

Technical Note:

Machen Quarry: Transitional abstraction licence (Transfer) application

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Prepared for Hanson Quarry Products Europe Limited

Document reference: 67374TN1, October 2019

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	Name	Signature
Author	Kate Brady	
Checked by	Barnaby Harding	
Reviewed by	Barnaby Harding	

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1 Introduction

Machen Quarry (the Site) is a limestone quarry operated by Hanson Quarry Products Europe Limited (Hanson). The Site is located near Machen, Newport at approximately CF83 8YP, as shown on Figure 1.1. The quarry has been operational since the 1940s.

The Site layout is designed to manage both ground and surface water as passively as possible, with active measures introduced to avoid large volumes running through the plant and operations area. The existing quarry base is deemed to be lower than the inferred pre-development groundwater levels and thus an element of passive groundwater abstraction has been assumed. The relative proportions have not been measured and so it is not possible to say for certain the percentage groundwater contribution. It is considered that less than 20 m³/d is used in total at the Site. The purpose of the use is for dust suppression, during summer/dry months only, by Hanson's on-Site contractor, K.J. Services Limited (KJ Services).

This Technical Note has been prepared by Stantec UK Limited (Stantec) to support Hanson's application to obtain a transitional route transfer abstraction licence for the dewatering of Machen Quarry and should be read in conjunction with the application form presented in Appendix A (Form WRH: Application for a transitional water resources licence). The forms are signed on behalf of Hanson by Wendy Rodgers who is the registered company secretary.

Payment of the application fee of £1,500 will be paid by credit card. Please call Kate Brady on 01743 276117 for payment.

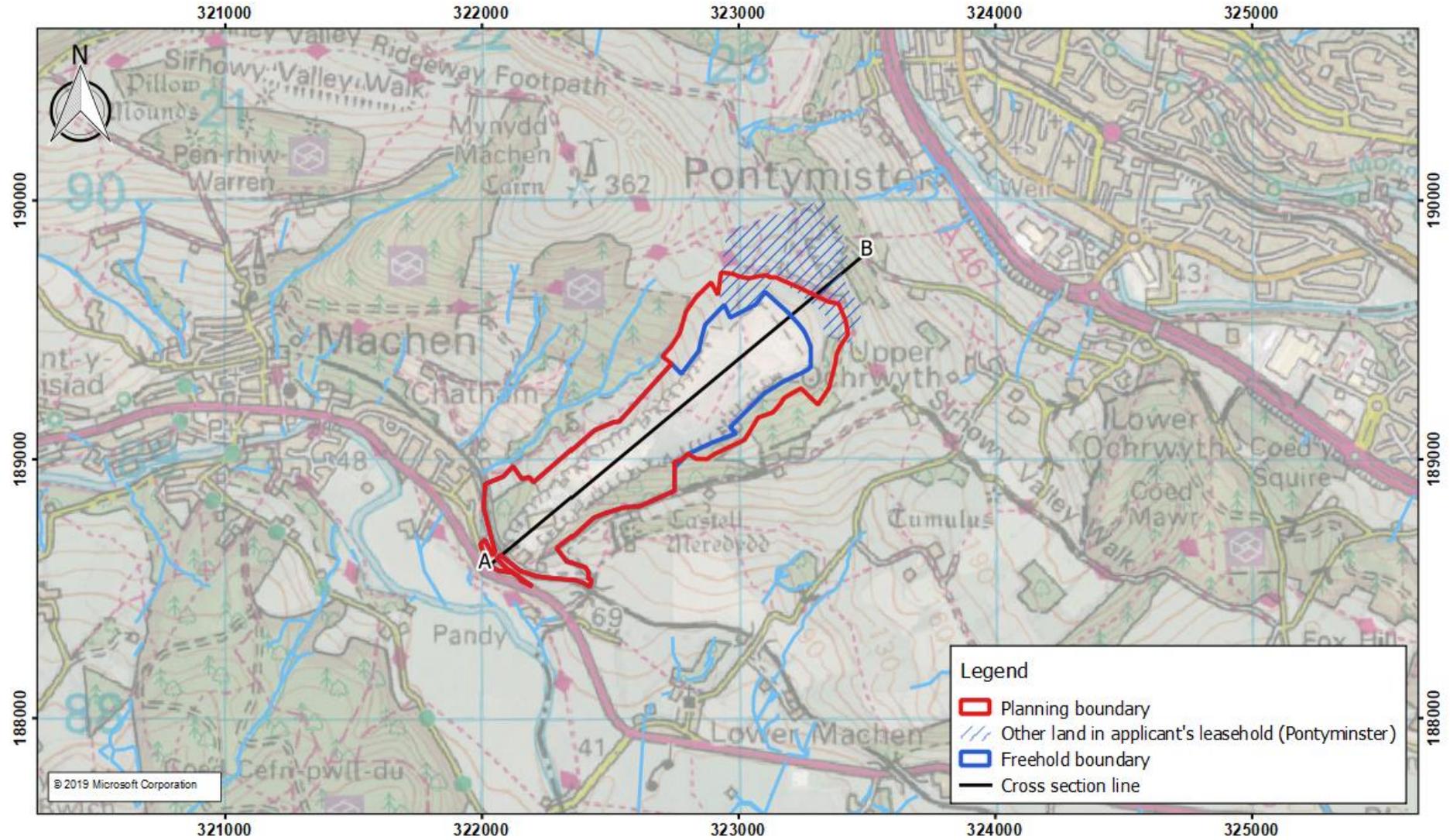
Per application form question 2.4, please contact Peter regarding invoices and returns at the following details;

c/o: Mr Peter Faull,
Machen Quarry,
Machen,
Newport,
Gwent,
CF83 8YP.

Peter.Faull@hanson.biz

Tel: 01633441144

Figure 1.1 Machen location and freehold boundary



1.1 Background

Machen Quarry has been quarrying Limestone since the 1940s. The total area covered by the existing planning permissions measures 62.2 ha of which approximately 29.2 ha is currently open excavation.

In late 2004, an application for a small extension to Machen Quarry was submitted to Caerphilly County Borough Council (CCBC). Planning permission (reference P/05/1100) for the extension was granted in June 2006 (see Appendix B).

As of June 2018, the quarry base was at an elevation of c.270 mAOD at its highest, northeastern extent and c.80 mAOD at its lowest, southwestern extent. Water collecting within the quarry is discharged close to this low point. The current permission allows quarrying of limestone down to c.150 mAOD at the northeastern end, to be excavated by December 2042.

Surface water run-off from the wider quarry excavation area and an element of groundwater collects in a specially constructed holding lagoon (Primary Settlement Lagoon) before being pumped to the discharge point (see Section 2 for more detail).

1.2 Planning permission

Planning permission application reference P/05/1100 is the extant permission for the Site, granted on 22 June 2006. The permission for quarrying is valid until 31 December 2042 with restoration to follow until 31 December 2044. A copy of the decision notice is presented in Appendix B.

1.3 Impact Assessment

As part of the 2015 planning process, a Hydrological/Hydrogeological Assessment (HHA) was produced (Entec, 2004). The main points from the HHA are summarised below and a copy of the assessment is provided as Appendix C.

The HHA concludes that the impact of the quarry is likely to be insignificant. There is some evidence to suggest that historical quarry operations have lowered water levels to the north of the quarry, particularly in the area of the stream passing Ffwrwm (National Grid Reference ST 22380 89220) resulting in reduction in stream flow. Future impacts are likely to be a continuation of the observed reduction in stream flow. This impact of this reduction is considered to be minor as there are no receptors of importance, but there may be some loss in aesthetic value as a result of the reduced flows.

The 2005 quarry extension was estimated to cause a slight reduction in surface water flow from the site to the River Ebbw which is diverted to the River Rhymney, however this loss/gain is estimated to be very small (less than 0.1% of the Q95 for both streams).

The assessment considers that groundwater levels have been lowered based on existing quarry floor levels and inferred groundwater levels from field observations. However, this is unlikely to have a significant effect on the important receptors identified, due in part to the low potential to impact levels to the south and east, by the presence of the lower permeability Lower Limestone Shale.

1.4 Report structure

This technical note covers the details required by the application forms and includes:

- Existing water movements and water management at the Site, including abstraction arrangements, water use details, and transfer/discharge details (Section 2); and
- Summary of licencing requirements (Section 3).

2 Water Management

2.1 Site water management

The water management arrangements for the Site are shown on Figure 2.1 and Figure 2.2. Per Section 8.4 of the application from WRH guidance note, Figure 2.3 presents a cross section through the Site.

Although groundwater is not actively abstracted to facilitate mineral extraction, it is understood (from historical field observations, that the water table (130-150 mAOD in the southwest of the quarry and 170-200 mAOD in the northeastern end) may have rested at an elevation above the current quarrying level, and thus passive dewatering of the aquifer is considered to be occurring.

Based on anecdotal evidence from Site staff, it is considered that the abstraction is likely to comprise predominately rainfall, although the precise proportions are not known. Incident rainfall from the 'top' (northeast) of the Site (c.270 mAOD) drains to the 'bottom' (southwest) of the Site (c.100 mAOD) to the Primary Settlement Lagoon, located immediately northeast of the administrative and processing areas of the Site.

