

## LEGISLATIVE CHANGES AFFECTING WATER HANDLING IN THE MINERALS INDUSTRY

### **D. WARDROP**

*Wardrop Minerals Management Ltd, 21 High Street, Ashwell, Baldock, Hertfordshire SG7 5NL.*

*Previously Lafarge Aggregates Ltd.*

*Chairman, Mineral Products Association Water Group.*

### **ABSTRACT**

Use of water in the minerals industry is governed by an extensive library of legislation and the last decade has seen significant actual and proposed changes to this. The Mineral Products Association devotes time to consultation with regulators on a wide range of such matters with special attention currently to the proposed removal of dewatering exemption for mining and quarrying. Transfer Licences will be brought into being to regulate this activity under guidance that is the subject of dialogue with the Environment Agency. Other matters are briefly covered here, including threats such as the potential revocation of existing abstraction licences that are deemed to cause serious damage to the environment, together with aspects of future abstraction reform. Suggestions are made as to actions that the minerals industry and the regulators could take to enhance the stewardship of water whilst assisting the implementation of effective, responsive, future regulation. The key messages consistently put forward by the nationally vital mineral extraction industry are summarised.

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e-mail: [wmm1@btconnect.com](mailto:wmm1@btconnect.com)*

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### **INTRODUCTION**

This paper will briefly review the journey towards Transfer Licensing, touch on other water matters such as Serious Damage, some aspects of other emerging legislation, and the Mineral Products Association (MPA) work being undertaken in dialogue with the Environment Agency and Government. Finally there are some recommendations of actions for the various parties.

The Mineral Products Association represents over 90% of the UK dry minerals industry and includes aggregates, cement, silica sand, clays, precast products, the marine aggregates industry, steel slag, lime, dimension stone and secondary aggregates.

An Environment and Mineral Planning (E&MP) Committee deals with 'licence to operate' matters in the round and delegates certain areas of activity to working groups. One such is the Water Working Group, chaired by the author, peopled by representatives from the various mineral sectors and increasingly becoming involved with sustainability matters to which water is key.

The group endeavours to inform the E&MP Committee and MPA members about forthcoming legislative issues, and makes representations to Government, the Environment Agency, and other regulators on behalf of the minerals industry.

### **CONTEXT**

Over the past few years (and for a number of years yet to come), the UK has been in the midst of several legislative changes centred around resource efficiency and environmental protection. The principle legislative instruments that govern industry practice in water handling comprise:

- Water Act 2003
- Natural Environment White Paper 2011
- Water Bill 2012

In simple terms the history of the UK legislation currently under debate or in the process of being implemented is as follows:

- Water Resources Act 1963
- Water Resources Act 1991
- Drinking Water Directive (98/83/EC)
- EU Water Framework Directive (2000/60/EC)
- Water Act 2003
- Groundwater Directive (2006/118/EC)
- Environmental Quality Standards Directive (for Surface Waters) (2008/105/EC)

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The Water Act 2003 is the UK mechanism for implementing the EU Water Framework Directive, and is in fact mostly in place with the notable exception of Transfer Licences. Transfer Licences are the UK Government's proposed mechanism for dealing with the dewatering of mineral excavations and the transfer of that water away from its original source. However, dealing with water in this country is also controlled by or linked to many other pieces of European and UK legislation including those set out in Lists 1, 2 and 3.

##### List 1. European Directives

- EC Directive on the conservation of wild birds (79/409/EEC) (the Birds Directive)
- EC Directive on the Protection of Groundwater Against Pollution Caused by Certain Dangerous Substances (80/68/EEC) (the Groundwater Directive)
- EC Directive on the Assessment and Effects of Certain Plans and Private Projects on the Environment (85/337/EEC) (the EIA Directive), as amended by Directive 97/11/EC.
- EC Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) (the Habitats Directive)
- EC Directive on Integrated Pollution Prevention and Control (96/61/EC)
- EC Directive on the establishing a framework for Community action in the field of water policy (2000/60/EC) (the Water Framework Directive)
- EC Directive on the Assessment of the Effects of Certain Plans and Programmes on the Environment' (2001/42/EC) (the Strategic Environmental Assessment Directive)
- EC Directive on the Management of Waste from the Extractive Industries (2006/21/EC) (the Mining Waste Directive)

##### List 2. National Primary Legislation

- Mines and Quarries Act 1954
- Water Resources Act 1963
- Control of Pollution Act 1974
- Wildlife and Countryside Act 1981
- Environmental Protection Act 1981
- Town and Country Planning Act 1990
- Planning and Compensation Act 1991
- Water Resources Act 1991
- Environment Act 1995
- Pollution Prevention and Control Act 1999
- Countryside and Rights of Way Act 2000
- Pollution Prevention and Control Act 2000
- Water Act 2003
- Planning and Compulsory Purchase Act 2004

