



UEPG

Sustainable Development Awards

2010

UEPG in Summary:



- UEPG, the European Aggregates Association, was created as an AiSBL (a non-profit organisation) in 1987, representing the interests of national crushed stone, sand and gravel associations. The name UEPG derives from the French "Union Européenne des Producteurs de Granulats".
- Under each of the nine UEPG Presidencies since then, UEPG has continued to grow in representation, strength and lobbying activity. It now represents 26 national aggregates associations. UEPG therefore has a powerful and highly representative voice in all issues relating to the aggregates sector.
- The European aggregates industry now has an annual output of some 3 billion tonnes, with a financial turnover of €20-25 billion, making it by far the largest extractive industry. These aggregates are produced by almost 17,000 companies (predominantly SMEs) at 22,000 quarries and pits, employing some 450,000 people both directly and indirectly.
- UEPG activities focus on all health & safety, technical and economic issues facing the industry, with a particular focus on environmental issues, including biodiversity. UEPG campaigns for a sustainable industry for a sustainable Europe, at the centre of which are its Sustainable Development Awards.

President's Introduction



The UEPG Sustainable Development Awards are the proud showcase of the European Aggregates Industry. These awards have been

made every 2-3 years since 1997, and have been gaining in scale and excellence with each event. In 2010, we have had a record 30 entries from 10 countries, all entries being of truly outstanding quality. These Sustainable Development awards are the pinnacle of the UEPG calendar and of each Presidency.

This time we were very honoured to have a truly independent Jury, each of the four members being internationally distinguished experts in the fields of biodiversity, conservation, health & safety and mining engineering. They undertook the adjudication process very meticulously and seriously, and ensured that they were first thoroughly briefed on all technical aspects of the entries, prior to reaching their important conclusions on a totally independent basis.

This year 2010 is the UN International Year of Biodiversity, and accordingly this time we set up a new UEPG Biodiversity Award category. We received six breathtaking Biodiversity entries from Austria, France, Germany, Spain and UK. All reflected truly dedicated restoration of sand & gravel pits, most being projects which were developed over many years, with a sensitive focus on fostering and enhancing ecosystems. These sites are now homes to a truly staggering number of species of flora and fauna, including many red-listed species. The Jury eventually decided on two joint

winners, with an additional special award for a small company.

Under the Environmental Pillar, there were no less than seven entries in the Restoration category from France, Germany, Italy, Norway, Slovakia, Spain and UK. These reflected huge dedication in creative and sensitive restoration of both hard rock quarries and sand & gravel pits, many of these also now featuring high-quality Biodiversity. Again, the Jury were so impressed that besides the main award, they made two special awards, one again to a small company, the other to the creation of a national memorial arboretum.

There were five entries in the Environmental Best Practice category from Austria, Ireland, Slovakia and Switzerland. All demonstrated excellence in innovations in process and transport technology and also in water and groundwater management, all backed up by impressive allocations of financial, technical and human resources. Again impressed by the quality of the entries, the Jury made two awards, one each to a large and a small company.

Under the Social Pillar, there were four excellent entries under the Local Community Partnership category from France, Germany and Spain, each representing truly outstanding co-operation and positive interactions between the extraction activities and local regulators, neighbours and community. Besides the main award, the Jury chose to honour an exceptional case featuring palaeontology with a special award.

In the Health & Safety category, there were three outstanding entries from Austria, Ireland and UK, each featuring unique and innovative approaches in the drive towards

better employee well-being. The Jury honoured two of these with top awards.

Under the Economic Pillar, combining the categories of Economic Contribution to Society and Operational Best Practice, there were five entries from Austria, France, Germany, Ireland and Spain. Each of these entries demonstrated truly positive impact of extraction activities on the society in which they operate, each overcoming very significant individual economic or technical challenges, where the Jury had quite a challenge in selecting the eventual winner.

With the agreement of the Jury, we the UEPG Team decided that all non-award winning entries this time were of such high quality that each should at least receive a Certificate of Excellence to be presented at the Awards Ceremony in Munich. We strongly felt that every single entry richly deserved to be specially acknowledged, and therefore all are featured in this brochure, which forms an outstanding "calling-card" for our industry.

Indeed, the national entries resulted from hotly-contested prior competitions at national level. Hence there were probably a few hundred entries at national level leading to the 30 entries at UEPG level. Therefore these sustainable awards represent a truly commendable pinnacle of achievement in the European aggregates industry. They demonstrate a truly socially and environmentally-conscious industry, working responsibly in harmony with its regulators, neighbours, broader stakeholders and society.

We can be truly proud that all the entries at national and UEPG levels truly showcase the European aggregates industry. They demonstrate that we are a sustainable industry working hard for a sustainable Europe.

Foreword by Commissioner Janez Potočnik

Aggregates are the basis of the buildings we live in, the roads we drive on and the products we buy. They are the basis of important business and many jobs and in Europe we certainly appreciate their value.

EU Environment Ministers agreed on a new EU vision and target for biodiversity for the post-2010 period. It calls on the EU to halt the loss of biodiversity and the degradation of ecosystem services by 2020 – and not just halting the loss either, but also wherever possible, restoring.

The figures we have about the status of habitats and species in the EU speak for themselves:

- About 15% – or 1 in 6 – mammal species in Europe are threatened with extinction;
- Marine mammals are particularly at risk, with 22 % threatened, for birds that figure is 13 %; and
- more than one quarter of European mammal populations are declining, with more likely to follow if we don't act soon.

So why does it continue to decline? Biodiversity itself is the biggest reason. Where would you start trying to change the world? Because biodiversity is not just part of our planet it is the planet. We want people – and sectors – to understand what we want them to do to help us reach the 2020

target. This is the only way we will be able to claim success in ten years' time.

We will start with a new strategy which we want to use to deliver on the 2020 biodiversity target. It breaks down the topic of biodiversity into ecosystems where specific pressure will be able to be applied to each and measured through a series of sub-targets. These should be underpinned by a clear baseline outlining the criteria against which achievements are to be assessed.

If you want to achieve something you need to be able to measure it and you need a baseline from which to start. This baseline will help us know not only where we are going, but also how far it will take us to get there.

Businesses absolutely need to be on board. And you already are. In 2007, a High Level Conference in Lisbon on Business & Biodiversity highlighted areas where businesses, EU Member States, NGOs and the Commission could co-operate to achieve biodiversity objectives.

Following this, the Commission has asked Member States, business and non-governmental organisations to give us their views on a possible EU-level action focusing on business and biodiversity. The results show what we are coming to realise more and more that protecting biodiversity not only



makes sense at a macro-economic level, it also makes sense for individual companies.

Here we need to follow-up with EU action targeted squarely at business and biodiversity. And this means doing something else too: looking at how business – and I particularly mean SMEs – can benefit. Take Natura 2000, for example. Now more than ever it is focused on how the sites it protects can be managed and financed. Management and finance – that can only mean one thing – very good opportunities for business at local level – the place where you can make things happen.

We will soon launching the Business and Biodiversity Platform (B@B), which will make the links between business and bio-

diversity protection stronger. The Platform will work with interested business sectors to promote an awareness of biodiversity protection within the sector.

B@B will focus on 6 sectors this year, including extractive industries. It will also work with the sectors to benchmark best practice. And an award or rating system will be developed to recognise Business sectors or companies that make an outstanding contribution to the protection of biodiversity.

I am sure you can see that this is not a million miles away from what you are already doing with your 'toolkit' and with your work with the IUCN (the International Union for Conservation of Nature). And because it is clear to me that we are working towards the same goals, I am convinced that we can harness the energy, the skills and the resources of the business community to an even greater extent as we strive to protect our existing biodiversity and stop its continuing loss.

We seem to be working in parallel on this issue - I was very pleased to learn that UEPG has already posted information about the Platform on the front page of its website, inviting companies to join up. Let me reiterate that invitation here. I strongly encourage you to be part of this initiative.

I could not deliver a speech here without mentioning another initiative. That is the study on The Economics of Ecosystems and Biodiversity, more commonly known as "TEEB". This is carrying out a global analysis of the economics of biodiversity loss. TEEB will be publishing a report in July 2010 that will offer insights and advice tailored specifically for businesses.

I can also see that the UEPG in particular, has been active in working to enhance biodiversity, often in cooperation with local communities or NGOs. This has been especially true with regard to promoting good restoration practices. Of course it is inevitable that there are overlaps between Natura 2000 sites and Quarries. What I want to see is sustainable extraction. It is the extractive industry with its experience in integrated planning, management and restoration that can make the difference between biodiversity loss and business-friendly biodiversity protection.

Finally, I would like to mention the recently finalised 'Commission Guidance on implementation of Natura 2000 requirements in the context of non-energy extractive activities'. This is a good example of 'link-building' with the extractive sector and a means of reconciling nature conservation with access to raw materials. These guidelines were prepared together

with the extractive sector, Member States and NGOs. Of course, the contribution of UEPG was both very constructive and valuable. I look forward to continued co-operation.

From the good examples of restoration and stewardship I have seen in your sector and which are displayed in this UEPG Sustainable Development Awards Brochure that you have a responsibility, but also an interest, in good environmental management and sustainable development. On our side, we in the Commission know that to have a real impact on halting the loss of biodiversity it is not enough to just set targets; we must work with the people that can make a change. That is why we must take forward the biodiversity agenda together.

The Independent Jury



Jean-Claude Lefeuvre

Emeritus Professor, National Natural History Museum Paris, (President of the Jury)

Jean Claude Lefeuvre is emeritus professor at the Natural History Museum where he has created and led the Institute of ecology and management of biodiversity. Since its creation in 2000, Jean Claude Lefeuvre chaired the French Institute of Biodiversity till 2008, when the Institute became a Foundation for Biodiversity research. Chair of the permanent comity of the National council for the Protection of Nature, he also chairs the scientific council of the coast conservatory as well as the regional scientific council of Natural patrimony of Brittany, its Home land, and else. Author of more than 400 publication he recently has published in co-writing *L'eau douce en France : histoire d'un long combat* and *Histoire de la Baie du Mont-Saint-Michel et de son abbaye*. He is specialist in Wetland area illustrated in lead of European programme, a co-writing book in 2000 « Fonctions et Valeurs des Zones Humides ». One of his next published work will be a common work on Quarrying, biodiversity and hydro system mechanism in October 2010. Member of the French Academies.



Shulamit Alony

Regional Business & Biodiversity Officer, IUCN, Brussels

Shulamit Alony holds a Master's degree in Communications and joined IUCN in 2006. She was appointed IUCN's Countdown 2010 initiative Business and Biodiversity Officer enhancing private sector partnerships. Having lived and worked in USA, Russia, Hungary, Germany, Kazakhstan and Austria, Shulamit brings along a vast experience in working in different cultural environments. She has worked with businesses including SMEs and large companies addressing marketing communications issues as well as collaborated with governments, parliamentarians and other agencies. She has lately been appointed Regional Business and Biodiversity Officer in the IUCN Regional Office for Pan-Europe and is leading the European Commission funded project "The Establishment of a European Business and Biodiversity Platform".



Christian Niemann-Delius

Professor, Institute of Mining Engineering, RWTH Aachen University, Germany

Professor Dr.-Ing. Christian Niemann-Delius studied mining engineering and industrial engineering with business administration in Berlin and Aachen. The title of the thesis for which the RWTH Aachen University in 1985 awarded his Decorate was titled "Open pit mining and its economic, ecological and social impact". In 1992 after several years in various positions in the mine industry, he was appointed Professor for Waste Management at the University of Applied Science in Gelsenkirchen. Since 1999 he is Head and Professor of the Institut Surface Mining and Drilling at the RWTH Aachen University. Apart from mine technology, planning and economy his main field of research are resource optimization and environmental aspects of mining in general as well as waste disposal and water management in mining.



Brenda O'Brien

Manager - Brussels Liaison Office, European Agency for Safety and Health at Work (representing Jukka Takala, Director of the European Agency for Safety and Health and Work)

Brenda O'Brien has worked with the European Agency for Safety and Health at Work since 2002, where she was heavily involved in the European campaigns and in the funding programmes dedicated to improving workplace health and safety in small and medium sized enterprises. In 2005, Brenda left the headquarters in Bilbao to set up the Brussels' representational office for the Agency where she is in charge of relations with the European institutions, social partners, stakeholders and the Brussels' press corps. She holds a Master's Degree from the Sociology Department of Trinity College Dublin and also lectured for several years.

Jean-Claude Lefeuve

"I was truly impressed by the many high quality biodiversity entries, in fact we had a challenge in choosing the award winners. Each entry represented huge dedication in sensitively and caringly creating habitats. Several boasted hundreds of biodiversity species, many of these being red-listed, particularly bird species which thrive in wetland areas. Operating and restored extraction areas indeed create biodiversity havens, and furthermore have the unique potential to create biodiversity "green corridors" across Europe. The aggregates industry contributes hugely to biodiversity in Europe: I urge it to continue and grow that all-important work."



Shulamit Alony

"UEPG has been one of IUCN's Countdown 2010 initiative most committed partners since 2007. The entries in this year's Sustainable Development Awards are shining examples of strong dedication to biodiversity in many companies and countries across Europe. Furthermore, the many entries under the categories of Restoration and Environmental Best Practice embody excellent examples of biodiversity conservation in the broader context of state-of-the-art environmental stewardship. We in IUCN very much look forward to UEPG's continued collaboration on common biodiversity goals."

Christian Niemann-Delius

"From the mining and extractive industry perspective, there were many outstanding entries in the categories of Operational Best Practice, Links with Local Communities and Economic Contribution to Society. It was truly gratifying to see how many companies continue to push the envelope of innovation in developing new solutions that optimise the whole process from extraction

through to customer delivery. These new solutions in many cases required very significant capital investment, and all had hugely positive payback economically as well as in the contributions to the environment, to the local communities and to society. Very well done to all concerned".



Brenda O'Brien

"I was highly impressed by the uniquely innovative approaches to fostering Health & Safety in this year's Sustainable Development Awards. These were all highly commendable, going far beyond the traditional safety imperatives, by exploring new avenues based on employee stress management, designing safety into machinery during manufacture, and in motivating better site safety through charity donations based on success. I particularly liked these shining examples as they so actively involved the employees themselves, thereby gaining their strong commitment, which is vital to achieving the highest standards of safety. I think the aggregates industry is to be complimented in taking such innovative approaches, so necessary in a high-risk industry".

UEPG Sustainable Development Awards 2010



UEPG Sustainable
Development Awards

Overview of Certificates and Awards 2010

(By category, country and company alphabetically)

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Welser Kieswerke Treul & Co GmbH



Sandabbau Prambachkirchen, Austria

★ Special Biodiversity Award 2010 for a small company

Sand extraction - ... from cornfield via the extraction of sand to a multifarious habitat ...

The sand pit area of Prambachkirchen with an extent of about 6 hectares is situated in the midst of a low structured, agricultural intensive used area with low species population. The original project envisages a dry and wet extraction with subsequent total fill. After termination of the extraction of sand the areas should be used by agriculture.

Original efforts of the Welser Kieswerke to achieve a modification of the permit in favor of a new recultivation plan – with the creation of a landscape pond – failed because of the non approval by the authority. In course of the creation of a local development plan the municipality Prambachkirchen accosts the Welser Kieswerke with the request to maintain the quarry pond as a future landscape pond with ecological function. Only by the collaboration of Welser Kieswerke with the municipality, the federation of nature protection Upper Austria und the Environmental Advocacy Office of Upper Austria such a modification of the permit could have been achieved.

To create the sand pit in a nature protection sound way a co-operation was built up with the federation of nature protection Upper Austria. In close coordination with this NGO the following measures were set up: design of shallow water zones, creation of steep faces for breeding areas, establishment of fallow lands, setting of wet land areas, fishing out, displacement of neophyte, excursions and teaching projects for schools;

Up to now a lot of different species could have been proved in the Prambachkirchen sand pit: sand martin, wild bees, little ringed plover, peewit, kingfisher, gray partridge, whirligig beetles, pitch dragonfly;



This area should be used for educational projects and trainings and represent a nature experience for people. In October 2005 an excursion with the local school was organized by the mentioned NGO to plant hedgerows. In spring next year a built up display board will inform about the life and species in a sand pit.

After closing of all extraction and recultivation works and against the previous planning of an agricultural area a high quality nature hideaway will be established containing a landscape pond and area for endangered species.

Keeping this special area in an optimal condition the former sand pit will be handed over to the NGO for perfect maintenance in a naturally sound way.

With the project Prambachkirchen – from cornfield via the extraction of sand to a multifarious habitat – we apply for the sustainability award of UEPG in the biodiversity pillar.



... vom Maisfeld über den Sandabbau zum vielfältigen Lebensraum ...

Das Abbaugelände Prambachkirchen mit einer Gesamtgröße von ca. 6 ha befindet sich inmitten einer Struktur- und artenarmen, landwirtschaftlich intensiv genutzten Gegend. Das ursprüngliche Projekt sah einen Trocken- und Nassabbau mit nachträglicher vollständiger Wiederverfüllung vor. Nach Abschluss des Sandabbaus sollten die Flächen der landwirtschaftlichen Folgenutzung zugeführt werden.

Ursprüngliche Bemühungen der Welser Kieswerke eine Bescheidabänderung zugunsten eines neuen Rekultivierungskonzeptes – unter Belassung eines Landschaftssees – zu erreichen scheiterten an der Zustimmung der zuständigen Behörde. Im Zuge der Erstellung eines örtlichen Entwicklungskonzeptes trat die Gemeinde Prambachkirchen an die Welser Kieswerke mit dem Ersuchen heran, sich um die Erhaltung des Baggersees als künftigen Landschaftssee mit ökologischer Funktion zu bemühen. Erst durch die Zusammenarbeit der Welser Kieswerke mit der Gemeinde, dem Naturschutzbund OÖ und der OÖ Umweltschutzbehörde konnte schließlich eine derartige Bescheidabänderung erreicht werden.

Um die Sandgrube im Sinne des Naturschutzes möglichst optimal zu gestalten, wurde mit dem Naturschutzbund OÖ eine Kooperation eingegangen. In Abstimmung mit dem Naturschutzbund OÖ wurden bisher und werden laufend folgende Maßnahmen gesetzt:

- Gestaltung von Flachwasserzonen
- Errichtung von Steilwänden für Brutplätze
- Schaffung von Brachflächen
- Anlegen von feuchten Senken
- Abfischung
- Entfernung fremdländischer Pflanzen
- Exkursionen und Pflanzaktionen mit Schülern



Bisher konnten unter Anderem folgende Arten in der Sandgrube Prambachkirchen nachgewiesen werden:

- Uferschwalben
- Wildbienen
- Flussregenpfeifer
- Kiebitze
- Eisvögel
- Rebhühner
- Taumelkäfer
- Kleine Pechlibelle

Das Areal soll aber auch für den Menschen ein Naturerlebnis darstellen und darüber hinaus der Naturpädagogik dienen. Deshalb erfolgte im Oktober 2005 im Zuge einer vom Naturschutzbund OÖ organisierten Exkursion, eine Heckenpflanzaktion mit Schülern des örtlichen Gymnasiums und wird im Frühjahr des nächsten Jahres eine Schautafel errichtet, die über das Leben in der Sandgrube Auskunft gibt. Nach Abschluss aller Abbau- und Rekultivierungsarbeiten wird schließlich entgegen der ursprünglichen Planung keine landwirtschaftliche Nutzfläche entstanden sein, sondern ein Naturrefugium mit einem Landschaftssee in welchem sich Pflanzen und Tiere ansiedeln und niederlassen können, die in der Umgebung keinen Platz fänden.

