



# IQM

INSTITUTE OF QUARRYING MALAYSIA

# Newsletter



FOR MEMBERS CIRCULATION ONLY  
JUL - DEC 2022 KDN NO: PP8487/06/2013(032604)

## MESSAGE FROM THE EDITOR

Good day to all fellow members!

We have ended the first half of 2022 successfully and executed all our planned events over the period.

Thank you for the support from all members who attended our 20th Annual General Meeting 2022 held on Saturday, 25th of June 2022 at Four Points by Sheraton, Puchong. A Technical Talk session was also held during the AGM and was sponsored by Power Ram Sdn Bhd. The event was a success and very informative. The topic covered during the talk was on “Get More from Your Assets with Next Generation Remote Monitoring”.

Over the first half of 2022, IQM had organized a number of QMC courses as below:

- i. Legislation Course for Quarrying was conducted from 19 – 20 January at IQM Puchong
- ii. OSH Course was conducted from 14 – 17 February at IQM Puchong
- iii. Environmental Management Course was conducted from 8 – 10 March at IQM Puchong
- iv. Shot-Firer Course 1/2022 was conducted from 18 – 23 July at IQM Puchong;
- v. Drilling Course was conducted from 17 – 19 May at IQM Puchong;
- vi. Crushing and Screening Course was conducted from 13 – 15 June at IQM Puchong

Good news to all of our valued members. As we move out from the Pandemic stage and going back to normalcy, the IQM Conex 2022 mega event will successfully take off after an absence of 2 years. The event will be held at the Palm Garden Hotel, Putrajaya from 18 – 19 October 2022. With the advancement of technology, the theme for this year’s conference is ‘Era of Digital Technology in Quarrying – The Way Forward’. The event is expected to be officiated by the Director General, Department of Minerals & Geosciences Malaysia, Tuan Hj. Hisamuddin bin Termidi. A total of 14 papers will be presented during the 2 days event by experts from the industry. Full details and registration for the event will be mailed out to the industry in August 2022. DO NOT MISS OUT!!!

IQM will continue to provide reliable and up to date courses for the upcoming year. Members can refer IQM event planner in this publication, and also available for reference in the IQM website.

Once again IQM wish to remind members to renew their membership for year 2022. The CPD requirement is still voluntary and members are highly recommended to submit their CPD records for 2021.