Here, suspended solids are allowed to settle out of solution before being pumped directly to the discharge chamber in the southwestern extents of the Site (c.80 mAOD). The Primary Settlement Lagoon pump utilises a turbidity meter, which allows auto shut-off of the pump if suspended solids are detected above 80 mg/l. If the pump is stopped due to elevated suspended solid concentrations, and water levels in the lagoon continue to rise, the water is diverted via a gravity-fed route, which is culverted beneath the processing area to the Secondary Settlement Lagoons (x2). Excess runoff from the areas of hardstanding south of the Primary Settlement Lagoon are also culverted to the Secondary Settlement Lagoons. Water is allowed settlement time here before travelling (via gravity) to the Clarifying Lagoons (x2). In the past, including during the qualifying period, this route was pumped and a flocculant added at this stage. The use of flocculants was deemed to be redundant and are no longer used.

Like the Primary Settlement Lagoon, the Clarifying Lagoons are also fitted with auto shut-off valves triggered by turbidity meters. The turbidity meters will close the outlet valves if suspended solids are greater than 80 mg/l. If this happens and water continues to inflow to the Clarifying Lagoons, water will be allowed to weir over the Outflow Chamber to discharge via the usual route in a 'stormflow' manner. This storm overflow is allowed by the Permit and the drainage system design has been agreed with NRW prior to its installation.

Discharge from the Site is via a pipe which is culverted beneath the A468. The piped discharge reportedly takes a route northwards before discharging into the Nant Ffwd at approximately ST 22010 88950, which flows into the River Rhymney approximately 600 m downstream.

It should be noted that Site staff observe that outside of rainfall events, there is no inflow to the Primary Settlement Lagoon. This couldn't be confirmed at the time of the Site visit in September 2019 as it was following a period of heavy rain (see Photograph 3).

2.2 Abstraction infrastructure

The Primary Settlement Lagoon contains the following water management infrastructure:

- A B2670 Flygt unit (80 l/s), powered by;
- a Power Electrics HushGen generator (which powers the pump whilst it is off mains);
- turbidity meter (limits discharge to below 80 mg/l suspended solids);
- high and low level sensors for the pump (the high level sensor is currently not used as the pump is manually switched on, low level sensor shuts pump off so that it does not run dry); and
- a gravity outfall to Secondary Settlement Lagoons.

The Clarifying Lagoons/ Outfall Chamber have the following infrastructure:

- Turbidity meters (x2, limit discharge to below 80 mg/l suspended solids);
- auto shut-off valves to outfall chamber;
- weir for storm overflow; and
- discharge pipe, culverted beneath the A468.

2.2.1 Abstraction volumes

The volumes of water abstracted by the quarry during the qualifying period have not been recorded. Therefore, we have estimated the likely volumes that the quarry would likely have dewatered based on the following (all workings are presented in Appendix E):

- Site staff testimony; and
- Surface water catchment and maximum rainfall in the vicinity of the Site during the qualifying period.

Staff testimony suggests that the abstraction pump quickly removes incident rainfall water from the Primary Settlement Lagoon, usually in as little as two hours. In dry weather, there is reportedly no visible water ingress to the Primary Settlement Lagoon. As such, we have estimated the volume pumped from the Primary settlement Lagoon to be 79,200 m³/yr (assuming pumping at maximum pump capacity 80 l/s, for 5.5 days a week in the winter months i.e. 25 weeks per year).

This volume excludes the volume of water which is diverted via the storm overflow. The frequency of the storm overflows has not been recorded. As such, we have conservatively estimated the volume of water to be abstracted from the Site as the catchment area (33.5 ha) multiplied by the maximum recorded rainfall in the qualifying period (1.667 m/yr in 2012) at a nearby gauging station (Margham gauging station near Port Talbot). This yields an estimated volume of 558,258 m³/yr of surface water to be abstracted from the Site. A similar approach was taken to estimate the maximum volume of surface water flow per day, taking the maximum daily rainfall (from Cefn Cribwr station, measured on 23 September 2012), which estimates a maximum abstraction of 15,482 m³/d. This volume does not account for any groundwater contribution, which cannot easily be estimated.

As such, in order to present a maximum abstraction volume, we have conservatively assumed the maximum pumping rate over 24 hours, 365 days per year. Though acknowledged that this exact scenario would never occur, the calculation method does not allow for any water being diverted via the storm-flow route and serves to provide a licensable volume.

It is considered that as the licence will comprise a transfer licence, the volume will not be limited in any case. The existing water management infrastructure is suitable for its purpose and ensures full

compliance with the conditions of its discharge permit. The site cannot abstract excessive groundwater as the abstraction is passive.