##### List 3. Secondary Legislation

- The Conservation (Natural Habitats etc) Regulations 1994
- Waste Management Licensing Regulations 1994
- Groundwater Regulations 1998
- Quarries Regulations 1999

- Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulation 1999
- Town and Country Planning (Environment Impact Assessment) (England and Wales) (Amendment) Regulation 2000
- Pollution (Prevention and Control (England and Wales) Regulations 2000 (the PPC Regulations)
- Landfill (England & Wales) Regulations 2002
- The Water Environment (Water Framework Directive) (England & Wales) Regulation 2003
- The Environmental Assessment of Plans and Programmes Regulations 2004

## TRANSFER LICENSING

Several key issues are attached to the matter of Transfer Licensing, the more notable of which are the removal of historic exemptions, the Transitional Arrangements, and when the system will actually be implemented.

### *Removal of historic exemptions*

Dewatering of excavations "for the prevention of interference with mining or quarrying" date back to the Industrial Revolution. Environmental considerations, to the extent that they were recognised or recognised as being important, took a back seat to the march of technological progress.

Of course, the importance of minerals to modern society is as great, if not greater than in the past, but must be balanced with all the environmental considerations of which everyone is now aware.

Some exemptions will still apply and those relevant to the minerals and construction industry include:

- Any abstraction of less than 20m<sup>3</sup> a day.
- Abstractions to prevent flooding from surface waters.
- Abstraction from discrete waters (inland waters that are not connected to any other inland waters).
- Drainage or removal of water in an emergency to prevent immediate danger to mining, quarrying, engineering, building or other operations, provided notice is given within 5 days to the Environment Agency.

Source: Environment Agency

In broad terms, the legal changes:

- Remove exemptions for dewatering, navigation and irrigation other than spray irrigation purposes and Internal Drainage Board (IDB) transfers.
- Repeal exempt area status including parts of certain rivers in England that border Scotland.
- Remove Crown exemption (in parallel with Water Act 2003 changes).
- Remove the exemption for visiting forces.
- Introduce some new exemptions for water meadows, some harbour and port abstractions including dredging operations, impounding works by IDBs and a replacement exemption for certain saline abstractions in the Cheshire basin.

Source: Environment Agency

### *Transitional arrangements*

Transitional arrangements are promised when the Water Act 2003 is fully implemented, such that the industry and regulators have time to put in place the formal requirements; and such that the water handling practices on existing sites are protected and, hopefully, licensed through a 'light touch' process. It is expected that there will be a window of 2 years for the industry to lodge applications followed by a 5 year period for the Environment Agency to determine those applications.

Transfer Licence applications will need to be accompanied by a Hydrogeological Impact Assessment (HIA) administered in line with a guidance document 'Hydrogeological impact appraisal for dewatering abstractions' (Environment Agency, 2007). There are 4 tiers of assessment ranging from a light touch common sense appraisal to, potentially, a highly detailed expensive modelling-based study. The Environment Agency will decide which tier to ask for, and one of the threats to industry is the degree of experienced professional judgement that the Agency will be able to apply to this decision. The author broadly adheres to the principle of 'effort proportional to the risk' but there is a danger that an overly-conservative 'precautionary' approach gets adopted by Agency officers with cost, delay and uncertainty attaching for the industry.

### *Future arrangements*

After the transitional period has expired there are major questions in the minds of the industry including how the numerical status of CAMS (Catchment Abstraction Management Strategy) will be dealt with, and how time limiting might be applied to Transfer Licences. At present, if a water catchment is deemed to be over-abstracted or over-licensed, or both, there is held to be no water available and a normal (or 'full') Abstraction Licence application will not be entertained. If such a blunt policy instrument were to be applied to future Transfer Licence applications – on the premise that they are abstraction licences of a sort – the consequences could be very serious indeed. The vast majority of dewatering pumping activities are in effect a zero sum abstraction and assurances are sought from the Environment Agency that this will be recognised.

All modern, water full abstraction licences are time limited.

## **LEGAL DEFINITIONS**

It may be useful to remind ourselves of the types of licence that will be applicable once the Water Act 2003 is fully implemented. There is some confusion in parts of the industry due to the shorthand terminology applied in conversation. In future all water pumped from the ground will be subject to an abstraction licence of which there will be two types:

### *1. Full Licence*

A licence to abstract water from one source of supply over a period of twenty-eight days or more for any purpose.