Damit die betreffende Fläche langfristig in einem optimalen Zustand erhalten bleibt, wird die Fläche nach Beendigung des Abbaus und der Rekultivierungsarbeiten dem Naturschutzbund OÖ zur Nachsorge übereignet



Plattard Granulats (SOREAL)



"Rives du Beaujolais", Anse, France

Nominated in the category Biodiversity

The 'Rives du Beaujolais' quarry was bought by the Plattard Group in 2004 to ensure a supply of sand and gravel to its plants and to maintain its independence in terms of supply of local raw materials.

Quarrying authorization was granted in January 2006 then renewed in October 2008 (10-hectare extension) with creation of a second lake intended to serve natural ecological purposes.

The first lake (50 hectares) which existed when the quarry was purchased underwent considerable restoration work through reworking of more than 1200 m of banks which represent a wetland area of about 6 hectares beyond the lake, and creation of two peninsulas of about 8,000 m² and 13,000 m².

This work, carried out over the last five years, has highlighted interesting evolution of the environment as new species have arrived.

Setting up a sustainable partnership with FRAPNA(*) which is in charge of monitoring the quarry is a vital factor in the approach aiming to enhance biodiversity.

Being familiar with the site and its evolution and getting feedback are vital for guiding future work.

On the strength of this experience, we hope to achieve high-quality ecological development consistent with the Plattard Group's ambition to meet its commitments.



La carrière des « Rives du Beaujolais » a été rachetée par le Groupe PLATTARD en 2004 afin d'assurer l'approvisionnement en sables et graviers de ses usines, et de garder son indépendance vis-à-vis de matières premières de proximité.

Une autorisation a été délivrée en janvier 2006 puis en octobre 2008 (extension sur 10 hectares) avec la création d'un deuxième plan d'eau à vocation écologique et naturelle.

Un premier plan d'eau de 50 ha existant lors de l'acquisition a fait l'objet d'importants travaux de remise en état, par la reprise des berges sur plus de 1 200 m ce qui représente une zone humide hors plan d'eau de 6 ha environ, et la création de deux presqu'îles d'environ 8 000 m² et 13 000 m².

Ces travaux réalisés ces 5 dernières années, montrent une évolution intéressante des milieux avec la venue de nouvelles espèces.

La mise en place d'un partenariat durable avec la FRAPNA(*) en charge du suivi de la carrière reste un élément primordial de la démarche retenue en faveur de la biodiversité.

La connaissance des milieux, leur évolution, ainsi que le retour d'expérience sont indispensables pour orienter les travaux à venir.

C'est sur ces bases que nous espérons aboutir à un aménagement écologique de qualité, garant de la volonté du Groupe PLATTARD de respecter ses engagements



Hülskens GmbH & Co. KG, Wesel



Reeserward, Germany

★ Co-Winner of the Special Biodiversity Award 2010

With the project "Renaturation Reeserward – a man-made nature haven" the enterprise Hülskens GmbH & Co. KG in Wesel and the Centre for Nature Conservation in Rees-Bienen participate in the campaign "Countdown 2010" conducted by the International Union for Conservation of Nature and the State of North Rhine-Westphalia whose goal is to maintain and support biodiversity.

Like many other extractions the former extraction site Reeserward is located in today's Rhine floodplain and bird sanctuary "Lower Rhine". Initiated from a jointly developed and implemented renaturation concept a long-term monitoring plan has been introduced to analyse which of the ecological structures established on a trial basis prove particularly effective for enhancing the diversity for species and allow the area to function as an ecological valuable part of the Rhine floodplain.

The design of the connection to the Rhine, the segmentation of the water and land areas, the side ditches and flood channels as well as the creation of dynamic largely open biotopes combined with extensive agricultural usage are the main focus areas. It is being investigated in how far specific measures affect the fish and other water organisms, as well as in how far they affect the breeding or passing migrant birds and vegetation.

The visionary target is to identify those measures which have proven successful and apply them to other renaturation in the region in form of a model project. This way, a substantial contribution with respect to diversity of species can be attained in terms of the Alliance for Nature, if contrary to traditional, often poorly structured and ecologically, not exactly optimally designed renaturation the functions as floodplain habitats stands as the main objective and can serve better as paradigm for prospective planning.

The enhancement of biodiversity in the Rhine floodplain and particularly in the bird sanctuary "Lower Rhine Area" as well as in several nature conservation and FFH areas along the Lower Rhine is of special concern, as the riverbed deepening of the Rhine and a lack of natural floodplain dynamics have drawn attention to e.g. the drying up of the plain or a lack in sandy-gritty pioneer locations. If existing and future extraction respectively renaturation areas are managed in a more ecological way with direct reference to flood plain characteristics, they can serve as valuable man-made habitats. Their impacts often exceed local aspects and can – as shown by spawning migration of fish to the backwaters and ponds or the migration of juvenile fish into the Rhine – positively influence the entire system of the Lower Rhine system.



Die Fa. Hülskens GmbH & Co KG, Wesel, und das Naturschutzzentrum im Kreis Kleve e.V., Rees-Bienen, beteiligen sich mit dem Projekt "Die Rekultivierung Reeserward – eine Naturoase aus zweiter Hand" an der von der Weltnaturschutz-union IUCN geführten und vom Land Nordrhein-Westfalen unterstützten Kampagne "Countdown 2010", deren Ziel der Erhalt und die Förderung biologischer Vielfalt ist.

Wie viele andere Abgrabungen liegt auch die ehemalige Abgrabung Reeserward in der heutigen Rheinaue und damit zugleich im Vogelschutzgebiet "Unterer Niederrhein" sowie in einem Naturschutz- und FFH-Gebiet. Ausgehend von einem gemeinsam erarbeiteten und umgesetzten Rekultivierungskonzept soll mittels eines langfristigen Monitorings untersucht werden, welche der versuchsweise hergerichteten ökologischen Strukturen besonders wirksam für eine Erhöhung der Artenvielfalt und eine Funktion des Gebietes als ökologisch besonders wertvoller Teil der Rheinaue sind.

Die Gestaltung der Verbindung zum Rhein, die Gliederung des Gewässers und der Landbereiche, die Seitengraben und Flutmulden sowie die Schaffung dynamischer, weitgehend offener Lebensräume im Zusammenhang mit extensive land-wirtschaftlicher Nutzung stehen dabei im Fokus. Es wird untersucht, wie sich welche Maßnahmen auf die Fische und andere Gewässerorganismen, auf die Brut- und Rastvögel und auf die Vegetation auswirken.

Das zukunftsweisende Ziel ist dabei, die erfolgreichen und auf andere Rekultivierungen in der Region übertragbaren Maßnahmen herauszuarbeiten und in einem Modellprojekt umzusetzen. So ist ein wesentlicher Beitrag zur Artenvielfalt im Sinne des Bündnisses für die Natur zu erreichen, wenn im Gegensatz zu konventionellen, oft strukturarmen und ökologisch nicht optimal gestalteten Rekultivierungen die Funktion als Auenlebensraum im Vordergrund steht und bei künftigen Planungen an Hand des erarbeiteten Modells besser berücksichtigt werden kann.

Die Verbesserung der Biodiversität in der Theinaue ist auch und vor allem im Vogelschutzgebiet "Unterer Niederrhein" sowie in den zahlreichen Naturschutz- und FFH-Gebieten entlang des Niederrheins ein besonderes Anliegen, weil sich hier die Sohleintiefung des Rheins und die weitgehend fehlende natürliche Auedynamik negative z.B. durch Austrocknung der Aue oder Mangel an sandig-kiesigen Pionierstandorten bemerkbar machen. Werden bestehende ebenso wie künftige Abgrabungs- bzw. Rekultivierungsgebiete unter auenökologischen Aspekten besser gestaltet, können sie wertvolle Lebensräume aus zweiter Hand darstellen. Deren Wirkungen gehen oft über einen lokalen Aspekt hinaus und können – wie das Beispiel der Laichwanderungen von Fischen des Rheins in die Seitengewässer und das Abwandern von Jungfischen in den Rhein zeigt – das gesamte System des Niederrheins positive beeinflussen.





Altmaines in Kitzingen, Germany

Nominated in the category Biodiversity



Raw Material Extraction Increases Biodiversity

The Old Main between Volkach and Schwarzach is not only a geological and geographical treasure. Through the biotope networking of the gravel excavation sites of the company LZR Lenz-Ziegler-Reifenscheid GmbH in Kitzingen, a networked system has emerged that represents a unique habitat. The reason for the existing wide spectrum of species is the extensive structural variety encountered here. When considered more closely it becomes clear that this unique networked system could only be achieved in conjunction with the gravel pits.

The main subject matter of this documentation is to describe the relationship between the various biotopes and the affect they have on each other. It has been shown, for example, that water birds on the one hand, embrace the gravel quarries as peaceful areas since they are able to maintain their flight zones here, and on the other hand take advantage of the flowing sections of the Main for a change in habitat without expending much energy. Moreover, they use the quarry pond network as wintering grounds. More and more migratory birds use this network for a stopover or even as an alternative residence with a yearly increasing trend.

Even the snails and mussels bear witness to the variation rich habitat offered: while the river mussels prefer the flowing waters of the Main, the Swan Mussel and Sphaeriidae inhabit the calmer gravel quarries. Old stone linings make the bank of the Main less interesting for amphibians. The shallow areas of the quarry ponds are an ideal alternative, which is evidenced by audible frog concerts.



With their generous water areas, which serve as valuable tranquil areas, and varied depths, that not only afford water birds their food supply, gravel quarries offer the ideal complement to flowing water. Most notably it is the rich bank structure with varied shallow water zones that make the gravel quarry habitat so valuable.

The extent to which the rich structure of this region is accepted, is apparent in the extensive species variety. No wonder either that 177 "Red-List-Species" can be found here. Among the sighted birds alone, 69 "Red-List-Species" are represented.

This abundance of existing plant and animal species from the "Red List" attracts numerous interest groups. University students write papers about the invertebrate organisms in the bank area, environmental associations count birds, dragonflies, fish or spiders and hikers enjoy nature with open eyes and ears. They are all united by a fascination with this Main landscape.

The findings of this multifaceted investigation of the gravel pit network confirm that LZR- executives are on the right path with their established principles. But they are also obligated, in the course of regional raw material supply – the ultimate mission of the LZR company – to contribute such that further endangered species of Fauna and Flora find new refuge. With these measures, as well as through the realization of the plan "River-in-River," biodiversity will increase by multitudes – in keeping with the "Countdown 2010".



Rohstoffgewinnung erhöht die Biodiversität

Der Altmain zwischen Volkach und Schwarzach ist nicht nur eine geologische und geographische Kostbarkeit. Durch die Biotopvernetzungen der Kiesgewinnungsstätten der Firma LZR Lenz-Ziegler-Reifenscheid GmbH aus Kitzingen entstand ein Verbundsystem, das einen einzigartigen Lebensraum darstellt. Der Grund für das vorhandene breite Artenspektrum ist die hier anzutreffende große Strukturvielfalt. Bei näherer Betrachtung wird deutlich, dass dieses einzigartige Verbundsystem nur im Zusammenhang mit den Kiesgruben entstehen konnte.

Hauptanliegen der Dokumentation ist es, aufzuzeigen, in welchen Zusammenhängen die Biotope stehen und aufeinander wirken. So zeigt sich, dass beispielsweise die Wasservögel einerseits die Kiesgruben als Ruheflächen annehmen, da sie hier ihre Fluchtdistanzen einhalten können, andererseits den Strömungsbereich des Maines für Aufenthaltsänderungen ohne großen körperlichen Aufwand ausnutzen. Zudem nutzen sie den Baggerseeverbund als Winterquartier. Mehr und mehr nutzen Zugvögel dieses Verbundsystem für einen Zwischenstopp oder gar als Ausweichquartier mit jährlich steigender Tendenz.

Selbst an Schnecken und Muscheln zeigt sich das variationsreiche Lebensraumangebot: während die Flussmuscheln das fließende Wasser des Maines bevorzugen, bewohnen die Teich- und Kugelmuscheln die ruhigeren Kiesgruben. Alte Steinverbauungen machen das Ufer des Maines für Amphibien uninteressant. Die Flachwasserzonen der Baggerseen sind die ideale Alternative, was Froschkonzerte lautstark unter Beweis stellen.

Mit ihren großzügigen Wasserflächen, die als wertvolle Ruhezone dienen, und unterschiedlich gestalteten Tiefen, die nicht nur Wasservögeln ihren Nahrungserwerb ermöglichen, bieten die Kiesgruben die ideale Ergänzung zur Fließstrecke. Vor allem aber sind es die reich strukturierten Ufer mit verschiedenen Flachwasserzonen, die den Lebensraum Kiesgrube so wertvoll machen.

Wie gut der Strukturreichtum dieses Gebietes angenommen wird, zeigt sich in der großen Artenvielfalt. Kein Wunder auch, dass sich 177 „Rote-Liste-Arten“ darunter befinden. Allein unter den gesichteten Vögeln sind 69 „Rote-Liste-Arten“ vertreten.

Diese Vielzahl der vorhandenen Tier- und Pflanzenarten der „Roten Liste“ lockt zahlreiche Interessensgruppen an. Studenten verfassen Arbeiten über die wirbellosen Organismen im Uferbereich, Umweltverbände zählen Vögel, Libellen, Fische oder Spinnen und Wanderer genießen die Natur mit offenen Augen und Ohren. Sie alle verbindet die Faszination dieser Mainlandschaft.

Die Erkenntnisse aus den vielfältigen Untersuchungen zum Kiesgrubenverbund bestätigen den LZR- Geschäftsführern mit den bisherigen Grundsätzen auf dem richtigen Weg zu sein. Sie sind aber auch verpflichtet, im Zuge der regionalen Rohstoffversorgung – die eigentliche Aufgabe des Unternehmens LZR – dazu beizutragen, dass weitere bedrohte Arten von Fauna und Flora ein neues Refugium erhalten. Mit diesen Maßnahmen, wie auch durch die Realisierung der Planung „Fluss-im-Fluss“, wird sich die Biodiversität um ein Vielfaches erhöhen – ganz im Sinne des „Countdown 2010“.



Holcim



El Puente, Seseña, Toledo, Spain

★ Co-Winner of the Special Biodiversity Award 2010



El Puente gravel pit, an oasis of biodiversity

The El Puente gravel pit, located in the Toledo province about 45 km from Madrid, is a unique open-pit mining site which serves as a remarkable example of sustainable growth and flourishing biodiversity.

El Puente represents a model in terms of sustainable aggregate extraction due to the fact that, from day one, the planning of the rehabilitation process is carried out prior to the extraction work, and not after the machines have left the site. For this reason it is a reference in terms of how profitable exploitation, worker safety, environmental stewardship and social responsibility can be held in healthy balance.

The El Puente gravel pit has gone over 1,000 days without any accidents requiring a leave of absence, clearly reflecting the commitment of Holcim's workers and management to safe working conditions at the installations.

Systems have been implemented for recuperating water, oil and other waste, which, once separated, are collected by compliant waste management services. In fact, 95% of the water used in the workshops is reused and returns either to the circuit or serves for watering the roads to avoid excessive dust in the gravel pit.



The beauty of the lakes which now fill the excavated areas and the wealth of plant and animal life, such as the more than 200 species censused in the gravel pit lakes, (some included in the National Catalogue of Endangered Species) make the site seem like a nature reserve.

Holcim Spain's restoration efforts in El Puente gravel pit have been lauded by business associations, government bodies, environmental organisations and impartial certifying bodies. This recognition culminated when the El Puente gravel pit lakes, inhabited by thousands of birds, was designated a zone of special protection for birds (ZEPA) by the Government of Castile-La Mancha, under the framework of the Directive on the Conservation of Wild Birds.

It is not by sheer coincidence that the El Puente gravel pit has become an outstanding example of environmental rehabilitation. Holcim's commitment to making this wildlife refuge a reality was the key driver behind its creation, working with sustainability and safety principles as strategic drivers.

Had it not been for this vision and commitment, this remarkable ecosystem never would have been possible.



La Gravera El Puente, un oasis de biodiversidad

La Gravera El Puente, situada a unos 45 km de Madrid, es un lugar único en el mundo para la minería a cielo abierto. Es una referencia de crecimiento sostenible y de biodiversidad próspera.

El Puente representa un modelo de planificación en la explotación sostenible de los áridos, en el que se tienen en cuenta, desde el primer día, todos los procesos de rehabilitación ambiental que deberán seguirse tras la finalización de los trabajos. Por ello, es un referente de cómo la extracción de minerales, la seguridad de los empleados, la conservación de la naturaleza y la responsabilidad social pueden mantenerse en equilibrio.

Con más de 1.000 días sin accidentes con baja, la Gravera El Puente es el mejor reflejo del celo que todos los trabajadores de Holcim ponen en garantizar la seguridad en las instalaciones.

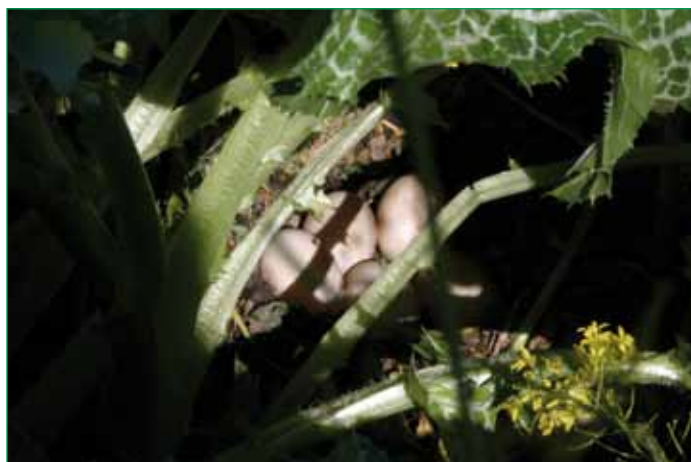
En la Gravera El puente se han implantado sistemas para la recuperación de aguas, aceites y otros residuos que, una vez separados, son puestos en manos de gestores autorizados de residuos, mientras que el 95% del agua usada en los talleres se reutiliza y vuelve tanto al circuito, como al tractor con cuba de riego para la eliminación de polvo en los caminos.

La belleza de las lagunas que han ido reemplazando a los frentes de explotación, la riqueza de la vida vegetal y animal, con más de 200 especies de aves (algunas en peligro de extinción), hacen que esta gravera parezca a una reserva natural.

El esfuerzo de Holcim en El Puente ha dado frutos tan sorprendentes que le ha reportado a la empresa el aplauso de Administraciones Públicas, organizaciones ecologistas y organismos certificadores imparciales. Como muestra, un espléndido broche de oro: las lagunas de la Gravera El Puente, habitadas por miles de aves, han sido declaradas Zona de Especial Protección de las Aves (ZEPA) en el marco de la Directiva de Conservación de las Aves Silvestres.

