ARCADIS Design & Consultancy for natural and built assets

HABITATS REGULATIONS ASSESSMENT

Rhiw Bach Quarry Reservoir

Screening Report

DECEMBER 2018

Incorporating

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Screening Report

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CONTENTS

1 INTRODUCTION AND PURPOSE OF THIS REPORT

1.1 Introduction and Purpose

1.1.1 This Habitats Regulations Assessment (HRA) Screening Report has been prepared by Arcadis Consulting UK (Ltd) on behalf of Natural Recourses Wales (NRW) as part of their application to convert the Rhiw Bach Quarry Reservoir to a low maintenance asset, which would be in keeping with the context of the surrounding area. In order to achieve this, NRW would need to reduce the volume of water in the reservoir to a level below the threshold currently classifying it as a reservoir under the Reservoirs Act. To reduce the water volume, a new channel would be constructed linking the reservoir to the adjacent watercourse, an unnamed stream discharging into the Afon Machno. This HRA is being prepared as part of the planning application for these proposed works.

1.1.2 An HRA is required due to the close proximity of the Migneint-Arenig-Dduallt Special Protection Area (SPA) and Special Area of Conservation (SAC) (which is also a Site of Special Scientific Interest (SSSI)). The proposals require the excavation of a small channel to link the reservoir to a nearby stream, providing an outlet to maintain water at the required levels. The channel is proposed to extend a short distance into the European designated sites. In addition, the proposals would require the use of an existing access track to accommodate the plant required. A short section of the track crosses a corner of this protected habitat and may be subject to short term disturbance. The HRA will establish whether the proposed works are likely to have significant effects on the qualifying features of these designated sites.

1.1.3 This Report comprises Stage 1 (screening) of the HRA process. Further details of the HRA stages are provided in Section 2.

1.2 Background to Habitats Regulations Assessment

1.2.1 Under Article 6 of the Habitats Directive (and Regulation 102 of the Habitats Regulations), an assessment is required where a land use plan may give rise to significant effects upon a Natura 2000 site (also known as a 'European site').

1.2.2 The proposed works are located within a small corner of and adjacent to the Migneint-Arenig-Dduallt SAC/ SPA, which could potentially be affected by the proposals. These designated sites form part of the Natura 2000 network, which is a network of areas designated to conserve natural habitats and species that are rare, endangered, vulnerable or endemic within the European Community. This includes SACs, designated under the Habitats Directive for their habitats and/or species of European importance, and SPAs, classified under Directive 2009/147/EC on the Conservation of Wild Birds (the codified version of Directive 79/409/EEC, as amended) for rare, vulnerable and regularly occurring migratory bird species and internationally important wetlands.

1.2.3 In addition, it is a matter of law that candidate SACs (cSACs) and Sites of Community Importance (SCI) are considered in this process; furthermore, it is Government policy that sites designated under the 1971 Ramsar Convention for their internationally important wetlands (Ramsar sites) and potential SPAs (pSPAs) are also considered.

1.2.4 The requirements of the Habitats Directive are transposed into English and Welsh law by means of the Conservation of Habitats and Species (Amendment) Regulations 2017.

1.2.5 Regulation 61, Part 6 of the Habitats Regulations states that:

'*A competent authority, before deciding to undertake, or give consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and (b) is not directly connected with or necessary to the management of the site, must make an appropriate assessment of the implications for that site in view of that site's conservation objectives*.'.

1.2.6 Regulation 62, Part 6 of the Habitats Regulations states that:

'*If the competent authority are satisfied that, there being no alternative solutions, the plan or project must be carried out for imperative reasons of overriding public interest (which, subject to paragraph*

(2), may be of a social or economic nature), they may agree to the plan or project notwithstanding a negative assessment of the implications for the European site or the European offshore marine site (as the case may be).'

1.2.7 Regulation 66, Part 6 of the Habitats Regulations states that:

'*Where, in accordance with regulation 62 (considerations of overriding public interest)— (a) a plan or project is agreed to, notwithstanding a negative assessment of the implications for a European site or a European offshore marine site, or (b) a decision, or a consent, permission or other authorisation, is affirmed on review, notwithstanding such an assessment,— the appropriate authority must secure that any necessary compensatory measures are taken to ensure that the overall coherence of Natura 2000 is protected*.'