### *2. Transfer Licence*

A licence to abstract water from one source of supply over a period of twenty-eight days or more for the purpose of;

- (i) transferring water to another source of supply;
- (ii) transferring water to the same source of supply, but at another point, in the course of dewatering activities in connection with mining, quarrying, engineering, building or other operations (whether underground or on the surface),
- (iii) in either case without intervening use.

Source: Environment Agency

There are some legal constraints within which the minerals industry and the Environment Agency have to function, including:

- One application is required for each source of supply.
- A separate licence is required for each source of supply.

Source: Environment Agency

It therefore becomes very important to be able to define what is meant by 'source of supply'.

## **GUIDANCE SCENARIOS**

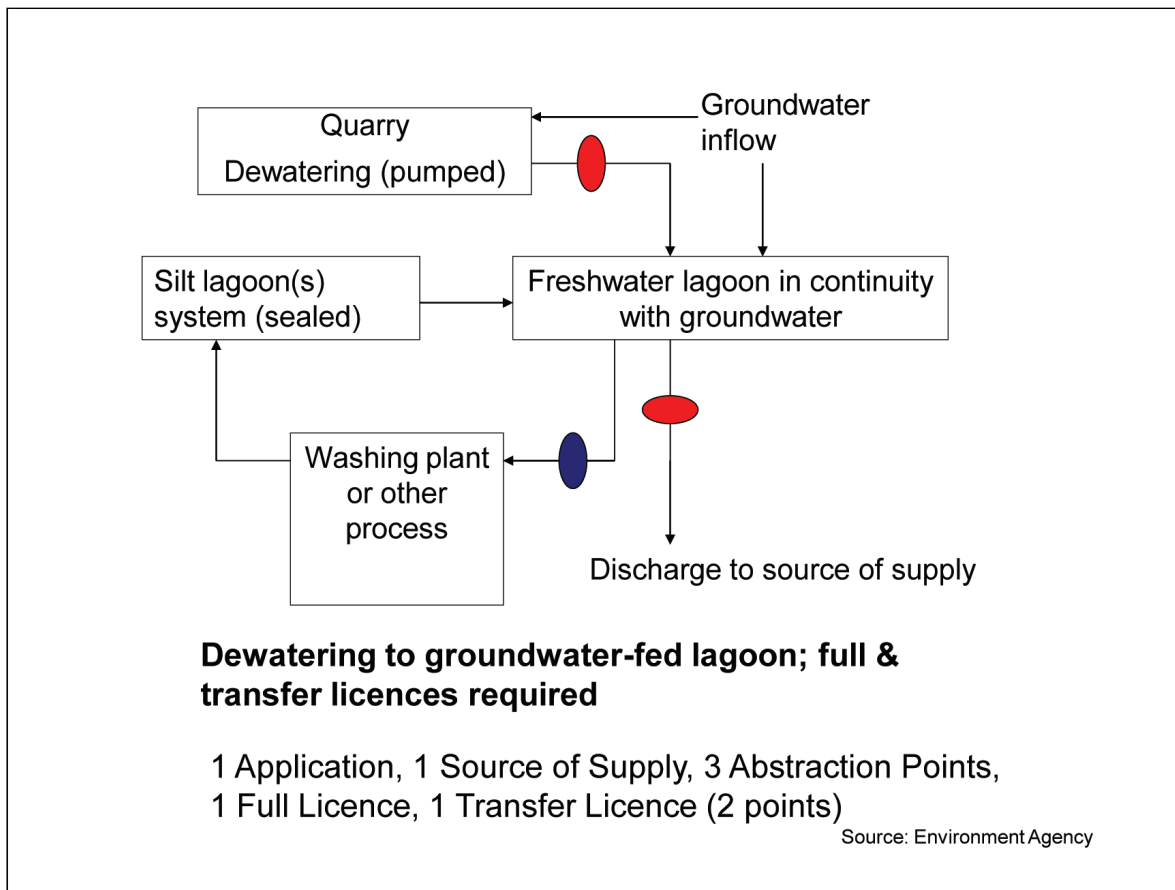
The Environment Agency has provided to the industry some draft guidance that is under consideration for use by officers. Whilst one of the aims of the guidance has to be the application of the law there is a shared ambition for guidance to be workable and effective, practicable, and not too immersed in technicality.

A document has been modified by input from the Mineral Products Association and Confederation of British Industry (CBI) Minerals Group, specialist mineral sectors, and others, and at the time of writing it is hoped that the above ambition may become a reality when the guidance is published.