No es por casualidad que la Gravera El Puente sea el ejemplo más destacado de rehabilitación del territorio. El empeño de Holcim en lograr que este lugar sea una realidad, trabajando con la sostenibilidad y la seguridad como ejes estratégicos, es lo único que explica su existencia.

Si no fuera por esa voluntad, este santuario de vida salvaje no sería ni siquiera una posibilidad.



Hanson - HeidelbergCement



Otley Quarry, UK

Nominated in the category Biodiversity

Location

Otley quarry is a former sand and gravel quarry situated within greenbelt on the north side of the River Wharfe and northwest of Otley Town centre in West Yorkshire. Otley lies on the southern border of the Nidderdale Area of Outstanding Natural Beauty (AONB). The grid reference for the site is SE191 456.

Land ownership

The submission area is owned by Weston Hall Estate. Access for the Otley Wetland Nature Reserve Trust (OWNRT) members is through the obligations set up under a 21 year Section 106 Agreement.

Access

Access is by permit only, issued to members of the public via the Trust. A vehicular track from the B6451 leads to the site. The track also provides access to the Otley Sailing Club.

History of mineral extraction

Sand and gravel extraction was carried out by Hanson and its predecessors at the site from the 1940s and ceased in 1996. The quarry was progressively restored over a number of years. A ready-mixed concrete production facility was situated on the site until June 2007; this area has now been restored.



Mineral extraction & submission area

The area previously used for mineral extraction covers around 50ha in total. The area submitted for the award amounts to 13.7ha and is known as the Otley Wetland Nature Reserve (OWNR) and is managed by the Otley Wetland Nature Reserve Trust formed in 2003. In 2008 this site won the top prize, the Cooper-Heyman Cup, at QPA Restoration Awards.

Restoration

The restoration programme developed in conjunction with Leeds City Council officers and the OWNRT restored the site into a number of after-uses including:

- Otley Sailing Club
- A fishing lake
- Agricultural grassland.

Land within the OWRN has been restored to:

- A conservation lake.
- Native woodland, scrub and hedgerows.
- Reedbeds.
- Associated open water and channels.

Hanson has recently provided the OWRN with a new portacabin and tool store on the former concrete plant site.



Zementwerk Leube GmbH



Ofenauerberg, Salzburg, Austria

Nominated in the category Economic Contribution & Added Value to Society

Installation of an innovative mobile crusher system to significantly cut down haulage costs and emissions

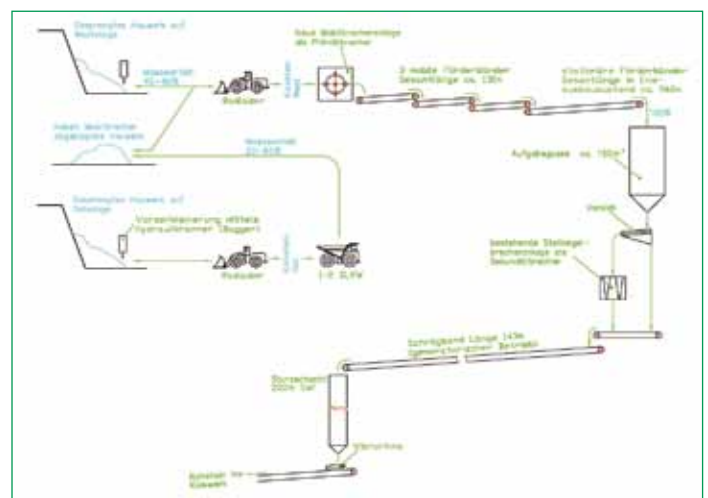
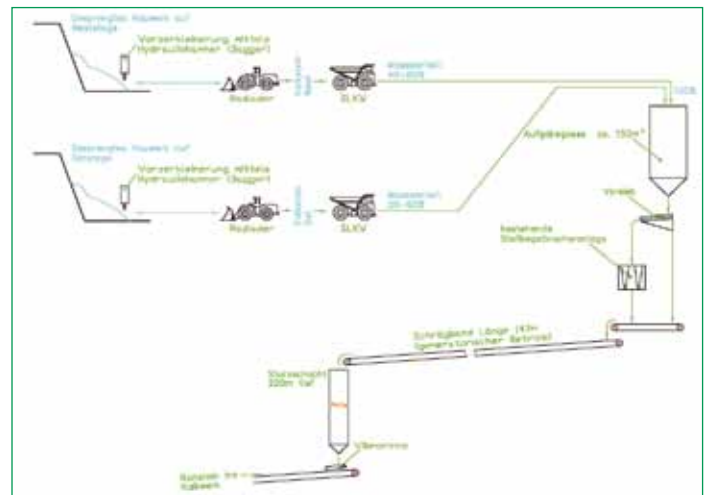
Zementwerk Leube GmbH is annually mining approximately 450.000 mt of limestone in their Ofenauerberg quarry. Due to very high quality requirements the materials haulage in the quarry is set up in an extensive way. Up to now the haulage occurs with big wheel loaders and heavy duty vehicles like dump trucks.

In the year 2009 Leube installed an innovative mobile crusher system with several mobile conveyor belts to considerably cut down haulage costs. The system consists of a very compact feeder breaker crusher which can be charged directly with a wheel loader. Due to the comparable low height of the crusher no ramps are needed. This enables a very flexible and fast repositioning of the crusher which ensures considerably lower haul distances. The crusher is equipped with a roller screen to reduce fines and increase throughput. The comminuted material is then conveyed via several self propelled mobile conveyor belts to a secondary crusher. It is possible to align these conveyor belts very fast and flexible.

The crusher is completely electrically driven and is supported with electrical current via easy pluggable cables which are mounted inside of the mobile conveyor belt frames. The electrical power support significantly reduces operating costs and emissions.



The system applied in the Ofenauerberg quarry of LEUBE can be applied in most of small to medium sized quarries. The investment costs are almost the same as a typical fleet of haulage equipment used in a quarry. By using such a system it is possible to cut down haulage costs approximately to one third in comparison to the use of dump trucks and wheel loaders. In case of the Ofenauerberg quarry it is expected that the annual operating hours of the transport vehicles will be reduced from ca. 6.000 h/a down to ca. 3.500 h/a. This means the annual fuel consumption will be reduced by ca. 60.000 liter diesel which saves approximately 40% of the CO₂ emissions compared to the previous situation.



Installation einer innovativen Mobilbrecheranlage zur Umstellung der Materialförderung im Tagebau Ofenauerberg

Im Kalkwerk der Zementwerk Leube GmbH werden pro Jahr etwa 130.000 t qualitativ hochwertiger Branntkalk- und 220.000 t Kalkstein erzeugt. Dafür ist der Abbau von ca. 450.000 t Kalkstein im Tagebau Ofenauerberg erforderlich.

Wegen der sehr hohen Qualitätsanforderungen, insbesondere an den Branntkalk, ist die Materialförderung im Tagebau sehr aufwendig gestaltet. Bisher geschah die Förderung mit großen Radladern und Schwerlastkraftwagen (SLKW).

Im Jahr 2009 wurde im Tagebau Ofenauerberg eine innovative Mobilbrecheranlage mit nachgeschalteten mobilen Förderbändern installiert und in Betrieb genommen. Diese Zerkleinerungs- und Förderanlage wird elektrisch betrieben. Durch die Aufstellung der mobilen Anlage unmittelbar am Abbauort können die Betriebsstunden der Lade- und Transportfahrzeuge von bisher ca. 6.000 h/a auf ca. 3.500 h/a deutlich verringert werden. Damit reduziert sich der jährliche Treibstoffverbrauch (Diesel) um ca. 60.000 l.

Durch den elektrischen Betrieb dieser Anlage einerseits sowie den verringerten Treibstoffverbrauch der Bergbaufahrzeuge andererseits werden pro Jahr etwa 150 t klimaschädliches CO₂ weniger emittiert. Das entspricht einer Einsparung von ca. 40 % gegenüber dem bisherigen Stand.



CEMEX



Granulats Sud Ouest, Albi, Tarn, France

Nominated in the category Economic Contribution



Keeping Sustainable Development on the rails

The quarry of CEMEX Granulats Sud Ouest in Albi (Tarn) is required to evolve in a complex social and economical background. The rarity of deposits, linked to a relatively unfavourable geology in the area, means that CEMEX has to adopt a very rigorous policy in term of resources management.

In view of growing difficulties to reach resources and relatively long regulatory periods, CEMEX has had to re-examine totally the organization of its activities in Albi. To do this, CEMEX has taken the path of consultation, which has been practiced and developed at the Albi site since the 1990's, in particular through the Local Consulting and Monitoring Committees¹. In addition, in order to spare the local resource and respond to local needs, CEMEX has opted for an additional supply thanks to an alternative means of transport : the railway. Since 2001, CEMEX has been aware that the renewal of its reserves would be difficult and has been able to anticipate its future needs by developing a railway freight plan in Albi's main station.

However, in view of the growing threat of future development projects announced by the commune of Albi, the situation of this unloading platform has become precarious. The need for CEMEX to make durable all its activities increased, that is why it has got together with ETERNIT, which has a siding installation² that has not been used since 2004.

So an ambitious plan has been conceived and has received the support of the representatives of the communes of Albi, Terssac, C2A3, RFF4 and the Midi-Pyrénées region, for the redeployment of rail freight in Albi. To achieve Sustainable Development, the Albi quarry is evolving through a balance between environment, society and economy.



Sur les rails du Développement Durable

La carrière CEMEX Granulats Sud Ouest d'Albi (Tarn) se doit d'évoluer dans un contexte économique et social complexe. La rareté du gisement, liée à une géologie peu propice dans le secteur, oblige CEMEX à avoir recours à une politique très stricte en matière de gestion de la ressource.

Face aux difficultés d'accès à la ressource et aux délais d'instruction relativement longs, CEMEX a su totalement remettre en question l'implantation de son activité sur l'Albigeois. Pour ce faire, CEMEX s'est engagée dans la voie de la concertation, qu'elle pratique et développe sur le site d'Albi depuis les années 1990, notamment au travers des CLCS1. De plus, dans le but d'économiser la ressource locale et de répondre à la demande locale, CEMEX a recours à un approvisionnement complémentaire grâce à un moyen de transport alternatif : le ferroviaire. Dès 2001, CEMEX a compris que le renouvellement de ses réserves serait ardu et a anticipé ses besoins futurs en développant un projet de fret ferroviaire en gare d'Albi centre-ville.

Cependant, face à la menace grandissante des futurs projets fonciers annoncés par la commune d'Albi, la situation de ce quai de déchargement est devenue précaire. La nécessité pour CEMEX de pérenniser l'ensemble de ses activités s'est fait sentir de plus en plus grande, c'est pourquoi un rapprochement avec la société ETERNIT s'est opéré. En effet, cette dernière dispose d'une ITE2 non utilisée depuis 2004.

Un projet ambitieux est donc né et a reçu l'appui des représentants des communes d'Albi, de Terssac, de la C2A3, de RFF4 et de la région Midi-Pyrénées, pour le redéploiement du fret sur l'Albigeois. C'est au travers d'un équilibre entre l'environnement, la société et l'économie que la carrière d'Albi évolue, pour aboutir à un Développement Durable.



GEOmontan GmbH



Geoportal Röcknitz, Germany

Nominated in the category Economic Contribution & Added Value to Society

The "Geoportal Röcknitz" – a concept for the sustainable development of geotourism in the region of Northern Saxony

The regional LEADER-Management suggested the idea to combine important geologic and mining sights with touristic attractions to further the sustainable development of tourism in Northern Saxony, which is a rural area with an almost monostructured economy mostly based on agriculture and mining industries. Members of local associations, companies and private individuals teamed up with municipals to create the Geopark Northern Saxony. In 2006 GEOmontan GmbH Freiberg, formwelt19/Wermsdorf und novamedia/Leipzig were commissioned with the planning and construction of the visitor centre "Geoportal Röcknitz", including an indoor exhibition and an outdoor Geo-Garden intended to share knowledge of the regions geologic development and the use of its natural resources.

Geo-didactic Concept

The geo-didactic concept of the "Geoportal Röcknitz" is based on the connection of the geo-logic history with the evolution of landscape and with the anthropogenetic effects of the more recent past (especially the use of resources and their further utilization). It is not employing the method of presenting isolated objects and facts to illustrate the regions geologic history (e.g. collection of minerals or stones). The concept is focussing on those four geologic periods of the past 300 million years that are most significant and representative for the recent character of

the northern saxon landscape and land use: "Permian Porphyritic Volcanism", "Cretaceous/Tertiary Kaolinization", "Tertiary Lignite Formation" and "Quaternary Glacial Influence". Those four geologic periods are used as the geodidactic "golden thread" guiding the visitor through the exhibition and the Geo-Garden, being supported by a sophisticated design and visualization, textual explanations, four large geologic exhibits as well as a 3D animation film. The visitor centres scientific contents are particularly targeting non-professional visitors and families.

Construction

In 2007 the exhibition was constructed in the 2nd story of the newly restored 15th century manor house of Röcknitz. A screenplay was written for the 3D animation film and the film created. The 3D animation film is to serve as an introduction to the exhibition. It tells the fiery and icy story of the four significant geologic eras that led to the genesis of the unique porphyry landscape of Northern Saxony, which, rich in natural resources, has been used and shaped by a traditional mining industry for almost 200 years. The geologic exhibition "Zeit-Wandel-Stein, bewegte Geologie einer Landschaft" opened on November 11th 2007. The Geo-Garden is currently being planned in full detail and is to be constructed in the outdoor area behind the manor house in 2010.



Das Geoportal Röcknitz – ein Beitrag zur nachhaltigen Entwicklung des Geotourismus in der Region Nordsachsen

Über das LEADER-Management wurde die Idee in das Gebiet getragen, im Porphyrhügelland nördlich der Stadt Wurzen geologisch-bergbauliche Sehenswürdigkeiten mit touristischen Attraktionen zu verknüpfen, um den Tourismus in der strukturschwachen Region nachhaltig zu fördern. Vertreter von Vereinen, Firmen und Privatpersonen schlossen sich mit den Gemeinden unter dem Arbeitstitel Geopark Nordsachsen zusammen. GEO montan GmbH Freiberg, formwelt19/Wermsdorf und novamedia/Leipzig wurden in 2006 mit der Gestaltung und dem Aufbau des Geoportales Röcknitz als rohstoffgeologisch ausgerichtetes Besucherzentrum im Geopark Nordsachsen beauftragt.

Geodidaktisches Anliegen

Das geodidaktische Konzept für das Geoportal Röcknitz geht nicht von der Präsentation isolierter Einzelobjekte zur geologischen Geschichte der Region aus (z. B. Mineralien oder Gesteinssammlung), sondern stellt Geologiegeschichte im Gesamtkontext von Landschaftsentwicklung und Wirtschafts-/Kulturzeugnissen (speziell nutzbare Rohstoffe und deren Verwendung) im Fokus der geodidaktischen Leitthemen „Porphyry“, „Kaolin“, „Braunkohle“ und „Eiszeiten“ dar. Deren geopädagogische Inwertstellung geschieht durch die Verknüpfung der geowissenschaftlichen Exposition im Herrenhaus Röcknitz (Bild- und Textinformationen mit geologischen Großobjekten in

Verbindung mit 3D-Animationsfilm zur Landschaftsentwicklung und Entstehung der Rohstoffe Braunkohle, Porphyry und Kaolin) mit einem auf das spielerische Erleben von geowissenschaftlichen Prozessen und Fakten ausgerichteten „Geo-Erlebnispark“ im Außenbereich des Geoportales. Die Ausstellungsinhalte sind didaktisch besonders auf interessierte Laien und Familienbesucher zugeschnitten.

Technische Umsetzung

In 2007 erfolgte die technische Gestaltung und der Aufbau der Ausstellung im zweiten Obergeschoss des Herrenhauses Röcknitz. Es wurde das Drehbuch für den vertonten

3D-Animationsfilm als Einführung in die Exposition geschrieben und der Film hergestellt.

Der Film stellt anhand geologischer Leitthemen die genetisch-geomorphologische Entwicklung der Porphyrylandschaft in Beziehung zur anthropogenen rohstoffwirtschaftlichen Nutzung. Die Eröffnung der rohstoffgeologischen und landschaftsgenetischen Ausstellung „Zeit-Wandel-Stein, bewegte Geologie einer Landschaft“ erfolgte am 30.11.2007. Der Außenbereich befindet sich derzeit in der Detailplanung und soll 2010 technisch realisiert werden.



Aricemex, S.A.



Els Castellars, T rmino, Provincia de Valencia, Spain

★ Economic Contribution to Society Award 2010



Restoration of an area included within the Castellet Dels Alacans protection perimeter

The restoration project aims to present compatibility between a mining activity and environmental preservation, between integration and industry, between heritage and progress.

Aricemex quarry, "Els Castellar -nº 972" is located in the eastern region of the Iberian peninsula, on the Mediterranean coast. The quarry contains the remains of the castle "Castellet dels Alacans" which is protected by the local administration of Montserrat since 1994, and was declared "BIC: Bien de Interés Cultural" (asset of cultural interest) by the Generalitat Valenciana in 1999.

An Environmental Impact Assessment was performed by Aricemex and approved in 1996. The EIA stated the requirements and operating constrains in order to protect the Castle and guarantee the compatibility between the mining activity and preservation of the protected perimeter.

Aricemex and the local administration of Montserrat signed a collaboration agreement to enhance and protect the BIC area. Aricemex then presented a restoration project aimed to integrate the ongoing operation and the conservation objectives.



The restoration of the protected area has an extension of 3 ha out of the 25 ha of the total quarry extension. Works were carried out avoiding the use of explosives to guarantee the castle protection. In accordance to the plan, the entire surface was carefully designed to ensure functionality and homogeneity with the surrounding environments.

In the same way, the collaboration agreement aimed to maximize value to society by setting up an "Oficina Verde" (Green Office) to supervise daily activities. As a result, new remains of the Castle were discovered and a new 3D virtual reconstruction was possible enabling greater awareness and cultural expansion.

The total restoration budget and cost reached 275.000 € of which 56% was used to restoration activities while the remaining amount was well spent in cultural aspects of the collaboration agreement.

Aricemex is proud of the results of this venture, in which in collaboration with the local authorities, compatibility has been proved between archeological and mining activities once thought to be diametrically opposed.



Restauración del area incluida en el perimeto de protección del Castellet Dels Alcalans

El objetivo del presente proyecto es utilizar la restauración realizada en una zona de una cantera en explotación para demostrar la compatibilidad entre actividad minera y conservación, entre vecindad e industria, entre historia y progreso.

Aricemex explota una cantera en el Levante Español, "Els Castellars -nº 972", donde se encuentran los restos de un castillo protegido por el Ayuntamiento de Montserrat desde feb. 1994, y declarado en 1996 Bien de Interés Cultural en 1999 por la Generalitat Valenciana.

