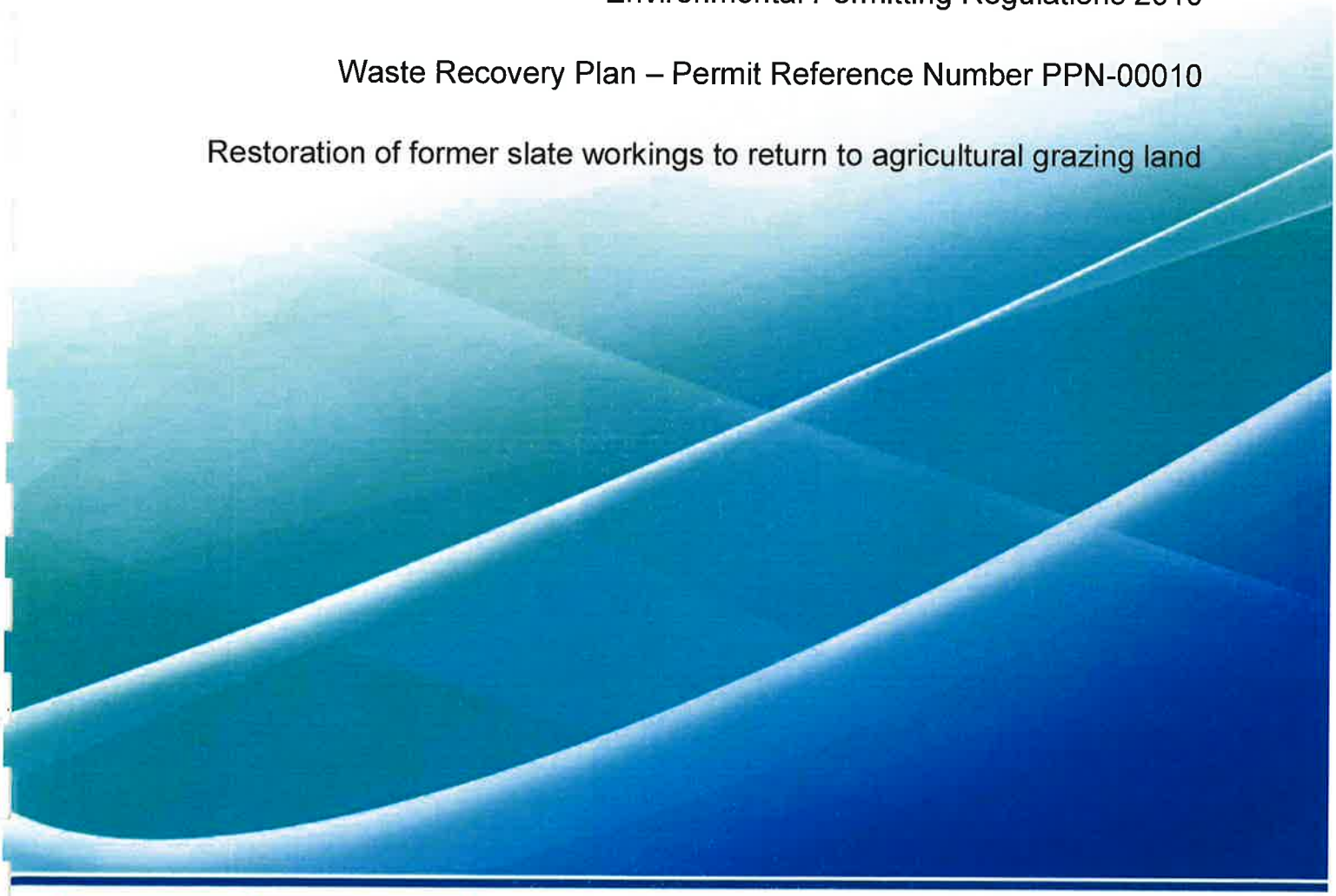
Ty Mawr West, Talysarn

Environmental Permitting Regulations 2010

Waste Recovery Plan – Permit Reference Number PPN-00010

Restoration of former slate workings to return to agricultural grazing land



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CONTENTS

TABLES

APPENDICES

DRAWINGS

1.0 INTRODUCTION

1.1 This submission comprising a Waste Recovery Plan (WRP) has been prepared by SLR Consulting Ltd on behalf of Watkin Jones & Sons Ltd in support of a Standard Rules. "Waste to Land" Recovery Environmental Permit application to use inert wastes to restore the land as permitted.