### INTERNATIONAL AFFILIATIONS:



The Institute of Quarrying  
United Kingdom



The Institute of Quarrying  
Australia



The Institute of Quarrying  
Southern Africa



The Institute of Quarrying  
New Zealand



The Institute of Quarrying  
Malaysia

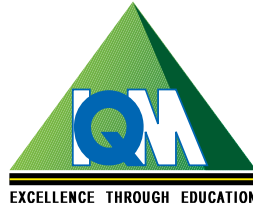


The Institute of Quarrying  
Hong Kong



# 2022 IQM COURSES AND ACTIVITIES

<p><b><u>JANUARY</u></b></p> <p>Membership Renewal</p> <p><i>19 - 20 January</i> Legislation Course for Quarrying (IQM)</p> <p><b>IQM NEWSLETTER</b></p>	<p><b><u>FEBRUARY</u></b></p> <p>CNY Holidays</p> <p><i>14 - 17 February</i> OSH Course (IQM)</p> <p><b>CONEX ANNOUNCEMENT</b></p>	<p><b><u>MARCH</u></b></p> <p><i>8 - 11 March</i> Environmental Management Course (IQM)</p> <p><i>21 - 26 March</i> Training Course for Shot-Firers 1/2022 (IQM)</p>	<p><b><u>APRIL</u></b></p> <p>PUASA MONTH</p> <p><b>QUARRY DIRECTORY 2022</b> (out for sale)</p> <p><i>14 April</i> Shot-Firers Exam (IQM)</p>
<p><b><u>MAY</u></b></p> <p>HARI RAYA HOLIDAY</p> <p><i>17 - 19 May</i> Drilling Course (IQM)</p>	<p><b><u>JUNE</u></b></p> <p><i>13 - 15 June</i> Crushing &amp; Screening Course (IQM)</p> <p><i>25 June</i> 20th AGM / Technical Talk (IQM)</p>	<p><b><u>JULY</u></b></p> <p><i>18 - 23 July</i> Training Course for Shot-Firers 2/2022 (IQM)</p> <p><b>IQM NEWSLETTER</b></p>	<p><b><u>AUGUST</u></b></p> <p><i>8 - 10 August</i> Drilling Course 2/2022 (Kuching)</p> <p><i>18 August</i> Shot-Firers Exam</p> <p><i>23 - 25 August</i> Quarrying Planning &amp; Design (IQM)</p>
<p><b><u>SEPTEMBER</u></b></p> <p><i>19 - 21 September</i> Drone Operation Management &amp; Application (IQM)</p>	<p><b><u>OCTOBER</u></b></p> <p><i>17 - 19 October</i> IQM Conex 2022 (Palm Garden Hotel, IOI Resort)</p> <p><b>DEEPAVALI HOLIDAYS</b></p>	<p><b><u>NOVEMBER</u></b></p> <p>Circulation of QDM 2023 Space Order Form</p> <p><i>1 - 3 November</i> Quarry Economics (IQM)</p> <p><i>14 - 19 November</i> Training Course for Shot-Firers 3/2022 (IQM)</p>	<p><b><u>NOVEMBER</u></b></p> <p><i>24 November</i> Shot-Firers Exam</p> <p><b><u>DECEMBER</u></b></p> <p><i>5 - 7 December</i> Rock Quality Analysis (IQM)</p> <p><b>CHRISTMAS/ NEW YEAR HOLIDAYS</b></p>



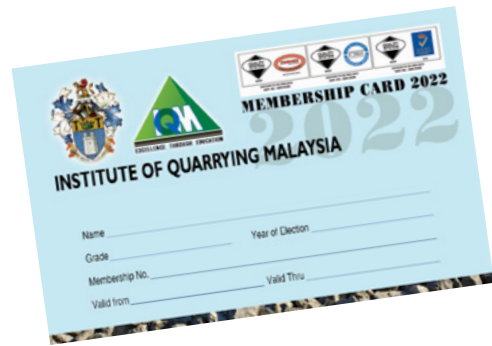
# ANNUAL SUBSCRIPTION FOR 2022

Please be informed that the Annual Subscription (Membership Fee) for 2022 is due for payment. Kindly ensure that your subscription is paid in time to avoid termination of membership.

Kindly send in your payment by crossed cheque / bank draft / money order made in favour of "Institute of Quarrying Malaysia Bhd".

The following subscription rates apply for 2022.

Fellow (FIQ)	:	RM250.00
Member (MIQ)	:	RM200.00
Technical Member (TMIQ)	:	RM190.00
Associate	:	RM180.00
Student	:	RM 25.00



I \_\_\_\_\_ Membership No : \_\_\_\_\_

enclose my crossed cheque/bank draft/money order no. \_\_\_\_\_

for RM \_\_\_\_\_ being Membership Fee for year \_\_\_\_\_ payable to

**INSTITUTE OF QUARRYING MALAYSIA BHD.**

E-mail : \_\_\_\_\_ Handphone No : \_\_\_\_\_

***Payment by cheque can be mailed to IQM or online transaction can be made to :***

***Account No.: 0141 8720 8342 Maybank***

***(Kindly fax / email bank transaction advice)***

## *Membership Payment Scheme*

To encourage members to retain their membership on a long term basis, IQM is offering a new membership scheme : ***Membership fee paid in advance for two (2) years, entitles member to one (1) year free membership.***

This will benefit not only the member but also reduce the administration cost.

IQM hopes more members will accept this beneficial scheme.

# QUARRIES AND QUARRYING

# WORLD CLASS QUARRYING



***These handy reference books are appropriately useful as a guide and catalyst to the government, equipment manufacturers, the industry and the academia for further enhancement of the quarrying industry to World Class status.***

The cost of this publication is RM150 for IQM members and RM200 for non-members. Additional RM10 per book for postage within Peninsular Malaysia.

To purchase a copy, please fill in the order form below and send it to us with your payment.