Figure 2.1 Water movements schematic

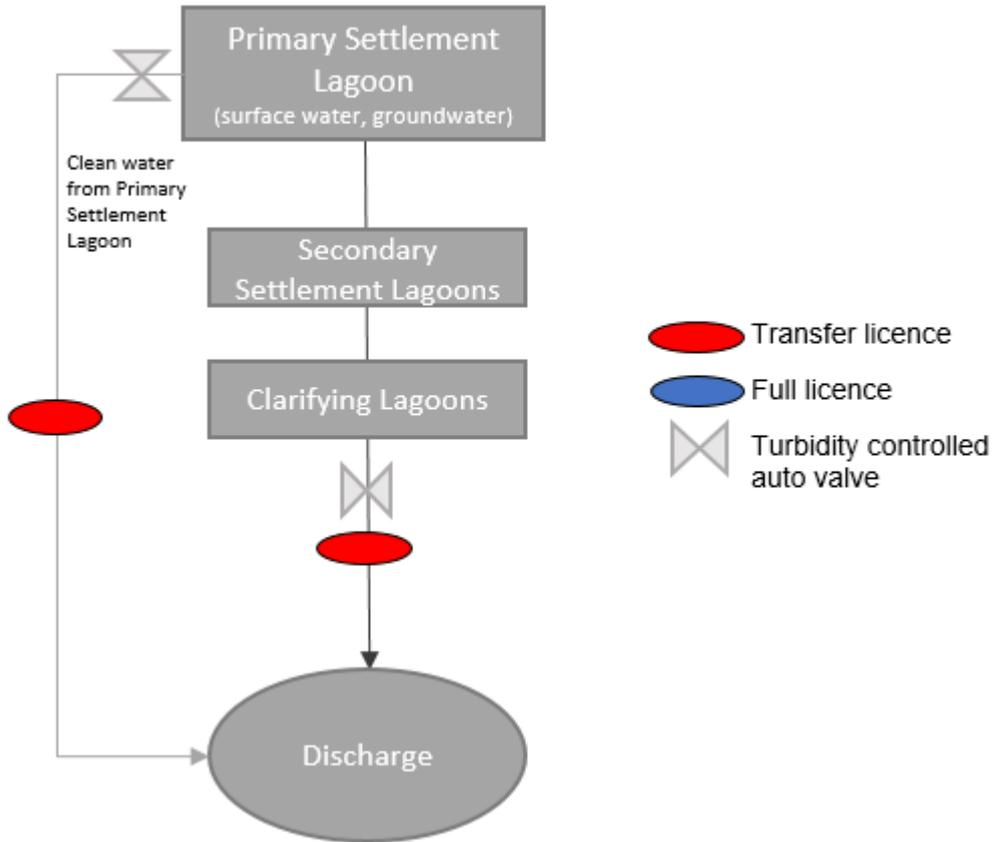


Figure 2.2 Water management plan

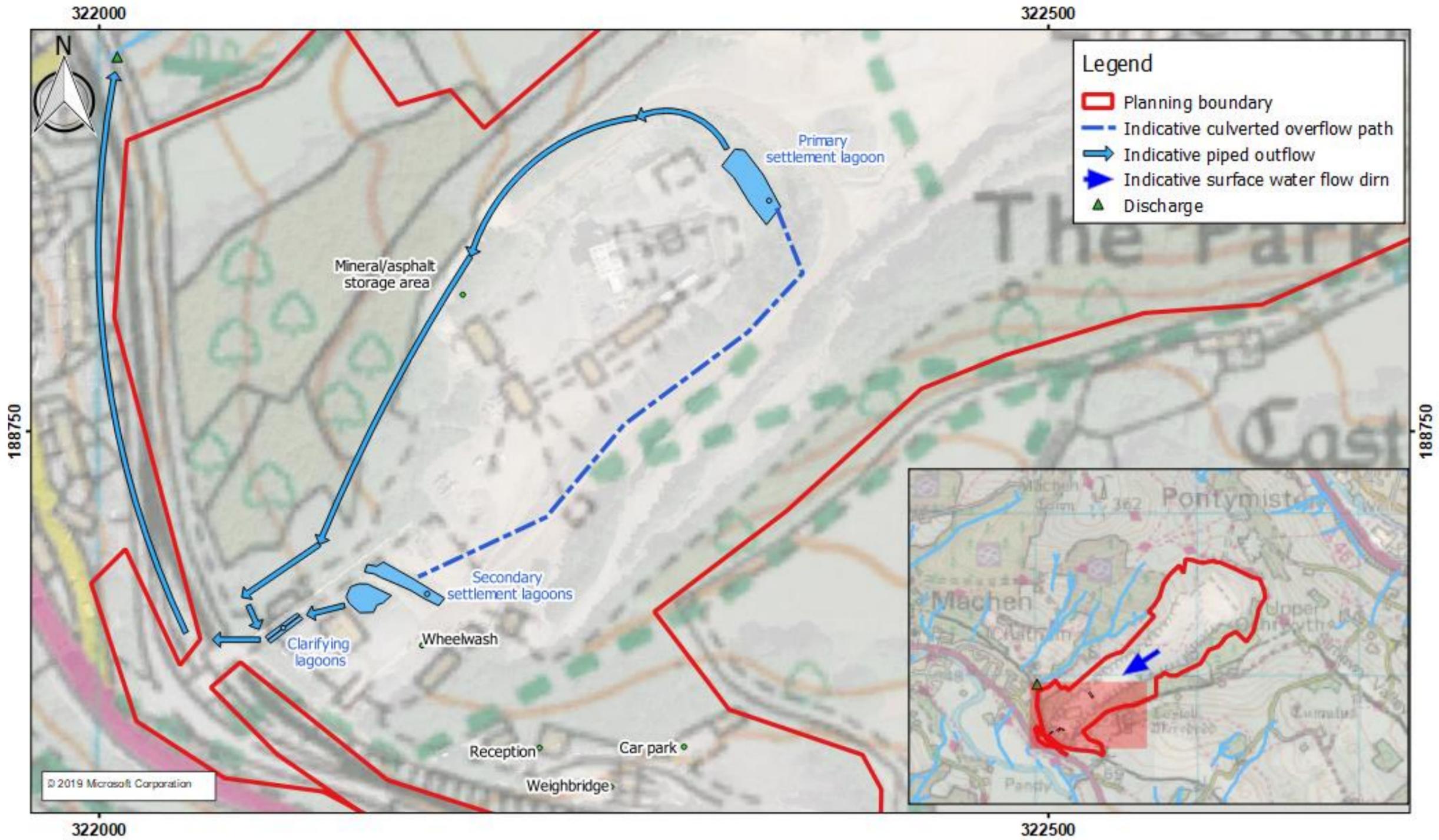
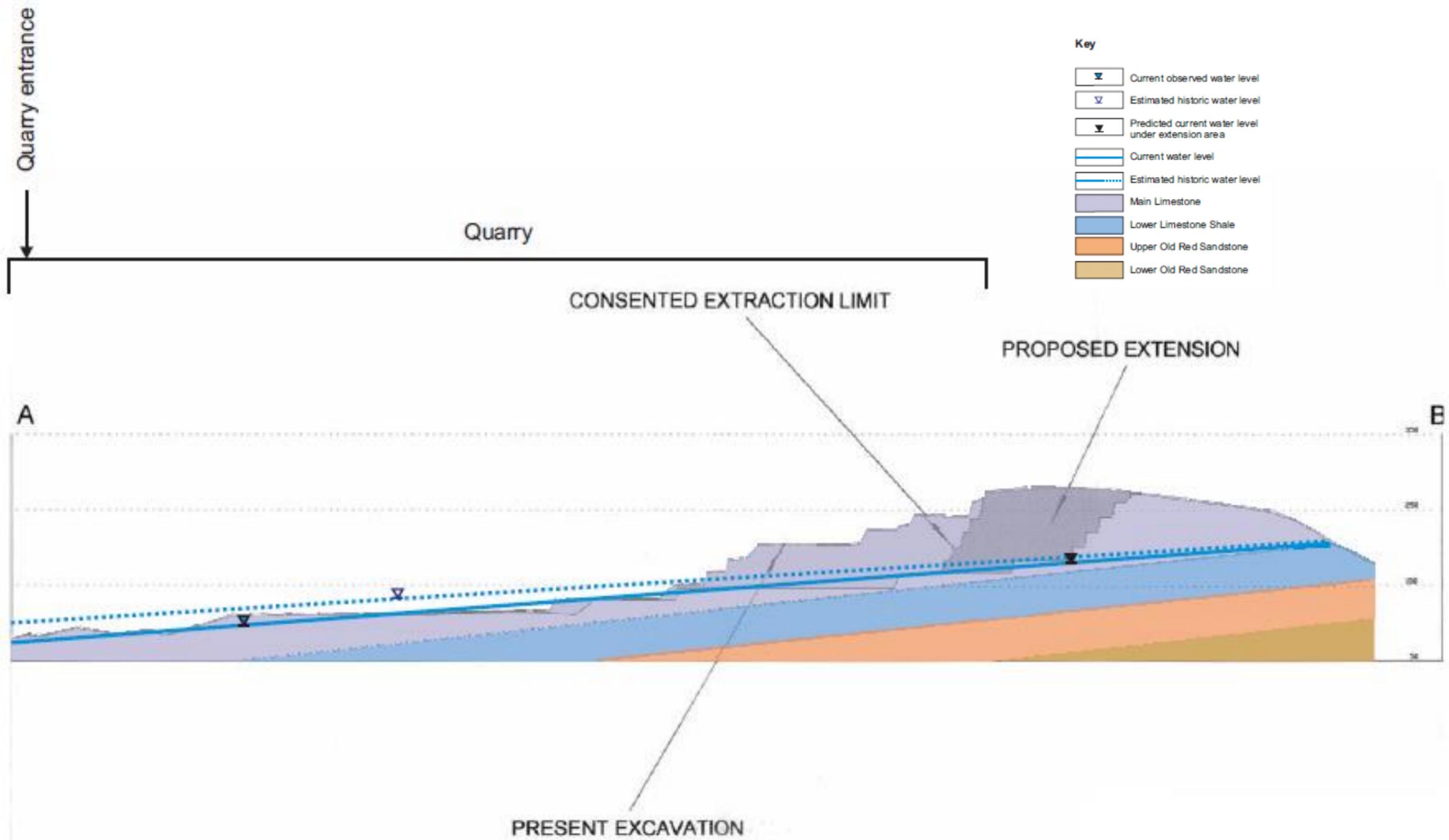


Figure 2.3 Conceptual hydrogeological cross section (from Entec, 2004)



2.3 Discharge

The Site holds a discharge permit for the discharge of site run-off. The details of the Permit are summarised in Table 2.1. The Permit allows the discharge of surface water run-off, which has been through the Site's settlement lagoon system to remove suspended solids. The Permit also allows periodic discharge of storm overflow from the Site, due to the large surface water catchment. This overflow is not subject to the usual suspended solids compliance limit of 100 mg/l.

During usual operation of the water management system, turbidity meters ensure the Site remains in compliance with the Permit's suspended solids limit by closing the outfall valves at a concentration of 80 mg/l and higher.

Table 2.1 Discharge Permit details

Discharge location	Location	NGR	Suspended solids limit (mg/l)	Permit ID
'Outlet' to Nant Ffrwd	'Outlet' to Nant Ffrwd	ST 22010 88950	100*	NPSWQD009286

**Limit does not apply to storm-overflow water*

Off-Site discharge is via gravity outfall and so there is no record of volumes of water discharged from the Site during the qualifying period.

It is understood that a flowmeter was present at the Secondary Settlement Lagoons, however its purpose was to allow calculation of correct dosing when the Site used to use flocculants. Volumes through this meter were not recorded and if they were, they would only capture the storm overflow plus site drainage from the processing area.

2.4 Water use

At Machen, water is used for wheel washing and dust suppression. The Site have recently installed a new wheelwash plant (Photograph 1) which allows recycling of water. The wheelwash is, and has always been, mains supplied.

Water is also used for dust suppression. The dust suppression is undertaken by third party contractor KJ Services using a bowser (capacity c.1.6 m³), see Photograph 2. Dust suppression is only undertaken when required, in dry or dry and windy conditions. It is estimated that this equates to approximately one to two bowsers per day on average. Water used for dust suppression is taken from the Primary Settlement Lagoon. As this use is considerably less than 20 m³/d, it is taken that a Full abstraction licence is not required.

Photograph 1: Wheelwash (installed January 2019)



Photograph 2: water bowser used by third party for dust suppression



Photograph 3 Inflow to Primary Settlement Lagoon (September 2019, following heavy rain)



3 Summary of licencing requirements

The Site is not actively dewatered, however it is understood that the quarrying activities have intercepted the groundwater table within the Limestone and thus passive dewatering of groundwater has occurred, which naturally drains from the Site via the water management system.

Table 3.1 presents the estimated transfer volumes from the Site during the period January 2011 to December 2017. The records and workings for which are presented in Appendix E.

Water use at the Site is less than 20 m³/day or mains supplied, as such a Full licence is not required.