1.2 Ty Mawr Quarry (NGR 249636E 352410N) is operated by D & E Jones (Ty Mawr West Ltd) being located south of the B4418 approximately 1km south east of the village Talysarn and 2.8km to the east of Penygroes. The entrance to Ty Mawr West Quarry is off the B4418.

1.3 A Town and Country Planning history is shown below:

Table 1
Planning History at Ty Mawr West

Reference	Submitted	Description	Decision	Date
C01A/0646/22/MW	16.10.2001	Removal of Waste from a Mineral Working Deposit at Ty Mawr West Quarry	Approved	21.04.2004
C09A/0046/22/MW	26.01.2009	Extension of mineral waste extraction area and rationalisation of existing development to include a revised scheme of working and restoration to that previously approved under Planning Permission C01A/0646/22/MW for the removal of material from a mineral working deposit	Approved	22.04.2009
C11/1139/22/MW	13.12.2011	Resumption of Primary Extraction of Slate from Old East Quarry, Ty Mawr West Slate Quarry	Approved	13.06.2012
C13/0542/22/CL	22/05/2013	Variation of PP 1139 to allow importation of inert materials for restoration	Approved	10.07.2015
C15/1020/22/LL	30.09.2015	Establish repository for the temporary storage of inert soils for future recovery and beneficial use in restoration	Approved	19.11.2015

1.4 Contact was made with the local EA (NRW) officer, Rhys Thomas, to advise him that Messrs Watkin Jones was in the process of making a permit application for a Standard Rules permit restoration. Mr Thomas responded and provided advice on the alternative options available.

1.5 Regulations (EPR 2010), introduced in April 2010, have changed the controls required for these type of operations. The restoration of this site using suitable inert/non-hazardous wastes now requires an Environmental Permit.

1.6 The Permit relevant to this proposal is SR2010 No8 – Use of waste for reclamation, restoration or improvement of land, the maximum tonnage being 50,000 tonnes. The proposal involves the importation of some 27,000 tonnes of suitable material.

1.7 EA Guidance states that the Operator must demonstrate that the operation is a genuine recovery operation and not a disposal operation. The activity will result in the permanent deposit of waste on land. As a consequence, a Waste Recovery Plan (WRP) must be submitted prior to the permit application to ensure that the correct permit is being sought. A WRP provides the justification that a project is a genuine recovery operation and not waste disposal

1.8 This WRP addresses the key issues as stipulated in the Guidance Note No EPR13.

2.0 THE SITE

Site Setting

2.1 The slate quarries of Ty Mawr West, Ty Mawr East, and Tyn-y-Weirglodd are located in close proximity to the western edge of the Snowdonia National Park within the Nantlle Valley Landscape of Outstanding Historic Significance. All three sites are located alongside the B4418 which runs along the River Llyfni valley floor between the communities of Nantlle to the north east and Talysarn to the north west. In totality these sites extend for approximately 1 km along the lower slopes and extend south for up to 0.5 km from the B4418 road up the foothills towards the Snowdonia National Park mountains to the south east. The previously historic and currently neighbouring slate workings are strongly reflected in the surrounding landscape with a number of large operating and closed slate quarries nearby. The other main local land use is agricultural with large tracts of low grade hill pasture grazed by sheep.

2.2 The site has historically been used for slate quarrying and was partially in a derelict state prior to Watkin Jones entering into an agreement to utilize the site for landfilling of inert wastes and further extraction of slate (principally slate wastes). Restoration activities on this part of the total site and now complete with the aftercare period ending in 2011.

2.3 Access to the site so gained via the B4418 located on the north eastern site boundary. See Drawings TM/01 and TM/02

2.4 The site does contain some features which are of interest i.e. existing buildings at the northern boundary of the site adjacent to the highway and walls. The intention is that these features will be retained within the context of the continued permitted extraction and restoration proposals.

2.5 Site checks have been undertaken using Interactive Maps to ascertain whether there were any sites designated under the Habitats Directive. There are no designated sites located within a distance of 500 m.

2.6 The nearest surface water feature in the vicinity of Ty Mawr East Quarry is the River Llyfni and its tributaries. The River Llyfni is a main river and runs in an east – west direction approximately 300m north of the site. Approximately 80m north east of the site, surface water issues and runs via a culvert into the River Llyfni. The River Llyfni is shown in the EA Flood maps to be susceptible to flooding however due to the topography and elevations the site lies outside the flood plain.