A través del correspondiente Estudio de Impacto Ambiental elaborado por Aricemex y aprobado en diciembre de 1996, se definen distintas fases de actuación, así como restricciones y protecciones que preserven dicho BIC, mientras se trabaja en la explotación.

Aricemex, consciente de la importancia del Castillo realiza paralelamente un plan de restauración en la zona y un convenio de colaboración con el Ayuntamiento de Montserrat, en aras de proteger y mejorar toda la zona del Bien de Interés Cultural.

La restauración de la zona protegida se extiende sobre 3 has de las 25 que ocupa la explotación. Se realiza con medios mecánicos, evitando las voladuras, para asegurar la protección debida, se trabaja en la morfología y encauzamiento de barrancos que eviten posibles deterioros futuros y siempre con materiales de la propia cantera para garantizar la homogeneidad. Finalizando las tareas con la implantación de especies vegetales autóctonas.

Por otra parte, el convenio de colaboración alcanzado con el Ayuntamiento de Montserrat persigue la puesta en valor para la sociedad del Castillo, constituyendo y cofinanciando la "Oficina Verde" encargada de los trabajos de recuperación del Castillo, que han permitido descubrir nuevos espacios del mismo, así como su reconstrucción en 3D por parte del equipo arqueológico y la expansión cultural de todo ello.

El presupuesto de toda la actuación alcanza la cifra de 274 mil euros de los que un 56% fueron destinados a la restauración propiamente dicha, y un 44% al aspecto cultural traducido en el Convenio de Colaboración.

De esta forma vemos cómo la voluntad de la empresa privada en conjunción con el interés municipal hacen compatible desarrollo minero y protección cultural e histórica, cómo canteras y arqueología, aparentemente contrarias, hoy caminan juntas, prestando ambas un importante servicio a la sociedad.



Asamer Kies- und Betonwerbung GmbH



Linz / Kleinmünchen, Austria

★ Environmental Best Practice Award 2010

Innovative mobiler logistics combined with eco-friendly treatment technology

The company ASAMER Kies- und Betonwerke GmbH has been considering the problem of increasing environmental pollution for quite some time, constantly looking at possibilities to reduce pollutant emission.

A long-standing project of the company was to establish at the Roitham location a treatment plant with rail loading and company-owned industrial sidings connected with the public rail networks of the Austrian Federal Railways.

Last year this project was completed, and in October 2009 rail delivery of the raw materials needed for concrete production in the provincial capital of Linz from the treatment plant described above was launched. Upon arrival at Linz/Kleinmünchen railway station the freight is transported to the ASAMER company's concrete factory in Linz by MOBILER truck (only about 1 km).

Environment

Treatment plant:

- Sustainable groundwater resource conservation - 80% of the required groundwater is re-used (saving approx. 120000 m³ of groundwater per year).
- Concentrated tailings save space and room, therefore land can be recultivated more quickly.

Switching freight from road to rail:

- CO₂ savings: 1920 tons per year (corresponds to about 14500 truck movements or 850000 truck kilometers per year)



Cost effectiveness

- Roitham ranks among Europe's most efficient rail loading facilities (loading performance: 1000 tons per hour), which is important to economic sustainability. The implementation of this project is the basis for further strategic considerations in transport logistics, specifically the area of raw material supply
- Saving 6 5-axle trucks
- Acyclic product delivery by rail, including just-in-time delivery by MOBILER truck
- Efficient employment of staff through optimization and automation of the operational process

Quality

- Concrete aggregates are supplied from one quarry, which guarantees constant product properties

The declared goal of this investment is acyclic raw material delivery to Linz by rail outside rush hour to avoid stop-and-go traffic. Since the different concrete aggregates, boxed in containers, are now stored intermediately at the Kleinmünchen station, i.e. in close vicinity (only about 1 km) to the processing plant (concrete factory), the exact amount of aggregate needed can be delivered just-in-time.

Once again we emphasize that the realization of this project was a sustainable measure taken by the company ASAMER which is unique in the ready-mixed concrete industry, specifically mobility management area, in Europe.



Innovative mobiler – logistik mit ökologischer aufbereitungs-technik

Die Firma ASAMER Kies- und Betonwerke GmbH befasst sich intensiv mit dem Problem der steigenden Umweltbelastung und sucht ständig nach Möglichkeiten zur Reduktion der Schadstoffemissionen.

Das Unternehmen ist seit längerer Zeit bemüht, am Standort Linz bzw in nächster Nähe zum Standort eine Anschlussbahn zu errichten, und so einen Anschluss an das öffentliche Verkehrsnetz der Bahn zu realisieren. Nach erfolgter Fertigstellung eines solchen Gleisanschlusses besteht nun die Möglichkeit, die benötigten Rohstoffe für die Betonproduktion wahlweise per Bahn oder auf der Straße anzuliefern. Dadurch kann dem rasant wachsenden Verkehrsaufkommen, insbesondere im Süden von Linz (Autobahn A7), entgegengewirkt werden.

Vorteile der Projektrealisierung

Umwelt

- Nachhaltige Schonung der Grundwasserressource – 80% des Grundwassers werden recycelt
- Eingedickter Schlamm spart Fläche und Raum => schnellere ökologische Rekultivierung durchführbar
- CO₂-Einsparung: 850.000 LKW-km = 350.000 Liter Diesel = 1.920,00 to CO₂ pro Jahr (entspricht rund 14.500 Fahrbewegungen jährlich)

Wirtschaftlichkeit

- Einsparung von 6 Stück 5-Achs-LKWs
- Azyklische Produktanlieferung via Bahn mit „Just in Time“ - Zustellung per MOBILER - LKW
- Effizienter Personaleinsatz durch optimierte, automatisierte Prozessabläufe im Bereich Aufbereitung und Bahnverladung - 2 Personen in der Aufbereitung Roitham

Qualität

- Die Anlieferung der Betonzuschlagstoffe aus einer Gewinnungsstätte garantiert gleichbleibende Produkteigenschaften.

Erklärtes Ziel der Firma Asamer Kies- und Betonwerke GmbH ist es, einen Großteil der Baurohstoffe auf der „Schiene“ in die Ballungszentren zu bringen, und so einen erheblichen Beitrag zur Entlastung von Straße und Umwelt zu leisten. Es wird an dieser Stelle nochmals darauf hingewiesen, daß die Firma Asamer mit der Projektrealisierung eine Maßnahme setzt, die im Transportbetongewerbe – Bereich Mobilitätsmanagement – einzigartig ist.

Kurzbeschreibung des MOBILER-Systems:

Es wird ein mit Zuschlagstoffen beladener Container vom Waggon direkt auf einen LKW verladen, zur Entladestation gefahren, dort sofort entladen und retour zum Bahnhof gebracht. Anschließend wird der Container sofort wieder auf den Waggon zurück positioniert. Dieser Zyklus wiederholt sich täglich bis zu 30mal.

Eckdaten:

Länge Anschlußbahn Linz 325 m

LKW-Strecke Bhf Kleinmünchen / BW Linz 1,5 km / Fahrbewegung
Durch die angeführten Maßnahmen, können jährlich bis zu 14.500 LKW-Fahrten eingespart werden. Dies entspricht rund 850.000 gefahrene km bzw 350.000 Liter Diesel bzw 1.920,00 to CO₂ pro Jahr. Erwähnenswert ist außerdem, dass diese Reduzierung an Fahrbewegungen das untere Limit darstellen und die Einsparungen zukünftig noch ausgeweitet werden können (Binde- und Zusatzmittel).



McGraths Limestone Ltd



Cregaree Quarries, Cong, Co. Mayo, Ireland

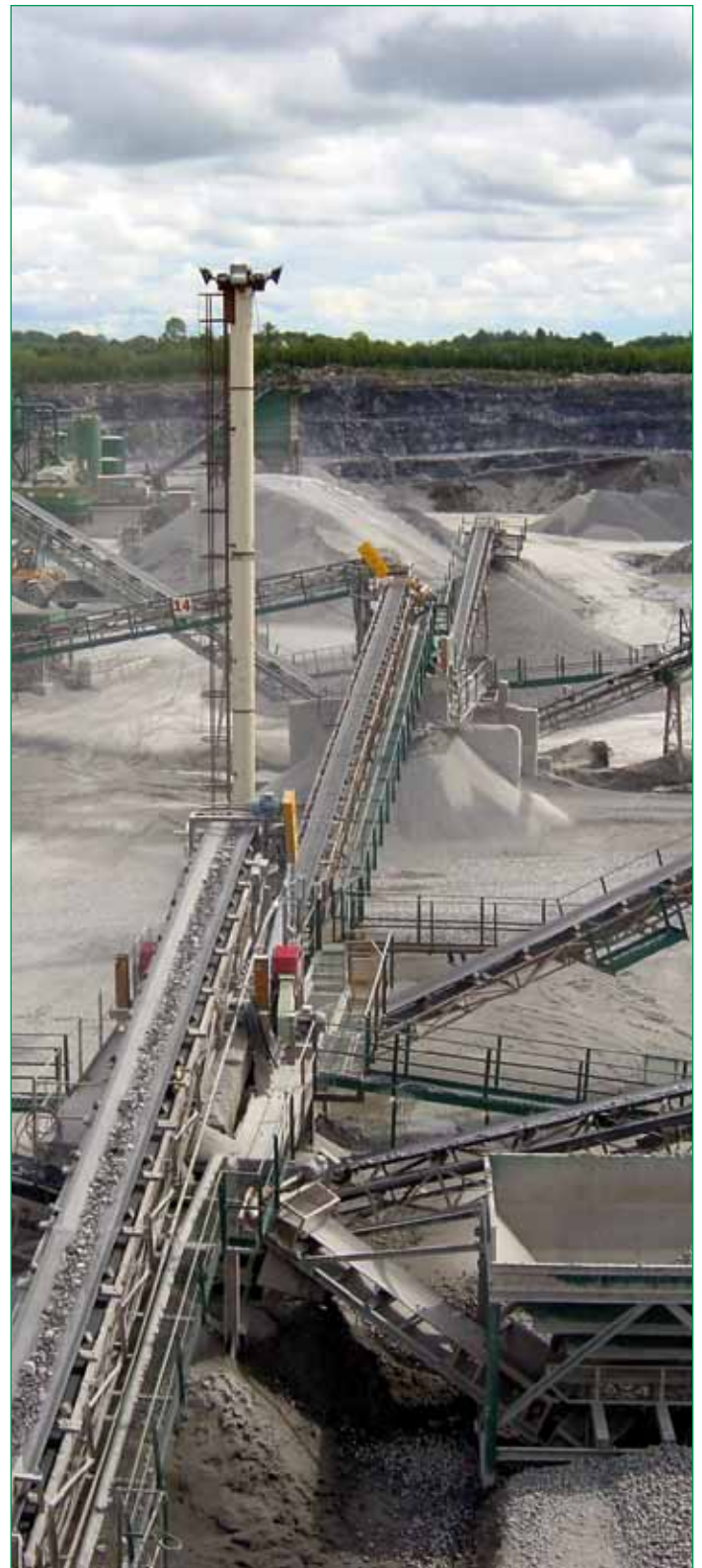
★ Environmental Best Practice Award 2010 for a small company



McGraths Quarry Group's Cregaree Quarry at Cong Co. Mayo is located on an isthmus between Lough Mask and Lough Corrib in a very sensitive ecosphere.

The quarry was awarded Irish Concrete Federation Quarry of the Year 2007 for outstanding achievement in Environmental Management especially with regard to Water Management, Visual Impact Mitigation and Restoration Planning. The quarry supplies all types of aggregates, ready-mix concrete, blocks and high purity agricultural lime. The company has undertaken work for the restoration and protection of biodiversity at the site. They installed a water treatment plant in order to ensure high quality discharged groundwater for the protection of salmon rivers and lakes.

A nursery was planted in 2004 where many different species of trees are grown. The quarry is a habitat for feral goats and the company have increased the depth of the buffer zone around the quarry to increase the habitat for the goats. Amenity walkways are planned to run along the perimeter of the site along by the dry canal.



Alas Slovakia, s.r.o.



Sološnica, Slovak Republic

Nominated in the category Environmental Best Practice



Best working procedure for environmental protection

The company firstly using in Slovakia the name "ALAS" was founded in 1992 as "Alas – Gravel and Concrete Works s.r.o., Bratislava. The founder was the Austrian company Alas-Kieswerke GmbH, Vienna. It was a joint venture of the gravel producer Asamer Hufnagl and the building company Alpine Bau. By and by became the majority owner the Holding Asamer through ALAS International Baustoffproduktions – AG. The company ALAS SLOVAKIA s.r.o. has long experience in demanding activities required for on-time deliveries of high-quality products provided in the first of all for the building market: crushed and extracted aggregate, truck-mixed concrete.

The principal reason of our project is to shortly present to the professional and general public activities performed in the quarry Sološnica. The information deals with radical changes of technology and technical equipment aiming radical ameliorations of technology operations guaranteeing minimal negative effects on the surrounding and broad environmental aspects. In each section of these technological operations were applied the state-of-the-art technologies, procedures and technical means to modify the "combating of the nature" into rational and friendly use of natural richness. The quarry Sološnica succeeded as domestic innovator.



The production unit Sološnica achieved during the last time a technical development and high level in modernization technology matching with highest criteria of Slovak and European standards for environmental conditions and safety at work regulations. All measures resulting from the legislation for protection of various environmental aspects come in this production unit fully into effect. We will keep special accent on the control and observance of rules and standards in the field of ecological approach to the extraction of mineral resources and the safety at work.

During operational processes exerted on a long-term basis by the company ALAS SLOVAKIA s.r.o. in 10 extraction units, including Sološnica, are applied state-of-the-art operations for grading, crushing and processing of raw materials reflecting modern production process and process management. These efforts concern not only conservation and complete use of mineral resources but focalize also the selection and performance of the production process as the whole trying to preserve environmental conditions for contemporary and future generations. This is our contribution to rational and complete use of the natural resources. Environmental protection and selection of best available technologies are managing the quarry production.

Sološnica appertains to most updated operation services in Central Europe.



Najlepší pracovný postup pri výrobe a ťažbe

Spoločnosť, ktorá ako prvá na Slovensku použila v názve „ALAS“ bola založená v roku 1992 pod názvom Alas - štrkové a betónové závody s.r.o., Bratislava. Zakladateľom bola rakúska firma Alas-Kieswerke GmbH. Viedeň. Bol to spoločný podnik výrobcu štrkopieskov Asamer Hufnagl a stavebnej spoločnosti Alpine Bau. Postupne sa stal väčšinovým majiteľom holding Asamer prostredníctvom ALAS International Baustoffproduktions - AG. Spoločnosť ALAS SLOVAKIA s.r.o. má dlhodobé skúsenosti s náročnými činnosťami potrebnými pre včasnú dodávku kvalitných výrobkov určených primárne pre stavebný trh: drveného a ťaženého kameňa, transportbetónu.

Hlavným zmyslom nášho projektu je stručne priblížiť a informovať o vykonávanej činnosti v kameňolome Sološnica odbornú i laickú verejnosť. Informovať o vykonaných výrazných zmenách technologických a technických, za účelom dosiahnutia výrazného zlepšenia kvality technologických procesoch pri minimálnych negatívnych vplyvoch na okolité i širšie životné prostredie. V každej časti technologického procesu, sú použité najmodernejšie technológie, postupy a technické prostriedky aby sa zmenil „ boj s prírodou“ na racionálne a šetrné využitie prírodného bohatstva. To že sa to dá, je kameňolom Sološnica ako domáci priekopník, jasným dôkazom.



Stredisko Sološnica zaznamenalo za posledné obdobie taký technický rozvoj a dosiahnutá bola taká úroveň modernizácie technológie, ktorá zodpovedá najvyšším kritériám slovenských a európskych noriem v oblasti životného prostredia a BOZP. Všetky opatrenia, ktoré vyplývajú z legislatívy v oblasti ochrany jednotlivých zložiek životného prostredia, sú v rámci výrobného areálu v plnej miere uplatňované. Zvláštny dôraz na kontrolu a dodržiavanie predpisov a noriem je potrebné naďalej klásť v oblasti ekologického prístupu k ťažbe nerastnej suroviny a BOZP.

Svojimi pracovnými postupmi spol. ALAS SLOVAKIA s r. o. dlhodobo na svojich 10 ťažiarskych výrobných, Sološnicu nevynímajúc, aplikuje najmodernejšie generácie triedenia, drvenia a spracovania ťaženej suroviny, ktoré sú odrazom moderného riadenia procesu pracovnej prevádzky a spracovateľských technológií. Táto snaha je nielen v zachovaní a komplexnosti využitia surovinových zdrojov, ale je zameraná na výber a realizáciu výrobného procesu ako celku, ktorý je najvhodnejší pri ochrane životného prostredia pre súčasné, i nasledovné generácie. Je našim príspevom k racionálnemu a komplexnému využitiu nerastného bohatstva. Ochrana životného prostredia a voľba najlepších dostupných technológií radia prevádzku kameňolomu

Sološnica právom medzi najmodernejšie prevádzky v strednej Európe



EUROVIA



Kameňolomy, s.r.o., Vehec, Slovak Republic

Nominated in the category Environmental Best Practice

System for surface water retention with runners and subsequent use in the quarry Hradová

The company EUROVIA – Kameňolomy, s.r.o. is pursuing extraction, treatment and sales of the quarry-stone, aggregates for cemented and non-cemented mixtures, aggregates for concrete, aggregates for bituminous mixtures and aggregates for railway bedding.

The company is structured into a main office with the seat in Žilina and 11 quarries located mainly in the Central and Eastern Slovakia. The company supplies aggregates for almost the whole Slovakia building its business activities on rich experience and the high-quality technology of the multinational group VINCI.

EUROVIA – Kameňolomy, s.r.o., as member of the VINCI group, is putting the accent not only on cost indices but also on social values as safety and environmental aspects.

The aim of the company's project is the elimination of dustiness resulting from aggregate processing. The company is considering the use of water as the most effective system. As this quarry lacks sufficient water amount the investments were made in the receiving system of the surface water in the quarry. The company is preventing in this way the road erosion and contamination of the nearby water stream in spring and during the seasons with higher precipitations. It was built a three-chamber retaining pit. The first chamber retains gross dirt, the water flows further over the closure into the second chamber where settle much finer dirt. One meter high over the pit bottom is the cleaned water conducted through a PVC piping in non-freezing layer in 800 mm depth to the impounding reservoir.

In the first half of 2009 plans the company to build a misting of the whole route with automatic time control (from the dispatching scale up to the quarry entry) as this road generates dust emissions during dry seasons. The piping would continue up to the MOBYDICK equipment serving for washing of truck wheels leaving the quarry. This will prevent contamination of the adjacent service road.



Systém zachytávania povrchovej vody sústavou žľabov a záchytných nádrží a jej následné využitie v lome Hradová

Spoločnosť EUROVIA – Kameňolomy, s.r.o. sa zaoberá ťažbou, spracovaním a predajom lomového kameňa, kameniva do stmelení a nestmelených zmesí, kameniva do betónu, kameniva do bitúmenových zmesí, kameniva do koľajového lôžka.