Table 3.1 Application volumes to be transferred

Activity	Estimated (m ³ /year)	Maximum (m ³ /day)	Max (m ³ /hour)	Max instantaneous flow (l/s)
Transfer	2,522,880 ^A	15,482 ^B	645 ^B	179 ^B

A Calculated on pumping at max pump rate, 24 hrs/d, 365 d/yr

B Calculated on maximum daily rainfall x catchment area

The volumes applied for in Table 3.1 have been estimated based on available information. As the transfer licence does not require a limit and as the abstraction will be greater in wetter years and less in drier ones, we do not expect the transfer licence to have a numerical volume limit.

References

Entec, 2004. Machen Quarry Hydrological/ Hydrogeological Assessment, Entec UK Limited, 15 November 2004.

Appendices

Appendix A

Application form



Fill in this form if you are applying for a transitional water resources licence to continue a previously exempt abstraction.

This form is available in both English and Welsh. Please check that this is the latest version of the form available from our website before submitting your application.

Please ensure you use Guidance Note WRH to help you.

All relevant guidance documents can be found on our website.

Contents

1 Application type and fee

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1. Application type and fee

1.1 Please select your application type from the list below.

- A new transitional water resources full abstraction licence for a previously exempt abstraction
- A new transitional water resources transfer licence for a previously exempt abstraction
- A variation to an existing full abstraction licence to add a previously exempt abstraction
- A variation to an existing transfer licence to add a previously exempt abstraction

1.2 Please indicate the amount and how you wish to pay your application

Amount paid

Cheque

Credit or debit card

BACS transfer BACS reference number

2 Applicant and agent details

This is the individual or organisation any resulting licence will be issued to, and must be a legal entity. If you are an agent acting on behalf of an applicant, provide their details here and yours in section 2.2.

2.1 Applicant details

Individual Public body

Registered company Organisation or group of individuals

Other If 'Other', please specify

Title

First name	<input type="text"/>
Last name	<input type="text"/>
Company, charity, body, or trading name (if relevant)	<input type="text"/>
Registered company or charity number (if relevant)	<input type="text"/>
Address	<input type="text"/>
	<input type="text"/>
	<input type="text"/>
	<input type="text"/>
Postcode	<input type="text"/>
Telephone - mobile	<input type="text"/>
Telephone - office	<input type="text"/>
Email address	<input type="text"/>

We will contact you by email unless you tick here.

2.2 Agent details

This is who we will correspond with unless otherwise informed. If you are an agent applying on behalf of an applicant, please include a letter of authorisation from the applicant allowing you to act as signatory, and provide a reference for this document in the box below.

Document reference	<input type="text"/>	
Title	<input type="text"/>	<input type="text"/>
First name	<input type="text"/>	
Last name	<input type="text"/>	
Company or trading name	<input type="text"/>	
Position in company	<input type="text"/>	
Address	<input type="text"/>	
	<input type="text"/>	

	<input type="text"/>
	<input type="text"/>
Postcode	<input type="text"/>
Telephone - mobile	<input type="text"/>
Telephone - office	<input type="text"/>
Email address	<input type="text"/>

We will contact you by email unless you tick here.

2.3 Site operation contact

Please specify who we should contact with regard to your site operation.

Applicant

Agent

Other Please provide contact details for the operational contact on a separate referenced document, and tell us this reference below.

Document reference

2.4 Abstraction invoices and records contact

Please specify who we should contact for invoices and abstraction records (returns). Please note that these may not be not required for transfer licences.

Invoice address

Applicant

Agent

Other Please provide contact details for the operational contact on a separate referenced document, and tell us this reference below.

Document reference

Abstraction records

Applicant

Agent

Other Please provide contact details for the operational contact on a separate referenced document, and tell us this reference below.

Document reference

3. Site name

3.1 Please provide the site name below:

Site name

4. Entitlement to apply

4.1 Have you abstracted water between 01 January 2011 and 31 December 2017 for the activity which you are applying to be licensed?

Yes

No Please see our water abstraction and impounding webpage for further information on the correct application forms.

4.2 What is your connection to the land where the abstraction takes place?

Please provide a map outlining your land ownership/occupation and include all abstractions and discharges where relevant.

Owner

Occupier

Document reference

4.3 Do you have a legal right of access to the land where the abstraction take place?

No

Yes Please provide further detail in the box below. If necessary continue on a separate referenced document, and tell us this reference.

Document reference

5. Existing licence number(s)

If you are applying to change an existing licence please provide the licence number below.

Licence number(s)

6. Cross border applications

As part of your site operation do you also abstract for a previously exempt activity in England?

No

Yes Please provide detail of this cross border application in the box below. If possible, provide a reference or application number, or name of an Environment Agency contact with whom the application has been discussed.

Continue on a separate referenced sheet if necessary and tell us the reference for this document.

Document reference

7. Abstraction details

7.1 Site map

Please provide a map with details of the location(s) you abstract water from (points reaches, or areas). Tell us the reference for this map, below.

Site map reference

7.2 Please tell us details about the location(s) you abstract water from (points reaches, or areas) in the tables below.

The abstraction location, name, or reference must be the same as those used on the site map, in question 7.1. If you need more space, please continue on a separate referenced sheet if necessary and tell us the reference for this document

Document reference

Table 7. 1 - Surface water abstractions						
Abstraction location name or reference (As labelled on the site map)	Type of location (single point, reach, area)	Source of Supply	First National Grid Reference (12 digits)	Second National Grid Reference (12 digits)	Third National Grid Reference (12 digits)	Fourth National Grid Reference (12 digits)

If necessary, continue on a separate sheet and tell us the reference for this document.

Document reference(s)

Table 7. 2 Ground water abstractions										
Abstraction location name or reference (as labelled on map)	Source of Supply	National Grid Reference (12 digit)	Overall depth (metres)	Maximum diameter (millimetres) or area of excavation (square metres)	Screened section (metres below ground level)	Drift geology	Solid geology	Rest pump water level	Pumped water level	Pump Depth

If necessary, continue on a separate sheet and tell us the reference for this document.

Document reference(s)

8. Abstraction history and evidence

8.1 Please complete table 8.1 to document that the abstraction(s) and transfer(s) has or have been taking place during the qualifying period.

If necessary, continue on a separate sheet and tell us the reference for this document.

Document reference(s)

Table 8.1											
Year	Abstraction location name or reference (as labelled on map)	Purpose(s) water used for	Period of abstraction All year, or months, or days (provide specific dates)	Maximum quantities abstracted						Means of measurement, or assessment of abstracted quantities	Are these the maximum quantities of water you wish to have licensed? (Yes or No)
				Year (cubic metres)	Day (cubic metres)	Hour (cubic metres)	Peak instantaneous flow rate (litres per second)	Maximum number of hours of abstraction per day	Please indicate whether volume is actual (A) or estimated (E)		
01 January 2011 to 31 December 2011											
01 January 2012 to 31 December 2012											
01 January 2013 to 31 December 2013											
01 January 2014 to 31 December 2014											
01 January 2015 to 31 December 2015											
01 January 2016 to 31 December 2016											
01 January 2017 to 31 December 2017											

8.2 Please complete the table below if you wish a lesser quantity of water to be licensed than that detailed in table 8.1.

If necessary, continue on a separate sheet and provide a reference for this document.

Document reference

Table 8.2

Abstraction location name or reference (as labelled on map)	Purpose water is used for	Abstraction period	Maximum annual abstraction volume (cubic metres)	Maximum daily abstraction volume (cubic metres)	Maximum hourly abstraction volume (cubic metres)	Maximum number of hours of abstraction per day	Peak abstraction rate (litres per second)

8.3 Do you wish your abstracted quantities to be aggregated?

You can aggregate:

- i) across some or all of the abstraction points, or reaches, or areas listed above.
- ii) with other abstractions you wish to have licensed through the transitional process.
- iii) abstractions you need to have licensed through the standard licensing process.
- iv) with existing licences you hold.

No

Yes Provide details of any proposed aggregation in the box below. If necessary, continue on a separate sheet and provide a reference for this document.

Document reference

8.4 Please provide a detailed description of how the abstraction(s) has/have taken place

Use the box below to tell us about your abstraction(s). The description should include the following:

- A diagram or schematic of how the activity has been undertaken, using your abstraction point references and including any discharge points
- Details of the structure and equipment involved in the abstraction. This should include dimensions.
- Details of your means of measurement or assessment of abstraction quantities method

If necessary, continue on a separate sheet and tell us the reference for this document.

Document reference

8.5 Please list the evidence you are providing to support your application

Use the box below. The evidence should demonstrate the following:

- That abstraction has taken place at some time during the seven year qualifying period.
- The quantities of water you have abstracted during the qualifying period. For example, records of meter readings, or cropping plans.

If necessary, continue on a separate sheet and provide a reference for this document.

Document reference

9. Discharge details

9.1 Please provide details on any discharge of abstracted water in table 9.1 below and on the map used to show abstraction locations.

If necessary, continue a separate sheet and provide a reference for this document.

Document reference

Table 9.1 - Details of any discharge of abstracted water			
Discharge location name or reference (as labelled on map)	National Grid Reference of discharge point (12 digit)	Total volume discharged (cubic metres)	Environmental Permit number for Water Discharge Activity number (if applicable)

9.2 Please provide a description of discharge structures and equipment

If necessary, continue a separate sheet and provide a reference for this document.