3.0 GEOLOGY AND HYDROGEOLOGY

3.1 The site geoelogy has been appraised by reference to::

- Watkin Jones & Son Ltd., Closure Report, Ty Mawr East Quarry, March 2007
- Environment Agency's "What's in your Backyard" Web Site

3.2 The Closure Report states that the superficial deposits in the area are dominated by diamicton clays which are considered to be several metres thick, as demonstrated by boreholes drilled in the later 1970's. They are underlain by sedimentary rocks of the lower cambrian period, the thickness of which has not been proven.

3.3 Prior to quarrying, the site was believed to be covered in a mixture of peat soils and clay. Quarrying took place in the later nineteenth century to win the high quality slate beneath the site. Quarrying resulted in large quantities of slate waste which were deposited in large mounds around the site. These mounds have been subsequently excavated to reveal the boulder clays beneath.

3.4 The hydrogeological appraisal has been compiled using the following references:

- Watkin Jones & Son Ltd., Closure Report, Ty Mawr East Quarry, March 2007
- Ty Mawr Quarry, Nantle, Paragraph 9A Exemption Notification, October 2007
- Environment Agency's "What's in your Backyard" Web Site

3.5 The superficial deposits recorded on the EA (NRW) website indicate that they comprise secondary (undifferentiated) aquifers. There are no principal aquifers in the area. This is also true for the bedrock designations which comprise secondary b aquifers.

3.6 The site is not within a Ground Water Source Protection Zone (SPZ). There is little information on hydrology of the area. Groundwater levels and quality have not been recorded at the site prior to the landfilling undertaken in the southern area of the quarry. There are no groundwater abstractions in the area.

4.0 RECEPTORS

4.1 The following have been identified as potential sensitive receptors for the activity proposed at the site.

- Residential properties within 250m of the site.
- The B4418 bordering the northern boundary of the site
- The issues and the culvert located to the south of the internal haul road
- Site workers and visitors to the site.

5.0 RESTORATION PLAN

5.1 The site has a valid planning approval to continue the extraction of minerals and mineral waste and the deposit of inert waste for the restoration of the land to grazing. The Operator wishes to continue to remove the slate waste, gradually spreading inert wastes for restoration in accordance with the Restoration Plan.

5.2 Restoration works were completed in 2011 on that part of the total site. The Operator now wishes to continue the importation of inert wastes for restoration purposes within the total site boundary, in substitution for "non-waste" materials. See Drawings TM/01, TM/02 WJ001 with Appendices G and J.

5.3 The Planning Permission C15/1020/22/LL restricts the Operator to no more than a total of 20,000 tonnes of inert wastes input at a rate of no more than 200 tonnes per week, unless prior approval has been sought and agreed. Inert is defined within this approval as meaning:

> *"waste consisting of naturally occurring materials and manufactured products which will not physically or chemically react or undergo biodegradation within the landfill environment, either on their own or in association with other materials"*

5.4 Importation of the fill is undertaken solely by Watkin Jones PLC. All source sites providing materials for importation to the application site have soil analysis undertaken in order to assess and confirm the suitability of the material for use. The Operator is in control of the importation.

5.5 The restoration will proceed in accordance with the approved plan. The principal objective of the restoration proposals is to provide a final landform across the site which is acceptable in visual terms. The restoration works, once complete will provide an appropriate landform to support after use as open rough grazing land similar in character to that which exists within the existing "restored area" of the site.

5.6 The principal future permitted extraction activities occur towards the northern and western extremities of the site and involve cutting into the existing deposits of slate waste that are present at levels above the general elevation of the extraction area. The result of this future extraction will be to lower the height of the embankments which currently define the northern and western boundaries of the slate waste materials.

5.7 All of the cut and fill operations which were required to be conducted south of the existing access road have already been completed and final soiling to provide a restoration surface has been achieved across the area.

5.8 It is proposed that the imported inert materials shall comprise inert waste generated from earthworks and site preparation/construction activities at sites being developed by Watkin Jones PLC. This arrangement is the same as that which has applied for all inert waste imported to the site in conjunction with landfilling activities to date. This restricted practice in relation to sites from which material is to be imported will greatly assist in the control of quality of the materials to be used for restoration works.

5.9 The Operator previously secured a Paragraph 9 Exemption which authorised the land spreading of inert wastes to a depth of 2 metres relative to an agreed starting

contour and at an overall volumetric rate which does not exceed 20,000 cubic metres per hectare. This operation being completed in 2011.