1.2.8 The overarching aim of HRA is to determine, in view of a site's conservation objectives and qualifying interests, whether a project, either in isolation and/or in combination with other projects, would have a significant adverse effect on the European site. If the Screening stage concludes that significant effects are likely, then Appropriate Assessment must be undertaken to determine whether there will be adverse effects on the site's integrity (see Section 3 for details).

1.3 Legislation and Guidance

1.3.1 This HRA is being made in accordance with the requirements of the following legislation and guidance:

- The Conservation of Habitats and Species Regulations 2017. In 2012, these Regulations were amended to transpose more clearly certain aspects of the Habitats Directive. In 2017, the Conservation of Habitats and Species Regulations 2017 (the "Habitats Regulations 2017") consolidated and updated the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations 2010").
- European Commission, Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC.
- European Commission, Guidance document on Article 6(4) of the Habitats Directive 92/43/EEC.
- Environment (Wales) Act (2016).
- DTA Publications Limited, The Habitats Regulations Assessment Handbook.

2 THE HABITATS REGULATIONS ASSESSMENT PROCESS

2.1.1 This section provides an outline of the stages involved in HRA and the specific methods that have been used in preparing this Report.

2.1 Stages in HRA

2.1.1 The requirements of the Habitats Directive comprise four distinct stages:

1. **Stage 1: Screening** is the process which initially identifies the likely impacts upon a European site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts may have a significant effect on the integrity of the site's qualifying habitats and/or species. It is important to note that the burden of evidence is to show, on the basis of objective information, that there will be no significant effect; if the effect may be significant, or is not known, that would trigger the need for an Appropriate Assessment. There is European Court of Justice case law to the effect that unless the likelihood of a significant effect can be ruled out on the basis of objective information, and adopting the precautionary principle, then an Appropriate Assessment must be made. The April 2018 CJEU judgement determined that mitigation to avoid or reduce harmful effects of the plan or project on a European site cannot be taken into account at the screening stage (Stage 1). Where such measures are required, a plan or project will require Appropriate Assessment to be undertaken (Stage 2).
2. **Stage 2: Appropriate Assessment** is the detailed consideration of the impact on the integrity of the European site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's conservation objectives and its structure and function. This is to determine whether or not there will be adverse effects on the integrity of the site. This stage also includes the development of mitigation measures to avoid or reduce any possible impacts.
3. **Stage 3: Assessment of alternative solutions** is the process which examines alternative ways of achieving the objectives of the project or plan that would avoid adverse impacts on the integrity of the European site, should avoidance or mitigation measures be unable to cancel out adverse effects.
4. **Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain.** At Stage 4, an assessment is made with regard to whether or not the development is necessary for imperative reasons of overriding public interest (IROPI). If it is, this stage also involves detailed assessment of the compensatory measures needed to protect and maintain the overall coherence of the Natura 2000 network.

2.2 Approach to the HRA Report

2.2.1 This HRA Report takes into account the requirements of the Habitats Regulations and relevant guidance produced by David Tyldesley Associates (DTA Publications Limited, 2016).

2.2.2 The following stages have been completed:

- Identification of all European sites potentially affected (including those outside of the proposed development boundary);
- A review of each European site, including the features for which the site is designated, the Conservation Objectives, and an understanding of the current conservation status and the vulnerability of the individual features to threats;
- A review of the proposals which have the potential to affect the European sites, and whether the sites are vulnerable to these effects; and
- A consideration of any potential impacts in combination with other projects (or plans);

2.3 In combination Effects

2.3.1 As outlined in Section 2.1, it is necessary for HRA to consider in combination effects with other projects or plans.

2.3.2 Where an aspect of a project could have some effect on the qualifying feature(s) of a European site, but the effects of that aspect of the project alone would not be significant, the effects will need to be checked in combination, firstly with other effects of the same project, and then with the effects of any other plans and projects.

2.3.3 If the prospect of cumulative effects cannot be eliminated, it is necessary to consider how the addition of effects from other projects or plans may produce a combined adverse effect on a European site that would be significant. Taking the effects which would not be likely to be significant alone, it is necessary to make a judgement as to whether these effects would be made more likely or more significant if the effects of other projects or plans are added to them.

