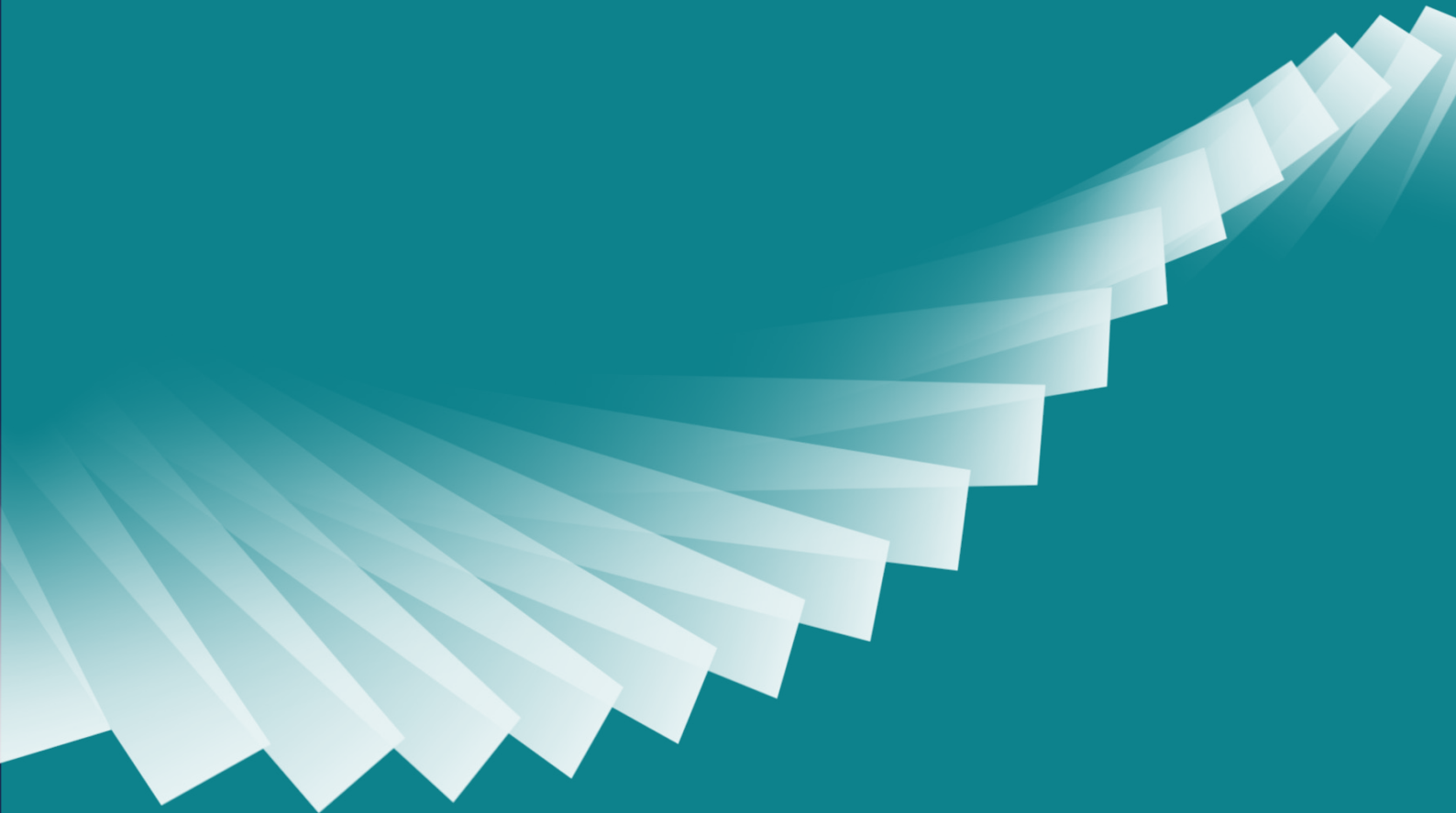




Bute Energy
Aberedw Energy Park

Appendix 4.5:

Outline Decommissioning Plan





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Appendix 4.5: Aberedw Energy Park: Outline Decommissioning Plan

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1. Introduction

1.1. Instruction

Aqua Terra Consultants Ltd (Aqua Terra) was instructed by Land Use Consultants Ltd (LUC; the Client) on behalf of Aberedw Energy Park Ltd (the Applicant) to provide an Outline Decommissioning Plan (ODP) for the proposed Aberedw Energy Park near Builth Wells (the Site). Instruction to proceed in accordance with Aqua Terra Consultants Work Scope was confirmed by LUC sub-consultant agreement 12522.