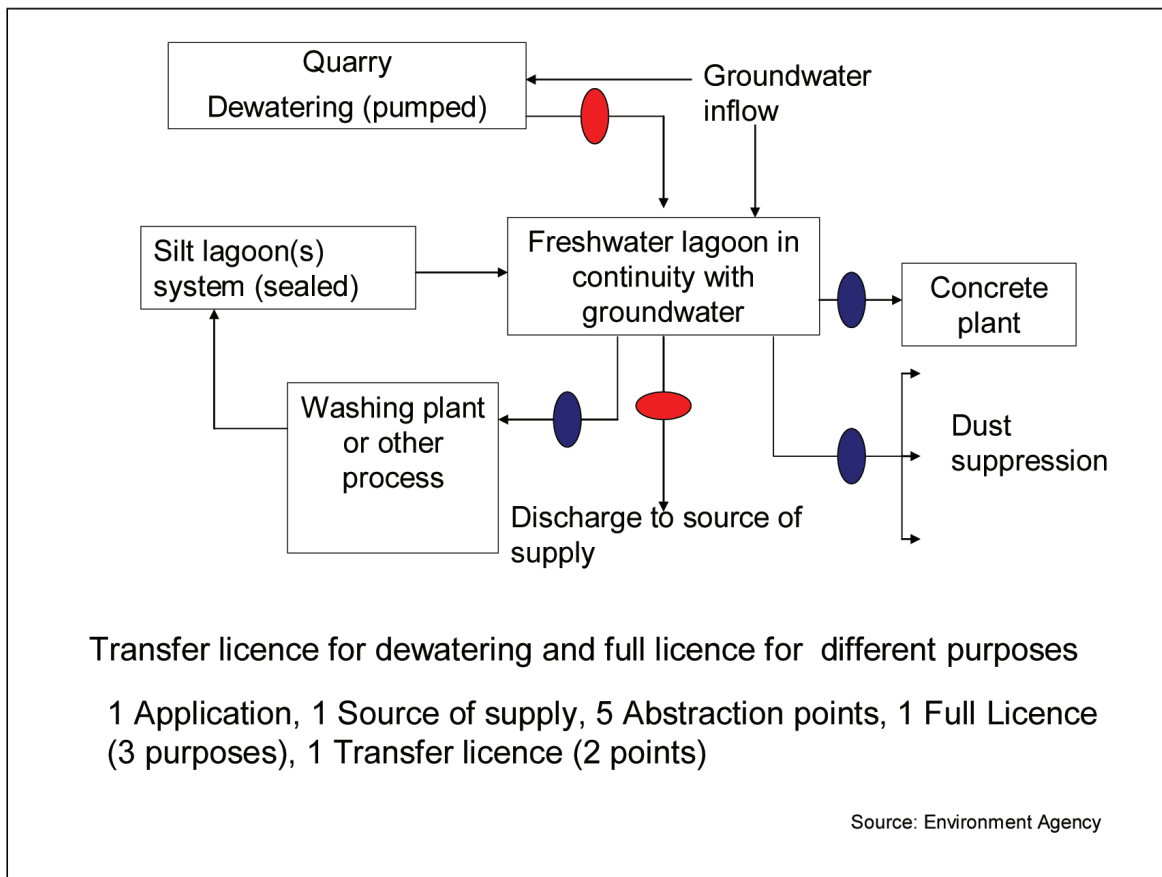
The style is primarily graphical and aims to reflect typical circumstances of water management circuitry within the minerals industry. Two examples, given in Figures 1 and 2 portray typical circumstances in many aggregate quarries, showing water flow from a dewatered excavation and subsequent distribution or use within the operation. Red ellipses represent a transfer of water while blue ellipses represent a use of water requiring an abstraction licence.

On a pedantic interpretation of the Water Act 2003 a typical quarrying operation below the water table could require say 4 or 5 Transfer Licences in its water circuit. Clearly this would be nonsense since the quarry would need all or none; a quarry could not operate with 3 out of 4 Licences. The industry view is that most sites would require only one Transfer Licence to allow water from one or more points of pumping to be transferred to a receiving water at one or more discharge points. The internal water infrastructure is not of great consequence to the licensing logic except where water is drawn off for a consumptive use when of course a full (abstraction) licence is required.

At the time of the EIG 2012 conference it was anticipated that the Transfer Licensing elements of the 2003 Water Act would be brought into force in late 2013.



**Figure 1.** A quarry dewatered into a lagoon from which some water is taken for mineral washing purposes.



**Figure 2.** A quarry dewatered into a lagoon from which some water is taken for mineral washing, concrete production, and dust suppression uses.