2.4 Consideration of Effects

Definition of Significant Effects

2.4.1 A critical part of the HRA screening process is determining whether or not the proposals are likely to have a significant effect on European sites and, therefore, if they will require an Appropriate Assessment. Judgements regarding significance should be made in relation to the qualifying interests for which the site is of European importance and also its conservation objectives. A useful definition of 'likely' significant effects is as follows:

'*…likely means readily foreseeable not merely a fanciful possibility; significant means not trivial or inconsequential but an effect that is potentially relevant to the site's conservation objectives'* (Welsh Assembly Government, 2006).

2.4.2 In considering whether the project is likely to have a significant effect on a European site, a precautionary approach must be adopted:

- The project should be considered 'likely' to have such an effect if the applicant is unable (on the basis of objective information) to exclude the possibility that the project could have significant effects on any European site, either alone or in combination with other plans or projects.
- An effect will be 'significant' in this context if it could undermine the site's conservation objectives. The assessment of that risk must be made in the light of factors such as the characteristics and specific environmental conditions of the European site in question.

3 THE SCHEME

3.1 Location

3.1.1 Rhiw Bach Quarry Reservoir is located approximately 4 km east of Blaenau Ffestiniog in North Wales (NGR SH 74095 45719). It was formally a slate quarry, thought to have been filled with water to provide irrigation for the quarry workings.

3.2 Scheme Description

3.2.1 The aim of the proposed discontinuance Scheme (hereafter referred to as 'the Scheme') is to lower the levels in the Rhiw Back Reservoir with the intention of reducing the retained volume to less than 10,000m^3. It is proposed to achieve this by excavating a channel from the north eastern corner of the reservoir to link into the adjacent stream, allowing the water level to slowly recede to desired volume. Excavated material will be placed within the reservoir to further reduce retained volumes. The excavated channel will remain unlined and there is no proposal to use any hard engineering solutions to line the channel.

Site Compound and Access

3.2.2 Given the remote location of the site, the works site compound will be located next to the public highway in Cwm Penmachno at the base of an existing access track which leads up to the site. An excavator will ascend the track to the site at the start of the works and remain in situ until completion when it will return via the same route. Smaller vehicles (quad bikes or equivalent) will then be used to transport personnel and equipment to the site as required.

3.2.3 The access route crosses the Migneint-Arenig-Dduallt SAC/ SPA before continuing through an area of plantation woodland. Bridge strengthening works will be required where the track crosses a small stream to enable safe passage of the excavator. All of these works will be within the existing bridge area and the stream is located downstream of the designated site. In order to reach the eastern edge of the reservoir, the plant will be required to leave the access track and follow an unmade track across an area of vegetation (outside of the designated site) and through an area of slate waste and on to the reservoir (refer to drawing 10019759-X-ARC-00-XX-DR-CE-0001).

Water Level Reduction

3.2.4 Prior to commencing the excavation works, water levels in the reservoir must be lowered to prevent the water breaking through the excavation before it is completed and washing excessive silt into the water course below. Lowering water levels will also allow ochre and similar to be pulled out of suspected adits feeding the reservoir and allow them to settle out in the reservoir without getting into the water course. Pumps will be located in the west pond and discharge water into the swamp area to the north west (outside of the designated site) where water currently dissipates through a breach in the reservoir.

Channel Excavation

3.2.5 The channel alignment follows a natural depression in the contours between the reservoir and the stream. It will pass through an area of plantation woodland which will require felling works to remove trees in the path of the channel. Trees will be felled, and the stumps/tree trunks stacked to the south of the proposed channel. The excavator will then dig spoil, moving it with the footprint of the excavator, to create the channel. Spoil arisings will be placed into the reservoir. Beyond the woodland, the channel is the required to pass into the boundary of the Migneint-Arenig-Dduallt SAC/ SPA in order to link into the stream (refer to Photograph 2). Approximately 60 m^2 of habitat within the SAC boundary will be affected; however, the area was found to support acid grassland and Soft Rush (*Juncus effusous*) which are not qualifying features of the designated site. The base of the channel will be shallow, dropping only 300 mm in 40 m and will be left unlined enabling vegetation to regenerate through self-seeding from the adjacent area.

4 THE EUROPEAN SITES

4.1 European Sites identified

4.1.1 Two European sites have been screened in for assessment within the HRA Report. These are listed in Table 1, and are shown on Figure 1. Although there is a hydrological link to the Y Fenai a Bae Conwy / Menai Strait and Conwy SAC and Liverpool Bay SPA, given that these sites are over 35 km downstream, no impact pathways have been identified and these European sites are not considered further in the assessment.

