

S.73 APPLICATION TO VARY CONDITIONS 3 AND 4

ENVIRONMENTAL STATEMENT ADDENDUM

CHAPTER 10: HYDROLOGY

**Ffos-y-Fran Land Reclamation Scheme, East of Merthyr Tydfil
CF48 4AE**

Merthyr (South Wales) Limited

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10.1.0 Introduction

S.73 Application Context

- 10.1.1 Planning permission for the operational surface coal mine at Ffos-y-Fran was originally granted under planning permission ref. A-PP 152-07-014 ('the original application'). The description of development was as follows:

"Application by Miller Argent (south Wales) Limited for the Ffos-y-Fran Land Reclamation Scheme, incorporating the extraction of coal by open cast methods, and being the final phase of the east Merthyr Reclamation Scheme."

- 10.1.2 The above permission was subsequently varied under a S.73 planning application (application ref. P/08/0316) which sought consent for:

"[The] Variation of condition 37 of planning permission A-PP 152-07-014 to permit the limited dispatch by road of up to 5% of the annual output of coal from the Ffos-y-Fran land reclamation scheme or a maximum of 50,000 tonnes of coal per annum (whichever is the lesser) via Cwmbargoed Disposal Point."

- 10.1.3 The application was refused by Merthyr Tydfil County Borough Council but the proposals were subsequently allowed at Appeal (Appeal ref. APP/U6925/A/10/2129921). The Appeal Decision was issued by an appointed Inspector on the 11th of March 2011 and contained a comprehensive list of updated conditions, thereby superseding the original planning permission for the site as detailed above (permission ref. A-PP 152-07-014).

- 10.1.4 The purpose of this S.73 application is to allow for an extension to the lifespan of the mine. As such, the application seeks to vary the following conditions as contained within Appeal Ref. APP/U6925/A/10/2129921:

- **Condition 3** – "All coal extraction from the development hereby permitted shall cease no later than 06 September 2022"; and
- **Condition 4** – "Final restoration of the land shall be completed no later than 06 December 2024 and aftercare shall be undertaken for a period of not less than 5 years upon certification of completion of each phase of the progressive restoration scheme."

- 10.1.5 The S.73 application, as submitted, seeks to extend the lifespan of the minerals' extraction by a further 9 months. As such, the timescales stipulated within the above conditions will be varied to match this extended life span for the mine. No alterations are proposed to the extraction area or working practices at the mine as previously consented.

Consideration of S.73 Application

- 10.1.6 Extension to the lifespan of the minerals' extraction by 9 months is the sole consideration of the S.73 application. No other alterations to the original application are proposed and as such are not considered in the application.
- 10.1.7 The following information was submitted in support of the original application (ref. A-PP 152-07-014) for minerals consent at the site:

- Planning Application submission, including Forms, Notices & Certificates, Application Drawings etc. By Leek & Weston Ltd (Planning Agent) ; and
- Environmental Statement under the Town and County Planning Act 1990 (the 'original ES'), including Chapter 10: Hydrology.

10.1.8 Subsequent to the granting of permission, a surface water management scheme¹ was submitted to the Planning Authority to discharge Condition 48.

10.1.9 The above technical assessments and associated documents referred to above have been reviewed in the preparation of this Environmental Statement Addendum.

Purpose and Structure of Chapter

10.1.10 This chapter of the Environmental Statement Addendum (ESA) considers the impact of the proposed material amendments on the planning policy and context of the area.

10.1.11 Within this chapter, consideration is given to the following, within the context of the proposed material amendment:

- changes in legislation, policy and guidance relating to hydrology;
- changes in baseline conditions;
- changes in assessment of effects; and
- changes in proposed mitigation.

¹ Miller Argent (South Wales) Limited, 2005. Surface Water Drainage for Discharge of Condition 48

10.2.0 Methodology

- 10.2.1 This section describes the changes to legislation, guidance, and planning policy since the original application and describes the assessment methodology of Chapter 10 of the original ES.

