**CASE STUDY**

**UEPG Sustainable Development Awards Winner 2013**

A win-win partnership between the Water Resources Management authorities and a gravel pit run by an SME

In the 19th century the Main river was straightened and converted into a «Waterhighway». This led to an accelerated draining, to an erosion of the river bed and finally to an ecologically structural pauperism.

The gravel extraction priority area was located in a former river loop of the Main river, which is also located in the planning area of the water framework directive. In the course of the coordination between the nature conservation and the water resources management the idea was born to give back the Main river its natural meadow by integrating the gravel extraction.

In 1999, cooperation between the Bavarian water resources management and the Company Porzner Kies GmbH was established. This was a totally new approach and a milestone in the cooperation between governmental bodies and private companies.

The company developed a restoration plan which provided "Wanderbiotopen" (migratory biotopes) or moving biotope areas which fostered a huge increase in flora and fauna. The initiative also provides leisure facilities for the local community, and, most importantly, provides enhanced flood protection.

Porzner Kies Naturstein Zentrum Zapfendorf, an SME, won a UEPG Restoration Award for its outstanding initiative in developing dialogue and constructive cooperation with its stakeholders at its sand and gravel pits along the Main river.

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**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.
- 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.
- The Aggregates Industry has a proven record of best practices in water management.

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Today, aggregates extraction is considered within the current river basin plans (in some countries) and, in the case of extraction in river beds many countries have specific procedures for authorising it.

After extraction, the restoration of the aggregates site is important to the operator, as under guarantee with the administrative authority, restoring the site provides benefits to the local community and nature conservation usually beyond what was there pre-extraction.

In many European countries, a water management plan (surface and groundwater) is included in the general planning of the extraction site setting the principles of how water will be controlled and how its quality preserved.

Aggregate operations are normally subject to an Environmental Impact Assessment and complex administrative processing that take into account possible effects on surface and underground water. Generally good practices and best techniques are applied in managing it.

The production of aggregates is mechanical and, in some cases, an important step of the process is to wash the extracted material with water, which is then clarified and then used again to minimise consumption.

A limited impact on water quantity

The consumption of water of the Aggregates sector is very low. The use of good practices in aggregates sites to protect water quality and to minimise water consumption, through water efficiency and recycling, is widely adopted.

A limited impact on water quality

It is also important to point out that materials – crushed stone, sand and gravel – extracted and processed are inert in most of the cases. In practice there is little risk of water being polluted by hazardous substances.

As laid down in legislation, besides requiring the special authorisation needed for the river basin, it will be obligatory to put in place the necessary insurances that the environment will be restored following completion of activity as regards hydraulic, ecological and landscaping aspects.

A responsible Industry

The Aggregates Industry positively interacts with river basin management plans ensuring that any impact on the water environment caused by the aggregates industry is limited. Indeed, the Aggregates Industry can provide flood storage capacity during times of high water levels and in most cases can be a positive contributor to water quality and biodiversity, thanks to a good management of the site.

The Aggregates Industry has an important potential to have a positive contribution to water management.

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