Table 1: Summary of European Sites

Name of Site	Identification Number	Designation
Migneint-Arenig-Ddualllt	UK 9013131	SPA
Migneint-Arenig-Ddualllt	UK 0030205	SAC

4.2 Migneint-Arenig-Ddualllt SPA

4.2.1 The site citation (JNCC, 2015) provides the species and numbers of birds which form qualifying features of the SPA, these are provided in Table 2, below.

Table 2: Qualifying Features of the Migneint-Arenig-Ddualllt SPA

Species	Count (1993/94-1997/98 mean), breeding pairs
This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:	
During the breeding season	
Hen Harrier (*Circus cyaneus*)	10 pairs, representing at least 2.0 % of the breeding population in Great Britain.
Merlin (*Falco columbarius*)	Seven pairs, representing at least 0.5 % of the breeding population in Great Britain.
Peregrine (*Falco peregrinus*)	12 pairs, representing at least 1% of the breeding population in Great Britain,

4.3 Migneint-Arenig-Ddualllt SAC

4.3.1 The site citation (JNCC, 2015) provides the habitats and species which form qualifying features of the SAC, these are provided in Table 3, below.

Table 3: Qualifying Features of the Migneint-Arenig-Ddualllt SAC

Qualifying habitats and species
Annex I habitats that are a primary reason for selection of this site:
4030 European dry heaths
7130 Blanket bogs (* if active bog) * Priority feature
Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:
3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*
3160 Natural dystrophic lakes and ponds

Qualifying habitats and species
4010 Northern Atlantic wet heaths with *Erica tetralix*
91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles
Annex II species that are a primary reason for selection of this site:
Not applicable.
Annex II species present as a qualifying feature, but not a primary reason for site selection:
Not applicable.

4.4 Conservation Objectives of the European Sites

4.4.1 Under Regulation 35(3) of the Conservation of Habitats and Species Regulations 2010 (as amended) the appropriate statutory nature conservation body (in this case NRW) has a duty to communicate the conservation objectives for a European site to the relevant/competent authority responsible for that site. The information provided under Regulation 35 must also include advice on any operations which may cause deterioration of the features for which the site is designated.

4.4.2 The conservation objectives for a European site are intended to represent the aims of the Habitats and Birds Directives in relation to that site. To this end, habitats and species of European Community importance should be maintained or restored to 'favourable conservation status' (FCS), as defined in Article 1 of the Habitats Directive below:

The conservation status of a natural habitat will be taken as 'favourable' when:

- *Its natural range and the area it covers within that range are stable or increasing;*
- *The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and*
- *Conservation status of typical species is favourable as defined in Article 1(i).*

The conservation status of a species will be taken as favourable when:

- *Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;*
- *The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and*
- *There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.*

4.4.3 Guidance from the European Commission indicates that the Habitats Directive intends FCS to be applied at the level of an individual site, as well as to habitats and species across their European range. Therefore, in order to properly express the aims of the Habitats Directive for an individual site, the conservation objectives for a site are essentially to maintain (or restore) the habitats and species of the site at (or to) FCS. Conservation Objectives for the Migneint-Arenig-Ddu allt SAC/SPA are provided in Appendix AA.

5 Baseline Environment

5.1 Ecological Site Visit

5.1.1 An ecological survey of the site and its immediate surrounds was undertaken on 23 October 2018. This included: the reservoir and the adjacent section of the Afon Machno stream into which the water will discharge; the access track; and areas of the SAC/ SPA that may be affected by the Scheme.

5.1.2 The survey identified dry heath and acid grassland habitat surrounding the existing access track where it passes through the edge of the Migneint-Arenig-Dduallt SAC/ SPA. Where the excavated channel will be excavated habitat comprised acid grassland and Soft Rush (*Juncus Effusous*) and planted Sitka Spruce (*Picea sitchensis*).

5.1.3 Anecdotal local knowledge has identified that peregrine (*Falco peregrinus*) nest in the lower quarry near the village where the access track starts. This area is over 100m from the access track and already subject to disturbance from the adjacent village and road and is not likely to be disturbed by plant using the access track to access the reservoir. Suitable hen harrier and merlin ground-nesting habitat in the form of dry heath (Heather *Calluna vulgaris*) was present in areas opposite the reservoir; however, recent grazing had rendered this habitat sub-optimal in that the Heather is relatively short and not particularly dense . It was also noted that there was no suitable nesting habitat in the vicinity of the reservoir or the majority of the access track for other raptors including peregrine (*Falco peregrinus*) and red kite (*Milvus milvus*).