Document reference

10. Eel considerations

Does your abstraction include measures to safeguard eels?

No

Yes Provide details below

11. Trickle Irrigation

If you are applying to licence a trickle irrigation abstraction, do you wish to apply for a Two-Part Tariff agreement with your application?

No

Yes We will contact you during determination of your application to arrange this agreement.

12. Planned abstractions

12.1 Do you expect to increase the current rate of abstraction for the activity you are applying to have licensed from 01 January 2018 onwards or to carry out further new abstractions (both termed 'planned' abstractions) at this site in the future?

No

Yes

12.2 Have you submitted a licence application (s) for any planned abstraction(s) as a result of the Water Act 2003 changes?

No

Yes Provide a reference number if you have already submitted an application(s) to cover any planned abstractions.

Document reference

13. Other abstractions

Please provide details of any other abstraction(s) (licensed or exempt) that are associated with this application in table 13.1 below.

Table 13.1 - Details of any other abstraction(s) (licensed or exempt) that are associated with this application					
National Grid Reference (12 digit) of where you abstract water	Source name and type	Purpose of abstraction	Where do you use the water?	When do you abstract the water?	Is this a pending application, or already licensed? Please provide the application or licence number as appropriate

14. Planning permission

Complete table 14.1 below and provide details of any planning permissions or advice associated with the abstraction you are applying to have licensed where relevant. Provide a copy of any permissions or advice, providing a reference for this document below.

Document reference

Table 14.1 – Planning permission

Abstraction location name or reference (as labelled on map)	Is planning permission needed, Yes or No?	Planning permission status (if required)	Have you received any planning advice for the abstraction?

15. Environmental impact assessment(EIA)

Does your application require an EIA under The Water Resources (Environmental Impact Assessment) (England and Wales) Regulations 2003 (as amended)

No

Yes Please provide a copy of your environmental impact assessment; provide a reference for this assessment below.

Document reference

16. Licence duration

Tell us when you wish your abstraction licence to end

Normally abstraction licences are granted for between 6 and 18 years in line with the catchment licence common end date. If you require a shorter or longer duration licence, please provide details and your justification in the box below.

If necessary, continue a separate sheet and provide a reference for this document.

Document reference

17 Declaration and data protection and commercial confidentiality

Data protection:

Please read the guidance carefully for details on who can sign this section and note the information relating to the Data Protection Act 1998, our Public Register and exclusions.

Commercial confidentiality:

Do you think your application should be confidential, and that information should not be placed on the public register?

No

Yes You must send us supporting information to tell us why. Use the box below or a separate sheet, and tell us the reference you have given this document.

Document reference

Declaration:

By signing below, you are declaring that as far as you know and believe the information given in this form, on any map and in any supporting or additional information is true.

A printed name in the 'signature' response box will be treated as the equivalent of an electronic signature.

Title

First name

Last name

Position

Today's date

Appendix B

Planning permission



Directorate of the
Environment
Planning Division
Council Offices, Pontllanfraith
Blackwood NP12 2YW
Tel: 01495 226622
Fax: 01495 235013

Adran y Cyfarwyddwr
Gwasanaethau Environment
Is-Adran Cynllunio
Swyddfeydd y Cyngor, Pontllanfraith
Coed Duon NP12 2YW
Ffon: 01495 226622
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Town and Country Planning Act, 1990

Town and Country Planning (General Development Procedure) Order, 1995

PERMISSION FOR DEVELOPMENT

APPLICATION NO. P/05/1100

APPLICANT

Hanson Quarry Products
Europe Limited,
Area Office,
Canal Road,
Cwmbach,
Aberdare.
CF44 OAG

AGENT

Mr. M. Frampton,
Hanson Aggregates,
Area Office,
Canal Road,
Cwmbach,
Aberdare.
CF44 OAG

WHEREAS on 27/07/05 you submitted an application for the Permission to extend existing quarry, continuation of existing quarry workings, related processing of minerals/manufacture of coated roadstone and production of concrete and despatch of minerals by road and existing railhead at Machen Quarry, Lower Machen, Machen, Caerphilly. (hereinafter called "the development").

The Caerphilly County Borough Council as Local Planning Authority hereby determines that the development shall be subject to the conditions specified below:-

- (1) The development to which this permission relates shall be begun not later than the expiration of five years beginning with the date of this permission. Written notification of the date of commencement shall be sent to the Mineral Planning Authority within seven days of the date of such commencement.
- (2) Extraction of minerals shall cease by 31st December 2042 and restoration shall be completed within two years from that date or within two years from the date of the permanent cessation of extraction, whichever is the sooner. All buildings to which this permission relates shall be removed within twelve months from the date of the permanent cessation of extraction unless a specific planning permission is subsequently granted for their retention.
- (3) Unless otherwise agreed in writing with the Mineral Planning Authority the working, restoration and aftercare of the site shall be carried out in accordance with the working programme and phasing plans, Plan Nos. 5.1, 5.2, 5.3, 5.4, 5.5, 7 received on the 27th July, 2005, and Plan 8 (Restoration Masterplan) received on the 2nd September, 2005, and submitted in Application Reference No. P/05/1100.



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- (4) Except in the case of emergencies to maintain safe quarry working or unless the Mineral Planning Authority has agreed otherwise in writing:-
- (a) No operations other than those associated with the production of coated roadstone or the operation of the railhead, water pumping, servicing, environmental monitoring, maintenance and testing of plant shall be carried out on bank or public holidays or except between the following times on any other day:-
 - 0700 hours and 2200 hours Monday to Friday
 - 0700 hours and 1600 hours Saturdays
 - 0800 hours and 1300 hours Sundays
 - (b) No quarrying operations shall take place except between the hours of:-
 - 0700 hours and 2100 hours Monday to Friday
 - 0700- 1300 hours Saturday
 - 0800- 1300 hours SundayFor the purposes of this permission "quarrying operations" shall mean the stripping of overburden, the development of the quarry faces (including drilling), the loading and transportation of stone to the primary crusher and the operation of the primary crusher or any replacement thereof.
 - (c) No operations for the formation and subsequent removal of material from any environmental banks and soil storage areas shall be carried out at the site except between the following times:-
 - 0700 hours and 1900 hours Monday to Friday
 - 0700 hours and 1300 hours Saturdays.
 - (d) No blasting operations shall take place except between the hours of 1000 hours and 1600 hours Monday to Friday and not at all on Saturdays, Sundays and bank/public holidays.
- (5) No loaded lorries shall leave the site unsheeted except those only carrying stone in excess of 500mm.
- (6) No vehicles shall enter the public highway unless their wheels and chassis are in a clean condition. Within six months of the date of this permission measures shall be taken, in accordance with a scheme to be submitted to and approved by the Mineral Planning Authority, to prevent material being deposited on the public highway.
- (7) No development shall take place within the extension area until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the Mineral Planning Authority.
- (8) The mitigation measures identified in the ecology and nature conservation assessment (David Clements Ecology Ltd - May 2005) shall be carried out in full at the appropriate times during the operations hereby permitted unless a variation is agreed in writing with the Mineral Planning Authority.
-



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(9) Within three months of the date of this permission a scheme and programme of measures for the suppression of dust shall be submitted for the approval of the Mineral Planning Authority.

The scheme shall include inter alia:-

- The suppression of dust caused by the moving and storage of overburden and soil, stone and other materials within the site.
- Dust suppression on haul roads, including speed limits.
- The provision of dust collection and storage facilities.
- Provision for monitoring and review of the scheme.
- The use of suitable dust suppression systems on crushing plant and drilling equipment.

Once approved all operations shall take place in accordance with the scheme.

(10) No blasting shall be carried out except in accordance with a scheme to be submitted to and approved by the Mineral Planning Authority within three months of the date of this permission.

The scheme shall include details of:-

- a) blast monitoring locations and the method of monitoring each blast,
- b) the monitoring equipment to be used,
- c) presentation of results, those results being retained at the quarry site and made available for inspection by the Local Planning Authority at all reasonable times, and copies being supplied to the Mineral Planning Authority on request:-
- d) the frequency of blasting and warning measures,
- e) details of the methods to be employed to minimise air overpressure from blasting operations.

Once approved all operations shall be carried out in accordance with the approved scheme.

(11) The ground vibration resulting from blasting operations, measured as peak particle velocity in any one of three orthogonal planes, shall not exceed 6mm/sec in 95 % of all blasts measured over a period of six months and no individual blast shall exceed 8mm/second measured at or near the foundations of any vibration sensitive building.

(12) Between the hours of 0700-2200 hours the noise levels arising from the development shall not exceed 55dB(A) at any residential property in existence at the date of this permission.

(13) Between the hours of 2200 and 0700 hours noise levels arising from the development shall not exceed 42dB(A) at any residential property in existence at the date of this permission.

(14) Within three months from the date of this permission, a scheme for monitoring noise levels arising from the site shall be submitted to and approved by the Mineral Planning Authority. The scheme shall provide for:-

- Attended measurements by a competent person of Laeq 5 minute noise levels over 1 hour at such locations to be agreed with the Mineral Planning Authority. Measurements to be taken at three monthly intervals or such other frequency as is agreed in writing with the Mineral Planning Authority for the first two years of operation.