Organizačne spoločnosť pozostáva z riaditeľstva, ktoré je umiestnené v Žiline a 11 kameňolomov nachádzajúcich sa prevažne na strednom a východnom Slovensku. Spoločnosť pokrýva svojimi dodávkami kameniva potrebu väčšiny územia SR, pričom stavia na bohatých skúsenostiach a kvalitnom technologickom vybavení nadnárodnej skupiny VINCI.

EUROVIA – Kameňolomy, s.r.o., ako člen skupiny VINCI, kladie dôraz nielen na ekonomické ukazovatele, ale takisto na spoločenské hodnoty, ako bezpečnosť a životné prostredie.

Cieľom projektu spoločnosti je zameranie sa na elimináciu prašnosti vznikajúcej pri spracovaní kameniva. Najefektívnejším systémom podľa spoločnosti je využitie vody. Keďže v tomto lome jej nie je dostatok, investovali do výstavby zachytávania povrchovej vody z lomu. Spoločnosť tak zabraňuje erózii ciest v lome a znečisťovaniu blízkeho vodného toku v jarnom období a počas obdobia zvýšených zrážok. Vybudovaná bola trojkomorová záchytná šachta. V prvej komore sa zachytia hrubšie nečistoty, voda preteká cez prepážku do druhej komory, kde sa usadia jemnejšie nečistoty. Meter nad dnom komory je vyčistená voda PVC potrubím odvedená v nezamrzajúcej hĺbke 800mm do záchytnej nádrže.

V I. polroku 2009 má spoločnosť v pláne vybudovať automatické časovo riadené zamlžovanie celej komunikácie (od expedičnej váhy až po vstup do lomu), ktorá je v období sucha zdrojom emisie prachu. Súčasne má rozvod pokračovať až k zariadeniu MOBYDICK, ktoré slúži na umývanie kolies nákladných vozidiel odchádzajúcich z lomu a zabraňuje sa tak znečisťovaniu príľahlej cestnej komunikácie.

Holcim



Hüntwangen Gravel Plant, Switzerland

Nominated in the category Environmental Best Practice



The Hüntwangen gravel plant (hereafter abbreviated to Hüntwangen plant) belongs to Holcim Schweiz (abbr. to Holcim), a subsidiary of the globally active Holcim Ltd. Holcim Schweiz supplies a good 6 million tonnes of gravel, sand and ballast per year from around 30 gravel pits and quarries. The rock and gravel extraction alters the landscape. In certain ways, however, the Hüntwangen plant enhances biodiversity, the local population and the Rafzerfeld landscape.

The Rafzerfeld nature zone, characterised by its dry warmth and its proximity to the Rhine is of cantonal significance for certain species of birds, amphibians, grasshoppers and butterflies. A hundred years ago there were many areas of neglected and dry grassland with many unusual and specialised types of plants and animals. They have, however, been reduced to very small areas.

Within the framework of gravel extraction the Hüntwangen plant initiated and managed land redistribution, which enabled the most beneficial allocation of plots possible for environmental protection. Following gravel extraction and replenishing, the chance is taken to create dry grassland on the new south-facing slopes that were previously no longer available in Rafzerfeld.

There are very few areas in the canton of Zurich where there are as many flowering plants, butterflies and wild bees as in the area around the Hüntwangen gravel pit. In 2006, 56 different types of diurnal butterflies were observed. Some of these are endangered, indicator-type species, which point to an intact and varied habitat. These are, for example, the wall brown, and the dark brown and the adonis blue lycaenids.



People have a higher quality of life as well as the animals and plants. The dry biotopes along the new paths offer walkers an attractive landscape and nature lovers exciting views. The plant Hüntwangen is involving the local population in the project's task of redesigning the landscape in a most varied way. Along with excursions and tours, an amphitheatre was built, a vineyard planted and an open day was arranged. On the occasion of the information event "Nature in the Gravel Pit" in June 2007 a viewing point with a panorama board was inaugurated. One of the aims of Holcim is to raise the population's awareness of nature.

The Hüntwangen plant not only attaches importance to the creation of structures but also to the understanding of gravel extraction and reshaping the landscape as a process. The people should be able to identify with the project, find it useful at an early stage and ultimately continue it enthusiastically. Great significance is attached to participation in the subsequent use and care of the areas. Thus a brochure about invasive neophytes was created for the employees. The gravel pit is also recertified by the Stiftung Natur & Wirtschaft (Foundation for Nature and Economy) on an annual basis. The foundation honours companies that make a contribution to sustainability and biodiversity of the natural environment through the special ecological quality of their land.

Holcim also works closely with the Office for Nature Conservation, with local nature conservation organisations, local communities, the forestry service, farmers and land owners. The Hüntwangen plant convened the working group Nature, which meets on a yearly basis and updates and adapts the planning and care of conservation areas.



Das Kieswerk Hüntwangen gehört zur Holcim Schweiz, einem Unternehmen der weltweit tätigen Holcim Ltd. Aus rund 30 Kiesgruben und Steinbrüchen liefert die Holcim Schweiz gut 6 Millionen Tonnen Kies, Sand und Schotter pro Jahr. Der Gesteins- und Kiesabbau verändert die Landschaft. Das Werk Hüntwangen schafft dabei in einigen Bereichen aber Mehrwert für die Biodiversität, die Lokalbevölkerung und die Landschaft Rafzerfeld.

Der durch trockenwarme Verhältnisse und die Nähe zum Rhein geprägte Naturraum des Rafzerfeldes ist für bestimmte Vogel-, Amphibien-, Heuschrecken und Tagfalterarten von kantonaler Bedeutung. Noch vor 100 Jahren gab es im Rafzerfeld zahlreiche Mager- und Trockenwiesen mit vielen seltenen und spezialisierten Tier- und Pflanzenarten. Sie sind aber bis auf kleinste Restflächen verschwunden.

Im Rahmen des Kiesabbaus veranlasste und leitete das Kieswerk Hüntwangen eine Landumlegung, welche es erlaubte für den Naturschutz möglichst vorteilhaft gelegene Parzellen zu sichern. Nach dem Kiesabbau und der Wiederauffüllung wird die Chance genutzt, an den neuen, nach Süden ausgerichteten Hängen, wieder Trockenwiesen zu schaffen, welche vorher im Rafzerfeld fast nicht mehr vorhanden waren.

Nur in wenigen Gebieten des Kantons Zürich finden sich so viele Blütenpflanzen, Tagfalter und Wildbienen wie im Gebiet der Kiesgrube Hüntwangen. 2006 wurden schon 56 verschiedene tagaktive Schmetterlinge festgestellt. Einige davon sind gefährdete Indikatorarten, welche auf einen intakten und vielseitigen Lebensraum hinweisen. Dies sind z. B. der Mauerfuchs, der Dunkelbraune - und der Himmelblaue Bläuling.



Nicht nur Tiere und Pflanzen, sondern auch die Menschen erhalten mehr Lebensqualität. Die Trockenbiotope entlang der neuen Flurwege bieten den Spaziergängern eine attraktive Landschaft und den Naturinteressierten spannende Beobachtungen. Das Kieswerk Hüntwangen bindet die Lokalbevölkerung auf die verschiedenste Art und Weise in das Projekt der Neugestaltung einer Landschaft ein. Neben Exkursionen und Führungen wurde ein Amphitheater gebaut, ein Rebberg angelegt und ein Tag der Offenen Tür veranstaltet. Anlässlich der Infoveranstaltung „Natur in der Kiesgrube“ wurde im Juni 2007 ein Aussichtspunkt mit Panoramatafel eingeweiht. Eines der Ziele der Holcim Schweiz ist es, die Bevölkerung für die Natur zu sensibilisieren.

Das Kieswerk Hüntwangen legt Wert darauf, nicht nur Strukturen zu erstellen, sondern den Kiesabbau und die Umgestaltung der Landschaft als Prozess zu verstehen. Die Menschen sollen sich mit dem Projekt identifizieren können, schon früh „Nutzen“ daraus ziehen und es am Schluss mit Begeisterung weiterführen. Der Begleitung bei der Nachnutzung und Pflege der Flächen wird grosse Bedeutung beigemessen. So wurde für die Werkangestellten eine Broschüre über invasive Neophyten erstellt. Das Kieswerk lässt sich zudem jährlich von der Stiftung Natur und Wirtschaft rezertifizieren. Die Stiftung zeichnet Unternehmen aus, welche Unternehmen auszeichnet, die durch die besondere ökologische Qualität ihres Areals einen Beitrag zur Erhaltung der natürlichen Artenvielfalt leisten.

Die Holcim Schweiz arbeitet auch eng mit der Fachstelle Naturschutz, mit lokalen Naturschutzorganisationen, Gemeinden, dem Forstdienst, mit Bewirtschaftern und Landbesitzern zusammen. Die Kiesgrube Hüntwangen berief eine Arbeitsgruppe Natur ein, welche sich jährlich trifft und die Planung und Pflege der Naturschutzflächen laufend aktualisiert und anpasst.



CEMEX



CEMEX Austria AG, Langenzersdorf, Austria

★ Health & Safety Best Practice Special Award 2010



Sustainable staff motivation by stress management

CEMEX Austria AG with its 500 employees at 70 locations produces ready-mix concrete, gravel, crushed rock, sand, additives for concrete production and offers also solutions for recycling and earth work.

In spite of the success in reduction of work accidents, the senior management retained with the "zero-accident"-vision. During the discussions of senior management, safety officers and occupational physicians with employees they could notice that employees regularly complain of stress and lacking motivation.

Therefore the safety officers and the occupational physician were mandated to implement a stress management with the following goals:

- objectification of the subjective stress perception
- increase of the motivation of employees
- accident prevention and accident reduction
- amelioration and hastening of the operating schedule

It was therefore chosen the "IMPULSE-Test" method, because it reveals stress and helps to establish resources.

The stress management was inserted and implemented with the aid of the IMPULSE-TEST method in four steps:

Step one was a survey in the course of the health and safety briefing amongst 326 employees in the year 2007/2008 (60% of the total employees).

Step two was the statistical evaluation of the 326 questionnaires, relating to the particular business unit respectively section.

Step three was the performance of employee attitude surveys in the course of the health and safety briefing in the years 2008/2009 in the particular business unit respectively section. A bigger part of the proposals refers to better internal and external collaboration, better information and more training.

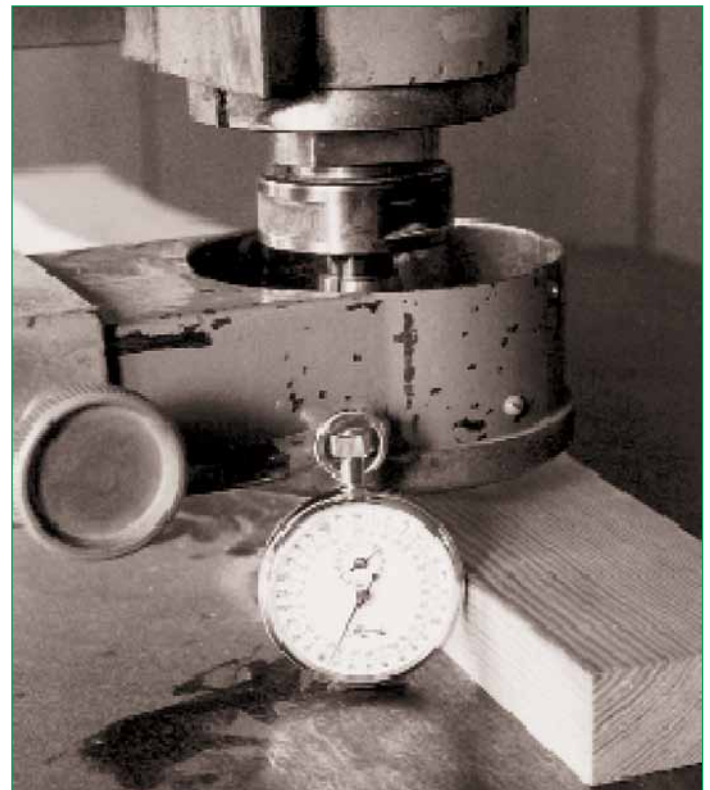
Step four was the implementation of the measures of the employee attitude survey by the supervisors of the particular business units respectively sections.

A significant result of the use of the IMPULSE-Test method for stress management was the intervention of the relation between work-related stress, potential stressors and resources. Thereby an objectification of the employees stress perception was achieved.

The follow-up of the proposals by the supervisors in the framework of the stress management develops confidence and increases the motivation.

The preoccupation with the item stress and motivation at all 70 locations of CEMEX Austria results in a significant reduction of the accident rate to 0,2% in the year 2008 (although not all measures in the business units and sections were realized yet). With such an accident rate CEMEX Austria AG is situated in the accident-prone building materials industry at world class level respectively at the level of mere office jobs.

The amelioration of the operating schedule between the business units respectively sections results not only in hastening of the process but also in a remarkable gain in efficiency without large costs.



Die CEMEX Austria AG produziert in Österreich mit ca. 500 Mitarbeitern an ca. 70 Standorten Transportbeton, Kies, Schotter, Sand, Zusatzmittel für die Betonherstellung und bietet auch Recycling- und Erdbaulösungen an. Trotz der Erfolge bei der Reduktion der Arbeitsunfälle, hielten die Führungskräfte an der „NULL-Unfälle“-Vision fest. Bei den Gesprächen der Führungskräfte, Sicherheitsfachkräfte, Arbeitsmediziner mit MitarbeiterInnen fiel auf, dass regelmäßig über „Stress“ bzw. mangelnde Motivation geklagt wurde. Daher wurden in einer Arbeitschutzausschusssitzung die Sicherheitsfachkraft und der Arbeitsmediziner beauftragt, ein Stressmanagement mit folgenden Zielen einzuführen:

- Objektivierung der subjektiven Stresswahrnehmung
- Steigerung der Motivation der Mitarbeiterinnen
- Unfallprävention und Unfallreduktion
- Verbesserung und Beschleunigung der Betriebsabläufe.

Es wurde daher der „IMPULS-TEST“ ausgewählt, weil dieser Stress erkennen lässt und hilft, Ressourcen aufzubauen. Das Stressmanagement wurde mit Hilfe des „IMPULS-TESTS“ in vier Schritten eingeführt und umgesetzt. Schritt 1 war eine Umfrage im Zuge der Sicherheitsunterweisung unter 326 Mitarbeitern im Jahr 2007/2008 (d.s. 60% der gesamten Mitarbeiteranzahl). Schritt 2 war die statistische Auswertung der 326 Fragebögen, bezogen auf die jeweilige Geschäftseinheit bzw. Abteilung. Schritt 3 war die Durchführung von Mitarbeiterbefragungen im Zuge der Sicherheitsunterweisung in den Jahren 2008/2009 in den jeweiligen Geschäftseinheiten bzw. Abteilungen. Dabei bezog sich ein Großteil der Vorschläge auf bessere interne und externe Zusammenarbeit, bessere Information und mehr Schulungen. Schritt 4 war die Umsetzung der Maßnahmen aus der Mitarbeiterbefragung durch die Vorgesetzten der jeweiligen Geschäftseinheiten bzw. Abteilungen.

Ein wesentliches Ergebnis des Einsatzes des IMPULS-Tests für das Stressmanagement war die Vermittlung des Zusammenhangs zwischen arbeitsbedingtem Stress, potenziellen Stressoren und Ressourcen. Dadurch wurde eine bei den Mitarbeitern eine Objektivierung der Stresswahrnehmung erreicht. Die Weiterverfolgung der geäußerten Vorschläge durch die Vorgesetzten im Rahmen des Stressmanagements schafft Vertrauen und erhöht die Motivation. Die systematische Beschäftigung mit dem Thema Stress und Motivation an allen 70 Standorten der CEMEX Austria AG führte, obwohl noch nicht alle Maßnahmen in den Geschäftseinheiten bzw. Abteilungen in die Praxis umgesetzt wurden zu einer signifikanten Reduktion der Unfallrate auf 0,2% im Jahr 2008. Mit einer solchen Unfallrate befindet sich die CEMEX Austria AG in der eher unfallträchtigen Baustoffindustrie auf Weltklasseniveau bzw. auf dem Niveau von reinen Büroarbeitsplätzen. Die Verbesserung der Betriebsabläufe innerhalb der Geschäftseinheiten bzw. Abteilungen führen nicht nur zu Prozessbeschleunigung, sondern auch zu erheblichen Produktivitätssteigerungen ohne großen Kostenaufwand.



CRH - Roadstone Wood Ltd



Bunratty Quarry, Bunratty, Co. Clare, Ireland

Nominated in the category Health & Safety Best Practice

Bunratty Quarry is owned by Roadstone Wood Ltd. which is part of the CRH Group and currently employs 55 people which include employees, contractors & hauliers. Stone extraction began at the location in 1960 and its products include all grades of crushed stone fill, Blacktop, Readymix Concrete and Concrete Blocks. Bunratty Quarry is currently participating in Year 3 of the CRH Simon Safety Challenge. First launched in July 2007 the challenge is an All-Island initiative designed to assist the Simon Communities of Irelands important work in tackling homelessness whilst also improving safety at CRH locations.

Since July 2007, for every accident free quarter (3 months) achieved at Bunratty a sum of money is donated to The Simon Community. In addition a 25% bonus is paid if the Location achieves a full accident free year. There has been a fantastic response to the Safety Challenge from staff at Bunratty. The challenge has helped to keep Health and Safety in the workplace the Number One objective in Bunratty as well as helping to raise money for the Midwest Simon Community.

The monetary contribution from CRH to the Simon Communities around Ireland in the first 2 years of the CRH Simon Safety Challenge is €1.62 million of which Bunratty Quarry has raised €19,000. These funds will be well used by the Simon Community to fund key projects to help the homeless in the Region. Bunratty Quarry pursues excellence in Health and Safety by operating a Safety Management Regime designed to deliver an accident free workplace. The importance of a strong Safety Culture and committed employee attitude to Health and Safety issues at Bunratty is well recognised.

Excellent Safety performance is achieved at Bunratty through:

- A strong Safety Organisation
- Committed Employee Involvement and
- Continuous Review and Improvements in operational safety

By continuing to deliver a strong Health and Safety Performance at Bunratty the Midwest Simon Community will continue to benefit from the efforts of all employees on the site.



Hanson - HeidelbergCement



Criggion Quarry, Shropshire, UK

★ Health & Safety Best Practice Award 2010

Repeated injury incidents involving falls from mobile plant required action to prevent recurrences. Hanson's CEO commissioned an in-company survey of all UK mobile plant to identify and install remedial measures. The survey was carried out, not by health and safety specialists, but by 'front line' operational and maintenance personnel.

A toolbox talk tasked recipients and their supervisors to inspect their machines for evidence of defective design. Each talk was accompanied by a follow-up survey and completion of a Hazard Identification Form. 550 individual machine reports were generated, covering 260 items of mobile plant. A spreadsheet of report data was created and the results analysed.

Examples of poor or inadequate design were reviewed and local remedial solutions devised, wherever possible. Main areas of concern were: Access visibility; Windscreen cleaning; Damaged access systems; Preventing slips, trips and falls by Operators and by Maintenance personnel. Specific difficulties, such as refilling autolubes, were also highlighted.