6 Assessment of Potential Effects

6.1 Overview

6.1.1 During the HRA screening stage, the likely nature, magnitude, frequency, timing, duration, location and spatial extent of changes resulting from the proposed development will be assessed. As a part of this, mechanisms through which the proposed Scheme could impact upon European sites will be considered.

6.1.2 The following aspects of the scheme and the corresponding impact pathways have been identified:

- Transporting the excavator required for completing the works to and from site along a narrow access track which passes through the SAC/ SPA for a distance of 275 m has the potential to damage habitat within the designated site during the construction period (refer to photograph 1).
- Excavation of the channel will extend into the SAC/ SPA boundary in order to link to the stream resulting in damage to approximately 60 m^2 of habitat within the SAC boundary during the construction period (refer to photograph 2).
- Removal of trees from the conifer plantation adjacent to the SAC/ SPA and excavation of the channel could lead to noise disturbance to ground nesting hen harrier and merlin within the adjacent SAC/ SPA during the construction period.
- Water from the reservoir will flow through the excavated channel into the stream, which flows for a short distance through the SAC/ SPA boundary leading to potential changes in water quality which could impact on adjacent habitats during the operational phase of the Scheme.

6.1.3 Once completed, the channel will be left unlined and habitats left to regenerate naturally within the excavated channel, as such the only operational effects of the proposal would relate to water quality effects, therefore no assessment of operational habitat loss/ degradation is required.

6.1.4 There would be no requirement for decommissioning of the Scheme, therefore no assessment of such effects is required.

6.1.5 Each of the potential impacts identified are assessed against the qualifying features and conservation objectives of the Migneint-Arenig-Dduallt SAC/ SPA in the following tables.

Table 4: Potential impacts upon the Migneint-Arenig-dduallt SAC

Migneint-Arenig-Dduallt SAC		Conservation objectives	The conservation objectives for the SAC are for the two primary qualifying features (blanket bog and dry heath) and the four other qualifying features (lakes, natural dystrophic lakes and ponds, old sessile oakwoods and northern Atlantic wet heath) to be in favourable conservation status where a number of conditions are met. The full conservation objectives are provided in the Core Management Plan for the site (CCW, 2008)	
Qualifying feature	FCS/Condition	Possible effect of habitat loss/ degradation	Possible effect of changes in water quality	
		Construction	Construction	Operation
Bog	Unfavourable	No bog habitat is present within the area that would be affected by the works.	There are no hydrological links between the construction area and stream into which water will discharge and the bog features of the SAC, therefore no effect would occur.	
Dry Heath	Unfavourable	Temporary compaction/ damage to habitats adjacent to the access track could occur as a result of the excavator being transported to and from the site. The excavator will be taken to site and left in situ until completion of the works when it will return by the same route. The excavator is likely to be a spider excavator or similar with wheels rather than a traditional tracked vehicle.	The channel excavation will link into the stream which flows through the SAC at the point of entry of the new channel and further downstream. The excavation works will start at the reservoir and work towards the stream, minimising the risk of excessive silt being released into the stream during the construction phase. In addition, the principles of 'Works and maintenance in or near water: PPG5' shall be followed at all times.	Although the stream into which the reservoir outflow will discharge passes through an area of the SAC supporting acid grassland and soft rush the stream itself does not form part of the qualifying features of the SAC. It is located downslope of any qualifying habitats, therefore, in the unlikely event that water quality is affected, the features of the SAC would not be adversely affected.
Lakes (oligotrophic and dystrophic)	Variable (some lakes favourable, other unfavourable)	No lake features are located within the area that would be affected by the works.	There are no hydrological links between the construction area and stream into which water will discharge and the lake features of the SAC, therefore no effect would occur.	
Wet heath	Unfavourable	No wet heath habitat is present within the area that would be affected by the works.	There are no hydrological links between the construction area and stream into which water will discharge and the	