1.2. Brief

The Applicant proposes to submit an application to Planning and Environment Decisions Wales (PEDW) for a Development of National Significance (DNS) consent under section 62D of the Town and Country Planning Act 1990 to develop Aberedw Energy Park (hereafter referred to as 'the Proposed Development') at the Site. The Site is located approximately 3 km east of Builth Wells and 1.25 km north of Aberedw.

Eighteen turbines and associated infrastructure are proposed to be constructed on the Site.

As part of the preparations for submission of permission to undertake the development under the DNS process, a Scoping Response has been provided by the Welsh Government Soil, Peatland & Agricultural Planning Unit, known also as the Land Quality Advice Service (LQAS) in relation to the Proposed Development in January 2024¹. It states that "the proposals should include a detailed scheme for site decommissioning that can be confidently conditioned against. This is essential to meet the requirements of Policy 18(11) of Future Wales in terms of acceptable provisions relating to the decommissioning of the development at the end of its lifetime, including the removal of infrastructure and effective restoration."

Following a review of emerging upland wind farm schemes of DNS scale across Wales it is apparent that since 2021 an increasing emphasis is being placed by consultees on the importance of peat and other soils, both as ecosystems and due to their importance in the carbon and water cycles. LQAS responses in recent scoping responses and in their responses in recent DNS cases for upland windfarms, LQAS are placing increased emphasis on the management of soils (including peat) in the decommissioning phase of development, with a focus on the holistic management of soils through the entire project lifetime. The following points are of note from the recent planning casework documents;

- Reference to MTAN1 as a benchmark for the degree of information expected of the Applicant at determination stage;
- Future Wales Policy 18 (11) qualifies Policy 17 (the presumption in favour of large-scale wind energy development) as follows: "Proposals for renewable and low carbon energy projects (including repowering) qualifying as Developments of National Significance will be permitted subject to policy 17 and the following criteria;(that) there are acceptable provisions relating to the decommissioning of the development at the end of its lifetime, including the removal of infrastructure and effective restoration."

¹ DNS: EIA Scoping Direction 3276735: Gaerwen Wind Farm. The Planning Inspectorate. 16th September 2021.

- LQAS places importance on how mineral soils have been considered in construction and decommissioning: their type, volume, stripping, handling, storage and replacement.
- There must be certainty about the effectiveness of the proposed decommissioning process.

This ODP has been written to address these requirements. It has been prepared as an appendix to **Chapter 9: Hydrology, Hydrogeology and Geology** of the ES. It sits alongside **Appendix 9.5 Outline Soil Management Plan** (OSMP) and **Appendix 4.1: Outline Borrow Pit Restoration Plan** (oBPRP) as a suite of documents that concern the management of the interaction that the Proposed Development will have with ground conditions.

1.3. Regulatory context

This ODP is based upon the following guidance documents:

- Planning Policy Wales Chapter 6²
- Minerals Technical Advice Note 1 (Aggregates), Welsh Government³
- NatureScot (2024) Good Practice During Windfarm Construction
- Scottish Natural Heritage (2016) Decommissioning and restoration plans for wind farms – guidance. Version 2, February 2016⁴
- Welstead J, Hirst R, Keogh D, Robb G and Bainsfair R (2016) Research and guidance on restoration and decommissioning of onshore wind farms. Scottish Natural Heritage Commissioned Report No. 591.⁵
- WindEurope (2020) Decommissioning of onshore Wind Turbines – Industry guidance Document.⁶
- Construction Code of Practice for the Sustainable Use of Soils on Construction Sites, Department for Environment, Food and Rural Affairs (Defra)⁷
- Good Practice Guide for Handling Soils in Mineral Workings, The Institute of Quarrying⁸.
- Environmental good practice on site guide (fifth edition)). CIRIA Report No. 811, 2023.

