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# SHELLINGFORD QUARRY LANDFILL SURFACE WATER MANAGEMENT PLAN TO SUPPORT ENVIRONMENTAL PERMIT VARIATION APPLICATION EPR/BP3095EU/V004

**For**

**MULTI-AGG LIMITED**

**October 2025**

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# SHELLINGFORD QUARRY LANDFILL SURFACE WATER MANAGEMENT PLAN TO SUPPORT ENVIRONMENTAL PERMIT VARIATION APPLICATION EPR/BP3095EU/V004

## 1. INTRODUCTION

### 1.1 Report Context

Shellingford Quarry Landfill currently operates under Environmental Permitting Regulations (EPR) Permit EPR/BP3095EU which provides for the landfilling with imported inert waste of the quarry excavation in accordance with extant Planning Permissions STA/SHE/8554/12-CM (MW.0020/11) and STA/SHE/8554/11-CM (MW.0021/11).

Planning Permission P18/V2610/CM (MW.0104/18) was granted in September 2020 and provides for the extraction of sand and limestone from a western extension to Shellingford Quarry and restoration of the excavation to original ground levels using imported inert waste material and indigenous soils.

An EPR Permit application is being submitted to vary the existing EPR Permit EPR/BP3095EU to add a deposit for recovery activity to accommodate infilling within the adjacent western quarry excavation area with imported inert waste.

This report presents a Surface Water Management Plan (SWMP) and has been prepared to support the EPR Permit application to vary the existing EPR Permit to accommodate the infilling with imported inert waste in the western quarry extension area as a deposit for recovery activity.

This SWMP has been prepared in accordance with the Environment Agency's (EA) guidance document *'Landfill operators: environmental permits - Develop and maintain management plans'*, states:

- *where your risk assessment confirms a need, you must provide a plan for managing surface water for all landfill sites*.

This report presents a risk-based SWMP with approaches to surface water management that are proportionate to the level of risk that the existing inert landfill activity, and the proposed deposit for recovery activity within the western extension area, pose.

This SWMP should be read in conjunction with the following reports which accompany the EPR Permit application:

- Environmental Risk Assessment (ERA). GWP Report No. 250211 v.01;
- Environmental Setting and Site Design (ESSD). GWP Report No. 250212 v.01;
- Hydrogeological Risk Assessment (HRA). GWP Report No. 250716 v.01.

#### *1.1.1 Operator of the proposed development*

Multi-Agg Limited, The Upper Lime Kiln Works, Bytham Road, Ogbourne St. George, Marlborough, Wiltshire, SN8 1TD.

#### *1.1.2 Agent who completed this report*

GWP Consultants LLP, Upton House, Market Street, Charlbury, Oxfordshire, OX7 3PJ.

#### *1.1.3 Outline of the proposed development*

The EPR Permit application is to vary the existing EPR Permit EPR/BP3095EU to add a deposit for recovery activity to accommodate infilling within the adjacent western quarry excavation area with imported inert waste. The inert fill capacity associated with the deposit for recovery activity is *c.* 1.60Mm$^3$ which equates to a tonnage of *c.* 2.88Mt (using a conversion factor of 1.8t/m$^3$).

The additional deposit for recovery activity associated with the Permit variation will be limited to the western quarry excavation area that is adjacent to the inert landfilling area covered by the existing EPR Permit. This means the current Permit boundary will need to be extended to the west and south to allow for the additional deposit for recovery activity.

Drawing No. SHELLQMA2508-2 shows the EPR Permit variation application area within the context of the existing EPR Permit area, highlighting where the deposit for recovery activity in the western extension area will take place.

Details of the site setting and installation design are presented in the ESSD Report (GWP Report No. 250212).

## 2. SCOPE OF SURFACE WATER MANAGEMENT PLAN

This SWMP considers surface water management during:

- the active phase of restoration infilling with imported inert waste within the existing permitted inert landfill and the deposit for recovery activity within the western extension area; and
- following the completion of restoration infilling with imported inert waste.