			wet heath habitat features of the SAC, therefore no effect would occur.
Oakwood	Unfavourable	No Oakwood habitat is present within the area that would be affected by the works.	There are no hydrological links between the construction area and stream into which water will discharge and the Oakwood features of the SAC, therefore no effect would occur.
Conclusions		1. There may be some small scale damage to dry heath habitat that is present adjacent to the existing access track which leads to the reservoir. Given that the excavator (which is likely to be will only be required to pass over the habitats on two occasions, once to access the site and once on the return following completion of the works, and damage would be small scale and temporary in nature. There would be no likely significant effect upon qualifying features of the SAC as a result of the proposed works and any residual effects of the project would be *de minimis* 2. No other qualifying habitat features were present within the areas which would be affected by the construction works associated with the channel.	1. Construction methods will minimise the risk of any silt or other contaminants from entering the stream during the construction phase of the project, no adverse effects on habitat features of the SAC as a result of deterioration of water quality would occur 2. Any changes in water quality would not lead to an adverse effect on SAC qualifying features during the operational phase of the project.

Table 5: Potential impacts upon the Migneint-Arenig-Dduallt SPA

Migneint-Arenig-Dduallt SPA		Conservation objectives	The conservation objectives for the SPA are for the three qualifying features (hen harrier, merlin and peregrine) to be in favourable conservation status where a number of conditions are met. The full conservation objectives are provided in the Core Management Plan for the site (CCW, 2008)
Qualifying feature	FCS/Condition	Possible effect of noise disturbance on SPA qualifying features	
		Construction	
Hen harrier	Favourable	Tree felling within the plantation woodland to clear a path for the channel excavation would be undertaken outside of the bird nesting season to avoid impacts on breeding birds which are protected under the Wildlife and Countryside Act (1981, as amended). Therefore, the potential for noise disturbance to breeding SPA species should they be present nearby will also be avoided. The excavation of the channel will be undertaken by a single excavator and would be completed within a week. Any noise disturbance from this activity would be extremely localised at the edge of the SPA and would be of short duration and any effects upon SPA species would be *de minimis*.	
Merlin	Favourable		
Peregrine	Unfavourable	No effect (no suitable nesting sites in close proximity to the Scheme).	

Conclusions	1. Given that the element of the works with the greatest potential for causing noise disturbance will be completed outside of the bird nesting season and the small scale nature of the works, no likely significant effects upon SPA qualifying species would occur and residual effects would be *de minimis*.

Photograph 1 A and B Access track where is passes through the SAC boundary

Photograph 2A: Proposed location of Channel excavation

Photograph 2B: Sitka spruce adjacent to Channel excavation

Photograph 3: Stream where it passes through SAC

7 In combination effects

7.1.1 The screening assessment within Section 6 has identified that there would be likely significant effects on European sites as a result of the proposed discontinuance works. No residual effects have been identified and therefore no in combination effects are anticipated.

8 Conclusion

8.1.1 This HRA Screening has considered the potential for the proposed discontinuance of the Rhiw-bach Reservoir to affect the nearby Migneint-Arenig-Dduallt SAC/ SPA. The Screening exercise looked at each of the potential impacts (comprising direct habitat loss/degradation; changes in water quality affecting downstream habitats; and disturbance/ displacement to bird species associated with the

Migneint-Arenig-Dduallt SPA and concluded that the proposed development will not have any likely significant effects on the European sites identified within this HRA Report, either alone or in combination with other plans or projects.

8.1.2 No further Appropriate Assessment is required.

9 References

DTA Publications Limited (2016) The Habitats Regulations Assessment Handbook.

European Commission (2000) Managing Natura 2000 sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC.