The publication of the updated Chapter 6 of PPW in October 2023 represents the most recent update to planning policy with regards to ground conditions and soils. It references the seven goals of the Well-being of Future Generations Act, listing protection of soils as one of the aspects underlying the

² Welsh Government 2023. *Letter to Addressing the Nature Emergency through the Planning System: Updated National Planning Policy for Chapter 6 of Planning Policy Wales*. Published as *Dear Chief Planning Officer (CPO) letter 18th October 2023*.

³ Welsh Government 2004, *Minerals Technical Advice Note 1 (Aggregates) [MTAN1]*. Available at: <http://gov.wales/topics/planning/policy/mineralstans/?lang=en>

⁴ Scottish Natural Heritage (2016) *Decommissioning and restoration plans for wind farms – guidance. Version 2, February 2016*

⁵ Welstead J, Hirst R, Keogh D, robb G and Bainsfair R (2016) *Research and guidance on restoration and decommissioning of onshore wind farms. Scottish Natural Heritage Commissioned Report No. 591.*

⁶ WindEurope (2020) *Decommissioning of onshore Wind Turbines – Industry guidance Document*.

⁷ Defra, 2009; 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites'. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/707134/pb13298-code-of-practice-090910.pdf

⁸ IoQ 2021. *Good Practice Guide for Handling Soils in Mineral Workings*. Institute of Quarrying. 2021. <https://www.quarrying.org/soils-guidance>

Resilient Wales goal. It provides the goal of Distinctive and Natural outcomes, and lists soil compaction and sealing, and soil carbon management as underpinning such outcomes.

1.4. Programme and development context

In order to provide context to this ODP document, it is important that the lifetime of the Proposed Development is understood. The construction phase of the development is expected to take approximately 15 months from the start of works on Site. The operational lifetime of the development is then 40 years. As a result, decommissioning will be undertaken in 2068, or later.

All temporary construction areas will be restored and returned to beneficial after-use (i.e. returned to their pre-construction use) as part of the construction process. This will be detailed in the Construction Environmental Management Plan (CEMP) and is referenced in the outline CEMP (see **Appendix 4.2**).

The borrow pits are also to be restored during the construction period, and this is detailed in the OBPRP.

Those aspects of the Proposed Development that will be extant in the 2060/70s and require consideration for decommissioning are therefore the tracks, the substation and the permanent hardstanding around and beneath each turbine base.

This document is therefore focussed on the decommissioning of the substation and the hardstanding associated with the turbine bases only.

Given the project timescales, it is both unreasonable and inappropriate to attempt to provide detailed design for the decommissioning process several decades in advance of this happening. The state of knowledge and best practice in wind farm operation and decommissioning will have advanced significantly during this period, not least due to the many wind farm developments in the UK that will require decommissioning between now and 2068. To set in stone a detailed decommissioning design now precludes the ability to incorporate the learning and new technologies gained from the decades of such work to be undertaken prior to this work being required on the Proposed Development.

This point is specifically made within the available guidance on the matter (SNH, 2016), as follows:

"It is good practice to include an outline Decommissioning and Restorations Plan (DRP) based on a decommissioning, restoration and aftercare statement in the Environmental Statement or other documents supporting a planning application. However, as there would commonly be 25 years between construction and decommissioning of a wind farm, the outline DRP should be sufficiently flexible. This is because environmental conditions, laws and techniques may change during the lifetime of the development..... Prior to consent it will not be possible to plan for decommissioning in detail. However, the draft DRP should at least consider the main infrastructure on the site and the likely aims of the restoration process."

It is with this in mind that Policy 18 (11) of Future Wales should be read. It requires that *"there are acceptable provisions relating to the decommissioning of the development at the end of its lifetime"*. The scope of this ODP document has been defined to provide surety that acceptable provisions are in place, whilst not providing detail as to how these provisions may be enacted.