This SWMP is risk based and has been prepared having regard, *inter alia*, to the EA's guidance document *'Landfill operators: environmental permits - Develop and maintain management plans'*,

## 3. HYDROLOGICAL SETTING

### 3.1 Surface Water Features

Surface water features are shown on Drawing No. SHELLQMA2508-10.

### 3.2 Description of local water courses

The site is located within the catchment area of the Holywell Brook (a tributary of the River Ock) which flows in a southerly direction along the eastern side of Shellingford (*c.* 200m west of the western extension area) and then in an easterly direction (*c.* 100m south of the current site and western extension area) towards its confluence with the River Ock near Manor Farm *c.* 1.1km southeast of the site.

The Frogmore Brook is located *c.* 750m northeast of the site at its closest approach and flows in a southeasterly direction where it meets the River Ock *c.* 1.6km east of the site.

The FEH Web Service indicates that the catchment area of the Holywell Brook upstream of the southern part of the western extension area is *c.* 8.5km$^2$ and that the catchment area associated with the reach upstream of Shellingford is *c.* 5.9km$^2$.

### 3.3 Waterbodies

There are a number of surface waterbodies located within and surrounding the existing quarry area.

Within the existing quarry site there are a series of settlement lagoons used for clarification of mineral processing wash water. A small lagoon is located on the southern boundary of the site from which water from the existing quarry is discharged to the Holywell Brook under an extant Discharge Consent (NPSWQD002821).

The closest external waterbody to the site is located in the western part of the restored Shellingford Crossroads Quarry *c.* 70m to the north of the existing quarry and *c.* 260m to the northeast of the western extension area. The waterbody is not groundwater fed and Google Earth aerial images show that the waterbody has largely dried out since 2012.

A pond is located *c.* 300m south of the site, within the footprint of the White Horse Business Park. A pond is also located *c.* 400m south of the site and another pond is situated *c.* 650m south of the site along the northern edge of the Holywell Brook.

Two attenuation ponds associated with the new housing development built at River Meadow (off Faringdon Road/Ware Road) are situated 240m and 370m to the southeast of the site, respectively.

### 3.4 Springs

The Institute of Geological Sciences (IGS) Hydrogeological Map of the South West Chilterns and the Berkshire and Marlborough Downs (IGS, 1978) shows a spring issue located immediately north of Shellingford village, which appears to contribute to, but not to be the sole source of, flow in the Holywell Brook (see Drawing No. SHELLQMA2508-11). The are no other identified springs located within 1km of the site.

### 3.5 Flows within local water courses

The Holywell Brook (the closest water course to the site), is not routinely monitored by the EA.

A visual inspection by GWP of the reach of the Holywell Brook between Shellingford and Stanford in the Vale on 12th July 2018 (*i.e.* during an extended dry period) estimated flows of *c.* 5 to 10 l/s including a flow of *c.* 5 l/s in the channel flowing along the eastern side of Shellingford.

The channel of the Holywell Brook is generally heavily vegetated, except where it has recently been cleared, and the water flow south of the copse located to the south of Shellingford shows evidence of high nutrient loading. It is considered that the high nutrient loading is due to the Shellingford sewage treatment works which discharges into the Holywell Brook at the southern end of the village.

Flows within the Holywell Brook are unaffected by the existing landfill and will remain unaffected by the additional infilling with imported inert waste associated with the deposit for recovery activity within the western quarry extension area.

Accordingly, it is considered that an assessment of flows in the Holywell Brook is not required for the purposes of the EPR Permit variation application.

### 3.6 Flood Risk and the presence of indicative flood plains

The site is located within fluvial flood risk Flood Zone 1 (annual exceedance probability for river flooding is equal to or less than 0.1% (*i.e.* less than 1 in 1000 years)) (see Drawing No. SHELLQMA2508-12).