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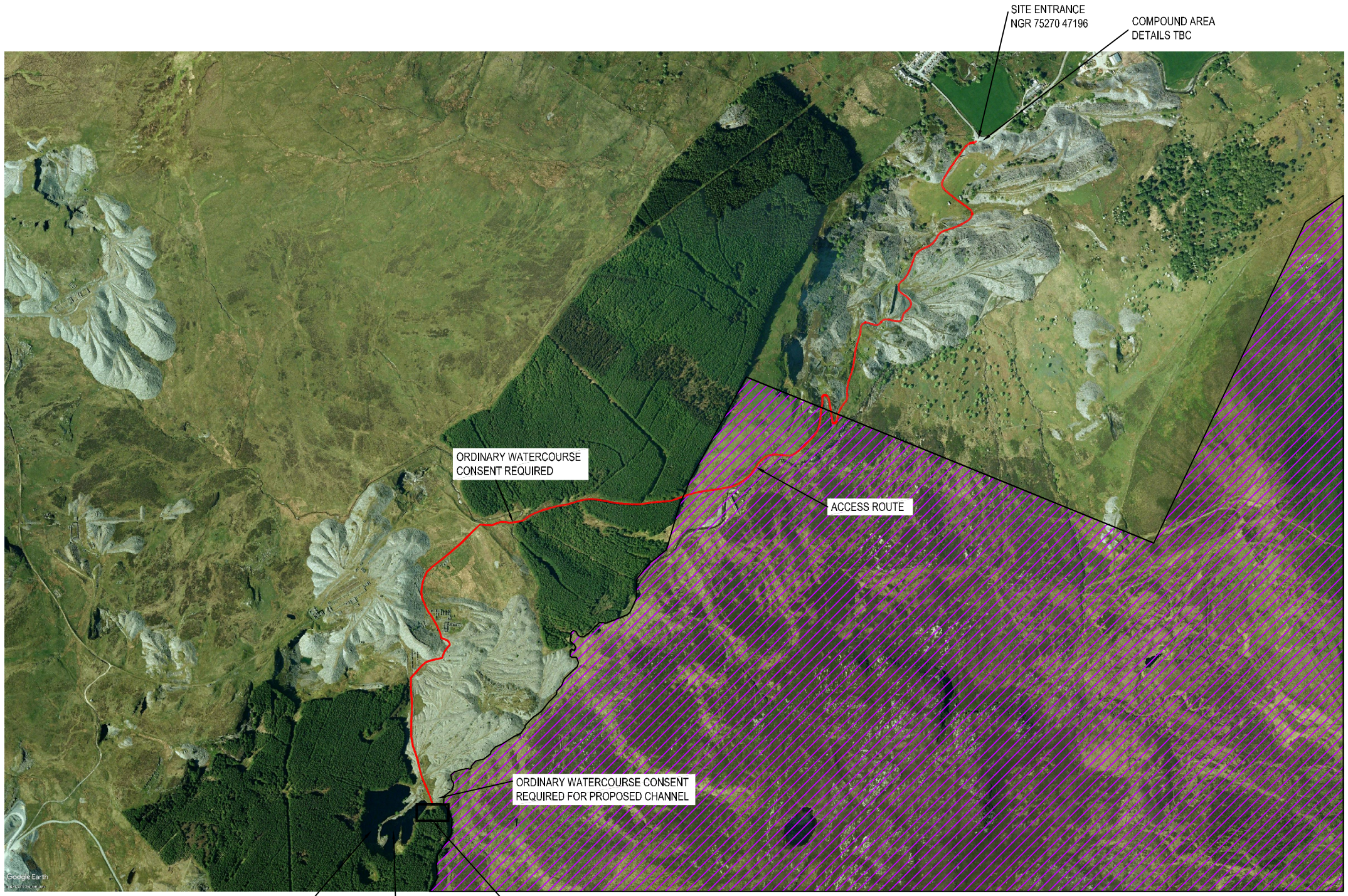
APPENDIX A