1.5. Scope

The scope of this document has been defined in order to meet the requirements set out in Future Wales Policy 18 (11) and in recent LQAS scoping response and DNS responses. It has also been drafted cognisant of the policy set out in chapter 6 of PPW.

Table 1-1 sets out the key components of decommissioning for an energy park development. the scope of this ODP focusses on below-ground aspects only.

There is a substation to be constructed as part of the Proposed Development. Otherwise, there are no permanent buildings planned within the Proposed Development.

This document therefore focusses on those aspects marked by red asterisk in Table 1-1 below.

Section 2 describes the decommissioning proposals for the Proposed Development, as relevant to those aspects of the development that will require decommissioning at the end of the project's operational life in the 2060/70's (the substation and hardstandings associated with the turbine bases).

Section 3 describes the approach to monitoring and mitigation measures to ensure the post-decommissioning ground conditions (and hence the habitats that they contain and sustain) maintain their trajectory towards recovery.

Table 1-1 Key decommissioning components (after Welstead et al, 2016)

Key Element	Components	Constituents
Turbines	i. Blades	Resin / fibre glass
	ii. Blade hub and nose cone	Cast iron / resin / fibre glass
	iii. Nacelle / Gear Box	Iron / steel / copper / resin / silica
	iv. Tower	Steel (sections)
Turbine Base	i. Backfill above and around base.	* Suitable engineering fill / crushed rock
	ii. Concrete Bases	* Concrete / steel reinforcement
	iii. Concrete Piles	* Concrete / steel reinforcement and casing
Transformer	i. Transformer	Electrical components
	ii. Concrete Base	* Concrete / steel reinforcement
Crane Pad	i. Hardstanding	* Crushed rock / geogrid reinforcement. Weathered and possibly vegetated
	ii. Soils	* In-situ soils
Tracks	i. Forestry Spec Roads (granular fill) (also floating roads)	Crushed rock / possibly geotextile separators / geogrids on weaker ground
	ii. Bituminous/ Asphaltic Roads	Bitmac/tarmac/bitumen/ Type 1
Buildings	i. Control Building / Staff Building	Timber / brick / prefabricated panels / glass / steel / concrete
Substation	i. Switchgear / Cabling	Buried and O/H Services. Switchgear / Cabling Other miscellaneous – fencing / lighting etc
	ii. Hardstanding	* Compacted granular material / concrete plinths
Cables	i. Cables	Copper / Aluminium / Fibre optic / plastic and rubber sheaths

2. Decommissioning proposals

2.1. Background

NatureScot published research and guidance on the restoration and decommissioning of onshore wind farms in 2016 (Welstead et al, 2013). Windeurope also published industry guidance in 2020.

NatureScot note that “prior to consent it will not be possible to plan for decommissioning in detail. However, the draft DRP (Decommissioning and Restoration Plan) should at least consider the main infrastructure on the Site and the likely aims of the restoration process.”

No equivalent guidance has been published in Wales.

The principles behind the drafting of a decommissioning plan are set out by NatureScot as follows:

1. Restoration is the overarching principle with decommissioning an activity within this;
2. RDPs should provide the opportunity to lever improved restoration at decommissioning stage (especially if this was insufficient at construction stage) and leave the site in better condition than the original baseline;
3. To prove the ‘reversibility’ of wind farms where all visible traces and all significant environmental impacts are removed (including below ground infrastructure) if appropriate;
4. To devise pragmatic solutions based on the existence of the wind farm;
5. To gather evidence through the decommissioning process upon which to base future recommendations, such as standardisation of engineering design elements;
6. To allow decommissioning activities to be assessed in terms of carbon balance especially with respect to level of peat disturbance, soil movement, distance to recycling, on site vehicle movements); and
7. To help decide whether to repower or decommission.

The above principles are discussed within the NatureScot guidance as being considerations in decisions concerning which aspects of the infrastructure to leave in place, and which to remove during decommissioning.