5.10 The Operator undertook a topographical survey in March 2011. This application will ensure that the Operator is able to continue to import inert material in order to complete the restoration of the land to agricultural use as rough grazing land. The importation of such wastes is deemed to be of ecological improvement in the context of restoration of land that has been subject to previous industrial or other development, which is clearly the case at the application site.

5.11 The permit allowed a range of suitable inert wastes. The permitted wastes types are set out below:

Table 2
Permitted Waste Types

Table 2: Permitted Waste Types Material	Waste Category
WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS	01
Wastes from physical and chemical processing of non-metaliferrous minerals	**01 04**
Waste gravel and crushed rocks other than those mentioned in 01.04.07	01 04 08
Waste sand and clay	01 04 09
Waste from manufacture of ceramic goods, bricks, tiles and construction products	**10 12**
Waste ceramics, bricks, tiles and construction products (after thermal processing)	10 12 08
Waste from manufacture of cement, lime, plaster and articles and products made from them	**10 13**
Waste concrete	10 13 14
CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	17
Concrete, bricks, tiles and ceramics	**17 01**
Concrete	17 01 01
Bricks	17 01 02
Tiles and ceramics	17 01 03
Mixtures of concrete, bricks, tiles and other ceramics other than those mentioned in 17.01.06	17 01 07
Soil (including excavated soil from contaminated sites), stones and dredging spoil	**17.05**
Soils and stones other than those mentioned in 17.05.03	17 05 04

5.12 As stated in paragraph 5.4 importation of the fill is undertaken solely by Watkin Jones & Son Ltd. All source sites providing materials for importation to the application site have soil analysis undertaken in order to assess and confirm the suitability of the material for use.

5.13 The Site Layout Plans TM/01 and TM/02 show the Restoration Areas together with the Repository Area. It is anticipated that some 27,000 tonnes of inert fill will be required in order to complete land contouring within the Permitted mineral and mineral waste extraction areas.

5.14 Inert waste is accepted in cubic metres as there is no weighbridge at the site. The waste transfer notes are completed on this basis. The tonnage is calculated on the basis of the Simetric Density Conversion chart.

5.15 It is important to note that the quantities cited are the minimum required in order to meet the agreed profiles - See Appendix G. In the event that significant changes are deemed necessary the Operator will notify the Planning Authority and the

Environment Agency (NRW) in writing explaining the reasons for, and the scope of the changes.

5.16 The Operator will apply to the EA (NRW) for approval of any associated revisions to the WRP and shall implement the approved revised plan in place of the original from the date of approval. Once approval is granted the EMS shall be revised to maintain consistency between the documents.

5.17 No waste management operations will be undertaken at the site other than those listed below.

Table 3
Activities

Table 3: Activities	
Description of Activities	Limits of Activities
R13: Storage of wastes pending any of the operations numbered R3 and R5.	Secure storage and use of wastes listed in Table 2 for the purposes of reclamation, restoration or improvement of land as detailed in the approved waste recovery plan.
R3: Recycling/reclamation of organic substances which are not used as solvents	The land to be treated has been previously subject to industrial or other man made development.
R5: Recycling or reclamation of other inorganic materials	The activities shall not be carried out other than in accordance with the approved waste recovery plan. In any case no more than 50,000 tonnes of waste shall be stored or used under these standard rules. In any case waste shall only be spread to a thickness not exceeding 2 metres

5.18 The existing slate extraction area is freely draining due to the physical composition of the slate waste present. This situation will remain throughout the future slate extraction activities. As a result restoration materials will be placed over a dry free draining medium. The materials themselves will vary in physical composition from granular debris such as brick and concrete rubble to potentially clayey subsoils. Varying permeability within the placed materials is to be anticipated as a result.

5.19 The phasing of the restoration works can only be determined in outline at this time as practical restoration of the site is dependant, in part, upon the availability of materials arising from development sites and upon the demand for, and rate of export of, slate generated from the site itself.

5.20 It is intended that the final restoration surface will be progressively revegetated. As the size of the slate extraction area diminishes with time then progressive placement of imported restoration materials will occur.

5.21 The placement of the bulk of the restoration materials will occur in the same manner as the methodology which has applied to the tipping of inert waste materials at the site i.e. imported materials will be tipped from road haulage vehicles and then bladed out as required using a bulldozer and other earth moving equipment as necessary. It is not anticipated that the materials will be subject to significant settlement after placement.