## ORDER FORM

I..... enclose my Cheque / Bank Draft / Money Order No.....  
for RM..... being purchase of :

**QUARRIES & QUARRYING** (no of copies .....

**WORLD CLASS QUARRYING** (no of copies .....

Payable to "Institute of Quarrying Malaysia Bhd" (Maybank 0141 8720 8342)

Kindly mail book to : \_\_\_\_\_

***For further information kindly contact Madam Nirmala Devi at***

### **INSTITUTE OF QUARRYING MALAYSIA**

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Website: [www.iqm.com.my](http://www.iqm.com.my) E-mail: [nirmala@iqm.com.my](mailto:nirmala@iqm.com.my)

# TO ALL RECIPIENTS OF QMC & QMPC

## CONTINUING PROFESSIONAL DEVELOPMENT

The Institute is here to recognise and promote the professionalism of people working within the quarrying industry. Professionalism is created through a combination of work experience and qualifications. Continuing Professional Development (CPD) is the process of continual improvement and personal development that documents your career.

We believe that undertaking CPD is a way of ensuring that the qualifications that you have earned are kept up to date.

With effect from 2020, all QMC & QMPC holders of the Institute have a mandatory 20 hours of CPD required, to maintain your certification and should be an active member of IQM. Attached is the CPD Record Form with examples of activities that qualify for CPD hours.

Members will be required to complete the Form and submit with relevant proof of attendance. If you are not a member of IQM yet, you can download the membership form from our website [www.iqm.com.my](http://www.iqm.com.my), complete the form and submit together with payment.

For further enquires on the above, kindly contact **Madam Nirmala Devi** at :

**Tel : 03-8062 4194 / 5 Fax : 03-8061 8258 email : [nirmala@iqm.com.my](mailto:nirmala@iqm.com.my)**

## IQM COUNCIL 2022/2023

<b>Mr Chen Nyet Lin</b>	<b>President</b>
<b>Hj Nurul Huda bin Romli</b>	<b>Deputy President</b>
<b>En Mohammad Faiz Bin Zainuddin</b>	<b>Hon. Secretary</b>
<b>Ir Norhamidi Md Din</b>	<b>Hon. Treasurer</b>
<b>Mr Pang Kang Ngen</b>	<b>Council Member</b>
<b>Mr Lee Wen Han, Vincent</b>	<b>Council Member</b>
<b>Ir Tang @ Tan Hai Hong</b>	<b>Council Member</b>
<b>Mr Baljeet Singh Kernail Singh</b>	<b>Council Member</b>
<b>Ir Toh Kar Wai</b>	<b>Council Member</b>

# SUMMARY OF CONTINUING PROFESSIONAL DEVELOPMENT (CPD) RECORD

Name : .....

Membership No: ..... Year: .....

**CPD Requirements: 20 hours per year**

	Category	Date	CPD Activity / Topic CPD Provider	Allowable hours	Total hours
1	Related Training Activities			No Limit	
2	Informal Learning • On job learning			Maximum 10 hours per year	
3	Conference and Technical Talk			No Limit	
4	Presentation and Papers			Maximum 15 hours per year	
5	Services in Related Activities			Maximum 15 hours per year	
6	Informal Learning • Private study			Maximum 5 hours per year	
			<b>TOTAL</b>		

Sign: .....

Date: .....



# **IQM CONEX 2022**

## **EDTQ 2022**

***ERA OF DIGITAL TECHNOLOGY IN  
QUARRYING - THE WAY FORWARD***

CPD Hours: 15

**18 - 19 OCTOBER 2022**

**Palm Garden Hotel**

**Adenium & Begonia Hall**

**IOI Resort City,**

**62502 Putrajaya, Malaysia**

Organised By



Supported By



DEPARTMENT OF MINERAL &  
GEOSCIENCE MALAYSIA



# EDTQ 2022

## ERA OF DIGITAL TECHNOLOGY IN QUARRYING - THE WAY FORWARD

Creating a completely digital quarry is fast becoming a reality and this plays a pivotal role in the development of this next generation of technology and is slowly being embraced now by the quarry operators large and small. Digitalization in quarrying refers to the use of computerized or digital devices or systems and digitized data that are to reduce cost, improve business productivity and transform quarry practices. The quarrying sector needs to acquire the latest knowledge on state-of-the-art technology to stay competitive whilst maintaining the growth momentum of this important industrial sector for a sustainable tomorrow.

