economy through the full life cycle of the quarry or pit: excellence in daily operations, complete use of the reserves, recycling and restoration.

## How a Pit or Quarry contributes to Biodiversity

Throughout the life of quarries, a **large diversity of high biological value habitats is generated**. These habitats are protected from external disturbances and pollution.

Aggregates extraction is not only compatible with biodiversity, but has the potential to create it. A number of **Natura 2000** areas have been designated on former minerals sites, which demonstrates this.

From the environmental impact assessment to the rehabilitation, the Aggregates Industry follows the mitigation hierarchy **"avoid, reduce, restore"**.

## The Aggregates Industry cooperates with its Stakeholders

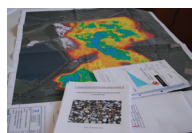
The Aggregates Industry is acknowledged as a contributor to biodiversity by the **European institutions** and participates to the European Commission Business@Biodiversity Platform.

The Aggregates Industry cooperates extensively with stakeholders, both at **local and European levels**, through dialogues or agreements with NGOs, universities, competent authorities, local communities and international organisations such as IUCN.

Companies and national associations have a large catalogue of studies and guidance documents and disseminate good practice.

# How Quarries and Pits create High-value Habitats

## Before extraction



Before the extraction begins, **impact assessments** are done to ensure that potential impacts on biodiversity are mitigated.

An important part of the assessment (which would continue throughout the full life of the site) is the dialogue with stakeholders.

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## During extraction



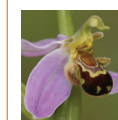
Although pits and quarries, by their very specificities, can be **natural biodiversity havens**, an ad-hoc management (eg. Biodiversity Management Plans) helps by creating new habitats and attracting **pioneer species**. It is also important to raise staff awareness and to train them on simple behaviours (for instance no disturbance during the breeding season) that will help biodiversity to blossom.

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South-facing sand banks and exposed soft substrates can provide important habitats for bees, solitary wasps and a host of other invertebrates.



Dry grassland can support a wide variety of broad-leaved herbs and grasses and sometimes host very rare species like orchids.

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The often shallow and temporary ponds that occur due to excavation can be important habitats for amphibians.



Quarries can provide important roosting and nesting sites for cliff nesting birds such as the Eurasian Eagle-owl.

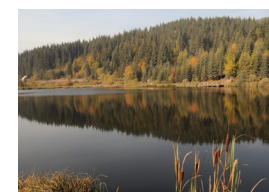
Sand martins often breed on exposed banks especially within sand and gravel pits.

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## After extraction

Rehabilitation should be achieved both through actions of mitigation and **progressive restoration** during operations. The final restoration will help **sustaining the outcomes and benefits from the extraction**.

Restoration is done on a site-by-site basis and in accordance with the permit. Different tools are used



depending on the local conditions, of which the quarry manager has an in-depth knowledge (eg. partnership with local stakeholders, creation of wetlands, eradication of invasive species, monitoring and inventories).

Many aggregates sites, once rehabilitated, will provide **services to the local community** as leisure and/or educational areas.

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