Changes in Legislation, Guidance, and Planning Policy

- 10.2.2 It is notable that no reference was made to relevant to legislation, guidance or planning policy in the original Environmental Statement. Set out below is notable relevant legislation, guidance and policy that has been published since the original ES was prepared in 2003.

The Water Framework Directive

- 10.2.3 The key piece of legislation that sought to protect the UK's water environment at the time of the original application was the EU Water Framework Directive (Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy). These regulations were transposed into UK law as the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003. These regulations protect all elements of the water cycle and seeks to enhance the quality of groundwaters, surface waters, estuaries, and coastal waters.
- 10.2.4 These regulations were superseded by the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017, however, the new regulations have no material effect on the matters considered in the original Environmental Assessment with respect to Hydrology.

Good Practice Guidance

- 10.2.5 Relevant UK guidance on good practice for construction projects is detailed in the following documents:
- Environmental Good Practice on Site C741, CIRIA 2015.
 - Guidance for Pollution Prevention (GPPs) provide environmental good practice guidance for the whole UK, and environmental regulatory guidance directly to Northern Ireland, Scotland and Wales only. These replaced the Pollution Prevention Guidelines (PPG) which were officially withdrawn on the 17th December 2015.
- 10.2.6 The management of surface water runoff covered by the good practice guidance described above was reflected in so far as it related to the operation of the mine by the discharge of Condition 48.

Welsh Environmental and Water Policy

- 10.2.7 Key national policy relevant to the current application includes:
- the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (UK) (<https://www.legislation.gov.uk/ukxi/2017/571/contents/made>)
 - Flood and Water Management Act 2010 (UK) (<https://www.legislation.gov.uk/ukpga/2010/29/contents>)
 - The Welsh Government's Planning Policy Wales Ed. 11 February 2021 (<https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-10edition->

[11_0.pdf](#))

- Technical advice note (TAN) 15: development, flooding and coastal erosion.
(<https://gov.wales/technical-advice-note-tan-15-development-flooding-and-coastal-erosion>)
- Flood Consequences Assessments: Climate change allowances
(https://gov.wales/sites/default/files/publications/2021-09/climate-change-allowances-and-flood-consequence-assessments_0.pdf)

Local Development Plan

- 10.2.8 The Merthyr Tydfil Replacement Local Development Plan (LDP) 2016 - 2031 adopted by Council on 29th January 2020 and in particular policies that relate to flood risk and drainage matters.
- 10.2.9 Supplementary Planning Guidance Note.4, Sustainable Design, July 2013.

Assessment Methodology

- 10.2.10 Section 10.2 of the original ES derived a baseline from a review of the site location, extent of the proposed restoration scheme and the hydrological setting of the mine, referring in particular the three catchments within which it lay.
- 10.2.11 Each element of the proposed works was then described in respect of the potential impact on the local hydrology. These impacts were summarised as follows:
- The realignment of some minor drainage ditches to the north and also the temporary loss of some pond area.
 - The impact on the alignment of the main arterial watercourse to the south (*to accommodate OB3*).
 - The impact on the quality of run off from the spoil storage areas.
 - Volume of run off.
- 10.2.12 Measures to mitigate the identified impacts were recommended and overall positive assessment of the residual effects was made in respect of a reduction in peak runoff.

Effects Not Requiring Further Assessment

- 10.2.13 The realignment of the minor ditches to the north of the workings and the main arterial watercourse to the south have been implemented and so not require further assessment.

10.3.0 Changes in Baseline Conditions

Original ES Baseline

- 10.3.1 The baseline at the time of the original application was set out at Section 10.2 of the original ES.
- 10.3.2 There are no changes to the original baseline as described in the original ES

Original ES Future Baseline

- 10.3.3 An original ES future baseline was not defined in in the original ES.

Current Baseline

- 10.3.4 In the context of the hydrological baseline, the mine has developed in the manner contemplated by the original ES. Therefore, there are no changes in the current baseline.