Restoration to Grazing Sward

5.22 The final restoration surface will be prepared in accordance with the requirements for proposed end use i.e. to provide a grassland sward which is suitable for sheep grazing.

5.23 The site lies in an area which experiences a maritime temperate climate typified by high rainfall. Natural soils in the area tend to be nutrient poor and subject to leaching. Grazing land quality ends also to be quite poor. As a result a suitable sward can be established on a nutrient poor substrate. Subsoil material is to be utilized for creating the restoration surface as such material will be nutrient poor and should not contain a significant viable seed bank which would otherwise potentially be a problem with topsoil taken from an off-site source.

5.24 The subsoil forming the restoration surface shall be placed to a depth of 100mm and shall be free from large debris such as brick fragments and from materials which may be harmful to grazing livestock such as glass fragments.

5.25 The subsoil material will be placed by end tipping and dozing and will not be subject to significant compaction. Depending upon the physical texture of the soils it may be beneficial to physically loosen the soils by harrowing prior to seeding.

5.26 Ideally a vegetation cover should be established within the minimum time period possible from the placement of the final soil cover. It is proposed that the establishment of a grassland sward will be achieved by direct broadcasting of seed from seed mixture complying to the following specification (British Seed Houses sourced seed mix);

A15 Reclamation Landfill Sites

5.27 This seed mix has been formulated to establish on a wide range of soils giving a good overall green cover that can be used for light grazing if required.

- Suitable for a wide range of soils
- Will withstand limited grazing
- Rapid ground cover

Seed Mix:

35%	ADINDA (strong creeping Red Fescue)
30%	TALGO (perennial Ryegrass)
15%	REUBENS (Flattened Meadow Grass)
10%	OLIVIA (chewing's Fescue)
7.5%	HIGHLNAD (Brown top Bent)
2.5%	ABERACE (White clover)

Sowing Rate
25g/M2 (250Kg/ha)

6.0 RECOVERY OR DISPOSAL OF WASTE

6.1 This Waste Recovery Plan (WRP) sets out to confirm that the proposed operation is indeed a recovery operation and the Operator should therefore be issued with a Standard Rules Environmental Permit for the continued recovery of such waste. The plan is presented in accordance with the format provided by the EA (NRW).

6.2 The first question is whether or not this operation comprises a genuine recovery operation. Whether an operation is recovery or disposal depends on a legal test derived from the Waste Framework Directive (WFD) and European case law. The EA (NRW) describes waste recovery as:

> *"Waste recovery is about using waste to replace other non-waste materials to achieve a beneficial outcome in an environmentally sound manner."*

6.3 The guidance states that the clearest indicator of waste recovery is when it can be shown that the waste used, is a suitable replacement for non-waste materials that would otherwise have to be used to achieve the end benefit.

6.4 The European Court has said that "the essential characteristics of a waste recovery operation is that its principal objective is that the waste serve a useful purpose in replacing other materials which would have had to be used for that purpose thereby conserving natural resources." In other words a material that would otherwise be disposed of is put to beneficial use, which saves the use of non-waste materials.

6.5 The EA (NRW) describe a waste disposal operation as one where the primary purpose of the operation is to "get rid of waste" even if there is some secondary benefit. This operation does not fall into this category on the basis that the primary purpose for the restoration scheme is to restore the application area back to agricultural use, specifically rough sheep grazing. The Guidance states that;

> *"A restoration scheme will be to achieve a beneficial end use for a restored mineral working, for example bringing land in to agricultural use."*

6.6 The total restoration requires an estimated total of up to 27,000 tonnes of inert materials to replace slate waste which has been and continues to be extracted from the site for export. This is required in order to restore the levels and habitat to that agreed in the Planning Approvals – See Appendices G, D and E.

6.7 The restoration scheme concerns the production of the final surface use. No more than 2 metres of waste shall be placed in any area. The contours will follow the existing quarry base and level off the steeper gradients found adjacent to the internal access road. It is important to note that there is no longer any requirement to spread waste south of the internal access road.

6.8 Inert materials will comprise, soil and stones, brick and concrete rubble to potentially clayey sub soils. These materials, with the exception of sub-soils, could all be sourced from non-waste origins. However, it is more environmentally sustainable to re-use suitable inert waste materials. The careful use of recycled materials means that the development will benefit the environment by making use of recycled materials, thus avoiding their disposal to landfill, and conserving natural resources by reducing the use of non-waste materials.