The guidance also sets out that the RDP should be revised to reflect evolving good practice throughout the operational phase of the development, and based on stakeholder feedback.

2.2. Restoration and decommissioning objectives

The outline objective of restoration during decommissioning is to leave the Site in comparable or better condition than pre-construction. This is in line with points 1, 4 and 7 above.

During the operational phase of the Proposed Development, Points 2, 3, 5 & 6 will be reviewed and considered in light of the evolving technologies and techniques in the wider wind energy industry in order to inform a Detailed Decommissioning Plan, which will be completed and submitted for regulatory approval in good time ahead of planned end of operations.

The delivery approaches in achieving these objectives are set out in **Appendix 7.5: Outline Habitat Management Plan** and **Appendix 9.6: OSMP**. These documents are focussed on the restoration of ground conditions and habitats during the construction, operational and decommissioning phases

of the project. They include monitoring and mitigation measures as part of an overall package of measures aimed at delivering biodiversity benefit as a result of the Proposed Development.

The objective of restoration during decommissioning is to leave the Site in comparable or better condition than pre-construction. This approach to decommissioning is discussed below:

2.3. Approach to decommissioning

After discussion with landowners ahead of preparation of the ES, the track network, associated drainage and underground cabling will be left in place to support future agricultural and other activities on the Site.

All other infrastructure components will be decommissioned in line with good practice. Due to the age of the onshore wind energy industry in the UK (and globally), there is currently a limited evidence base for good practice in decommissioning. Some examples of decommissioning have emerged from other areas of the world in recent years, but the decommissioning aspect of wind farm development remains in its infancy. This situation is anticipated to evolve relatively rapidly over the coming decade, as many of the earlier onshore windfarms in the UK reach the end of their design lives. It is for this reason that it is important that this ODP is augmented and built upon to form a Detailed Decommissioning and Restoration Plan (DRP) during the post-consent, pre-construction period, and that this detailed document is then maintained as a live document that evolves in response to the evolution in good practice as it develops.

The following scheme elements will be decommissioned:

- Turbines, their foundations and their permanent hardstandings (the temporary hardstandings having been restored at the end of the construction phase of the project).
- The substation
- Drainage associated with the turbine hardstandings and substation.

2.3.1. Decommissioning of turbines and hardstandings

All of the turbines to be constructed on site sit in areas of soil cover. None of the turbines are to be constructed on peatland (as there is no peatland present on Site).

All of the turbines will require the formation of a level platform during construction, by means of cut and fill of soils and rock.

As set out within the OSMP, soils that are stripped from the areas of permanent hardstandings shall be placed across the surrounding earthworks batter and temporary hardstanding footprint, as part of the restoration work undertaken during and at the end of the construction phase. This will be undertaken by means of thickening the amount of soils placed in a designated area(s) local to the turbine base. In this way, the soils shall form part of the restored landscape around the turbine base throughout the operational phase, but then represents a stored soil resource available at the point that decommissioning is to be undertaken.

The soil thickness on Site is summarised at each of the turbine bases, as follows:

Table 2-1 Soil types beneath turbine bases and substation

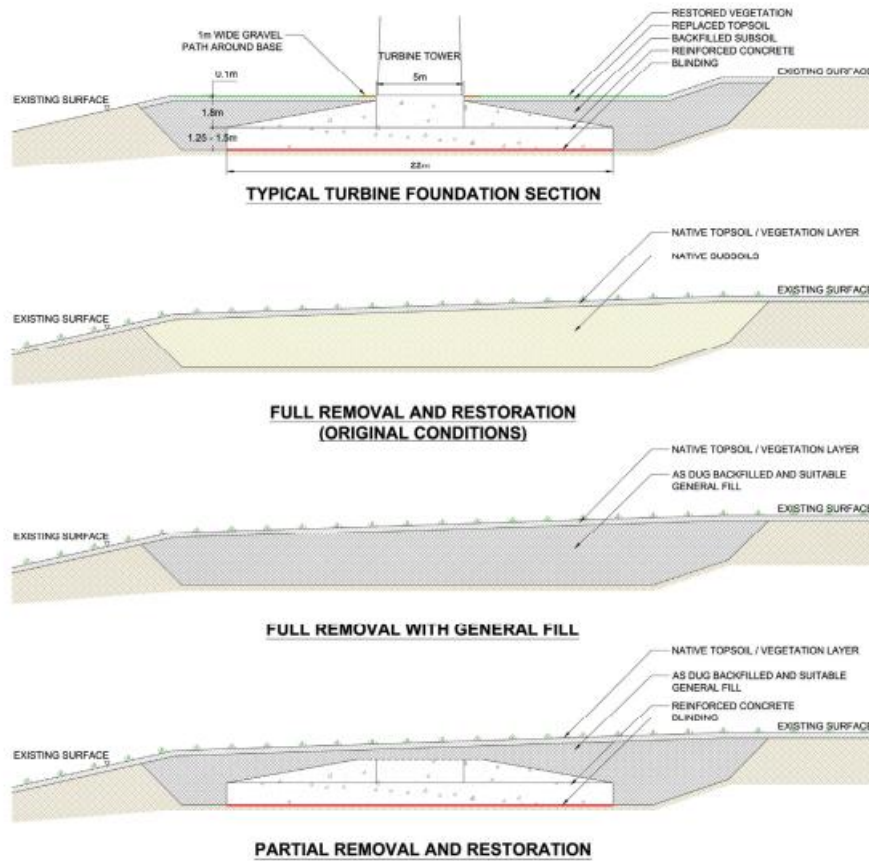
Turbine handstanding	Soil type	Soil thickness (mean) (cm)	Soil thickness (range) (cm)
1	Organic-mineral soil	11	7 to 15
2	Organic-mineral soil	9	7 to 11
3	Organic-mineral soil	8	6 to 10
4	Organic-mineral soil	11.6	9 to 13
5	Organic-mineral soil	9.5	8 to 11
6	Organic-mineral soil	8.7	7 to 11
7	Organic-mineral soil	11.8	10 to 13
8	Sandy light soil	9.8	8 to 11
9	Organic-mineral soil	11.5	10 to 13
10	Organic-mineral soil	13.3	10 to 19
11	Organic-mineral soil	14.3	0 to 28
12	Organic-mineral soil	11.1	6 to 20
13	Organic-mineral soil	12.4	7 to 17
14	Organic-mineral soil	10	6 to 13
15	Organic-mineral soil	7.5	7 to 8
16	Organic-mineral soil	7.7	0 to 12
17	Sandy light soil	10.5	9 to 13
18	Organic-mineral soil	9.5	9 to 10
Substation	Medium/ heavy soil	12	9 to 20

The predominant substrate across the Site is that of weathered Silurian mudstone and siltstone bedrock. This is mapped by the British Geological Survey as present beneath all of the proposed turbine locations. As a result, rockhead is anticipated to be shallow (within 30cm) in all cases. This accords with the soil survey data, which confirms shallow soils (the greatest soil depth recorded being 28cm). Natural conditions therefore have a shallow depth to hard surface (rock).

Given the topography, each permanent turbine handstand footprint will have been cut and filled to form the level footprint required. These contours shall remain upon decommissioning, as to attempt to return them to original contours is considered to represent additional and unnecessary ground disturbance.

NatureScot summarise the options for decommissioning of turbine bases as set out in Figure 2-1 below.

Figure 2-1 Options for decommissioning turbine base foundations (after Welstead et al 2013)



Of these options, it is considered that partial removal and restoration is the best environmental option for this Site. This is because it;

- minimises the amount of ground disturbance require to achieve break-out of concrete;
- minimises the duration of works (as a smaller and shallower volume of concrete needs to be broken out;
- reduces the volume of broken-out concrete that will require off-site disposal;
- best replicates the natural ground conditions for the majority of turbines, wherein a 30cm depth to concrete replicates the shallow depth to bedrock seen in the natural state;
- reduces the impact on established hydrological regime;
- reduces the need to either import volumes of soil to backfill a larger void, and/ or minimises the volume of soil/ overburden material that needs to be stored on Site for the duration of the operational phase awaiting its use in backfilling the void.