The site is located mostly within a very low pluvial (surface water) flood risk zone (see Drawing No. SHELLQMA2508-13). The site has small standalone areas at risk of pluvial (surface water) flooding, but no areas that contribute to off-site receptors.

Flood risk maps are provided in Sections 7, 8 and 9 of the Enviro Insight report presented in Appendix 1.

The site does not lie within an area which is at risk of flooding.

### 3.7 Surface water abstractions

Only 1 No. licensed surface water abstraction is located within *c.* 1km of the site. Details of this surface water abstraction, located *c.* 830m to the west of the site, are given in Section 5.7 of the Enviro Insight report presented in Appendix 1.

### 3.8 Consented discharges

Two current consented discharges are located within *c.* 1km of the site, as detailed within Section 4.13 of the Enviro Insight Report presented in Appendix 1.

The first is the discharge from the existing quarry site settlement lagoon/balancing pond system (reference: NPSWQD002821), *via* a discharge pipe and overland flow into the Holywell Brook.

The other consented discharge is held by the Shellingford Sewage Treatment Works (STW), located *c.* 320m west of the site, which discharges treated effluent to the Holywell Brook.

### 3.9 Surface water quality

The River Ock (to Cherbury Brook) was given a 'Moderate' ecological status for 2022 by the EA.

The Holywell Brook is not routinely monitored by the EA.

The treated effluent discharged into the Holywell Brook from the Shellingford STW to the west of the site has been monitored routinely since 2000 for Biochemical Oxygen Demand (BOD) and suspended solids, with additional determinands monitored for between 2000 and 2006.

Since 2013 the quality of water discharged from the existing quarry into the Holywell Brook has been routinely monitored together with the quality of water upstream and downstream of the discharge point, consistent with the requirements of the existing EPR Permit EPR/BP3095EU.

The 3 No. surface water monitoring locations (SW1, SW2 and SW3) are shown on Drawing No. SHELLQMA2508-16. Surface water quality monitoring data is provided in Appendix 2 (Excel spreadsheet form).

The surface water monitoring data shows no evidence that the existing permitted inert landfill is having a significant or measurable detrimental impact on the hydrological setting of the site and surrounding area (see Section 5.5).

Given that the continued acceptance of imported inert waste at the site will be strictly controlled using robust waste acceptance criteria and protocols, it is considered that the continued operation of the site, including infilling with imported inert waste in the western extension area under the deposit for recovery activity, will not result in any significant or measurable detrimental impact on the hydrological setting of the site and surrounding area.

Surface water quality monitoring will continue to be undertaken in accordance with the existing EPR Permit. Details of the monitoring scheme are provided in Section 5.4.

## 4. RISK ASSESSMENT

The site currently receives, and will continue to receive, only Landfill Directive compliant inert waste *i.e.* the waste will comply with the leaching values for waste acceptable at landfills for inert waste set out in Section 2.1.2 of *'Council Decision of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC'*.

The site will receive inert waste as part of the deposit for recovery activity within the western extension area.

The Permit variation application is submitted on the basis that the recovered waste placed within the western extension area will be suitable for its intended use and that the approved scheme is a deposit for recovery activity and not a waste disposal activity.

Accordingly, the environmental risk of the water collecting in the excavation/infilling void at the existing permitted site and the western extension area being contaminated by surface water runoff from the deposited inert waste is, by any reasonable measure, very low.

An assessment of the risk posed to all surface waters close to and downstream of the site through site restoration infilling with imported inert waste is provided in Appendix 1 of the ERA report, which accompanies the EPR Permit variation application (Appendix Hi). For ease of reference, the relevant extract from Appendix 1 of the ERA report is provided in Appendix 3 of this Report. The risk is assessed as being very low.

Reports previously submitted to, and approved by, Oxfordshire Conty Council in connection with the Planning Permissions for site restoration infilling with imported inert waste have established that the site development poses no flood risk to the site or the surrounding area, either during the active infilling stage or following the completion of site restoration.

Having regard to the above, this SWMP is proportionate to the very low level of risk that the existing inert landfill activity, and the proposed deposit for recovery activity within the western extension area, pose.