6.9 Additionally sourcing non-waste sub-soils is far more problematic than sourcing their waste equivalent, such that the use of non-waste material (in this case sub soils) may render the project unfeasible. However this is not due to financial implications, it is primarily because the EA (NRW) considers all soils to be 'waste' "until the point that they are fully recovered and are suitable for an agreed use without posing a risk to the environment." The only exception is soils which can be used on the site of origin without needing further treatment.

6.10 Because of this regulatory framework, when soil is excavated which cannot be used within a development, the soils become 'waste' upon leaving the site. This is the situation regardless of whether the site is 'greenfield' and the soil uncontaminated. At the point that the soil leaves the site of its origin it is deemed a controlled waste and hence falls into the waste regulatory system. Thus the material to be used in this project may not typically be considered 'waste', and may in fact be virgin material which has simply been relocated. However, because of the current definition of waste it is treated as such.

6.11 Even with the implementation of statutory Site Waste Management Plans, in England, requiring developers to specify how materials and waste will be managed at the design stage, it is not possible to identify clean soils as 'non waste materials' for use within another development or restoration site (e.g. Ty Mawr West Quarry). Further, in planning, case law indicates that material is considered 'waste' when the person in possession of it discards or has the intention to discard it, reflecting the EU definition. If soil is moved from one place to another within a development site, this is not considered to be 'waste' or to be 'discarded'. However, if the material leaves the site, it is considered then to be 'waste' as it is being 'discarded', even if it is destined for reuse/recycling. (Wales has not as yet implemented the SWMP Regulations, but the Welsh Assembly has adopted a Zero Waste Policy.)

6.12 The Waste Framework Directive (WFD) lists a number of operations that are either disposal (Annex IIA) or recovery (Annex IIB). Whilst the list is not exhaustive there are a number of relevant R codes to this specific operation. These are:

- R13: Storage of waste pending any of the operations numbers R3 and R5;
- R3: Recycling/reclamation of organic substances which are not used as solvents;
- R5: Recycling or reclamation of other inorganic materials

7.0 ESTABLISIHING WHETHER AN ACTIVITY IS RECOVERY OR DISPOSAL

7.1 The EA (NRW) Guidance

7.1.1 The EA (NRW) guidance states that an applicant must justify the operation by addressing a number of questions. These are set out below

- **Is there a clear benefit from the activity?**
- **Is the recovered waste material suitable for its intended use?**
- **Is the minimum amount of waste being used to achieve the intended benefit?**
- **Is the waste being used as a substitute for a non- waste material?**
- **Will the proposal be completed to an appropriate standard?**

7.1.2 The Guidance continues by providing a series of activity examples which could be considered to be recovery activities and links these examples so that an applicant can justify the recovery activity in practice. The proposed activity is the restoration of a slate quarry back to rough sheep grazing, which is for agricultural benefit, hence the justification in this document must be read in that context.

7.2 Is there a clear benefit from the activity?

7.2.1 This overall project was approved by the Planning Authority over the period 2004 to 2015. In the decisions to issue approval they considered whether there was genuine need for the continued extraction of slate waste and the importation of inert materials for the restoration of the former slate quarry. It was considered that the extraction of slate waste and the subsequent restoration was beneficial and thus the development was approved – See Appendixes I and J.

Table 4
Planning History at Ty Mawr West

Reference	Submitted	Description	Decision	Date
C01A/0646/22/MW	16.10.2001	Removal of Waste from a Mineral Working Deposit at Ty Mawr West Quarry	Approved	21.04.2004
C09A/0046/22/MW	26.01.2009	Extension of mineral waste extraction area and rationalisation of existing development to include a revised scheme of working and restoration to that previously approved under Planning Permission C01A/0646/22/MW for the removal of material from a mineral working deposit	Approved	22.04.2009
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C13/0542/22/CL	22/05/2013	Variation of PP 1139 to allow importation of inert materials for restoration	Approved	10.07.2015
C15/1020/22/LL	30.09.2015	Establish repository for the temporary storage of inert soils for future recovery and beneficial use in restoration	Approved	19.11.2015

7.2.2 The EA (NRW) Guidance states that for an activity to be considered waste recovery there must be a clear benefit and that any waste deposited with no resulting benefit is considered to be disposal. Indeed the EA (NRW) Guidance states;