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- Details of equipment to be used for monitoring.
- Monitoring during typical working hours with the main items of plant and machinery in operation.
- The logging of all weather conditions, approximate wind speed and both on site and off site events occurring during measurements including "phased out" extraneous noise events.
- Monitoring results to be forwarded to the Mineral Planning Authority within 14 days of measurements.

(15) Any chemical, oil or fuel storage containers on the site shall be sited on an impervious surface with bund walls; the bunded areas shall be capable of containing 110% of the containers' total volume and shall enclose within their curtilage all fill and draw pipes, vents, gauges and sight glasses. There must be no drain through the bund walls or floor.

(16) Throughout the period of operations the operator shall:-

- Protect and support any ditch, watercourse or culvert passing through the permission area and shall not impair the flow or render less effective drainage onto and from adjoining land.
- Provide for the collection, treatment and disposal of all water entering or arising on the site, including any increased flow from the land to ensure that there is no pollution of any watercourse by the approved operations.

(17) At twelve monthly intervals following the date of this permission the operator shall provide the Local Planning Authority with a survey plan of the site at 1:2500 scale together with a calculation of the volume and type of materials stored for use or actually used in restoration including details of the area stripped of topsoil, subsoil and soil forming material and the location of each soil storage mound.

(18) All soils and soil making materials shall only be stripped, handled, stored and replaced in accordance with a scheme which shall have been approved in writing by the Mineral Planning Authority before the commencement of soil stripping.

(19) Within three months of the date of this permission details of a scheme for the management of tree and woodland areas shall be submitted for the approval of the Mineral Planning Authority; the scheme shall include provision for the identification, protection and management of all trees within the application area but outside the limits of excavation and upon approval such scheme shall be implemented in full and complied with throughout the duration of the permission unless otherwise agreed in writing with the Mineral Planning Authority.

(20) Trees shrubs and hedges planted in accordance with the approved restoration scheme shall be maintained and any plants which within five years of planting, die or become seriously damaged or diseased shall be replaced in the next planting season with others of a similar size and species, unless otherwise agreed in writing with the Mineral Planning Authority.



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(21) All topsoil, subsoil and soil making materials shall be stored in accordance with the planning application and supporting documents and in separate mounds which shall:-

- Not exceed 3 metres in height in the case of topsoil, or exceed 5 metres in height in the case of subsoil unless otherwise agreed in writing with the Mineral Planning Authority.
- Be constructed with only the minimum amount of soil compaction to ensure stability and shaped so as to avoid collection of water in surface undulations.
- Not be subsequently moved or added to until required for restoration unless otherwise agreed in writing with the Mineral Planning Authority.
- Have a minimum 3 metre stand off, undisturbed around each storage mound.
- Comprise topsoils on like texture topsoils and subsoils on like texture subsoils.
- In the case of dissimilar mounds ensure that dissimilar soils are separated by a third material which shall have previously been agreed in writing by the Mineral Planning Authority.

(22) Within twelve months of the date of this permission, a progressive restoration scheme shall be submitted for the approval of the Mineral Planning Authority. The progressive restoration scheme will outline the general principles for the restoration of the quarry and will include details of:-

- The nature of the intended afteruse of the site.
- The sequence and phasing of reclamation showing clearly the relationship to the working scheme.
- The re-spreading over the quarry floor of overburden subsoil and topsoil previously stripped from the site and shall specify the depths of the replaced materials and the methods used to replace the material.
- The ripping of any compacted layers of final cover to ensure adequate drainage and aeration.
- The machinery to be used in soil re-spreading operations.
- Drainage of the reclaimed land including the formation of suitable graded contours to promote natural drainage and the installation of artificial drainage.
- The proposed final configuration and levels of any restored areas.
- Unless otherwise agreed in writing with the Mineral Planning Authority, the reinstatement of the plant site and access roads by clearing plant, buildings, machinery and concrete or brickwork, deep cultivation to remove rocks or other obstructions and replacing of subsoil then topsoil.
- Grass seeding of reclaimed areas with a suitable herbage mixture.
- An indicative timetable for the implementation of restoration works.
- Measures to mitigate the impact of the development on protected species of nature conservation value through the provision of appropriate habitats.



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(23) The site shall be reclaimed and managed for nature conservation amenity use in accordance with a detailed final restoration scheme, which shall identify full restoration proposals for the site in accordance with the broad principles of the progressive restoration scheme, to be submitted for approval of the Mineral Planning Authority by the 31st December, 2040, or within three months of the earlier permanent cessation of operations, whichever is the sooner.

(24) The scheme detailed in (Condition 23) shall be implemented within two years following the expiry of this permission or the earlier cessation of working, whichever is the sooner.

(25) An aftercare scheme providing for a five year period of aftercare shall be submitted for the approval of the Mineral Planning Authority within three months of the permanent cessation of operations at the site, specifying such steps as may be necessary to bring the land to a condition reasonably fit for the proposed amenity use.

(26) Except where the condition indicates otherwise, all the preceding conditions relate to the entire application site, i.e. the quarry area existing at the date of the permission together with the extension area hereby approved.

The reasons for the Council's decision are:-

- (1) To comply with Section 91 of the Town and Country Planning Act 1990.
- (2) To ensure final restoration of the site at the end of its estimated life.
- (3) To enable the Mineral Planning Authority to adequately control the development and to minimise its impact on the amenities of the local area.
- (4) To protect the amenities of local residents.
- (5) In the interests of highway safety and safeguarding the local environment.
- (6) In the interests of highway safety and to prevent mud, dust and debris being deposited on the highway.
- (7) To ensure that adequate archaeological investigation and recording is undertaken prior to the development taking place.
- (8) To ensure that the impact of the proposed development on interests of nature conservation and ecology is minimised.
- (9) To protect the amenity interests of local residents.
- (10) To enable the effects of the development to be adequately monitored during the course of operations.
- (11) To protect the amenities of local residents and the structure of buildings.
- (12&13) To protect the amenities of local residents.
- (14) To enable the effects of the development to be adequately monitored during the course of the operations.
- (15&16) To minimise the risk of pollution of watercourses and aquifers.



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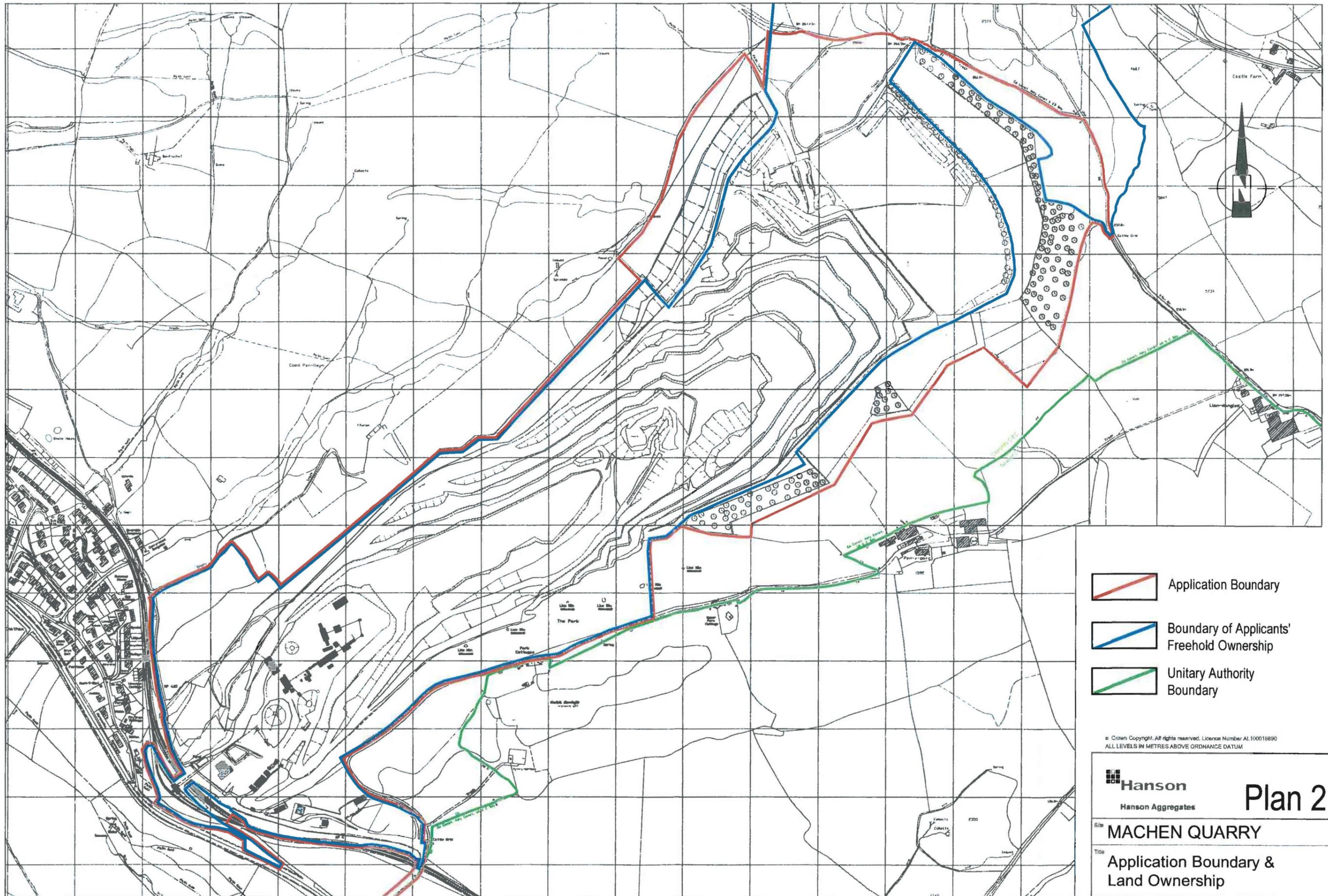
- (17) To ensure the satisfactory restoration of the site
- (18) To prevent loss or damage of soil, or mixing of topsoil with subsoil, or subsoil with overburden or mixing of dissimilar soil types.
- (19) Improve the appearance of the site in the interests of visual amenity, to screen the workings and to assist in absorbing the site back into the local landscape.
- (20) In the interests of the amenity of the local area and to ensure the development is adequately screened.
- (21) To prevent the loss of soil and minimise damage to soil structure during storage.
- (22-24) To ensure the satisfactory restoration of the site in the interests of the amenity of the locality.
- (25) To ensure the long term restoration of the site for amenity use.
- (26) For the avoidance of doubt as to the extent of this permission.