## 5. SURFACE WATER MANAGEMENT

Surface water derived from incident rainfall and associated surface water runoff will be managed during the two main phases of the development, comprising:

- the active phase of restoration infilling with imported inert waste within the existing permitted inert landfill and the deposit for recovery activity within the western extension area; and
- following the completion of restoration infilling with imported inert waste.

The water quality risks associated with the surface water management scheme are very low due to the inert nature of the waste, the strict waste acceptance procedures and protocols and the Artificial Geological Barrier (AGB) engineering provisions that are, and will continue to be, implemented at the site to protect the local hydrogeological and hydrological settings.

It is very important to note that surface water associated with the inert landfilling activity has been managed in the same way for many years under the original EPR Permit (issued in June 2004) and the current varied EPR Permit (issued in October 2012). During this period, no concerns have been raised, or non-compliance reports issued, either by the Environment Agency or by the Planning Authority (Oxfordshire County Council), associated with surface water management at the site including the discharge of water into the Holywell Brook.

## 5.1 Active Excavation and Infilling Phase

All surface water associated with the existing inert landfill is managed within the current EPR Permit area. Surface water associated with the extended EPR Permit area, to accommodate the deposit for recovery activity within the western extension area, will be managed in the same way.

If during construction heavy rainfall temporarily ponds on the basal AGB, this will be diverted beyond the extent of the basal AGB and will be allowed to infiltrate into the underlying geology or drain to the quarry sump, or operations will be adjusted to avoid areas of ponding. These measures will ensure that infilling may continue without interruption.

The management of surface water runoff from the existing inert landfill and the proposed deposit for recovery activity in the western extension separately from the water which otherwise collects in the excavation/infilling void (incident rainfall and groundwater) is not an operationally practicable arrangement at Shellingford Quarry, or indeed at other inert landfill sites, and is not warranted having regard to potential environmental risk.

Water collecting within the excavation/infilling voids during the inert landfilling and deposit for recovery activities will comprise an admixture of surface water runoff from the imported inert waste and water otherwise collecting within the voids (incident rainfall and groundwater).

Water pumped from the excavation/infilling voids which is surplus to on-site requirements (aggregate washing plant, dust suppression and wheel wash) will be directed to the existing on-site silt settlement lagoon system in the southwest of the currently permitted site. This water will then be pumped from the silt settlement lagoon system to a clean water lagoon in the south of the current site area, before being discharged from the site into the Holywell Brook under Discharge Consent NPSWQD002821. This is illustrated on Drawing No. SHELLQMA2508-16.

The excavation/infilling areas do not receive surface water runoff from the surrounding external land. Runoff generated to the north of the site is intercepted by a drainage ditch which drains to the west. Land to the east, west and to the south drains southwards. Soil bunds formed from excavated clay subsoil from the site are located around the perimeter of the site to prevent off-site surface water runoff from entering the site. Bunds constructed around the perimeter of the western extension excavation/infilling area prevent surface water runoff into the void from the adjacent existing site area.

Incident rainfall will be managed within the excavation/infilling voids as at present. As a result, surface water runoff from the excavation/infilling areas will be reduced to below pre-development greenfield runoff rates during the excavation/infilling phase.

Given that surface water runoff from the excavation/infilling areas will be reduced to below pre-development greenfield runoff rates, there will be a net reduction in flood risk associated with the surrounding area during the excavation/infilling phase.

In summary, there will be no negative surface water runoff or flood risk impacts during the excavation/infilling phase.

No negative surface water impacts have been identified and, therefore, no mitigation measures are considered necessary.

## 5.2 Restoration Phase

Restoration infilling under the deposit for recovery activity within the western extension area will be to a final restoration platform level of between *c.* 73mAOD in the southeast and *c.* 89mAOD in the north, in accordance with the restoration and afteruse scheme approved by Planning Permission P18/V2610/CM (MW.0104/18) (see Drawing No. 2459-5-2 DR-0001 presented in Appendix 4).