Changes in Baseline

- 10.3.5 Since publication of the original ES, the advice on the potential impact of climate change has been revised that, in the context of the hydrological baseline, suggests the frequency and intensity of severe rainfall events may have increased over the current and remaining lifetime of the development.
- 10.3.6 However, the impact of climate change over the lifetime of the development, anticipated by the original ES to be between 13.5 and 17 years, was not considered by the original ES.

10.4.0 Assessment of Effects

10.4.1 The assessment of effects was set out at Section 10.3 of the original ES and was summarised as:

- The alignment of the existing surface water drainage system.
- The quality of run off from the spoil storage areas.
- The volume of run off.

10.4.2 From a review of the current operating procedures that were put in place to mitigate the effects identified by the original ES (secured by the discharge of Planning Condition 48), there are no concerns that that assessment of effects was deficient.

Additional Effects

10.4.3 As the mine has developed in the manner contemplated by the original ES, there are no additional effects that require consideration.

10.4.4 However, as noted in Section 10.3.5, the advice on the impact of climate change has been revised since the preparation of the original ES.

Additional Cumulative Effects

10.4.5 There are no additional cumulative effects.

Consideration of Original ES

10.4.6 The only change in effects from those considered by the original ES is the advice on the impact of climate change.

10.5.0 Requirement for Additional Mitigation or Monitoring

- 10.5.1 There is no requirement for any additional mitigation required during the operational phase beyond that outlined within the original ES.
- 10.5.2 Subsequent to the submission of the original ES, in 2015 Amec Foster Wheeler (AFW) were commissioned to prepare a report to support the development of a Surface Water Management Plan (SWMP) to manage runoff from the restored landform to ensure the capacity of the receiving watercourses would not be exceeded.

Original ES Mitigation

- 10.5.3 Details of mitigation proposed in the original ES are provided at Section 10.4 of the original ES.

Subsequent Mitigation or Monitoring

Operational (Coaling) Phase

- 10.5.4 These measures contemplated by the original ES were secured with the discharge of Planning Condition 48.
- 10.5.5 A number of water treatment areas have been constructed to manage runoff from the development to the downstream watercourses. These are summarised in Table 10-1 below.

Table 10-1 – Summary of Surface Water Discharges

Water Treatment Areas	Design return period (Years)	Attenuated flow (m ³ s ⁻¹)	Receiving watercourse
WA	1 in 25	0.1	Nant Cwm Blacs
WB	1 in 25	0.1	tributary of the Nant Morlais
WC	1 in 25	0.1	Bargoed Taff
WC1	1 in 25	0.1	Bargoed Taff
WF	1 in 100	0.3	Bargoed Taff
WG	1 in 100	0.3	Nant Gyrawd
J	1 in 25	0.05	tributary of the Nant Morlais

- 10.5.6 All of the water treatment areas apart from J have a consent to discharge flows in excess of the design return period via a storm overflow. Excess flows from water treatment area J are pumped to the void or WA or WB. The storm overflows were consented by the Environment Agency (predecessors to Natural resources Wales).
- 10.5.7 The application to discharge Condition 48 confirmed that the storm overflow frequency and

duration would be monitored and recorded.

Restoration Phase

- 10.5.8 The AFW report recommends that runoff from the restored landform is attenuated to ensure the capacity of the receiving watercourses are not exceeded.
- 10.5.9 The first phase of restoration is nearing completion and will require the construction of the two lagoons detailed at Appendix C of their report to attenuate runoff from the Morlais B sub-catchment.

Alternate or Additional Mitigation and Monitoring

- 10.5.10 No alternative or additional mitigation measures are considered necessary.
- 10.5.11 Whilst the impact of climate change may have increased the frequency and severity of significant rainfall events, the mitigation measures will continue to attenuate runoff to the agreed rates set out in the application to discharge Planning Condition 48 and summarised in Table 10-1.
- 10.5.12 Over the very limited extension period being sought to extend the coaling operation, 9 months, the frequency with which the agreed attenuation rates would be exceeded due to the impact of climate change would be negligible. However, the storm overflow events that would result from exceeding the agreed attenuation rates were consented by the Environment Agency (predecessors to Natural Resources Wales).