The theme for this year's relevant high-impact quarrying conference and exhibition is 'ERA OF DIGITAL TECHNOLOGY IN QUARRYING – THE WAY FORWARD (EDTG 2022)'. Based on the outstanding track record and high response of the private and public sectors for past IQM Conferences, this year's **EDTQ 2022 Quarrying Conference and Exhibition** is definitely going to advance the quarrying industry to another level of world-class excellence through digital technology. Economic growth policies and innovative technology in the quarrying sector worldwide encompasses all the latest economic growth models, leading edge technology, industry guidelines, unique work practices and systems to propel this invigorating industrial sector towards greater global economic growth.

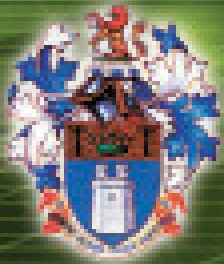
With so many digital technology foresight topics for presentation at **EDTQ 2022**, this high-status event is definitely the de-facto quarrying conference for all directly and indirectly contributing towards the successful progress of this prestigious industrial sector. The objective of **EDTQ 2022** is to allow the regional governments and various international industrial captains a high-profile platform to present various concepts and success stories to enhance the quarrying industry; complemented by also the avenue for networking at the local, regional and international level - a 'win-win' scenario for all in the public and private sector.

*For more information and registration, please contact the IQM Secretariat:*

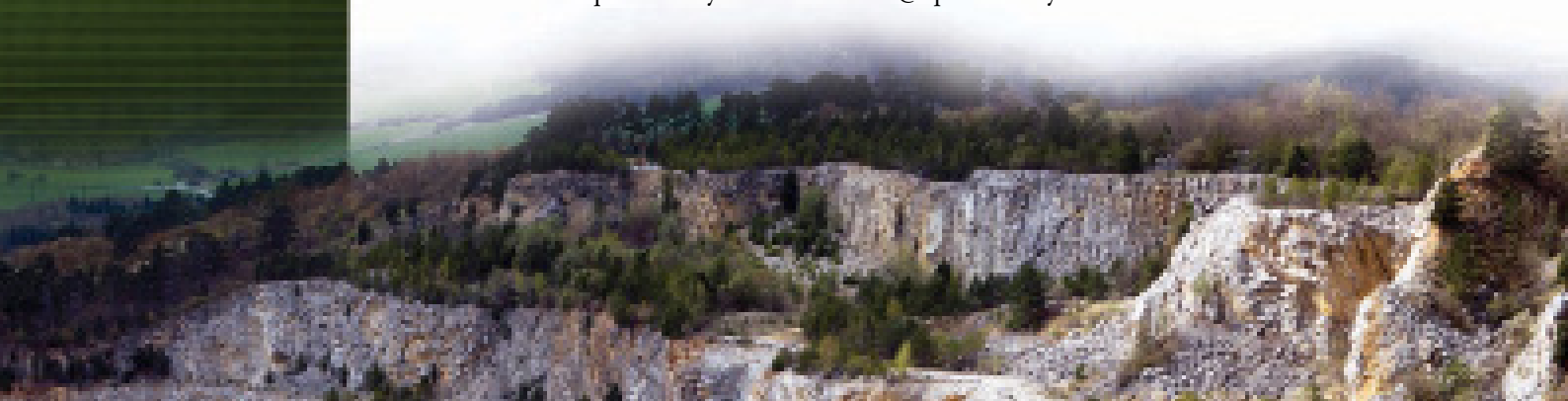
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**IQM CONEX 2022**







Metso:Outotec

**INSTITUTE OF QUARRYING MALAYSIA'S  
20TH ANNUAL GENERAL MEETING  
&  
SPONSORED TECHNICAL TALK BY  
POWER RAM SDN BHD / METSO : OUTOTEC**