The restoration and afteruse schemes for the existing site area to the east of the extension area (to which the existing EPR Permit relates) approved by Planning Permissions STA/SHE/8554/12-CM (MW.0020/11), STA/SHE/8554/11-CM (MW.0021/11) and P18/V2610/CM (MW.0104/18) are shown on Drawing Nos. 1971/001A and 1971/002B presented in Appendix 4.

The restoration schemes principally provide for restoration to agricultural afteruse. The surface water runoff characteristics of the restored site will substantively be the same as the pre-development conditions and the ponds in the southern parts of the site (created as part of the approved restoration schemes), although not required for attenuation purposes, will provide further attenuation ensuring

that surface water runoff from the restored site will be below pre-development greenfield runoff rates.

In summary, there will be no negative surface water run-off or flood risk impacts following restoration of the site.

No negative surface water impacts have been identified and, therefore, no particular surface water management or mitigation measures are considered necessary.

## 5.3 Water Balance

Given the low permeability nature of the inert waste ($10^{-8}$ to $10^{-9}$m/s for typical inert waste) which has been deposited within the existing permitted inert landfill and will be deposited under the deposit for recovery activity within the western extension area, there will be no creation of, or build-up of, leachate within the waste masses. Therefore, no leachate management or monitoring infrastructure is required or proposed. Accordingly, a water balance is not warranted in this circumstance.

Based on the conceptual understanding of the site, and the findings of the supporting ESSD and HRA reports which accompany the EPR Permit variation application (Appendices Hii and Hiv), it is considered that water balance is controlled by the following principal site characteristics:

- Very limited groundwater inflow into the excavation/infilling voids due to the basal and side slopes engineered AGB.
- The negligible potential for the inert waste material placed to generate leachate, due to the low permeability nature of the inert waste.
- The water entering the excavation/infilling voids will be dominated by water derived from incident rainfall. Due to the low permeability and inert nature of the waste material, the majority of the water falling onto the waste during placement within excavation/infilling areas will become run-off and will be pumped out as part of the surface water management scheme. Over the operational period of the site, very little water will soak into the waste and contribute to leachate.
- Water pumped from the excavation/infilling voids will be used for on-site purposes (aggregate washing plant, dust suppression and wheel wash). The water which is surplus to on-site requirements will be discharged from the site into the Holywell Brook, *via* the site settlement lagoon system and holding pond, under Discharge Consent NPSWQD002821.

## 5.4 Surface Water Monitoring

Given the inert nature of the waste and the strict waste acceptance procedures and protocols that are already employed at the site, it is considered that no hydrological risk is posed to the Holywell Brook or any surface water dependent sites of ecological sensitivity from the landfilling with imported inert waste in the existing landfill or the proposed inert waste infilling within the western extension area under a deposit for recovery activity. No hydrological risk will be present from the site following the completion of restoration infilling with inert waste.

Discharge of water off-site to the Holywell Brook to the south of the site will continue during the active excavation/infilling phases in accordance with existing Discharge Consent NPSWQD002821.

The Holywell Brook is currently monitored for water quality upstream and downstream of the permitted quarry discharge point (Discharge Consent NPSWQD002821) and from the discharge point itself, in accordance with Table S3.5 of existing Environmental Permit EPR/BP3095EU.

The Holywell Brook and the quarry discharge will continue to be monitored in the same manner following Permit variation. It is not considered necessary to change the current monitoring schedule of the Holywell Brook as the proposed development does not involve an increased risk to this watercourse.

The 3 No. surface water monitoring locations (SW1, SW2 and SW3) are shown on Drawing No. SHELLQMA2508-16.

## 5.5 Discharge into the Holywell Brook – Potential Impact on Water Quality

As indicated in Section 5.4, discharge of surface water off-site into the Holywell Brook to the south of the site will continue during the active excavation/infilling phases in accordance with existing Discharge Consent NPSWQD002821.

