Mineral Products Association

The MPA Water Strategy
Minimising, Prioritising, Protecting
Water is essential to life and a critical resource supporting business, environment and society. In the UK we all enjoy clean water at the turn of the tap and think of ourselves as a water rich country.

However a significant proportion of all abstractions in the UK are located in water stressed areas and this together with pollution and over abstraction are impacting on our water ecosystems.¹

The Environment Agency’s “Case for Change” report acknowledges that climate change and population growth will place increasing pressure on water resources in the UK.²

MPA membership includes producers of aggregates, asphalt, cement, ready mixed and precast concrete, dimension stone, industrial sand, lime and mortar. This document is an overarching strategy that relates to all products.

The MPA and its members recognise the need to support the sustainability of the UK’s water resources for the following key reasons:

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### Importance of Mineral Products

Mineral products are essential to our construction and manufacturing industries, to our economy and to our everyday lives.

Maintaining a secure and adequate supply of mineral products and construction materials, while minimising the environmental impact and maximising the environmental benefits, is central to delivering sustainable development.

Geology defines where mineral resources are located and it is an important factor in the water environment. The sustainable management of water is therefore central to mineral extraction and also important to product manufacture and use.

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### Importance of Water

As a sector we strive to demonstrate that we are good stewards of the water that passes through our sites and that the water we consume is the minimum required for the production of construction materials and their use to end of life.

Climate change is expected to result in significant impacts on water availability whilst population growth will place increased demand on water supplies. Both of these factors have serious implications for the long term management of water availability for industry and public use.

The availability and quality of water is crucial to maintaining biodiversity and our industry has the capacity to manage water resources in such a way that enhances this.

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### Water & Mineral Products

By their very nature mineral deposits are often located partially or completely below the water table. To extract the minerals safely and efficiently water is pumped from the bottom of the quarry to a nearby water body, such as a river, or it is returned to the groundwater environment.

Water is used at all stages in the production process including mineral washing, industrial mineral processing, concrete mixing and placing, cooling, and environmental protection applications such as dust suppression and the washing of plant and vehicles. Some of the water used is consumed during the manufacture of construction products.

Mineral and construction products contribute to delivering a sustainable water environment through the creation of flood defences, drains, water treatment facilities, Sustainable Drainage Systems (SuDS) and flood resilient buildings to name a few.

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### The MPA Water Strategy

**The Strategy sets out three aims:**

- **Minimising water consumption**
- **Prioritising use of the most sustainable water sources**
- **Protecting the water environment**

Achieving these will enable the mineral products industry to improve its understanding of the amount of water consumed and demonstrate where measures have been implemented to reduce consumption, use the most sustainable water sources and maintain water quality.

MPA members are committed to the sustainable use of water over the entire product life cycle (cradle to grave) and designing products and solutions that will contribute to sustainable development.

This strategy will be reviewed in 2020 by which time the measures set out in this document will have provided baseline data and a greater understanding of the industry’s interaction with the water environment.

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Strategy Aims

1. Minimising the amount of water consumed in production

As an industry we have a responsibility to record and minimise the amount of water we consume in the mineral extraction and manufacturing process and incorporate into the products we make.

**OUR AIM:** To establish a benchmark of current water use and set targets for reduction in water consumed in the mineral extraction and manufacturing processes.

**ACTION:** Provide guidance on standard methodology for monitoring water consumption.

**ACTION:** Collect data on the total quantity of water consumed in these processes from all water sources.

**ACTION:** Develop guidance on minimising water consumption.

2. Prioritising the use of the most sustainable water source

Various water sources are available for use in both the extraction and production processes and ideally the most sustainable sources of water are utilised. MPA considers that the following is a realistic hierarchy of water sources, in most situations, for our sector starting with the most sustainable:

- **Harvested rainwater:** Rainwater falling on the land surface and onto buildings that is collected and stored for use.
- **Recycled water:** Water from manufacturing processes that is collected for reuse.
- **Water derived from the dewatering process:** Water that has been moved from the quarry floor to allow dry extraction of mineral.
- **Primary abstracted water:** Water that is taken from ground or surface water sources for use in site processes.
- **Mains water:** Water that is taken directly from the public water supply.

**OUR AIM:** To understand the quantities of water used from each source

**ACTION:** Promote measuring of water abstracted from each water source.

**ACTION:** Collect data on the total quantity of water consumed from each source in extraction and production processes.

**OUR AIM:** To increase awareness of how to use water more efficiently and optimise use of the most sustainable sources

**ACTION:** Provide guidance on managing water more sustainably.

**ACTION:** Prepare targets for reduction in water use.
Strategy Aims (continued)

3. Protecting the environment by ensuring that we are good stewards of the water we use

It is essential that MPA members are able to demonstrate that they manage water responsibly and understand how the use and movement of water can affect the natural environment.

**OUR AIM:** To identify good practice and highlight examples of good water stewardship to support the aims of the Water Framework Directive.

**ACTION:** Promote biodiversity through monitoring and mitigation practices and publish case studies demonstrating such good practice.

**OUR AIM:** To identify and promote opportunities in mitigating against extreme climatic events.

**ACTION:** Work with Government, statutory authorities, NGOs and local communities to explore and investigate potential opportunities for the minerals industry to help mitigate the impacts of flooding and drought.