## OTHER LEGISLATION

Various other water matters are subject of active consultation and debate, some are new and some have been under debate for several years.

### *The Water Bill 2012*

A draft Water Bill was published in 2012 and reflects the Government taking a long term view, that is over several decades, of future water related legislation driven by the identified challenges of:

- Future water scarcity; exacerbated by climate change and a rising population putting pressure on water resources.
- Climate change; particularly in respect of climatic extremes of drought and flood that will create difficulties in year round availability of water.
- A need for responsive and 'fit for purpose' regulation; the perception being that current legislation is somewhat clumsy with high regulatory costs, perverse incentives, and in built barriers to trading of water or rights to water.

In all of these areas the Department for Environment Food and Rural Affairs (DEFRA) is organising research workshops in which water-using industries, water supply companies, regulators, and Government can openly discuss the requirements and pressures on each of the parties. Already some good ideas have been mooted and the author hopes that sufficient of these will find their way into a future water bill. An example is 'hands off flow' conditions. Currently, an abstraction licence in a sensitive area may carry a condition linked to flow in a particular watercourse – if flow drops below a specified rate then abstraction from that licence must cease immediately, which is financially damaging to a quarry and is often simply impractical. One suggestion is for hands off flow conditions that apply progressively with some notice in timing and stepped reductions in abstraction rates.

The context in which the minerals industry is viewed can be illustrated by Table 1, sourced from DEFRA, where current full water abstraction licenses are categorised by volume, industry sector, and number of extant licences. The minerals sector comes under "other industry" and thus fifth on the list. Although there are benefits to society from all the sectors shown, this analysis does not reflect that it is industry which creates a significant proportion of the country's wealth, and that any priority should recognise this. Equally if dewatering pumped volumes were to be included then mineral extraction would be more prominent which could be useful in some respects but not in others.

## SERIOUS DAMAGE

Water abstraction licences have long been liable to revocation by the Environment Agency, without financial compensation, if 'serious damage' is being caused to the environment. A consultation was undertaken on this early in 2012. There are signs that greater attention is being paid to this option in recent times through the 'Restoring Sustainable Abstraction' programme and the profile of over-abstracted and/or over-licensed catchments in the debate about future water availability.

Whilst the words are easy to write there are some weighty questions to be asked about the application of this power.

What is Serious Damage? The environment generally, and individual habitats within it are in a constant state of change through natural circumstances, and identifying whether changes are related to natural circumstances or man's activity is no easy task in most cases.

Who makes that judgement? At least two judgements need to be made; the first is whether damage is being caused in the first place. Short of a clear and universal deterioration in all species in a habitat, is something like a shift in the balance of floral or faunal species or maybe a change in the dominant species in the ensemble damage in the first place, and how is it defined as serious?

	Licences in force		Licensed abstraction		Actual abstraction	
	Number	%	ML / day	%	ML / day	%
Public water supply	1,672	8%	26,580	21%	16,241	30%
Spray irrigation	10,529	49%	934	0.7%	156	0.3%
Agriculture (excl. spray irrigation)	3,035	14%	240	0.2%	38	0.1%
Electricity supply industry	398	2%	81,875	63%	30,588	56%
Other industry	4,041	19%	14,000	11%	4,954	9%
Fish farming, cress growing, amenity ponds	706	3%	5,291	4%	2,850	5%
Private water supply	1,048	5%	104	0.1%	24	0.04%
Other	201	1%	442	0.3%	74	0.1%
<b>Total</b>	<b>21,630</b>	<b>100%</b>	<b>129,466</b>	<b>100%</b>	<b>54,925</b>	<b>100%</b>

**Table 1.** A summary of full abstraction licences in place 2008/2009. Source: DEFRA.

The second judgement is whether a local water abstraction activity is the causative factor. In the author's experience it is often notoriously difficult to link cause and effect in hydrogeological matters since many other factors are usually in play. There is also potentially a 'hierarchy of culpability'. On at least two instances in the author's career were cases of derogation of water well supplies due to lowered groundwater levels. Investigations revealed that dewatering the local gravel pit might, only might, have contributed to lowering of the water level the last few critical centimetres that caused pump intakes to draw air. At least 3 or 4 other pre-existing influences were at play in each case, cumulatively causing around 2 metres of drawdown that went unnoticed in closed wells while the pumps functioned.

How should culpability be apportioned to multiple influences?