Since 2013 the quality of water discharged from the existing quarry into the Holywell Brook has been routinely monitored together with the quality of water upstream and downstream of the discharge point, consistent with the requirements of the existing EPR Permit EPR/BP3095EU.

Section 2.4.9 of the HRA report, which accompanies the EPR Permit variation application (Appendix Hiv), states *"The surface water monitoring data shows no evidence that the existing permitted inert landfill is having a significant or measurable detrimental impact on the hydrological setting of the site and surrounding area"*. A further review of the monitoring data has been undertaken and forms part of this SWMP. The findings of the review further support this position.

### *5.5.1 Data reviewed*

Surface water quality (SWQ) monitoring data covering the period January 2013 to May 2025 has been reviewed. The SWQ monitoring data is provided in Appendix 2 (Excel spreadsheet form).

The surface water monitoring locations are shown on Drawing No. SHELLQMA2508-16 and comprise:

- SW1 – Holywell Brook upstream of quarry discharge point;
- SW2 – Quarry discharge;
- SW3 – Holywell Brook downstream of quarry discharge point.

The surface water monitoring data has been reviewed within the context of Environmental Quality Standards (EQS) in accordance with the EA's guidance document *'Surface water pollution risk assessment for your environmental permit'*.

The EA guidance has links to 2 No. EQS spreadsheets:

- Freshwaters specific pollutants and operational environmental quality standards;
- Freshwaters priority hazardous substances, priority substances and other pollutants environmental quality standards.

Both spreadsheets have 2 No. levels of EQS:

- Average Annual (AA) EQS – to evaluate the long-term environmental impacts that emissions can cause;
- Maximum Allowable Concentration (MAC) EQS – to evaluate the short-term environmental impacts that emissions can cause.

AA EQS values are typically lower than the MAC EQS for the same pollutant/determinand (determinand) *i.e.* more conservative. Not all determinands have both AA and MAC EQS values.

As the AA EQS values evaluate long-term environmental impacts, the geometric mean results for the SWQ monitoring data determinands have been compared to the AA EQS. SWQ data values recorded below the Limit of Detection (LOD) were included at the LOD in geometric mean summary tables, as a conservative approach (*e.g.* values at <0.01mg/l were included in the geometric mean summary as 0.01mg/l).

The MAC EQS values evaluate short-term environmental impacts. Therefore, the maximum results for determinands from the SWQ monitoring data have been compared to the MAC EQS.

### *5.5.2 Review findings*

The majority of the determinands monitored at SW1, SW2 and SW3 either do not have a corresponding EQS value, or have results which are below both the AA and MAC EQS values.

The review findings are as follows:

- For all non-Polycyclic Aromatic Hydrocarbons (PAHs), the geometric mean values of SWQ monitoring data results for SW1, SW2 and SW3 are below the AA EQS (long-term) values for the corresponding determinands, where AA EQS values are available, except for Cadmium and Copper at SW2.
- The AA EQS for Cadmium varies depending on the level of water hardness. The selected AA EQS for Cadmium is 0.00025mg/l (0.25µg/l) based on a water hardness of 200mg or more, as results for Alkalinity as $CaCO_3$ (Alkalinity is similar in magnitude to hardness) are above 200mg/l for all surface water monitoring locations. The reason why the geometric mean of Cadmium results at SW2 is 0.00035mg/l, and therefore appears greater than the AA EQS of 0.00025mg/l, is

because results below the LOD for this determinand have been included at the LOD level within the summary geometric mean, as a conservative approach. The LOD for Cadmium is often above the AA EQS value, thus this raises the geometric mean values. The only result for Cadmium at SW2 above the LOD was recorded as 0.000205mg/l, which is below the AA EQS. All maximum results for Cadmium from monitoring points SW1, SW2 and SW3 are below the corresponding MAC EQS of 0.0015mg/l (1.5µg/l).