Managers and staff co-operated positively and installed a wide range of practical health & safety improvements. Inevitably, these were all retrofit solutions, thus highlighting the array of safety design inadequacies across the whole spectrum of mobile plant.



Accident potential at all company sites has been greatly reduced, as a result.

Hanson UK takes great pride in having won the prestigious 2008 "TUC Trophy" awarded under the MPA national Health & Safety Awards Scheme. This win provided sufficient inertia to apply the knowledge derived from the survey to help formulate the "Safer by Design" prevention initiative. The growing international support for the voluntary "Safer by Design" recommendations emphasises the vital role that this Hanson UK entry played in providing the practical nucleus, thereby comprising a key forerunner of "Safer by Design" itself adopted recently by the UEPG Board as a UEPG Project.

Hanson UK's "Mobile Plant Access Survey" is an ultra important and relevant contribution to the "Social Pillar" of sustainable development. It has generated intense interest and support across Europe and beyond. As such, it comprises an exceptionally strong contender for the UEPG "Social Award of Excellence".



Lafarge



Granulats Nord, Rivecourt, Oise, France

★ Local Community Partnership Award 2010
for outstanding paleontological research



Learning about the past as a foundation for the future; the partnership between the Lafarge and CPIE of the Oise region

Lafarge is the world leader in building materials. Lafarge Granulats Nord extracts fine and coarse aggregates from a number of quarries in the Oise Valley, including Rivecourt. These operations are conducted in line with a comprehensive awareness of societal imperatives and sustainable development.

The Lafarge quarries in the Lower Oise Valley between Creil and Compiègne are the main source of alluvial aggregates for the Oise department. They have attracted international attention due to the company's partnership with a local entity.

Lafarge and the Centre Permanent d'Initiatives pour l'Environnement (CPIE) of the Oise department have been collaborating since 2000. CPIEs work to promote sustainable development through programmes in environmental education and support for regional initiatives.

The CPIE is based in Verberie (Oise department) not far from our quarries. It first worked with Lafarge on ecological restoration projects in wet quarries. On the strength of this experience, when the CPIE underwent a period of financial difficulty, it was able to restructure by mobilizing its biological expertise on behalf of the quarrying industry. Subsequently, as paleontological treasures were gradually brought to light at the Rivecourt quarry, the CPIE broadened its scope to include paleontology by hiring an expert within the framework of the partnership agreement signed with Lafarge in 2007, under which Lafarge covers the cost of the position.

This fertile cooperation has seen the development of numerous educational and environmental communication initiatives while giving the public greater awareness of the economic and social benefits of our industrial operations. In 2008-2009, programmes on geology and paleontology were introduced after Lafarge opened the Rivecourt quarry to scientists.

The Rivecourt quarry contains amber and fossils dating from the Paleocene/Eocene boundary, a period marked by a catastrophic climate event that entailed a sharp rise in temperatures and CO₂ concentrations. The hyperthermal conditions of the so-called PETM (Paleocene-Eocene Thermal Maximum) coincided with a major greenhouse effect that is considered to be the best analogue of the current warming episode.

A steering committee headed by a scientist (who is also a director of research at the CNRS) coordinates research on site in partnership with Lafarge's teams, manages the fossils brought to light and coordinates investigations. Research programmes conducted at the international level will predict and evaluate the consequences of current climate change phenomena.

For schools, the quarry is a resource that provides plant and animal fossils based on which pupils can reconstruct the paleoenvironment of the valley, discuss differences in the major flora and fauna observed on either side of the Paleocene/Eocene boundary, and finally, learn about the causes of this biotic disruption.

These scientific findings will be published in the literature. The various fossils will be exposed in the permanent collection of the museums in Verberie and Compiègne, where exhibits will also be devoted to the geology and paleontology of the Oise department in the Paleocene, Eocene and Quaternary.

Lafarge creates wealth and transforms the sand and aggregate resources into value. In addition, through this successful example of partnership, the company demonstrates its commitment to recognizing the cultural, social and economic value of life on Earth.

Connaître le passé pour bâtir l'avenir, partenariat avec le CPIE des pays de l'Oise

Lafarge est le leader mondial des matériaux de construction. Lafarge Granulats Nord produit du sable et des graviers, extraits de différentes carrières le long de la vallée de l'Oise et notamment sur le site de Rivecourt, dans une conscience sociétale globale.

Principal producteur de roches alluvionnaires du département de l'Oise, les carrières Lafarge de la basse Vallée situées entre Creil et Compiègne font l'objet d'une attention internationale fruit d'un partenariat avec une structure locale.

Depuis 2000 Lafarge et le Centre Permanent d'Initiatives pour l'Environnement (CPIE) des pays de l'Oise travaillent ensemble. Les CPIE agissent en faveur du développement durable dans les domaines de l'éducation à l'environnement et l'accompagnement des territoires.

Le CPIE, basé à Verberie (60), à proximité de nos carrières, a commencé à travailler avec Lafarge sur les réaménagements écologiques de carrières en eaux. Fort de cet expérience et alors qu'il traversait une période de difficultés financières, le CPIE a pu se restructurer en développant ses compétences en expertise biologique au service de l'ensemble de la profession. Puis, au regard des richesses paléontologiques pressenties sur le site de Rivecourt, il a investi le champ de la paléontologie grâce au recrutement d'un spécialiste via la convention de partenariat signée en 2007 avec Lafarge qui finance le poste.

Cette riche collaboration, qui vit depuis 2000, a permis de développer de nombreuses actions de pédagogie et de communication environnementale tout en sensibilisant le grand public aux aspects économiques et sociaux de notre activité industrielle. En 2008-2009, des animations sur le thème de la géologie et de la paléontologie ont pu être ajoutées au programme, suite à l'ouverture par Lafarge du site de Rivecourt aux chercheurs.

En effet, notre carrière de Rivecourt recèle de l'ambre et des fossiles. Ces derniers correspondent à la transition Paléocène-Eocène. Cette période correspond à une crise climatique qui se traduit par un pic thermique et une augmentation du CO₂ très marqués. Cette crise hyperthermique, dite du PETM (Paleocene-Eocene Thermal Maximum), est liée à un effet de serre majeur et est considérée comme le meilleur analogue au réchauffement actuel.

Un comité de pilotage dirigé par un scientifique, directeur de recherche au CNRS, permet l'organisation des recherches sur le site en partenariat avec l'équipe Lafarge, la gestion des fossiles récoltés et la coordination des études. Ces travaux réunissant des chercheurs au niveau international permettront d'évaluer les conséquences du réchauffement climatique actuel.

Pour les scolaires, à partir d'éléments prélevés sur la carrière (végétaux et animaux), la classe peut reconstituer le paléoenvironnement de la vallée, discuter des différences faunistiques et floristiques majeures qui s'observent de part et d'autre de la limite Paléocène-Eocène, pour enfin discuter des causes de cette crise de la vie.

Ces découvertes scientifiques seront diffusées via des publications, les différents fossiles seront exposés de façon permanente dans les musées de Verberie (60) et de Compiègne où des espaces seront dédiés à la géologie et à la paléontologie en couvrant l'histoire départementale sur le paléocène, éocène et le quaternaire.

Lafarge créateur de richesse, valorisant le sable et gravier du sous sol, montre à travers cet exemple de partenariat son exigence de la reconnaissance des valeurs culturelles, sociales, et économiques du vivant.

Norddeutsche Naturstein GmbH



Steinbruch Flechtingen, Germany

★ Local Community Partnership Award 2010



Special partnership between a hard rock open pit and a spa located in a nature reserve

Germany's biggest hard rock quarry with a production of approximately 3 million tons per annum is located in Flechtingen, Saxony-Anhalt. The town is surrounded by a nature reserve and two health cure clinics and the picturesque historic town centre of Flechtingen are in close proximity to the quarry. Flechtingen has borne the seal of approval of a "climatic spa" for 10 years.

Through consequent cooperation on a local level and consideration of all the interests of an up-and-coming climatic spa, all conflicts could be avoided which often arise when a quarry and municipality are in close proximity to one another.

In the early 90s the excellent contact between municipality and quarry resulted in the transfer of the processing plants, after they had been planned and constructed, to deeper levels in order to minimize noise emissions. Keeping the equipment indoors and using state-of-the-art dust filtering equipment are a matter of course.

A lot has also been done with regard to mobile equipment. Some examples are as follows:

- using road sweepers and vehicles for spraying water on dry days
- fitting the bodies of mining trucks with 100 mm of rubber to reduce noise
- attaching cameras to the backs of all mobile equipment so that reverse alarm beepers needn't be used.



Shipping has also been totally reorganised to minimize inconvenience to the residents:

- The proportion of shipments by rail was increased from 2% to 28%. A new loading station is served by a 460 m long conveyor belt.
- A 2.64 km bypass was built by the operators of the quarry for shipments by lorry. In addition, the concern contributed to a further 2.4 km of the bypass.

It is, however, not only technical measures which characterise the cooperation between quarry and municipality. Offers such as the following provide information and create confidence:

- observation platform with information boards
- guided tours of the quarry
- open days

The Mayor, Dr Dieter Schwarz can state:

"Together we have managed to do justice to the demands of a highly productive company and to the requirements of an up-and-coming climatic resort".



Besondere Partnerschaft eines Hartgesteintagebaus mit einem Kurort, gelegen im Landschaftsschutzgebiet

Im Ort Flechtingen/Sachsen-Anhalt befindet sich der mit ca. 3 Mio. t/a Produktion größte deutsche Hartgesteintagebau, umgeben von einem Landschaftsschutzgebiet. In unmittelbarer Nähe befinden sich zwei Kurkliniken und der malerische Ortskern. Der Ort Flechtingen trägt seit 10 Jahren das Gütesiegel „Luftkurort“.

Durch konsequentes Miteinander am Ort und Berücksichtigung aller Belange des aufstrebenden Kurorts konnten jegliche Konflikte vermieden werden, die oftmals die Nähe von Steinbruch und Gemeinde mit sich bringen.

Der enge Kontakt zwischen Gemeinde und Steinbruch führte schon Anfang der 90er Jahre dazu, dass die Aufbereitungsanlagen bei ihrer Neuplanung und -bau auf tiefere Sohlen des Steinbruchs verlegt wurden, um Schallemissionen zu minimieren. Einhausung der Anlagen und modernste Staubfilteranlagen sind selbstverständlich. Auch bei den Mobilgeräten wurde viel getan. Einige Beispiele:

Betrieb von Kehrmaschinen und Wassersprühfahrzeugen an trockenen Tagen

- Auskleidung der SKW-Mulden mit 100 mm Gummi zur Schallminderung
- Ausrüstung aller Mobilgeräte mit Rückfahr-Kameras, damit Rückfahr-Warnpieper nicht betrieben werden müssen.



Auch der Versand wurde völlig umorganisiert, damit Belästigungen der Anwohner minimiert werden:

- Der Bahnversand-Anteil wurde von 2 auf über 28 % gesteigert. Die neue Bahnverladung wird über eine 460 m lange Bandanlage beschickt.
- Für den LKW-Versand wurde vom Steinbruchbetreiber eine 2,64 km lange Umgehungsstraße gebaut. Zusätzlich beteiligte sich das Unternehmen an weiteren 2,4 Kilometern der Umgehungsstraße.

Doch nicht nur die Vielzahl der technischen Maßnahmen charakterisiert das Miteinander zwischen Steinbruch und Gemeinde. Durch Angeboten wie

- Aussichtsplattform mit Infotafeln
 - Steinbruch-Führungen
 - Tage der offenen Türe
- wird informiert und Vertrauen geschaffen.

So kann der Bürgermeister Dr. Dieter Schwarz die Aussage treffen: „Gemeinsam haben wir erreicht, den hohen Anforderungen eines hochproduktiven Betriebes der Gesteinsindustrie und den Ansprüchen eines aufstrebenden Kurortes gerecht zu werden“.



Quarzwerke GmbH



Frechen, Germany

Nominated in the category Local Community Partnership

Sustainability – for and with the local community

Quarzwerke GmbH is an independent family enterprise with 125 years of experience in the extraction, processing and refining of industrial minerals. The main locations are in Central and Eastern Europe.

The location Frechen, Germany, is particularly important for Quarzwerke GmbH (hereinafter called "Quarzwerke"). It is here that 125 years ago the success story of the family enterprise began, with the industrial development of a silica sand deposit in the vicinity of Cologne. Right from the beginning Quarzwerke saw themselves as a part of the social environment and took on an active and responsible role. In many areas this role developed into joint activities with and for the local communities.

The importance of the enterprise for the region and its traditional links with the community is currently subject of an historical exhibition in Frechen Town Hall, marking the occasion of the 125th anniversary of Quarzwerke. The exhibition was devised in close cooperation with the municipal archives.

The position of the enterprise and our involvement for the community is also recognised in the recent letter by the Mayor of the City of Frechen (Attachment 4).

With Quarzwerke the subject of biodiversity is not just devoted special attention merely because it is currently an important topic. The protection of nature and biodiversity and the sustainability of our entrepreneurial activity are matter-of-fact issues of our daily work and our corporate concept.

This alone is not sufficient for us. Sustainable nature and environmental protection require environmental awareness and ecological knowledge by the general public. To promote and support environmental education we have developed a multi-faceted approach to target various interest and age groups in our local community.

We make nature identifiable for children, researchable for students, experienceable for adults and rewardable for environmental associations.

We are especially pleased that at nearly all our locations we have regional experts and partners from environmental associations. They support us in our pursuit of using mining reclamation areas optimally for nature protection and biodiversity.

With a 125-year background and today's knowledge of the importance of sustainability and biodiversity, the necessity of corporate social responsibility (CSR) and a good standing in the local community, we currently run a number of environmental education projects in Frechen for various segments of the population, that complement one another in an ideal way.



Partnerschaftliche Nachhaltigkeitsarbeit mit der sozialen Gemeinschaft und zu deren Nutzen

Die Quarzwerke GmbH ist ein unabhängiges Familienunternehmen mit 125-jähriger Erfahrung in der Gewinnung, Aufbereitung und Veredelung von Industriemineralien. Die Hauptstandorte liegen in Mittel- und Osteuropa.

Der Standort Frechen, Deutschland, hat für die Quarzwerke GmbH (im folgenden „Quarzwerke“) eine ganz besondere Bedeutung. Vor 125 Jahren begann hier die Erfolgsgeschichte des Familienunternehmens, mit der industriellen Erschließung des Quarzsandvorkommens in der Nähe von Köln. Von Beginn an hat sich Quarzwerke als Teil des sozialen Umfeldes gesehen und darin eine aktive und verantwortliche Rolle übernommen. In vielen Bereichen ist daraus ein gemeinsames Arbeiten mit der sozialen Gemeinschaft und zu ihrem Nutzen geworden.

Die Bedeutung des Unternehmens für die Region und seine Verbundenheit mit der Bevölkerung ist momentan Thema einer historischen Ausstellung zum 125-jährigen Bestehen der Quarzwerke im Rathaus der Stadt Frechen. Die Ausstellung wurde in enger Kooperation mit dem Stadtarchiv auf die Beine gestellt.

Die Stellung unseres Unternehmens und unser Engagement für die soziale Gemeinschaft wird auch in dem jüngsten Schreiben des Bürgermeisters der Stadt Frechen gewürdigt (Anlage 4).

Dem Thema Artenvielfalt wird bei Quarzwerke nicht nur besondere Aufmerksamkeit gewidmet, weil es zurzeit aktuell ist. Die Förderung von Natur und Artenvielfalt sowie die Nachhaltigkeit unseres unternehmerischen Handelns sind selbstverständlicher Teil unserer täglichen Arbeit und Bestandteil unseres Unternehmensleitbildes.

Das allein reicht uns aber noch nicht. Denn nachhaltiger Natur- und Umweltschutz setzt auch Umweltbewusstsein und Kenntnisse über Ökologie und Umwelt in der Bevölkerung voraus. Um die Umweltbildung zu vermitteln und unterstützen, haben wir einen vielfältigen Ansatz entwickelt, mit dem wir zielgenau unterschiedliche Interessen- und Altersgruppen in unserer lokalen Gemeinschaft erreichen.

Wir machen Natur für Kinder erfassbar, für Schüler und Studierende erforschbar, für Erwachsene erlebbar und für Umweltverbände fruchtbar.

Dabei freuen wir uns, an nahezu allen unseren Standorte regionale Experten und Partner aus dem Bereich der Umweltverbände zu haben. Diese unterstützen uns bei unserem Streben, Tagebaufolgelandschaften für den Naturschutz und die Artenvielfalt optimal zu nutzen.

Mit den Erfahrungen aus 125 Jahren und dem Wissen der heutigen Zeit über die Bedeutung von Nachhaltigkeit, Biodiversität, der Notwendigkeit von Corporate Social Responsibility (CSR) und einem festen Platz in der lokalen Gemeinschaft gibt es in Frechen momentan eine Reihe von Projekten für die verschiedenen Bevölkerungsgruppen im Bereich der Umweltbildung, die sich ideal ergänzen.



PROMSA



Promotora Mediterranea S.A., Garraf, Spain

Nominated in the category Local Community Partnership



PROMSA

Promotora Mediterránea-2, S.A. (PROMSA) belongs to a holding called "Cementos Molins, S.A.". This group of companies was founded on 1928 to afford continuity to quarries and limestone and natural cement facilities located in a town near from Barcelona. PROMSA (since 1983) engages in the manufacture, commercialisation and distribution of concrete, aggregates and mortar in Catalonia, Aragon and the East Coast of Spain.

At present PROMSA is working hard in order to be a sustainable company. More and more environmental requirements are needed to stay in the market, so it's necessary to be at the forefront of the sector.

PROMSA have acquired the ISO 14001:2004 standard certificate in Central Offices and Garraf site for the quarry and fabrication of aggregates, concrete and mortar. We obtained the sustainability award for Friendly Environmental Practices in 2007 for Garraf Quarry. After this we have published our own publication "Friendly environmental practices" for all PROMSA business.

In spite of the active attitude about the Environment, PROMSA wants to take a step forward, not only to work in Environmental matters, but also in social matters.

We are going to focus in the main quarry of the company, its name is "La Falconera" and it's placed in Sitges (Barcelona), inside the "Garraf Natural Park". The social initiative has been done in this quarry.

We wanted to improve more the Local Community partnership, so the enterprise begun an environmental education programme called "Quarry learning" on 2006.

The main goals of this program are: First of all to "clean" the sector degraded image society has of quarries. We show them the whole process, from the rock extraction to the loading in trucks. They can see all the measures we take to help protect the Environment. We explain how the Restoration is carried out in depth. We tell them how important aggregates are in our lives everyday and how necessary they are. Knowledge helps people to understand the activity and its importance to their quality of life.

At the beginning this programme were designed only for schools but after the important success and interest awakened, we have received regular visits also from neighbours, universities, Administration and customers.

We have received more than 600 visitors during 2007, 2008 and 2009. We are drawing up the program for 2010. This project is being successful and the company is pleased with it. At the end of these visits people have changed their thinking about the activity. We have eliminated claims from neighbours and governments.