When the effect of revoking an abstraction licence could be the closure of a significant business operation, with the economic and jobs ramifications of that, the author's contention is that the judgement can only be made by a very senior and experienced professional. One could propose that an area or regional Environment Agency officer is unlikely to possess the weight or experience to meet the criteria.

What burden of proof? In the context of the comments above would it be reasonable for a business to be shut down on the opinion, even a professionally weighty opinion, of a single individual? One could propose that in a world where breaches of environmental permits become criminal liabilities then the burden of proof for 'Serious Damage' should be 'beyond reasonable doubt'.

## MPA ACTIVITY

The MPA Water Group is currently engaged in work on the following matters.

Consultation on transitional regulations for the Water Act 2003 – reactions are still awaited to the original (2009) consultation responses and it is expected that DEFRA will engage in another round in order to bring matters up to date.

The group is in regular dialogue with the Environment Agency on the Guidance document that will in due course be issued to officers. Several shortcomings were perceived in the first draft of the document and it was viewed as complex and difficult to interpret in the context of actual quarry operations. The version last seen by the MPA and by the CBI Minerals Group is much more applicable and it is hoped that the revisions agreed to date by the Agency will find their way into the final guidance.

DEFRA has promoted or run various workshops bringing together industry sectors, the Department, the Environment Agency, and researchers, and members of the Water Group have managed to attend virtually all the events. This can only help build understanding of particular industry requirements amongst those responsible for drafting legislation, and the efficacy of the implementation of that legislation.

Part of the Water Group activity is liaising with other minerals groups. This includes other committees within the MPA, the British Aggregates Association, parliamentary minerals groups, individual companies and sustainability groups.

Political representations. Aside from participation in meetings at Westminster in various forums, the MPA senior executives have regular contact with politicians at Ministerial level.

Keeping the minerals industry informed. Through a range of media, publications, member's briefings (Mineral Products Association, 2012), and conference events, the MPA seeks to keep its members informed of forthcoming legislation and Government initiatives such as the Red Tape Challenge, Taylor Review and Penfold Review to name a few of the recent attempts to identify duplicated regulatory processes in legislation.

## OTHER CURRENT FACTORS

- An *Abstraction Reform Advisory Group* has been set up by DEFRA specifically, through a series of workshops, to help Government frame a major restructuring of water abstraction proposed under the Water Bill 2012. The MPA Water Group has a seat on the Advisory Group.
- *River Basin Management Plans (RBMPs)*. There has been some confusion about the role of these plans vis-à-vis Catchment Abstraction Management Strategies (CAMS), but the central aim of the RBMPs is for surface water bodies to achieve Good Ecological status by 2015. Much of the focus to date has been on matters such as agriculture related diffuse nitrate and phosphate pollution but it may be that the second round of preparation of these plans involves factors that are more relevant to the minerals industry.
- *Competition for water*. It is a fact of life that the minerals industry is in perceived or actual competition for water, or for rights to water, in some catchments. The MPA is working constantly to try and ensure that the industry's needs for water are properly recognised and that the industry is recognised as vital to Society's needs such that water for mineral extraction purposes should be a higher priority than perhaps for some other types of industrial activity.
- *Climate change*. The UK Government is advised by a committee of scientists on climate change matters and that body has an Adaptation sub-committee looking at, amongst other things, the potential impact of climate change on vital businesses and infrastructure. Supply Chain Resilience is an oft heard phrase in some circles and the point is being made wherever possible that the minerals industry is a vital part of the nation's supply chain.
- *Natural resources body for Wales*. A single natural resources body for Wales has been formed from the former Countryside Council for Wales, the Forestry Commission, and the Environment Agency. MPA are maintaining a watching brief on how Natural Resources Wales functions and will be in regular contact with it.
- *'Smarter Environmental Regulation'*. Various Government red tape reviews focused on water, waste

and planning legislation have the laudable aim of achieving 'Smarter Environmental Regulation'. The jury is still out on how effective these reviews will be but there is some cause for optimism and the MPA continue to engage with the government departments and committees to try and drive through some industry benefit.