- In the case of Copper, the geometric mean recorded at SW2 (0.00117mg/l) is only marginally above the AA EQS (0.001mg/l). As described for Cadmium in the point above, results below the LOD for Copper have been included at the LOD level within the summary geometric mean, as a conservative approach and therefore the geometric mean appears greater than the AA EQS. Also, the AA EQS is for the bioavailable fraction, whereas the monitoring data shows the total Copper. The bioavailable fraction at the time of the monitoring may therefore have been less than the total Copper and below the AA EQS.
- Where AA EQS values are not available, the MAC EQS values can be applied. The MAC EQS values are always above the AA EQS values for the same determinand, therefore the concentrations of the non-PAH monitored determinands are also below the MAC EQS values, where these apply.
- Of the PAH determinands which do have AA EQS values, only two (Fluoranthene and Benzo-a-pyrene) have SWQ monitoring data results for the quarry discharge (SW2) which exceed the LOD. These are one-off results and are below the corresponding MAC EQS values (MAC EQS of 0.12µg/l for Fluoranthene and 0.27µg/l for Benzo-a-pyrene). In addition, the 2 No. SW2 values which did exceed the LODs were comparable to the recorded result from upstream point SW1 on the same monitoring date. The highest recorded value from the SWQ monitoring data for Fluoranthene was 0.304µg/l from downstream monitoring point SW3 during October 2017. There was no quarry discharge recorded on this date, therefore the recorded value at SW3 was not influenced by discharge from the quarry or is anomalous.
- Any other PAH concentrations (other than Fluoranthene and Benzo-a-pyrene) recorded above the respective LODs at the downstream monitoring point (SW3) cannot be caused by the quarry discharge.
- The observation relating to the lack of quarry discharge during elevated determinand concentrations recorded at downstream monitoring point SW3 is also relevant for other determinands *e.g.* Chromium and Zinc, as the maximum concentrations recorded at SW3 occurred when there were no recorded results for SW2 and therefore no discharge from the site. As stated previously, the geometric mean of the monitoring results for these determinands are below the long-term AA EQS values.
- In addition, in some cases the maximum concentration of a determinand within the results for upstream monitoring point SW1 are above the AA EQS for that substance anyway (Copper and Zinc).
- Mercury does not have an AA EQS value, only a MAC EQS of 0.07µg/l. The only exceedances of this value were detected (detections of 0.2µg/l) on the same monitoring date in November 2022 at all three monitoring points. Therefore, the quarry discharge (SW2) and downstream monitoring point (SW3) showed concentrations no worse than at the upstream monitoring point (SW1). Also, the fact that the November 2022 concentrations were exactly the same suggests a possible sampling or testing error.

In summary, the SWQ monitoring data, and comparison with EQS values, gives evidence that the discharge of water from the quarry into the Holywell Brook has not, and is not expected to in the future, have a negative impact on the water quality in the Holywell Brook, and that site surface water management procedures are effective.

## 6. ENVIRONMENTAL MANAGEMENT SYSTEM

Multi-Agg Limited operates an Environmental Management System (EMS) which describes the management system that has been developed to ensure that Multi-Agg sites are operated and maintained by technically competent staff and are managed in such a way that the impact on the environment is minimised. The EMS also seeks to provide a framework for minimising the potential

for any accidents or incidents, which may occur, to impact on the environment. A summary of Multi-Agg's EMS document is provided in Appendix G of the EPR Permit variation application.

This SWMP will form part of an updated EMS and will be reviewed annually, or more frequently should site activities, incidents or the review of the data from the ongoing programme of surface water monitoring require this.

GWP CONSULTANTS
OCTOBER 2025

# APPENDIX 1

## Groundsure Enviro Insight Report

# APPENDIX 2

## Surface water quality monitoring data (Excel spreadsheet)

# APPENDIX 3

## Extract from Appendix 1 of Environmental Risk Assessment. GWP Report No. 250211

# APPENDIX 4

## Drawing Nos. 1971/001A, 1971/002B and 2459-5-2 DR-0001