10.6.0 Residual Effects

- 10.6.1 The residual effects are identified at Section 10.5 of the original ES which states that the proposals result in no residual impacts other than the reduction in peak run off for the design events which is considered to be a positive benefit.

Consideration of Original ES

- 10.6.2 There are no changes to the residual effects previously identified as part of the original ES

10.7.0 Other Environmental Issues

10.7.1 This Section seeks to detail any considerations and environmental effects which have been identified with regard to the range of topics which have been introduced into EIA requirements through the EIA Regulations 2017. Where there are no such considerations or environmental effects, this is also specified below for clarity.

10.7.2 Please see Chapter 22 for a summary of the 'Other Environmental Issues' identified across all of the technical assessments undertaken and the Chapters prepared as part of the ES.

Other Environmental Issues of Relevance

Infrastructure

10.7.3 The attenuation of runoff from the site will reduce the pressure on the downstream drainage infrastructure.

Waste

10.7.4 Waster is not relevant to the assessment of hydrological impacts.

Population and Human Health

10.7.5 The attenuation of runoff from the site will reduce the risk of flooding to downstream populations.

Climate and Carbon Balance

10.7.6 The impact of climate change was not explicitly considered by the original ES or the Condition 48 application, however, the only effect would be the frequency with which the agreed attenuated discharge rate would be exceeded resulting in a storm overflow. Over the proposed 9 month extension, the frequency with a storm overflow would occur due to the impact of climate change would be negligible.

Risks of Major Accidents and/or Disasters

10.7.7 The attenuation of runoff from the site will reduce the risk of flooding to downstream populations.

Summary

10.7.8 In summary, with regard to the range of topics introduced into EIA requirements through the EIA Regulations 2017, there are no additional unmitigated effects to those considered by the original ES.

10.8.0 Summary of Effects

- 10.8.1 A review of the hydrological effects arising from the proposed 9 month extension to the coaling operation has concluded that there will be no change compared to those identified in the original ES.

10.9.0 Conclusions

- 10.9.1 A review of the original ES has concluded that the hydrology baseline developed against which potential effects were assessed remains valid.
- 10.9.2 The measures proposed to mitigate the effects identified were secured by Planning Condition 48 and have been implemented. These comprised largely of water treatment areas that appear from a site visit to be functioning as designed.
- 10.9.3 The impact of climate change was not explicitly considered by the original ES (did Condition 48 application), however, the only effect would be the frequency with which the agreed attenuated discharge rate would be exceeded. Over the proposed 9 month extension, the frequency with which this rate would be exceeded due to the impact of climate change would be negligible.
- 10.9.4 With regard to the range of topics introduced into EIA requirements through the EIA Regulations 2017, there are no additional unmitigated effects to those considered by the original ES.
- 10.9.5 In conclusion, the hydrological effects arising from the proposed 9 month extension to the coaling operation will be negligible compared to those identified in the original ES.

REFERENCES

- Miller Argent (May 2003). Ffos-y-Fran Land Reclamation Scheme, Environmental Statement, Chapter 10 Hydrogeology.
- Miller Argent (2nd August 2005) Ffos-y-Fran Land Reclamation Scheme Surface Water Drainage for Discharge of Condition 48 Final.
- Amec Foster Wheeler (December 2015). Ffos-y-Fran Land Reclamation Scheme, Hydrological Analysis Report
- Climate data provided for period 2017 to date and records of void flooding between August 2017 and January 2018 and January 2021 to April 2021 provided by Merthyr (South Wales) Limited.
- Environmental Good Practice on Site C741, CIRIA 2015
- Flood Consequences Assessments: Climate change allowances, Welsh Government Planning Policy Branch, 2021

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