## THREATS

All of the foregoing contain threats to the ability of the minerals industry to operate, or of increasing costs and time delays, or the ability to mine already permitted reserves, or all three; with huge financial consequences. These perhaps can be summarised as follows:

- *Uncertainty relating to abstraction licence time renewals at 12 years.* There is investment and business uncertainty if a 12 or even 24 year water licence life were to be adhered to by Government. The MPA stance has long been that water licences should run with the life of the operation.
- *Evidence requirements.* There are tests to be met to keep either an existing abstraction licence or discharge consent valid, and to obtain a Transfer Licence when that system is put in place. For instance it is proposed that 'evidence' of a need to dewater a quarry should comprise proof of having done so in the prior four years. This is a difficulty for operations that have been mothballed for several years and for sites where the need to dewater is known but may be many years hence. The MPA stance is that a valid planning permission with its working plan and having been subject of an Environmental Impact Assessment should itself be sufficient evidence.
- *Unilateral revocation/altering of conditions through either serious damage or lack of use.* The Environment Agency can already revoke water licences or unilaterally, for instance, significantly reduce a licensed volume, in the event that an abstraction licence is not used for some time or only used at a small volume compared to the licensed volume. There is an element of 'use it or lose it' for the industry.
- *Management costs increasing.* Dealing with more detailed application processes, justifying the necessity for licences, maintaining an evidence base to justify need, and ensuring compliant activity within a company, can only increase management costs both internally and in cash terms. There is an increasing trend for public bodies to charge for their advice in pre-application discussions notwithstanding large planning fees and a public duty to carry out statutory consultee functions.
- *Bureaucracy.* Bureaucracy tends to grow rather than reduce and it costs time and money. The more complex the bureaucratic systems are the higher is the likelihood of an operator failing to adhere to some part of the legislative system. Equally the decision makers in permitting authorities may have difficulty meeting all the requirements and also have potentially many reasons for not making timely decisions.
- *Lead in times increasing.* All of the above contribute to the ever increasing lead in times to planning applications and to getting things done on the ground.

- *Parallel applications; planning and water.* A potential avenue for industry to try and minimise lead times is to formulate applications for water licences and mineral working in parallel. An Aggregates Levy Sustainability Fund project (Thompson and Howarth, 2007) looked at the ramifications of this. There are inherent problems with a parallel approach not least the increased time, money and effort invested early in a project that offers no security of investment until a planning consent is granted.

Even if water licences are to be granted in parallel with planning permissions the operational lead in times put those licences at risk anyway though the use it or lose it scenarios. The Water Group's preferred solution, that emerged in conversations with DEFRA, is that upon receipt of a planning permission, water 'options', in effect, are granted. In other words the current CAMS would acknowledge the estimated volumes, of both transferred water and abstracted for use water, such that the mass balance took account of those requirements. An over-abstracted/over-licensed situation would not subsequently arise when the time came to utilise the licences.

- *Subversion of the Planning system.* The Mineral Products Association and its predecessor bodies have for 20 years been expressing grave concerns that the careless application of water, waste, habitat and other environmental legislation will subvert the Town and Country Planning process. The planning Acts with all the attendant Environmental Impact Assessments must remain the prime determinant of the use of land. When an EIA is properly (and expensively) carried out, and if it is properly and professionally responded to, the matter of water resources should be dealt with. It is unreasonable for a regulator to ask for another EIA only a few years down the line.

## WHAT MUST INDUSTRY DO?

The minerals industry must respond to existing and forthcoming legislation and do its bit to minimise the threats set out above. The author suggests that as a minimum the quarrying industry should:

- *Apply more thought (to water) earlier in the development process.* This might include assessing the CAMS status early in the project design process, giving water handling requirements greater prominence in the mining design process, influencing the land acquisition process, or identifying potential trading partners.
- *Regard water as a strategic constraint;* in the land search and site selection procedures, and potentially in the Development Plan allocation process.
- *Try dialogue with the Environment Agency.* The industry and individual operators need to keep talking to the Environment Agency officers to try and build an understanding of the industry's constraints and pressures, but also to avoid landing surprises on an Agency office. The industry needs to help the Environment Agency respond to planning applications in a way that provides a platform for future water resource decisions.

- *Meter everything!* In recent years the quarrying industry has significantly improved the amount of metering of water abstraction, rather than relying on the old 'hours run' measure on pumping times. The author contends that there is much more to do such as metering and data recording of all water abstractions, metering of subsidiary uses such as dust suppression systems, wheel washes and concrete plants. Metering of dewatering discharges can be difficult but the industry should work towards some sort of flow measurement and recording using for instance weirs or flumes in open channels, or orifice weirs or submerged depth measurement in pipes.

There will come a time when flows circulating within a site will have to be measured so the industry would do well to ensure that the basics are done on the easier to measure flows.