**GET MORE FROM YOUR ASSETS  
WITH NEXT GENERATION REMOTE MONITORING**

**PRESENTED BY MR CAMPBELL JOHNSTON,  
CAPITAL DISTRIBUTION MANAGER, METSO:OUTOTEC**

**25TH JUNE 2022**



# The Journey of FYS Quarry from Complaint to Champion

**23 June 2022, FYS quarry received the no. 7th award from Jabatan Mineral dan Geosains Malaysia (JMG)**

5 ☆ ☆ ☆ ☆ ☆ Sustainable Development Indicator (SDI) in Mining & Quarrying industries 2021. Best practices – ESP model was implemented a decade ago. It is a real story behind the journey of FYS quarry from complaint to champion that may inspire the way forward for the professionalism of quarryman and rebranding the quarry industry nationwide in Malaysia.

Since 1960's FYS quarry has been operating in remote area at Berapit near Bukit Mertajam, Pulau Pinang. FYS origin from the founder, the late Mr Foo Yen Soo. As the country progressed, development of housing estates were encroached close to FYS quarry boundary. In 2012, FYS quarry received complaints from local community who just moved into the housing project situated less than 500 meters distance from quarry boundary. The complaints were lodged by over 50 units houses' residents petition to Seberang Perai City Council (MBSB).

Despite the fact that FYS quarry exists long before the housing development, the quarry still facing complaints due to environmental and safety issues during quarry operation such as dusty, noisy, vibration etc. It was the tough challenge to FYS after operating half of the century with the possibility of closure if the crisis was not well managed. Fortunately, FYS innovatively breakthrough the traditional way of quarrying by integrating "Manufacturing System" and "Tourism Concept" into current quarrying practices with the application of green technologies (environmentally friendly best practices) to minimize the environmental and safety impact to local community as well as promoting Quarry Tourism to co-existence with the local community by inventing ESP model that breaks into 3 levels as below:

1st level of ESP focus on company

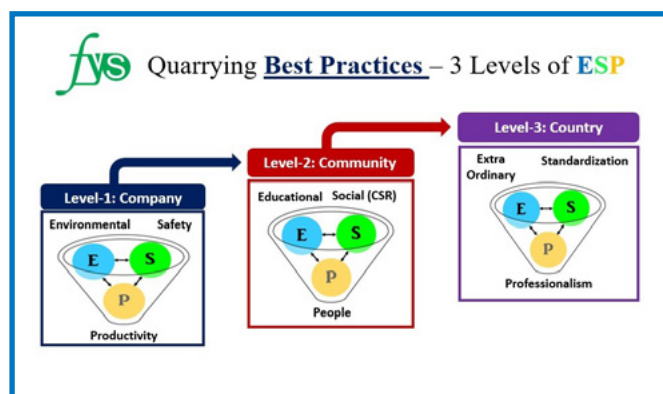
E - Environmental                      S - Safety                                      P - Productivity

2nd level of ESP focus on community

E - Educational                      S - Social (CSR)                                      P - People

3rd level of ESP focus on country

E - Extraordinary                      S - Standardization                                      P-Professionalism



By adopting best practices - ESP model and continuous improvement year after year, FYS has successfully minimize the environmental degradation and safety issues and become exemplary model for the quarry industry in the region and received 3 national and 4 international awards / recognitions as below;

**i) Three National Awards / Recognitions**

2022: Jabatan Mineral dan Geosains Malaysia (JMG) 5 STARS Sustainable Development Indicator (SDI) in Mining & Quarrying Industries 2021

2018: The Malaysia Book of Records - First Quarry with Innovative Operating System

2017: National Occupational Safety & Health (OSH) Excellence Award in Mining & Quarrying from Department of Safety and Health (DOSH) Malaysia

**ii) Four International Awards / Recognitions**

2021: Green Award – Platinum Award Best Community Practices

2019: JCIM Sustainable Development Award – Finalist Goal 9 Industry, Innovation & Infrastructure

2018: The 2nd ASEAN-OSHNET Best Practices Award (small and medium enterprises) in Cambodia

2017: Award of Excellence from Institute of Quarrying Malaysia



Quarry industry is essential to national development. Housing development, community infrastructure, highway, airport, railway, school, hospital are human necessity, hence, quarrying – the path to modern civilization.