"generally the backfilling of a quarry is likely to be a disposal operation"

It should be noted that the restoration scheme relates to the final restoration of the site. The planning approvals authorise the removal of up to 25,000 tonnes of slate waste per year and the import of up to 27,000 tonnes of inert wastes solely for the purpose of restoring the land to an acceptable landform and beneficial end use. This is necessary in order to bring it back into agricultural use by using the minimum amount of inert waste to do so. The restoration scheme does not propose to spread the waste in excess of 2m in depth, demonstrating that the restoration is recovery and not a disposal operation. Refer to Part 5 together with Appendices G and I and Drawings TM/01 and 02.

7.2.3 The EA (NRW) Guidance also states;

"the benefit we look at is the end use of the restored mineral working and the key test for recovery is what the minimum amount of waste is to achieve this benefit."

7.2.4 The Planning Authority has already assessed and accepted that there is a genuine need for the restoration of the application site to return it to rough grazing thus

improving the site ecologically. Information provided to the Planning Authority to discharge the planning conditions identifies the phases of the development including the amounts and types of waste that will be necessary to complete the project to the required land profiles.

7.2.5 In accordance with the EA (NRW) Guidance it is important to establish whether there is any benefit in using inert wastes rather than sourcing non-waste materials. Most importantly, it must be determined whether the use of inert wastes is a suitable replacement for non-waste materials that would otherwise have to be used to achieve the end benefit. There is a clear benefit in using inert wastes on the basis that this prevents the use of non-waste materials, thus conserving natural resources. Further, as discussed in paragraphs 6.7 - 6.9, it is very difficult to source non-waste soils because of the regulatory framework. Thus it is concluded that the development proposed provides a sustainable re-use option for suitable inert excavation wastes, diverting materials from landfill. Additionally the Welsh Assembly Government has recently adopted a "Zero Waste" policy.

7.2.6 The proposed quantities of waste required to complete the site are estimated to total approximately 27,000 tonnes. This total includes soils (sub) - clays, brick rubble, concrete. The restoration scheme is clearly designed with agreed contours and the associated, stated quantities of waste for each different phase of works. The Operator will only spread to a depth not exceeding 2 metres – See Appendix G.

7.2.7 Watkin Jones PLC is an experienced operator in the delivery of this type of project.

7.2.8 It is concluded that there is a benefit in using suitable inert waste materials for the restoration of the land which was previously subject to industrial development. The European Court has said that "the essential characteristics of a waste recovery operation is that its principal objective is that the waste serve a useful purpose in replacing other materials which would have had to be used for that purpose thereby conserving natural resources." This restoration would otherwise require significant quantities of non-waste soils and aggregates in order to return the land to the previous levels. Additionally it provides a sustainable re-use option for suitable inert excavation wastes, thus diverting materials from landfill.

7.3 **Is the recovered waste material suitable for its intended use?**

7.3.1 It is considered that the wastes specified for use within this project are all suitable for their use. The EA (NRW) guidance includes a list of examples of the types of wastes that may be recovered on land.

7.3.2 A variety of inert and other suitable wastes such as concrete, hardcore, clay, soil and stones are imported to the site for placement in accordance with the planning permission. All the aforementioned wastes are within the permitted waste codes in the Standard Rules Permit.

7.3.3 Imported wastes are sourced from a variety of sites operated by Watkin Jones PLC They are dependent on current demolition and site clearance operations within the area.

7.3.4 Wastes will be sourced throughout the development and at this time not all the precise locations of the source sites are known. However a robust waste acceptance procedure has been adopted for all wastes received and accepted at the site. The import of wastes shall be undertaken solely by Watkin Jones PLC.

7.3.5 The basic characterisation of the waste confirms the source and provides a full description of the waste. This includes samples of the waste stream and analytical data in order to enable the Operator to make an assessment as to whether the material is compliant with the terms of the permit.

7.3.6 Where source site chemical data indicate borderline or levels of contamination above the higher threshold, the waste is not accepted at the site unless the producer has undertaken further investigation and testing, including leach testing to illustrate that the waste is suitable and permissible within the Waste Acceptance Criteria. Where the levels of contamination are found within the source site data to be unacceptable then waste is not accepted at this site.

7.3.7 On-site verification of the waste entails inspection of the individual Waste Transfer documentation and the waste load in order to confirm the source and nature of material is as described. This methodology provides a clear audit trail for all deposited waste on the site. Loads with missing or incomplete Waste Transfer Documentation will be refused entry to the site.