Nowadays the company is working to develop the project in other quarry with the same objectives, its name is "Sant Julia de Ramis" and it's also placed in Catalonia. The first visit will be carried out on 15th April with the "the trees and aggregates day".



Promotora Mediterranea-2, S.A. (PROMSA) forma parte de un holding llamado "Cementos Molins, S.A.". Este grupo de empresas fue fundado en 1928 para dar continuidad a las canteras de caliza y las instalaciones de fabricación de cemento situadas en un pueblo cerca de Barcelona. PROMSA (desde 1983) dedica su actividad a la fabricación y comercialización de hormigón, árido y mortero en Cataluña, Aragón y Levante.

Actualmente PROMSA está realizando importantes esfuerzos para conseguir ser una empresa sostenible, ya que cada vez más son los requisitos medioambientales a cumplir y por la necesidad de permanecer en el mercado. La visión de la empresa es estar a la cabeza frente a sus competidores.

PROMSA ha logrado la certificación ISO 14001:2004 para las Oficinas Centrales y el centro de trabajo Garraf para la actividad de la cantera y la fabricación de árido, hormigón y mortero. En el 2007 esta cantera obtuvo el premio de sostenibilidad para "Las Buenas Prácticas Ambientales". Tras este premio la compañía editó y publicó su propio manual de "Buenas prácticas Ambientales" para todos los negocios que se llevan a cabo en PROMSA.

A pesar de la proactiva actitud en temas relacionados con el Medio Ambiente, PROMSA quiere dar un paso hacia adelante, no solo trabajar sobre temas ambientales, sino también en temas sociales

Queremos centrar la atención en la principal cantera, y base del negocio, llamada "La Falconera", que está situada en el municipio de Sitges (Barcelona) dentro del "Parque Natural del Garraf". En esta cantera es donde se ha desarrollado la iniciativa social. Se pretende mejorar las Relaciones con la Comunidad Local, por lo que la empresa comienza en el 2006 un proyecto de educación ambiental llamado "Conozcamos una cantera".



Una de las principales metas es "limpiar" la imagen degradada que tiene la sociedad sobre las actividades extractivas. Para ello se les muestra el proceso completo, desde que se extrae la piedra hasta la carga en camiones del producto terminado. También pueden ver todas las medidas que se llevan a cabo para proteger al medio ambiente. Se explica detalladamente como se lleva a cabo la Restauración. También les hacemos entender con ejemplos ilustrativos lo importante que son los áridos en la vida y lo necesarios que son. El conocimiento ayuda a la gente a entender la actividad y comprender su importancia para la calidad de vida de cada uno.

Al principio este programa fue diseñado sólo para escolares, pero tras el éxito e interés despertado, se han recibido visitas de vecinos de municipios cercanos, universitarios, la Administración y clientes.

En total hemos recibido más de 600 visitantes durante los años 2007, 2008 y 2009. Ahora se está elaborando el programa del 2010. Este proyecto está siendo un éxito y la compañía está realmente satisfecha con ello. Al final de las visitas la gente cambia su manera de pensar sobre la actividad. Se han eliminado las quejas de vecinos y de la Administración.

La compañía en estos momentos está trabajando para desarrollar esta misma actividad en otra cantera, su nombre es "Sant Julià de Ramis" y también está situada en Cataluña. La primera visita será el día 15 de Abril del 2010 para celebrar el "Día de los Árboles y los Áridos".





Crookedwood, Co. Westmeath, Ireland

Nominated in the category Operational Best Practice

In Summary Crookedwood Quarry is operated with industry best practice and safety and environment always the priority. The quarry was entered into the Irish Concrete Federation 'Quarry of the Year Awards' 2007 and received a four star award for outstanding achievement in environmental management especially with regard to overall sustainability and visual impact mitigation. Winning this award helped BD Floods to understand the importance of working to a high standard with regard to quarry operations, environment and safety and how best practice in the long term will save the company money. Also how a limestone rock quarry can exist in harmony with a community and landscape without being a nuisance or having significant impacts. The changes to the crushing plant has allowed for periodic blasting and crushing which has its benefits as outlined throughout this report for our neighbours and the environment. The changes in the crushing plant have allowed the company to create more employment, meet the needs of all our customers and reduce the cost of production by ~40%. Changes to quarry blasting have reduced the cost per ton by ~30%, with many advantages as detailed within this report.

The operational cost savings achieved allows for the introduction of modern ways of carrying out the work in a typical 300,000 ton/yr limestone quarry and these changes will ensure the quarry is sustainable and environmentally friendly going forward. This has being a great project to manage and see unfold with positive results for the profits of the company alongside the benefits to the environment and local community.

Currently the construction industry is greatly reduced in activity and our market has reduced accordingly, but the rewards of upgrading our crushing operation are still good as we can still crush large volumes of product in short periods of time and still ensure our cost of production is at a minimum.



Vicat



Granulats Rhône-Alpes, Saint-Denis-les-Bourgs, France

Nominated in the category Restoration



Sustainable development

For Granulats Rhône-Alpes (GRA), and for the St Denis lès Bourg quarry in particular, sustainable development means:

- long-lasting and economically viable business,
- long-term staff employment contracts,
- integration of the quarry into its natural and human environment,
- outreach to local authorities, residents, and associations,
- thorough and optimum use of mineral resources,
- conscious control of environmental impacts.

As a result of this policy, a coating plant, concrete batching plant, and recycling facility have been set up at the site, investments have been made to preserve water resources, consumption of fossil fuels has been significantly reduced, business-development initiatives are carried out very locally, and consultation with local stakeholders is ongoing in respect of the management and the future of the site which is restored in accordance with quarry phasing.

At management level, this policy is supervised by a team of three regional QSE coordinators:

- **Quality:** The aggregates division of the Vicat Group has been certified against ISO 9001. The St Denis lès Bourg site is certified against Marking with attestation at Level 2+
- **Safety:** The aggregates division has engaged the process for OHSAS 18001 certification for 2010. It is taking part in the 'Commitment to Sustainable Safety' drive of the Rhône-Alpes division of UNICEM and has finalized its 'Occupational Health Barometer'.
- **Environment:** GRA applies UNICEM's Environmental Policy (Charte Environnement) and Progress Road Map (Chemin de Progrès) by setting up special action plans and indicators. The St Denis facility is at Level 3.



FOCUS: Recreation of the Veyle River stream channel

The St Denis lès Bourg aggregate quarry in the community of Buellas is currently crossed by the Veyle river.

The stretch of river between St Denis and Polliat is recognized as having a certain ecological potential because of its quite steep gradient and abundant water feed from cool aquifers.

Like all of the Veyle it has unfortunately been realigned and recalibrated for hydraulic reasons since the 1950s. In addition, since 1972 the lake has been formed where, with the appropriate approvals, gravel has been extracted.

This project for recreation of the Veyle River stream channel is being carried out under the terms of the European Union Water Framework Directive and the Veyle River Contract sponsored by the Syndicat Mixte Veyle Vivante authority. The project was carried out in conjunction with company Granulats Rhône-Alpes, the local catchment board (Agence de l'Eau Rhône-Méditerranée-Corse), the Rhône-Alpes regional authority, the Ain general council, and the Ain fishing federation. The supervising authority was consultant Biotec. Granulats Rhône-Alpes' contribution to the project accounted for more than 35%, comprising in particular acquisition of the land and turning it over to the local authorities, together with financial and technical participation in the works.

Since 1999 Granulats Rhône-Alpes has been playing a major role in the success of this project through its active presence on the local scene, its work in the field, its financial role, and its sound trusting relationship with all those involved in the project.



Approche du développement durable

Le développement durable au sein de la société GRANULATS RHONE ALPES et de la carrière de St Denis les Bourg (01) en particulier c'est :

- Une activité économiquement viable et pérenne
- L'emploi de salariés en contrat longue durée
- L'intégration de la carrière dans son environnement tant humain que naturel
- La concertation locale avec les collectivités, les riverains, et les associations
- La valorisation complète et optimale de la ressource minérale
- La maîtrise des impacts environnementaux

Cette politique se traduit par l'implantation d'usines d'enrobés et de préfabrication ainsi qu'une plate-forme de recyclage sur le site, par des investissements permettant l'économie de la ressource en eau, la forte réduction de la consommation en carburants fossiles, par une action commerciale de proximité et par une concertation locale permanente sur l'évolution, la gestion et le devenir à long terme du site, réaménagement à mesure de l'exploitation.

En management, cette politique est suivie par une équipe de 3 animatrices QSE sur la région :

- Qualité : la Branche Granulats du groupe Vicat est certifiée ISO 9001. Le site de St Denis les Bourg est certifié Marquage C€ 2+
- Sécurité : la Branche Granulats a engagé la certification OHSAS 18001 pour 2010. Elle participe à la démarche « Un engagement pour une Sécurité Durable » de l'UNICEM Rhône Alpes et a finalisé son « Baromètre de Santé au Travail ».
- Environnement : GRA a adhéré à la Charte Environnement de l'UNICEM et son Chemin de progrès avec mise en place de plans d'action et indicateurs spécifiques. Le Site de St Denis est positionné en 3.



FOCUS : La récréation du lit mineur de la rivière Veyle

La gravière de St-Denis-lès-Bourg est actuellement traversée par la rivière Veyle sur la commune de Buellas (01).

Le secteur de la rivière allant de St Denis à Polliat (01) a un potentiel écologique reconnu du fait de sa pente assez forte et d'une alimentation abondante par des eaux fraîches des nappes.

Comme l'ensemble de la Veyle, il a malheureusement subi les rectifications de méandres et des recalibrages à des fins hydrauliques à partir des années 50. En outre, depuis 1972 et après autorisations préfectorales, le plan d'eau a été créé sur le passage de la Veyle pour en extraire le gravier.

Le projet de récréation du lit mineur de la rivière Veyle s'inscrit dans le cadre de la Directive Cadre Européenne sur l'Eau au sein du Contrat de Rivière Veyle porté par le Syndicat Mixte Veyle Vivante. Ce projet est réalisé en partenariat avec la société GRANULATS RHONE-ALPES, l'Agence de l'Eau Rhône-Méditerranée-Corse, la Région Rhône-Alpes, le Conseil Général de l'Ain et la Fédération de Pêche de l'Ain.

Le bureau d'études Biotec en est le maître d'œuvre.

Ainsi GRANULATS RHONE ALPES participe à plus de 35 % du projet avec en particulier l'acquisition foncière puis rétrocession à la collectivité et par une participation financière et technique aux travaux.

Depuis 1999, GRANULATS RHONE ALPES a participé grandement à l'aboutissement du projet par sa présence active locale, son action de terrain, son rôle économique et son relationnel de confiance avec l'ensemble des acteurs du projet.



Rheinische Baustoffwerke GmbH



Horremer Strasse, Dormagen, Germany

Nominated in the category Restoration

The enterprise Rheinische Baustoffwerke GmbH (RBS), subsidiary of RWE-POWER, with its main offices in Bergheim-Niederaußem, currently operates several sand and gravel extractions in the area of the Cologne Rhine Bay. This paper presents the "Nievenheim Lake District". The lake district comprises an area of concentrated extraction sites at various development stages in the regions Dormagen, Rhine District of Neuss, North Rhine-Westphalia, Germany.

The main characteristics of the Nievenheim extraction sites in keeping with this environment is the successful realisation connecting economical interests, pooled recreational use and professional nature protection objectives. It is the especially long-term security for economical, ecological and social concerns which, together with a continuous planning process in close cooperation with the local sectoral planning agencies that enables the creation of a valuable contribution towards the development of the entire area.

The extraction Nievenheim is located in the Rhine District of Neuss. The water areas are created by combined extractions of the enterprises Rheinische Baustoffwerke GmbH and Straberg Kies GmbH & Co KG. The main renaturation purpose of the connected water area is recreational use known locally as the recreation facility "Nievenheim Lake District". The extraction zone this paper is referring to, however, lies in the southeast area whose prime purpose is to create a biosphere for species protection.

The main objective of the renaturation concept is the creation of suitable parameters for a species of flora and fauna. In particular, the population of those plants should be strived for, which are prone to nutrient-poor wide spaces and hardly appear in today's intensively exploited cultivated landscape. A vital requirement for the sedentarisation of these species is the opening of meagre substrates such as sand, gravel and oversized grains. Developing "deficiency biospheres" in connection with extensive shallow water areas can be a particularly encouraging contribution.

The proposed renaturation concept is designed as an initiating catalogue of measures – for the creation of biocoenoses close to nature. The extraction activities commenced in the mid 80s while renaturation began in the year 2001.

Apart from grove cultures and sowings there is hardly any initial renaturation, as the development of prior and comparable extraction shows that the mostly nutrient-poor substrates offer sufficient species potential for a natural resedentarisation. Grove cultures have been planted as subdividing and enhancing elements in a part of

the renaturation area and especially on the borders. The larger part of the extraction area are subject to succession, meaning location conditions with poor nutrient requirements, so that they could be renaturation without top soil. The naturally nutrient-poor open sandy substrates offer sedentarisation opportunities especially to those species which are too weak to compete with others and which are rarely to be found today.

As a result of the substrates in layers and the specific microclimate in line of the natural succession of drought, heat and poorness in nutrients an adapted form of biocoenosis will develop. Enriching the area with additional elements (especially gravel filling) will foster sedentarisation of numerous specific animal species on the NRW Red List.

It is extremely important for renaturation to sustainably maintain the valuable developed biotypes. In order to do so, maintenance measures, e.g. the removal of succession groves or the moving of top soil for the creation of new open sand areas is necessary on an annual basis. Extensive pasturing with white polled heaths is a gentle, practical and feasible measure for conserving and renewing these natural areas.

Inspections on-site and mapping of the areas since the 2006 are gradually documenting the progress of the site.

In order to investigate the sub aqueous vegetation an organised dive took place for the first time in the year 2009. These organised dives will take place at regular intervals in future.

In addition, the efficiency and sustainability of the realized renaturation measures are controlled. Undesired negative developments are identified and the renaturation objectives kept in focus.

In areas for extensive recreational use information and illustration boards explain the ecological objectives, and in particular, the maintenance and pasturing idea. These approaches create a close connection between economical interests (extraction) and nature protection targets for this area.

With the extraction project "Nievenheim" the enterprise Rheinische Baustoffwerke GmbH is able to demonstrate successful renaturation along nature protection guidelines in an intensively used anthropogenic area. Despite extraction works and widely carried out recreational use (esp. open-air pool) in the same extraction lake a biocoenosis has developed in this area which thanks to the realized measures is of extreme value for the local flora and fauna.

Die Firma Rheinische Baustoffwerke GmbH (RBS) betreibt im Bereich der Kölner Bucht mehrere Abgrabungen nach Sand und Kies. Vorge stellt wird ein Teil der ‚Nievenheimer Seenplatte‘. Hierbei handelt es sich um ein Gebiet räumlich konzentrierter Nassabgrabungen unterschiedlichster Entwicklungsstadien im Raum Dormagen, Kreis Neuss, Nordrhein-Westfalen, Deutschland. Bezeichnend für die Abgrabung Nievenheim in ihrem räumlichen Kontext ist die gelungene Verknüpfung ökonomischer Interessen, konzentrierter Erholungsnutzungen und naturschutzfachlicher Zielsetzungen. Insbesondere diese langfristige Sicherung ökonomischer, ökologischer und auch sozialer Interessen verbunden mit einer Kontinuität im Planungsprozess in enger Zusammenarbeit mit den zuständigen Fachbehörden ermöglichen die Schaffung eines wertvollen Beitrages für die Entwicklung des Gesamt raumes.

Das Abgrabungsgewässer Nievenheim entsteht durch die gemeinsame Abgrabungstätigkeit der Firmen Rheinische Baustoffwerke GmbH und Fa. Straberg Kies GmbH & Co. KG. Die zusammenhängend entstehende Wasserfläche unterliegt zum überwiegenden Teil dem Rekultivierungsziel ‚Erholungsnutzung‘ und wird zur Realisierung der Naherholungsanlage ‚Nievenheimer Seenplatte‘ bereitgestellt. Das hier betrachtete, im Südosten gelegene Teilgebiet des Abgrabungsgewässers, welches von der Rheinische Baustoffwerke GmbH bewirtschaftet wird, ist jedoch vorrangig zum Zwecke des Arten- und Biotopschutzes zu entwickeln.

Das Leitziel des Renaturierungskonzeptes besteht in der Schaffung geeigneter Rahmenbedingungen für eine vielgestaltige Flora und Fauna. Insbesondere soll die Verbreitung von Pflanzenarten ermöglicht werden, welche an nährstoffarme und offene Standorte gebunden sind und in unserer intensiv genutzten Kulturlandschaft nur noch sehr selten vorkommen. Wichtige Voraussetzung zur Ansiedlung dieser Arten ist die Freilegung von mageren Substraten wie Sand, Kies, Überkorn etc. Dazu sollen die neu entstehenden ‚Mangelbiotope‘ in Verbindung mit den ausgedehnten Flachwasserzonen einen wirksamen Beitrag leisten. Dabei ist das vorgesehene Renaturierungskonzept als initiiierende Maßnahme zu verstehen – zur Entwicklung naturnaher Lebensgemeinschaften. Die Abgrabungstätigkeiten im haben Mitte der 1980er Jahre begonnen, die Renaturierung begann 2001.

Mit Ausnahme von Gehölzpflanzungen und Ansaaten wurde auf Initialpflanzungen weitestgehend verzichtet. Als gliedernde und belebende Elemente wurden im Renaturierungsbereich partiell Gehölzpflanzungen durchgeführt. Der größere Teil des Abbaugbietes unterliegt der Sukzession.

Dabei werden möglichst nährstoffarme Standortverhältnisse angestrebt, sodass diese Flächen ohne Oberboden hergerichtet worden sind. Die natürliche Nährstoffarmut der offengelegten sandigen Sub-

strate bietet insbesondere konkurrenzschwachen Arten, neue Ansiedlungsmöglichkeiten.

Insgesamt wurden bzw. werden eine Reihe von Standortbedingungen geschaffen, die in ihrer natürlichen Ausprägung in der umgebenden Landschaft nur noch selten zu finden sind.

Aufgrund der anstehenden Substrate sowie des spezifischen Mikroklimas entwickeln sich im Rahmen der natürlichen Sukzession an Trockenheit, Wärme und Nährstoffarmut angepasste Biozöosen.

Durch das Einbringen von bereichernden Zusatzelementen (vor allem Kiesschüttungen) wird die Ansiedlung einer Vielzahl spezialisierter Tierarten gefördert, u.a. Tierarten der Roten Liste NRW.

Besonders wichtig für die Renaturierung ist, die entstandenen wertvollen Biotoptypen dauerhaft zu erhalten. Dazu sind Pflegemaßnahmen, wie das Entfernen von Sukzessionsgehölzen oder die Abschiebung von Oberboden zur Schaffung neuer offener Sandflächen, in einem jährlichen Turnus notwendig. Als eine schonende, praktische und ökonomische Möglichkeit zur Erhaltung und Erneuerung dieser naturnahen Flächen wird eine extensive Beweidung mit Morrschnucken durchgeführt.