FYS initiate quarrying best practices – ESP is to provide a platform to let public better understanding of Malaysia quarry industry and upgrading quarryman career professionally. Tripartite collaboration with Institute of Quarrying Malaysia (IQM), Jabatan Mineral and Geosains Malaysia (JMG), Universiti Sains Malaysia (USM), Malaysia Quarries Association (MQA), Penang Quarries Association (PQA) and other agencies to transform Malaysia quarries industry where quarryman and quarry woman contribution and challenges are highly deserved and valued by both local and global in the near future.

**Zeems Foo Kheng Sin**  
**Chairman of FYS Marketing Sdn. Bhd.**



Aerial view of The Cullimore Group's Roundhouse Farm site

# Above and Beyond...

Strategies to ensure quarry restoration schemes meet the UK's biodiversity requirements and future-proof extraction business models in a finite industry

By Moreton Cullimore, managing director of The Cullimore Group

As those of us who have been around in this industry understand, quarry management is heavily regulated and that includes strict guidelines especially around aspects such as the restoration process. The truth of the matter is that the extraction of minerals from a quarry is only ever a temporary land use. Therefore, it is vital that operators have a vision of what the site will look like in the future beyond the extraction phase.

The restoration phase is a key part of the quarrying process, requiring decisions to be made and agreed upon during the quarry application stage. As operators, we need to be able to look far into the future in order to decide what path the land/property is to take, long before any machinery is brought to the site. In many cases, restoration involves returning the land to its original use. However, this is not always feasible or desirable.

Through creative restoration planning, mineral extraction offers the opportunity to not only improve the environment in and around quarry sites, but also to potentially create new land uses. This notion of potential use points the way to strategies for quarry operators large and small to future-proof their business models. That is not just looking at the financial returns, but, importantly, the stewardship of land, habitat and communities too. Nowadays, any business that consigns CSR (corporate social responsibility) to the 'nice to have' file is heading for a fall, because buy-in of stakeholders can make or break a land deal, from irate neighbours to unsupportive councils to name just a few.

## The restoration process

The type of restoration required will depend upon a variety of factors including what the desired land use or after-use is, as well as

the type of mineral that has been quarried. For example, the site could be restored for a variety of purposes, including:

- An agricultural or wildlife setting
- Habitat or wetland creation
- Social amenities
- Combined wildlife and social amenities
- Housing
- Leisure and recreation
- Flood storage
- Business or commercial properties.

As a part of this restoration, The Cullimore Group, who are based in Gloucestershire but with a footprint across the Cotswolds and West of England, not only understand the process, but also consistently go above and beyond the stated requirements by restoring every piece of land to an even better state. This falls in line with the increasingly stringent requirements around sites, whereby quarry management companies are being



Earthmoving operations at a Cullimore site

encouraged to be more sustainable both during quarrying and after quarrying has finished. In addition, organizations are expected to restore or improve the site after they have extracted the rocks or minerals, not only to the benefit of future users, but also for the surrounding communities. To ensure this happens, measures are consistently added to and implemented to allow this to take place in a more sustainable way.

Restoration project at a Cullimore site



Overall, the restoration of any site is a complicated process with a multitude of hoops to jump through, and these are increasing year on year. Each site requires a tailor-made plan of its own completed at the beginning of the process, often nothing like anything completed previously. Not only this, the aftercare plans are strictly regulated, meaning organizations have to meet stringent requirements. This necessitates a deep understanding of every piece of legislation, alongside excellent communication links with communities and local stakeholders, in order to come together with an end product that fits every need. This is why organizations such as The Cullimore Group always go above and beyond the framework through listening to the needs of the local communities, in addition to the other concerned groups, in building the plan and framework.

## Habitat and biodiversity creation

In recent years, biodiversity has become a heavily used word when discussing the restoration phase of a quarry. Quarries can be important sites for biodiversity because they can be created to support a diverse mix of habitats, wetlands and substrates that do not exist elsewhere. Exposed rock faces, nutrient-poor soils, a diverse range of available niches, and closeness to large areas of semi-natural habitat also contribute to the potential wildlife value of quarries.