- *Prepare data for Hydrogeological Impact Assessments.* The HIAs will be necessary to support applications for Transfer Licenses in the future and without data the applicant will suffer delay and cost. There are to be 4 tiers of HIAs from the simple to the very complex and it is suggested that the acquisition of data follows the 'effort proportional to the risk' ethos. Some stream flows, groundwater level monitoring, and site water metering may be all that is required so the data gathering can be kept simple and not gold plated. There will be much debate with the Agency no doubt.
- *Improve housekeeping.* The industry, in the author's belief, has a good record in the stewardship of water resources and the environment generally, but there is more that can be done within sites to avoid losses or deterioration of water.
- *Think water conservation;* at the site design, plant selection, and mining design stages.
- *Take much better care of water.* Reduce leakage, unnecessary recirculation, pollution risks, or pumping more than is necessary.
- *Change site practices over time.* The author believes that as new sites are developed it will become more usual to implement at least the following:
  - More sealed reservoirs for process water using either natural materials or fully engineered reservoirs.
  - More pipes instead of channels for distributing water around sites.
  - More metering so that actual consumption and circulating volumes are more precisely known.
  - More recovery and return to source, be it by dewatering stockpiles, rainwater harvesting from buildings, concreted and drained plant sites, or local catchment harvesting by land shaping around water features.
- *Consult, respond, and lobby.* The industry is very active and very effective at responding to consultations on legislation and at helping to improve the applicability of legislation when it arrives on the Statute Book. However this is a task that will never be finished and all geoscientists have to be ambassadors for the cause, to promote the vital importance of minerals to Society, to inform and guide regulators, and to design and lead within companies in respect of water resources.

## WHAT MUST THE ENVIRONMENT AGENCY DO?

- *Get real.* Understand the realities, constraints, financial pressures, and effects of delay within which the minerals industry has to operate. Also recognise the generally good record of the industry in looking after the environment and the long track record of administering Monitoring and Mitigation schemes (Wardrop et al, 2001) that have successfully been protecting sensitive water dependent habitats for decades.
- *Improve competence locally.* Whilst the Environment Agency undoubtedly employs some of the top professionals in the geoscientific fields, at regional or area level there is often a marked lack of real hydrogeological experience and professional judgement.
- *Apply proper judgement in HIA tiers.* When the time comes please do not ask for unnecessarily high tiers of HIA because of fear or conservatism or lack of professional judgement.
- *Support the UK in Europe.* Represent the UK robustly in Europe when new legislation is being suggested.
- *Reduce staff turnover e.g. liaison officers.* Typically during the course of a planning application process the Agency officer responsible for pulling together the responses to an applicant will change many times, sometimes literally every letter or e-mail will come from a new 'liaison' officer. This rapid change destroys the very co-ordinating role that is supposed to be undertaken, resulting in officers with no ongoing familiarity with a project, never mind knowledge of a site on the ground, and responses that are regurgitated shopping lists rather than targeted problem-solving questions.

This alone does no favours to the reputation of the Environment Agency and certainly does nothing to protect the environment.
- *Send staff to conferences.* The best and most rounded professionals are those who regularly interact with other professionals from other disciplines, and expose themselves to the support, experience, and challenge of their peers. Sending Environment Agency staff to conferences such as EIG would probably be the most cost effective professional development on the market.
- *Improve regional link from central licensing.* The author is often told that dealing with the central licensing office can be frustrating since the personnel cannot know much about the site in question or of its surrounding circumstances whereas the local staff may have such knowledge. It can be difficult to contact a local or regional officer.

## INDUSTRY KEY POINTS

Key points that the MPA have consistently put to the Environment Agency, DEFRA, and successive Governments are that the nationally vital minerals industry needs:

- Certainty, now and after the Transitional period for Transfer Licensing.
- Licences that run with Planning Consents or Life of the operation.



- Recognition of locational constraints on the industry; mineral really can only be worked where it lies.
- Planning Permission to be accepted as proof of need to dewater, whenever that might actually happen.
- Tolerable administration.
- Intelligent decision making. Officers of all regulators need to make balanced professional judgements based on sound experience.
- Compensation for loss of profits and asset value should be available to the industry.
- Responsive future legislation under the Water Act will go a long way towards all of us dealing with climate change and water resources challenges in the future.

## **SUMMARY**

At the time of the EIG 2012 conference there was still no implementation date for Transfer Licensing. The best guess from the Agency was “late 2013”.

Significant improvements in the Transfer Licence Guidance for officers and in the application process have been discussed. The author looks forward to those improvements being confirmed in the Guidance when it is issued.

There is still work to do in order to establish industry and investor confidence in the security of water licences after the Transitional period.

The minerals industry, as individual companies and through the Mineral Products Association, enjoys early and productive engagement in the other legislative processes through DEFRA workshops and regular meetings with national level Environment Agency officers.

The industry has a responsibility to demonstrate effective husbandry of water resources.

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