Once breaking out is achieved, soils will be recovered from the designated soil storage areas within the landscape margins of each turbine base. This operation will be undertaken under the protocols and working practices set out in the SMP.

As there will be insufficient turves to cover the entire area of both the restored turbine base hardstanding and across the area from which the soil has been reclaimed, turve blocks shall be spread in a chequerboard arrangement over the area. These will be augmented with a seed mix, designed to replicate the surrounding habitat as present at the time of decommissioning. The areas will be securely fenced to prevent grazing or trampling by livestock until such time as the areas has fully revegetated.

2.3.2. Decommissioning of the substation

The substation is the only piece of permanent infrastructure for decommissioning that is situated on glacial till substrate. Soil probing has confirmed that soil depth remains relatively thin across the substation footprint, with a maximum soil depth of 20cm.

Given the topography, it is anticipated that the substation footprint will be benched, to accommodate the fall in height across it. Whether benched or on a single platform, the ground will have been cut and filled to form the level substation footprint. These contours shall remain upon decommissioning, as to attempt to return them to original contours is considered to represent additional and unnecessary ground disturbance.

The process for decommissioning of the substation area will be identical to that for turbine locations, with foundations being broken out to 30cm below ground level, and soils reclaimed from designated storage locations around the landscape buffer of the substation. Turves and seeding shall be undertaken in an identical manner also.

2.3.3. Decommissioning of cables

The environmental cost-benefit of removing cables will be best undertaken in the period leading up to decommissioning. This will enable the environmental merits of removing the cables to be properly weighed against the environmental impact of that activity, set against the contemporary context of habitat and environment.

Should it be determined that the best environmental option is to remove the cables, it is envisaged that all turves and soils excavated to facilitate their removal will be temporarily stored on a permeable membrane and replaced within the excavation trench immediately as the cable is removed. This will lead to the turves and soil being stockpiled for a matter of days before replacement.

2.3.4. Decommissioning of drainage associated with turbine hardstanding and substation

Any cut-off drains or recharge trenches installed during construction to aid drainage of the substation or permanent turbine hardstandings will be reinstated concurrently with the other decommissioning works. The exception to this would be in areas where this may impact the success of the restoration process (for example, if pre-decommissioning baseline study suggests that to reinstate drainage may lead to an erosion risk across the restored area).

In order to ensure maximal success of the restoration activities, the potential decommissioning effects on hydrology will be assessed for all areas proposed for decommissioning (see Section 3.2.1). Notwithstanding this, the reversion to a soiled ground surface (through decommissioning) will bring the site closer to its current baseline and is not anticipated to have adverse impacts. Monitoring of the decommissioned areas and the provision of mitigation (if required – see Section

3.2.3) will ensure that there are no adverse environmental impacts associated with the decommissioning activities.

Drains and watercourse crossings installed in association with the track network will remain in place alongside the retained tracks. Given that these will be part of the landscape after 40 years of operation and maintained to high operational standards throughout that period, no additional assessment or decommissioning works are envisaged at the point of handover back to the landowner for their use. From the point of handover onwards, the landowner will assume responsibility for maintenance of the tracks and drainage.

2.3.5. Environmental protection and management during decommissioning works

The Outline CEMP sets out a series of environmental protection principles that will be employed during the construction phase of works to manage and mitigate any adverse impacts on the environment associated with the construction of the Proposed Development. This will be developed into a detailed Decommissioning Environmental Management Plan (DEMP) by the chosen Main Contractor.

Due to the fact that the tracks are to remain in situ, and due to the fact that the temporary footprint of the Proposed Development will be restored during the construction phase, the impact of the decommissioning works will be significantly smaller than the construction phase (limited as they are to the turbine base permanent hardstanding and substation only).

Notwithstanding this, the outline CEMP will also be used to set out the same level of environmental protections during the decommissioning phase of the development as was deployed during construction. The chosen Main Contractor for decommissioning will develop a new detailed DEMP that will enable the principles of the outline CEMP to be updated and augmented in accordance with contemporary good practice at that time.