DATED: 22/06/06

CHIEF PLANNING OFFICER

Advisory Note

The proposed development lies within a coal mining area. In the circumstances applicants should take account of any coal mining related hazards to stability in their proposals. Developers must also seek permission from the Coal Authority before undertaking any operations that involves entry into any coal or mines of coal, including coal mine shafts and adits and the implementation of site investigations or other works. Property specific summary information on any past, current and proposed surface and underground coal mining activity to affect the development can be obtained from the Coal Authority. The Coal Authority Mining Reports Service can be contacted on 0845 762 6848 or at www.coal.gov.uk.



-  Application Boundary
-  Boundary of Applicants' Freehold Ownership
-  Unitary Authority Boundary

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 ALL LEVELS IN METRES ABOVE ORDNANCE DATUM

 **Hanson**
 Hanson Aggregates

Plan 2

Site **MACHEN QUARRY**

Title **Application Boundary & Land Ownership**

Scale 1:5000	Date 07/05	Drawing No.
Drawn by msp	Checked by M.F.	M68/0068

Appendix C

Hydrological/ Hydrogeological Assessment

(Accompanies application .pdf format)

Appendix D

Discharge permit



**ENVIRONMENT
AGENCY**

Consent to Discharge

Water Resources Act 1991 (as amended by the Environment Act 1995)

Consent Holder(s)

**Hanson Quarry Products Europe Limited
Hanson House
14 Castle Hill
Maidenhead
Berkshire
SL6 4JJ**

Company Registration Number 00300002

Consent to Discharge from

**Machen Quarry
Machen
Caerphilly
CF83 8YP**

Consent Number

NPSWQD009286

Consent to Discharge

Water Resources Act 1991
Section 88, Schedule 10
(as amended by the
Environment Act 1995)



**ENVIRONMENT
AGENCY**

Consent to Discharge

Consent Number

NPSWQD009286

Company Registration Number

00300002

To:

Hanson Quarry Products Europe Limited (The "Consent Holder")

C/o Principle Geologist

Hanson House

14 Castle Hill

Maidenhead

Berkshire

SL6 4JJ

The Environment Agency ("the Agency") in pursuance of its powers under the Water Resources Act 1991 (as amended by the Environment Act 1995) hereby consents to the making of a Discharge:

Of:

Trade effluent consisting of site surface runoff and drainage ("the Discharge")

From:

The Settlement, Attenuation and Stocking Areas

At:

Machen Quarry, Machen, Caerphilly

To:

Nant Ffrwd

Subject to the conditions set out in this Consent to Discharge.

Subject to the provisions of Paragraphs 7 and 8 of Schedule 10 of the Water Resources Act 1991 (as amended by the Environment Act 1995), no Notice shall be served by the Agency, altering this Consent, without the agreement of the Consent Holder, during a period of 4 years from the date this Consent takes effect.

This Consent is granted and takes effect on:

31st March 2010

Signed

A handwritten signature in black ink, appearing to read "Christopher Hall".

Christopher Hall - National Permitting Team Leader

1 **Conditions of Consent for trade effluent consisting of site surface runoff and drainage**

1.1 **Nature**

1.1.1 The Discharge shall consist solely of trade effluent consisting of site surface runoff and drainage arising from a total catchment area no greater than 241,500 square metres, which under certain conditions (see condition 1.4) may contain an element of storm runoff and drainage.

1.2 **Place of Discharge**

1.2.1

The Discharge shall be made in the manner and at the place specified as:

- a discharging to Nant Ffrwd;
- b at National Grid Reference ST 22010 88950;
- c shown marked "OUTLET" on Site Plan NPSWQD009286 attached to this consent.

1.3 **Sampling Point Requirements**

1.3.1

- a An appropriately labelled sample point shall be provided and maintained at National Grid Reference ST 22086 88634 (as shown marked 'Sample point' on the attached Sample Point Plan NPSWQD009286), or some other point as agreed in writing with the Environment Agency, so that a representative sample of the Discharge may be obtained.
- b The Consent Holder shall ensure that all constituents of the Discharge pass through the said sampling point at all times and in any legal proceedings it shall, for the purposes of Section 10 of the Rivers (Prevention of Pollution) Act 1961, be presumed, until the contrary is shown, that any sample of the Discharge taken at the said sampling point is a sample of what was being discharged into controlled waters.

1.3.2

The consent holder shall ensure at all times that the method of overflowing storm run-off (as shown marked 'Outlet C: Storm Flow' on the attached Sample Point Plan NPSWQD009286) permits an Agency Officer to readily ascertain if such an overflow is occurring.

1.4 **Volume, Rate and Flow**

1.4.1

For the purposes of this consent, "Normal" flows will consist of flows up to a maximum of 225l/s.

1.4.2

For the purposes of this consent, "Storm" flows will consist of flows in excess of 225l/s.

1.5

Flow Measurement

1.5.1

At the request of the Agency:

- a** A continuous flow measurement and recording system ("the flow system") that complies with MCERTS Flow Monitoring scheme shall be provided by a date specified by the Agency and operated to record the total daily volume of the Discharge;
- b** The flow system shall also measure and record either the instantaneous flow at least every 15 minutes or the 15-minute average flow every 15 minutes. The Consent Holder shall provide and operate on-site visual display from which the Agency can readily obtain the instantaneous or 15-minute average flow readings;
- c** The Consent Holder shall hold records of the total daily volume and the 15-minute flow readings;
- d** As soon as reasonably practicable after installation of the flow system and before the expiry of any certificate issued, the Consent Holder shall employ an independent expert to certify that the flow system complies with the MCERTS Flow Monitoring scheme;
- e** The Consent Holder shall immediately on issue provide a copy of the MCERTS certificate to the Agency and shall provide a copy of the independent expert's report to the Agency on request.
- f** The Consent Holder shall ensure that the flow system is always subject to a current MCERTS certificate;
- g** The Consent Holder shall produce and maintain documented procedures for the calibration, operation and maintenance of the flow system ("maintenance procedures");
- h** The Consent Holder shall employ an independent expert to certify that the maintenance procedures comply with the MCERTS requirements;
- i** The Consent Holder shall calibrate, operate and maintain the flow system in accordance with the maintenance procedures. The Consent Holder shall keep a record of the maintenance procedures and maintenance records available for inspection by the Agency and provide a copy to the Agency on request;
- j** The Consent Holder shall produce and maintain a formal Quality Management System ("QMS" for the management of the flow system and the implementation of the maintenance procedures. An appropriate independent certifier shall certify the QMS;
- k** The Consent Holder shall record all failures of the flow system and any other breaks in the flow record. The reasons for all failures and breaks that lead to missing or suspect total daily volume records and all steps taken to prevent a re-occurrence shall be recorded;
- l** The Consent Holder shall ensure that the flow system remains fully operational at all times and shall remedy any failures as soon as reasonably practicable.
- m** The Consent Holder shall provide records of the flow readings and the reasons for any significant breaks in the record when requested, in a format specified by the Agency.
- n** Flows of the Discharge shall be measured at the outlet or such other point as is agreed by the Agency.

1.6 **Composition**

1.6.1 The Discharge of "Normal" flows (see condition 1.4.1 above) shall not contain more than 100 milligrammes per litre of suspended solids (measured after drying at 105°C).

1.6.2 The discharge of "Normal" flows (see condition 1.4.1 above) shall not contain more than 0.015 milligrammes per litre of unionised ammonia.