Im Rahmen von Begehungen bzw. Biotopkartierungen wird seit 2006 der Fortschritt von Abbau und Herrichtung dokumentiert. Zur Untersuchung der Unterwasservegetation hat 2009 erstmalig ein Tauchgang stattgefunden. Solche Tauchgänge sollen in den Folgejahren regelmäßig wiederholt werden. Damit werden die Effizienz und Nachhaltigkeit der realisierten Renaturierungsmaßnahmen überprüft und Sukzessionsentwicklungen auf den Renaturierungsflächen verdeutlicht. Zudem werden unerwünschte negative Entwicklungen erkannt und durch entsprechende Maßnahmen das Erreichen der Renaturierungsziele sichergestellt. Im Bereich extensiver Erholungsnutzung sollen Schautafeln die ökologische Zielsetzung des Renaturierungskonzeptes sowie insbesondere des Pflegekonzeptes durch Beweidung erläutern. Sie verdeutlichen somit die enge Verbindung zwischen ökonomischen Interessen (Abbau) und naturschutzfachlichen Zielsetzungen in diesem Raum.

Mit dem Abgrabungsvorhaben ‚Nievenheim‘ der Rheinische Baustoffwerke GmbH kann ein gelungenes Beispiel für eine naturschutzfachlich orientierte Renaturierung in einem intensive anthropogen genutzten Gebiet aufgezeigt werden. Trotz parallel bestehender Abgrabungstätigkeit und Formen intensiver Erholungsnutzung (v. a. Freibad) am gleichen Abgrabungsgewässer konnte sich im vorgestellten Teilbereich durch die realisierten Renaturierungsmaßnahmen bereits in wenigen Jahren eine für die heimische Flora und Fauna wertvolle Biozönose entwickeln.

Cave Germaire



Carignano – Carmagnola, Torino, Italy

★ Restoration Best Practice Award 2010

Rehabilitation works of the Po river strip through mining activities

The mining company Cave Germaire started in this area in 1985, on a little lake of a prior activity. The project area is located between Carignano and Carmagnola, about 25 miles south of Turin, within the Po river strip, in the first trait downstream the mountain, ideal geological site for the deposit of gravel. The operation is entirely executed inside a protected area called Torinese Po River Park, and therefore it has a high natural value.

The environment is a river plane characterized by unstable meanders which position has varied several times over the centuries. The high quality extractive resource, appears in the range of the river through "alluvial mattresses", with a thickness exceeding one hundred metres, crossed by aquifers, both of great importance for the entire region.

The recent ramblings of the river have shaped the plain for a range of over a km from the river bed preventing from artificial settlements. Though the natural landscape of the river strip is reduced, under the pressure of an intensive use of the agricultural soil, which stretches all over the countryside in a uniform and monotonous way, stopping only at the edge of the river bed embankments.

In 2000, an agreement was signed among the Company, the Piedmont Region, the Cities of Carignano and Carmagnola and the Park Authorities, for project lasting 20 years and a total volume of about 8 million mc of gravel. The project, despite the important mining activity that involves, has been approved by the Region thanks to the environmental aspects it values, since it positively operates on site of particular sensitivity and importance to the overall regional environmental strategies. The site of the intervention is, as a matter of fact, recognized as part of SIC and ZPS zones by the respective European directives, to be a potential habitat for many species of birds in particular, even if, before the intervention, the management objectives of these goals were undermined by the degradation of the territory.



Among the many objectives of renaturation, we can certainly cite one example, concerning the increase of the natural and biological complexity with the formation of a mosaic of ecosystems, with particular attention to the exploitation of wet areas, and of those with scarce xerofila and mesophyll vegetation in wooded areas of high interest for the settlement of bird population and entomofauna.

At about half of the project: the requalification objectives have been, by now, largely respected, so that, in the opinion of environmental experts in the area, many species of birds, that for years were no longer visible in the area, have now definitively returned thanks to a favourable environment which has been recreated, and to the garrison guaranteed by the presence of the company.

It is important now to face also the problem of the management of the areas, in order to make it economically sustainable when the main activities will be over. This is a problem for the Public Authorities that are progressively becoming the owners, but who lack in the ability to invest, and to control, in the way the company has done so far. In order to identify forms of shared management of areas, in the next months a comprehensive management plan, wanted by the Park Authorities, will be drawn, always in synergy with the productive operators of the area. They will be able, in fact, to propose a new generation of activity-controlled projects, in compliance with the objectives of environmental and usable qualification.



Interventi di riqualificazione della fascia fluviale del Po con attività estrattive

L'attività estrattiva della società Cave Germaire inizia in quest'area nel 1985, su un laghetto già derivante da una precedente attività. L'area di progetto è situata tra i comuni di Carignano e di Carmagnola, a circa 25 chilometri a sud di Torino, ed è completamente compresa nella fascia fluviale del Po, nel primo tratto piano a valle dal tratto alpino, sito geologico ideale per il deposito di ghiaie.

L'intervento estrattivo è situato completamente all'interno di un'area protetta, denominata Parco Fluviale del Po Torinese, ed ha quindi una forte valenza naturalistica.

L'ambiente è quello fluviale di pianura caratterizzato da meandri instabili, che hanno variato posizione numerose volte nel corso dei secoli. La risorsa estrattiva, di alta qualità, si presenta nella fascia del fiume con "materassi alluvionali" di spessore superiore al centinaio di metri, attraversati da falde acquifere, entrambi di grande importanza per l'intera regione.

Le divagazioni recenti del fiume hanno plasmato la pianura per una fascia di oltre un chilometro dall'alveo, impedendo insediamenti costruiti, ma il paesaggio naturale della fascia fluviale è molto ridotto, sotto la pressione di un utilizzo intensivo del suolo agricolo che si estende sulla campagna in modo uniforme e monotono, fermandosi solo sul ciglio delle scarpate dell'alveo.

Nell'anno 2000 è stata firmata una convenzione tra la Società, la Regione Piemonte, i Comuni di Carignano e Carmagnola e l'Ente di gestione del Parco del Po per un progetto definitivo della durata di 20 anni ed un volume complessivo di circa 8 milioni di mc. Il progetto, nonostante la importante attività estrattiva che comporta, è stato approvato dalla Regione proprio per gli aspetti ambientali che valorizza, intervenendo positivamente su siti di particolare sensibilità e importanza per le strategie ambientali territoriali complessive. Il sito dell'intervento è infatti riconosciuto come parte di SIC e di ZPS dalle rispettive direttive europee, per essere habitat potenziale di numerose specie in particolare di avifauna anche se, prima dell'intervento, gli obiettivi gestionali di tali riconoscimenti erano messi a repentaglio dal degrado in cui versava il territorio.

Fra i molti obiettivi di rinaturazione possiamo sicuramente citarne uno ad esempio, quale quello che riguarda l'incremento della naturalità e della complessità biologica con formazione di un mosaico di ecosistemi, con particolare riguardo alla valorizzazione

delle aree umide, delle zone a vegetazione rada xerofila e di aree boscate a vegetazione mesofila di elevato interesse per l'insediamento dell'avifauna e dell'entomofauna.

Siamo pertanto oggi a circa metà del progetto: gli obiettivi di riqualificazione sono stati per ora ampiamente rispettati, al punto che, secondo il parere di esperti ambientalisti della zona, molte specie di uccelli che da anni non si vedevano più nell'area sono oramai stabilmente ritornati grazie all'ambiente favorevole che è stato ricreato e al presidio garantito dalla presenza della società.

Si apre ora in questa fase anche il problema della gestione delle aree, da rendere sostenibile economicamente ad attività estrattiva conclusa. E' un aspetto problematico per gli enti pubblici che diventano progressivamente proprietari ma che sono privi delle capacità di investimento, di presidio e di controllo sino ad ora svolti dagli operatori produttivi. Al fine di individuare forme di gestione condivisa delle aree sistemate nei prossimi mesi sarà redatto, per iniziativa dell'ente Parco, un piano di gestione complessivo, di nuovo concertato con gli operatori produttivi dell'area, che saranno nuovamente posti in condizione di proporre una nuova generazione di progetti per attività controllate e compatibili con gli obiettivi di qualificazione ambientale e fruitiva.



NorStone A/S - HeidelbergCement



Årdal, Rogaland, Norway

Nominated in the category Restoration

NorStone is the largest aggregate producer in Norway. In Årdal, located on the west coast, they have their major facility for producing high quality gravel. The resource is located as river and glacier deposits with thickness of 10 to 30 meters. Excavation is running parallel on five sites, giving a mix of resources to meet all production requirements. Yearly production is about one million tonnes.

The Årdal valley is characterized by its steep mountains on each side of the valley, but down in the valley the landscape is gentle sloping, with farmlands and pasture.

Since the excavation areas slowly moves as the resource is removed, the finished areas are recultivated en suite. Hence, as little as possible land is being idle, and the farmers can start using their recultivated land in the same speed as the excavation area move further.

NorStone has put a lot of effort in creating suitable landscapes for farming. This means a proper mass layer of gravel, and a screened layer of top soil. Wheel loaders use laser guidance to ensure correct thickness of gravel and soil – and to make sure the gradient of the terrain is optimised for drainage. To lower costs, soil is only moved once, and when put back, the screening ensures larger particles is removed. This means that the top soil layer can be reduced to about 50 cm when settled.

The recultivated areas are well suited for farming. Due to the fact that the groundwater is much closer to the soil after recultivation, farming areas need less watering in dry periods. The last years, 35 ha of land has been recultivated.



VSK MINERAL s.r.o.



Vehec, Slovak Republic

Nominated in the category Restoration

Restoration of lands concerned by mining activities in the quarry Veheč

The mining industry is considered by broad public as not very positive and should by this reason bring forward responsibility for environment and the future generations.

The company VSK MINERAL s.r.o. with seat in Košice is member of the VSK MINING GROUP. The company was founded on 2. 12. 2006. The foundation was realized on the transformation basis of the company Východoslovenské kameňolomy, a.s. (VSK, a.s.), Spišská Nová Ves. The aim of this transformation was to separate the opencast mining in deposits of building stone from the deep mining of gypstone and anhydrite. Company's history is a follow-up to earlier production units of the state company Východoslovenské kameňolomy a štrkopiesky.

The company VSK MINERAL s.r.o. is actually the owner of 19 extracting allotments.

The aim of this project is to focus attention on the performance of revitalization measures as restoration of lands in the area of the quarry Veheč performed by the company during the past year in form of technical and biological reclamation of the territory. The restoration was based of elimination of bush and trunks, removal of stone and stony debris, area surfacing and sloping cuts, removal of ramshackle buildings and reconstruction of existing buildings, sinking works and planting trees, purchase of soil, grounding and fixing green surfaces.

The final part of the projects puts accent on possible ways of restoring area in question after complete mining. This will in its final stage restore the initial face of the landscape and remove traces of mining. By this way incl. performance of the aforementioned measures can be changed the negative view on mining activities and other activities performed by mining works.



Rekultivácia časti pozemkov dotknutých banskou činnosťou v lome vehec

Baníctvo nemá v očiach verejnosti veľmi pozitívny charakter, preto by mala neodmysliteľne s banskou činnosťou vystupovať do popredia aj zodpovednosť voči environmentu a budúcim generáciám.

Spoločnosť VSK MINERAL s.r.o. so sídlom v Košiciach, patrí do skupiny VSK MINING GROUP. Vznikla 2. 12. 2006. Spoločnosť bola založená v rámci transformácie spoločnosti Východoslovenské kameňolomy, a.s. (VSK, a.s.), Spišská Nová Ves. Cieľom transformácie bolo oddelenie povrchovej ťažby v ložiskách stavebného kameňa od hlbinej ťažby sadrovca a anhydritu. História spoločnosti nadväzuje na činnosť prevádzok bývalého š. p. Východoslovenského kameňolomu a štrkopiesky.

Spoločnosť VSK MINERAL s.r.o. je v súčasnosti držiteľom 19 dobývacích priestorov

Cieľom tohto projektu je upriamiť pozornosť na realizáciu revitalizačných opatrení v zmysle sanácie pozemkov v areáli lomu Vehec, ktorú spoločnosť vykonala v minulom roku procesom technickej a biologickej rekultivácie územia. Sanácia spočívala v odstránení krovín a pňov, odvoze kameňa a sutín, plošnej úprave územia a svahovaní zárezov, odstránení schátralých stavieb a rekonštrukcii existujúcich budov, hĺbení jám a výsadbe stromov, nákupe zeminy, založení trávniku a spevnení plôch.

Záverečná časť projektu je zameraná na poukázanie možného spôsobu komplexnej rekultivácie predmetného územia po vyťažení zásob, čo v konečnej fáze obnoví ráz krajiny a zahľadí stopy po ukončení ťažby. Práve takýmto prístupom a realizovaním spomínaných opatrení bude možné premieňať negatívny pohľad na banskú činnosť a činnosť vykonávanú banským spôsobom.



Curanta



Torroella de Fluvià and Ventalló, Girona, Spain

★ Restoration Best Practice Award 2010 for a small company



The origin of this project is, in building a new bridge upstream of the start of the Meander and therefore the displacement of the river course that was originally the River (Mediterranean type).

The scheme of exploitation is a gravel pit, and the materials are natural gravels and alluvial sand.

The main features of this project are:

- Draft initial innovative approach of a landscape study associated.
- Exhaustive control of marine salinity effect through piezometric probes and hydrogeological calculations.
- It is an improvement not only for the environment but for the local community through the return of land to the municipalities for public use.

In terms of the exploitation itself, the key points are:

- This is an open pit mining by benching down and extraction under low water level.
- The restoration of areas affected by the extraction is done in stages, which implies an integrated restoration as the front moves begins operating the restoration work.
- The restoration aims to achieve a natural area visited, trying to recreate plant communities of moist environments such as freshwater communities and planting of shrubs, in case they claim to serve as the introduction of animal species that make these communities, their natural habitats.

The restoration is articulated from a central lake with a located phreatic level of groundwater, plant communities creating environment to the Lake and later equipment for public use with the creation of foot itineraries visits sorting, reception and parking and service area.

Recovery of soil is one of the most important operations in our preparatory work for restoration; taking into account the limited power of land cover in the quarry represents a very valuable resource.

This project stems from more than 10 years and therefore concepts such as sustainable development, environmental impact, landscape integration, condition, social environment and of course his return to public use, were virtually unknown.



El origen de este proyecto está, en la construcción de un nuevo puente aguas arriba del inicio del Meandro y por tanto el desplazamiento del curso fluvial que tenía en su origen el río.

El tipo de explotación es una gravera, y el material son gravas y arenas de origen aluvial.

Proyecto innovador con planteamiento inicial de un estudio paisajístico asociado.

Control exhaustivo del efecto de la salinidad marina, por medio de sondas piezométricas y cálculos hidrogeológicos.

Supone una mejora no solo para el medio ambiente, sino para la comunidad local a través del retorno de los terrenos a los Ayuntamientos para uso público.

En términos de explotación los aspectos a destacar son:

Se trata de una explotación a cielo abierto por banqueo descendente y bajo lámina de agua.

La restauración de las zonas afectadas por la extracción se realiza por fases, lo cual implica una restauración integrada, según avanza el frente de explotación se comienza las labores de restauración.

La restauración tiene como objeto conseguir un área de natura visitable, intentando recrear comunidades vegetales de ambientes húmedos como son comunidades dulceacuícola, salceda - albareda, fresneda y plantación de arbustos, en previsión de que sirvan de reclamo para la implantación de especies animales que hacen de estas comunidades sus hábitats naturales.



La restauración se articula a partir de un lago central con la línea de agua situada a nivel freático de aguas subterráneas, creación de las comunidades vegetales mencionadas entorno al lago y posterior equipamiento para el uso público con la creación de itinerarios pedestres de ordenación de las visitas, área de recepción y aparcamientos y servicio.

La recuperación del suelo es una de las operaciones más importantes en nuestras labores preparatorias de restauración, dada la escasa potencia de cobertura de suelo en la gravera supone un recurso muy valioso.

Este proyecto tiene su origen en hace más de 10 años y por tanto conceptos, como desarrollo sostenible, impacto ambiental, integración paisajística, afección al entorno social y por supuesto su retorno a uso público, eran prácticamente desconocidos.



Lafarge



Lafarge Aggregates Ltd, Alrewas, Staffordshire, UK

★ Restoration Best Practice Special Award 2010
for the National Memorial Arboretum



Lafarge has been quarrying Trent Valley sand and gravel in the Alrewas area of Staffordshire for over twenty years. When the first phase of quarrying ceased, the plan was for the land to be returned to agricultural use. However, when Lafarge was approached by Commander David Childs CBE RN (Retd) with a truly inspirational vision, the company was compelled to engage in discussions. The strong desire by both parties to create a site of importance led directly to the creation of the highly acclaimed National Memorial Arboretum.

History of the site

The quarry at Alrewas has been worked progressively, with large areas restored to agricultural grassland. The restoration of the site on which the Arboretum now stands was completed in the mid 1990s.

National Memorial Arboretum vision

Following a visit to Arlington Cemetery and The National Arboretum in Washington DC, David Childs was inspired to create an arboretum in the UK. With the search for an appropriate location underway, an appeal, was launched at the end of 1994 by the then Prime Minister John Major.

Lafarge's involvement

David Childs originally approached Lafarge about releasing land at Croxall, a few miles from Alrewas quarry. However, Lafarge felt that this site was too small and instead recommended land to the east of the Alrewas processing plant. In total, 62 hectares have now been leased to the Arboretum on a peppercorn rent.

As well as providing the land, Lafarge has been instrumental in the creation and rapid growth of the Arboretum, including:

- Providing expertise on land-forming and drainage
- Undertaking setting out of the main avenues
- Providing significant volumes of materials
- Supporting grant funding applications
- Managing Director is longstanding Trustee of the Arboretum
- Senior managers give a great deal of advice, expertise and time, especially through serving on key committees including management, landscaping and communications.

Benefits to the nation and the local community

Over 150 groups, military and other, are represented at the Arboretum. It now employs over 20 people and has over 100 regular volunteers. Entry is completely free visitor numbers have increased significantly since the opening of the Armed Forces Memorial there in late 2007: nearly 300,000 people passed through the gates during 2008. Some 33 per cent of the UK population have now heard of the Arboretum and among those families with a military connection, this figure stands at 51 per cent. This compares with 58 per cent for RAF Museum Cosford, 30 per cent for Conkers and 18 per cent for the national arboretum at Westonbirt.



Wildlife

The continued expansion of this important wildlife haven is being managed in conjunction with Staffordshire Wildlife Trust. The Trust has helped encourage a rich diversity of wildlife throughout a wide variety of habitats including lakes, ponds, reedbeds, wetland and grassland. As well as specimen trees, the Arboretum is planted with all 32 surviving truly native British trees. Visitors are encouraged to record wildlife sightings, which have recently included otters, brown owls, kingfishers, brown hares, skylarks and lapwings.

Interpretation and education

Interpretation boards help tell the story of the site and of its transformation to all visitors. Some 4,000 children also pass through the Lafarge Education Resource Centre, which was established in 2007 with a grant from the Lafarge Aggregates Landfill Communities Fund.







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