Conservation Objectives

Site Name	Qualifying Features	Conservation Objectives (Core Management Plan including Conservation Objectives for Migneint-Arenig-Dduallt SAC/SPA, 2008)
Migneint-Arenig-Dduallt SPA	This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: **During the breeding season:** Hen harrier (*Circus cyaneus*) Peregrine falcon (*Falco peregrinus*) Merlin (*Falco columbarius*)	The breeding population of the, hen harrier, merlin and peregrine should be maintained at levels that are viable in the long-term, and we will aim to increase, if possible, the breeding populations and average productivity of these species. There should be sufficient nesting, roosting and hunting habitat available for these SPA species, which may nest, on the forestry edge or crags adjacent to the site boundary.
Migneint-Arenig-Dduallt SAC	**Annex I habitats that are a primary reason for selection of this site:** 4030 European dry heaths 7130 Blanket bogs **Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:** 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea 3160 Natural dystrophic lakes and ponds 4010 Northern Atlantic wet heaths with Erica tetralix 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles	Our vision for the Migneint-Arenig-Dduallt SAC is to maintain, or where necessary restore the SAC feature habitats of this upland site comprising blanket bog, dry heath, wet heath, woodland and lakes, to good condition so that all of its typical and uncommon species are able to sustain themselves in the long-term as part of a naturally functioning ecosystem. Our vision is also to maintain and manage the recovery of the SPA bird features, hen harrier, merlin and peregrine so that their populations are sustainable and viable in the long term. Management of the SPA features is intrinsically linked to management of the habitat supporting them. **Blanket bog** (comprising bog pools and blanket mire of the following National Vegetation Classification (NVC) communities: - M1, M2, M3, 17, 18, 19 & 20), currently covers much of the SAC (c.8100 ha) but a substantial proportion of this habitat, about two thirds, is currently unfavourable. Our vision is to maintain and restore the blanket bog to favourable condition where there is an ericaeous layer over the hare's tail cotton grass, frequent bog moss and typical and uncommon plant species. A more natural structure should be reinstated where drainage ditches are infilled completely or partially to form bog pools and the bog is free of trees including conifers. **Dry heath** currently covering about 2600 ha (comprising NVC communities: H8, 9, 10, 12, 18 and 21) should be maintained and restored so that the area increases at the expense of suitable areas of grassland. The extent of montane heath, found at Arenig Fach, is largely limited by altitude, exposure and other climatic factors, but is also very vulnerable to grazing and burning. There may be some limited potential for increase in this habitat (eg on Arenig Fawr) and this will be encouraged where appropriate. **Wet heath** (comprising NVC community M15) and covering about 400ha, has a patchy distribution and doubtless includes some degraded blanket bog on deeper peat soils. Our vision is to restore and maintain this habitat including increasing its area at the expense of the wetter forms of acid grassland and degraded habitat. Some areas of wet heath may be restored to blanket bog. The woodland, "**Old sessile oak woods with Ilex and Blechnum in the British Isles**" SAC feature here is upland in nature and should show natural transitions to moorland. There are discrete woodlands (Coed Dol- Fudr, Coed Gordderw, Coed Maen y Menyn and Coed Boch-y-Rhaeadr) within the SAC as well as fragmented stands. The woodland characteristically has a high frequency of downy birch and rowan. The luxuriant bryophyte flora in places, including oceanic and Atlantic species should continue to thrive. Some increases in broadleaved woodland (currently c.80 ha) and scrub would be desirable where appropriate, around the moorland edge, provided that this is generally at the expense of species poor acid grassland or bracken. We expect the area of **"clear-water (oligotrophic)" and "peaty (dystrophic)" lakes** to remain stable. Sustainable management of their catchments will ensure they are maintained or restored to favourable condition. Atmospheric pollution and climate change affecting these and other habitats are outside the remit of this plan. CCW is working with UK Government and other stakeholders to try to ensure that these problems are tackled.

APPENDIX B

Figures



NOTES:

1. DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY.
2. ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
3. ALL LEVELS IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING: 10019759-X-ARC-00-XX-DR-CE-0100.

LEGEND:

INDICATIVE AREA OF SITE OF SPECIFIC INTEREST (SSSI) & SPECIAL AREA OF CONSERVATION (SAC)

Rev	Date	Description	Drawn	Check	Approv
P2	15NOV18	SSSI & SAC BOUNDARY ADDED	TP		
P1	07NOV18	ISSUE FOR INFORMATION	RRS	JP	

Client
NATURAL RESOURCES WALES

Cyfoeth Naturiol Cymru Natural Resources Wales

PROJECT:
RHIW BACH QUARRY DISCONTINUANCE

Site
FLOODED NEW VEIN WORKINGS
CONWAY

Client
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TITLE:
PROPOSED ACCESS TRACK

Designed	J. PRATTEN	Signed	Date 15NOV18
Drawn	T. PEARSON	Signed	Date 15NOV18
Checked	J. PRATTEN	Signed	Date 15NOV18
Approved	X. XXXXX	Signed	Date 15NOV18
Scale:	1:2500	Datum:	AOD
Original Size:	A1	Grid:	OS
Suitability Code:	Sx	Project Number:	10019759

Suitability Description:
PRELIMINARY
FOR DISCUSSION

Drawing Number: 10019759-X-ARC-00-XX-DR-CE-0001
Revision: P2

0 100 200 300 400 500m
1 : 5000

100mm on Original

Print Date: 2018-11-15 15:08:04

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