1.6.3 As far as is reasonably practicable, the site and its facilities shall be operated so as to prevent the Discharge from containing any significant trace of visible oil or grease.

1.7 **Works Operation**

- 1.7.1
- a The site shall be operated and the effluent treated in such a manner which, so far as reasonably practicable, minimises the polluting effects of the Discharge on controlled waters.
 - b This condition does not require any alteration of the type of treatment used from that specified in the application.

1.8 **Maintenance**

1.8.1 The Consent Holder shall ensure the settlement lagoons are desilted on a regular basis to:

- a ensure treatment capacity is always available.
- b maintain conditions set out in Condition 1.6 above.

1.8.2 The Consent Holder shall keep a record of lagoon maintenance available for inspection by the Agency and provide a copy to the Agency on request.

1.8.3 The site, its facilities and equipment shall be operated and maintained in accordance with good operational practice such that:

- a it remains fully operational except at times of unavoidable mechanical or electrical breakdown which shall be attended to, and the Agency informed of the failure, as soon as practicable after the failure;
- b following a failure all equipment shall be returned to normal operation as soon as practicable;
- c it shall be desludged at sufficient frequency and in such a manner to prevent excessive carryover of suspended solids.

1.9 **Recording and Reporting**

- 1.9.1
- a The Consent Holder shall establish and operate a documented maintenance programme and record all non-routine actions undertaken that may have adversely affected effluent quality. Copies of the programme shall be made available for inspection by the Agency's officers at all reasonable times.
 - b On request the Consent Holder shall supply the Agency with a written report on the maintenance and all non-routine actions that may have adversely affected effluent quality
 - c The Consent Holder shall as soon as reasonably practicable report to the Agency all non-routine actions that may have adversely affected effluent quality.

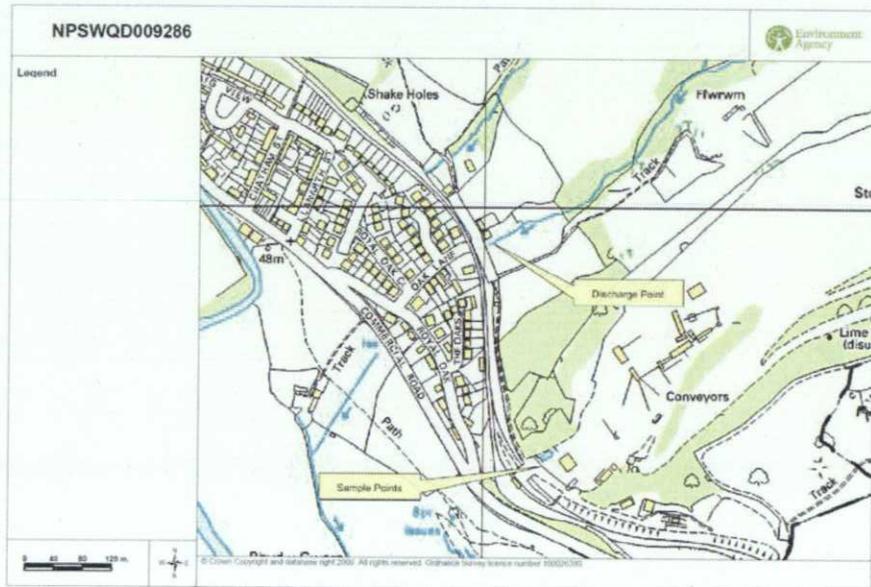
1.10 **Special Condition**

1.10.1 The Discharge shall be made in such a manner so as not to cause any scouring of the banks or bed of the receiving watercourse.

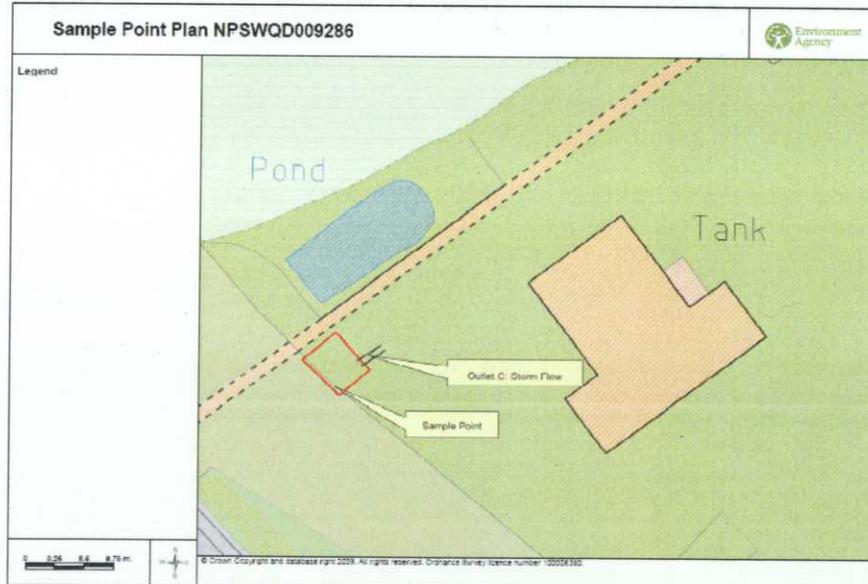
1.11 **Dosing condition**

- a Subject to paragraph (c) below, the chemical dosing material(s) employed in the suspended solids removal process shall be of a formulation as notified to the Environment Agency in writing prior to use.
- b The chemical dosing material shall at all times conform to the British Standards specification(s) relating to potable products or other equivalent specification as agreed in writing with the Environment Agency prior to use. Copies of the documentation of the quality assurance system shall be made available for inspection by officers of the Environment Agency at all reasonable times.
- c The chemical formulation of the chemical dosing material shall not be changed without the prior written agreement of the Environment Agency and such agreement shall only given if the Environment Agency considers that the relevant chemical formulation is unlikely to have an appreciable effect on controlled waters in the locality of the discharge.

Site plan NPSWQD009286



Sample Point Plan NPSWQD009286



Consent to discharge

Water quality



Water Resources Act 1991 as amended by Environment Act 1995 and Water Act 2003

Certificate of holder

Consent number

NPSWQD009286

This certificate confirms that the person named below is the registered holder of the consent. Keep the certificate with the consent document for future reference.

If you transfer responsibility for the discharge to somebody else you must

- tell us as soon as you can before the proposed transfer date – complete the *Consent to discharge – Notice of transfer* below, and return the whole sheet to the address given
- pass the consent to them.

You can contact us on 08708 506 506

The consent holder

Title

First name Hanson Quarry Products Europe Limited

Last name

Address

Hanson House

14 Castle Hill, Maidenhead

Berkshire

Postcode S L 6 4 J J

Telephone *in case of queries*

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Discharge details

Type

Trade Effluent

Location

Machen Quarry, Machen, Caerphilly, CF83 8YP

Consent to discharge – Notice of transfer

Use this part to request a transfer of the consent to another person. Once you and that person have completed the details below, return the whole sheet (WQP4) to us at the address shown. Until the consent has been transferred, you may still be liable for prosecution for breach of consent even though you are no longer on the site. If the proposed transfer does not take place, you must immediately inform the Environment Agency.

The proposed new holder of this consent is

Title

First name

Last name

Address

Postcode

Telephone *in case of queries*

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Proposed date of transfer to proposed new holder

(DD MM YYYY)

Current holder declaration

Signature of current holder

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Date (DD MM YYYY)

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Name

Title

First name

Last name

Position *if signing on behalf of an organisation*

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New holder declaration

Signature of proposed new holder

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Date (DD MM YYYY)

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Name

Title

First name

Last name

Position *if signing on behalf of an organisation*

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Return address

Send the completed form (WQP4) to us at:

WQ Permitting Support Centre
 Quadrant 2
 99 Parkway Avenue
 Sheffield
 S9 4WF

You should keep a copy for your records.

Guidance note - Certificate of Holder and Notice of Transfer

Please read the Certificate of Holder we have sent you along with your discharge consent. It gives your name and address as the Holder – or part holder - of the discharge consent. You are responsible for the discharge; if you fail to comply with the conditions in the consent, you might be prosecuted.

Please keep this certificate in a safe place. If it is incorrect in any way, let me know and I will issue a new one. Please also write to me:

- if there is more than one holder, with: the name, address (including postcode) and telephone number of the other holder(s)
- if you are not the person who will pay the annual charge, with: the name, address (including postcode) and telephone number of the person who will pay it. – Only if chargeable

If you wish to transfer the consent in the future, both you and the proposed new holder need to complete the section 'Consent to discharge – Notice of Transfer' on the bottom half of the certificate. You both need to sign and date the form. You then send the whole form to us, keeping a copy for your records.

Until the consent has been transferred, you will still be liable for any breach of consent and annual charges, even if you are no longer on site.

We will process the transfer within 21 days of receiving it and will notify both you and the new holder when it has been done. The actual date of transfer will be the later of either the date you request, or the date on which I confirm the transfer has been processed.

If you have any queries please contact the person named at the foot of the accompanying consent issue letter.

Appendix E

Dewatering calculations worksheet

(Electronic appendix)

(accompanies application .xlsx format)