7.3.8 The Operator ensures that a Banksman is present on site during operational hours to check and sample individual loads at the point of tipping. Loads which fail a visual inspection are re-loaded and removed from the site.

7.3.9 All waste acceptance checks are undertaken by the Operator.

7.4 **Is the minimum amount of waste being used to achieve the intended benefit?**

7.4.1 Yes. The quantities are required to fulfil the proposed contours. They have all been agreed with the Planning Authority – See Appendices G and H with Drawings TM/01, WJ002 and 2720/1.

7.4.2 The operator commissioned a topographical survey which was undertaken in 2011 to assess the amount of waste still required to complete each area. The Operator requires 27,000 tonnes to complete the task of total site restoration.

7.4.3 It should be noted that there is no material remaining at the site which could be utilised for the restoration, consequently material must be imported to the site to complete the restoration works.

7.5 **Is the waste being used as a substitute for a non - waste material?**

7.5.1 Yes. However with regards to the importation of waste soils it is very difficult to source non-waste soils, as discussed within paragraphs 6.7- 6.9. The alternative solution would be to source non-waste materials direct from quarries and other appropriate source sites and purchase aggregates, or wastes that have been fully recovered and "cease " to be a waste, for example those recovered in accordance with the WRAP Quality Protocol Products.

7.5.2 The EA (NRW) guidance states that it is important to show that the proposal has a realistic likelihood of being undertaken using non waste materials. This makes the case for recovery a much stronger one on the basis that the waste is actually being used to replace non – waste materials.

7.5.3 The guidance continues:

"*Demonstrating recovery is more difficult where a proportionate amount of waste would be put to beneficial use but where it is not possible to state that it will actually replace non-waste material.*" This is more likely to be relevant to proposals where the cost of importing the necessary non - waste materials would make the proposal unviable and therefore the works would not take place even though they may be needed.

7.5.4 It may be argued that there would be a likelihood that a project of this size and nature would not go ahead if it were not possible to source suitable inert wastes because it would make the proposal unviable. This is not because of cost implications, but because it is so difficult to source non-waste sub soils in the quantities required, using the EA's (NRW's) definition (refer paragraphs 6.7 - 6.9). The EA (NRW) currently considers all uncontaminated soils (including topsoil) other than soils used where they are produced, without needing further treatment, remain as waste until the point that they are fully recovered and are suitable for an agreed use without posing a risk to the environment.

7.5.5 The EA (NRW) Guidance continues:

"The same proposal may become viable if a waste material could be used as a suitable alternative to the non-waste. Provided that the need for the proposal is clear and that the use of the waste achieves all that the non-waste would have done and subject to the other tests, we might consider this to be recovery"

"The arguments for recovery are therefore reduced (but not removed) where it can only be shown that the waste replaces non-waste materials that could have been used to do the work, rather than actually replacing non-waste that would have been used where the use of waste was not possible."

7.5.6 The guidance continues:

"In cases where it is not possible to show direct replacement, the test for benefit/need becomes particularly important."

7.5.7 Given the difficulty in sourcing non-waste soils, because of the regulatory framework, it could be said that the argument for recovery in this case relies on the fact that the:

Waste replaces non-waste materials that could have been used to do the work, rather than actually replacing non-waste that would have been used, where the use of waste was not possible.

Consequently the test for benefit / need becomes the most important factor in this case. The "benefit and the need" has already been assessed and approved by Gwynedd Planning Authority. This proposal is genuine. The restoration proposals will complete the Ty Mawr restoration scheme improving the site ecologically and visually.

7.5.8 The project is not being undertaken using waste materials with the view to make a financial gain from the placement of these products; neither would the project become financially unviable if it depended upon non-waste soils. The development requires waste inert fill simply because it is not possible to source the required quantities of inert fill needed to create this new recreational facility from a non-waste source.

7.5.9 The restoration will be completed to a high standard, similar to that completed in respect of the landfill site south of the internal access road.

7.6 Will the proposal be completed to an appropriate standard?

7.6.1 Yes it will. The objective of the applicant is to completely restore the slate workings back to their former use as rough sheep grazing, fully in accordance with the requirements of the planning approvals. The Operator is working with the local council to ensure that their requirements are met in order to enhance the area which will in turn benefit the local community both agriculturally, ecologically, recreationally and visually.

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