In this day and age, an excellent knowledge ►



The end result of effective restoration

of what is needed to create a biodiverse site is a must. This does not just mean understanding what the end result needs to be; it also means understanding what works well together and what it will take to make the site a long-term success. For example, adding shrubs to increase certain plant species or introducing particular plants, grasses, hedgerows and seeds to help particular animal or insect species to survive.

Taking this one step further, one of the main issues surrounding biodiversity within the restoration phase is to ensure that the species specified are sourced from appropriate locations, and that natural regeneration is encouraged wherever practicable. If seed or plants are required, then sufficient time and funding should be allocated for this approach. It is advised that collections should take place over a period of several years and perhaps be used to establish stock cultivation. The same applies if grassland, reed beds or wetlands are being introduced. Once again, all take time to come to fruition, not only due to the length of time they need to grow and cultivate, but also because of the building-up phase.

The Cullimore Group has considerable experience in the creation of reed beds. The company's Roundhouse Farm site, for example, is in the latter stages of its restoration from sand and gravel extraction to predominantly reed bed, within which the new habitats and species are doing particularly well.

An extra consideration for quarrying companies is the consistent call for a trade-off between biodiversity needs and other community requirements, such as wetlands and reed beds as well as housing, community parks and centres, and leisure facilities. Bringing species to the UK that no longer exist or are rare can be done, but needs careful

consideration as to how they will survive in the long term. Continuing the theme of land use, with the amount of new homes being built year on year (139,030 were built in the year to June 2016, with a larger number expected in 2017<sup>1</sup>), woodlands and Green Belt areas are under growing pressure for development. In fact, there has become a worrying trend of increased proposals for house building on the Green Belt, rising from 81,000 new proposed houses in 2012 to 275,000 in 2016 to a huge 360,000 in 2017<sup>2</sup>. The use quarrying sites for housing could be one way to protect essential Green Belt land and provide options for local authorities in their never-ending quest to find land.

Leisure and recreational facilities are another option. For example, The Cullimore Group are currently going through the application process ahead of developing a new cable ski for one of the UK's fastest-growing sports – wakeboarding. The plan is to create the UK's premier facility with the expectation that it will host both the UK and World Championships in the future. Alongside this, the Group will also plant extensive amounts of hedges, trees, reed beds and shallows to balance nature, biodiversity and recreation throughout the site.

As will be very clear by now, to implement any restoration approach successfully, careful planning, excellent co-ordination between each stakeholder and sticking to the agreed timelines are all essential ingredients. As many readers will understand, outline proposals for the restoration phase are usually developed many years before the quarrying is started. At this stage, it is essential that the 'team' of required partners and contractors come together to agree who needs to do what and when. For example, natural regeneration can

work very well on gravel workings and where open water will be left, but is not so good if the ground is likely to remain bare or only sparsely vegetated. Alongside this, natural regeneration can be a very long process, which for many quarrying companies will be unacceptable. For a wetland- or grassland-based restoration, the objectives must be decided at an early stage, as these will dictate the species, methods and resources to be used. In addition, if a seedbed is required, it should be prepared in the autumn to allow the seeds to germinate. For an activity park or other community-based project, early decisions are needed so that the correct planning permissions can be sought ahead of the build itself. All of this takes time, something many people do not like, and in some cases, realize.

## Quarry restoration valuable to communities

Despite the length of time the restoration phase takes, the end results benefit many stakeholders, including local councils, the communities that live close by, those that use the site and many more. In addition, quarry restoration can make a major contribution to achieving local council biodiversity targets. The truth is that after a quarry has been worked out, its next purpose in life can have a huge impact on the UK's biodiversity needs. It is important that we recognize this, but at the same time do not restrict or slow down the evolution of the site. **QM**

## References

1. [www.gov.uk/government/news/increase-in-number-of-new-homes-built-and-started](http://www.gov.uk/government/news/increase-in-number-of-new-homes-built-and-started)
2. [www.cpre.org.uk/what-we-do/housing-and-planning/green-belts/the-issues](http://www.cpre.org.uk/what-we-do/housing-and-planning/green-belts/the-issues)