2.3.6. Changes to and evolution of decommissioning approach

As has been previously discussed, the available guidance (SNH 2016) indicates that an outline decommissioning plan such as this should remain a “live” document throughout the operational life of the Proposed Development. As such, it will be reviewed and updated on a 5-yearly basis to reflect the evolution in good practice and the changing land-use patterns and habitats present on the Site.

3. Finalising the decommissioning plan, monitoring and mitigation

3.1. Finalising the Outline Decommissioning Plan

Given the number of onshore wind farms in the UK that will reach the end of their operational life during the operational phase of the proposed development, it is anticipated that good practice in onshore wind farm decommissioning will evolve considerably in that period. (There will be decommissioning required associated with re-powering of wind farms as well as those being fully decommissioned. This is because repowering will typically require new turbine bases to accommodate the increased size of modern turbines, thus necessitating the decommissioning of the old turbine bases and associated hardstandings.)

Considering this, in the event of a consent being given for the proposed development, a detailed Decommissioning and Restoration Plan will be prepared, building on the principles set out in this document and reflecting the final as-designed infrastructure layout. This will be prepared recognising that good practice techniques may change over the operational phase of development. This detailed DRP document will be in place prior to commencement of construction, in order to ensure that the subsequent build-out can be decommissioned effectively with respect to ground conditions, drainage and the habitats that these underpin.

The detailed DRP will;

- reflect the regulatory and legislative requirements at the time;
- provide clear timelines and methodologies;
- indicate the degree of expected stakeholder involvement;
- set out responsibilities and reporting mechanisms; and,
- set out the process of periodic review and update of the DRP throughout the operational lifetime of the project.

An outline structure for the detailed DRP is provided as Appendix B to this document.

3.2. Monitoring

In advance of decommissioning activities commencing, monitoring will be undertaken (as agreed with the regulator) on the surrounding land in order to determine the pre-decommissioning baseline. This monitoring will then continue through the decommissioning period in order to monitor any environmental impact of the works. Monitoring will then continue for a set period after the decommissioning activities have been completed. Each of these is discussed in detail below:

3.2.1. Pre-de-commissioning baseline monitoring

For each infrastructure element to be decommissioned, the habitat and hydrology (drainage) will be surveyed in order to determine the extant, pre-decommissioning conditions. These shall be undertaken in accordance with good practice in such surveying as is in place at that time. In order to scope these surveys, relevant stakeholders will be consulted 5 years prior to the planned decommissioning and the survey area, survey timings and survey methodologies agreed.

3.2.2. Decommissioning phase monitoring

The construction-phase environmental monitoring requirements will be set out in the detailed CEMP. These shall be reviewed leading up to the planned decommissioning and updated to reflect the evolved good practice. The proposed scope and frequency of decommissioning-phase monitoring shall be submitted to stakeholders at least 1 year prior to the planned decommissioning activities commencing in order that the scope can be agreed prior to works commencing.

3.2.3. Post-decommissioning monitoring

Post-completion of the decommissioning, the following areas will be monitored by means of habitat and drainage (hydrology) surveys similar in scope to those undertaken to define the pre-decommissioning baseline;

- the footprint restored during the decommissioning;
- the area from which stored soils were won to deliver the restoration; and,
- the surrounding area of land that was surveyed during the pre-decommissioning baseline surveys.

This post-completion monitoring shall be continued for a period agreed with the regulators.

In the event that the restored areas (to include the decommissioned areas and the area of former soil storage) show signs of deterioration, or signs of a lack of restoration success, mitigation will be designed and implemented (see below).

Criteria will be agreed between the stakeholders and operator of the Proposed Development for the cessation of monitoring (i.e. indicators that confirm the successful delivery of the DRP).

3.2.4. Mitigation

Potential mitigation options (in the event of a lack of success in restoration) will form part of the review and reporting mechanisms section of the detailed DRP. It is anticipated that this will form a series of possible mitigation options in the first draft of this document. These will then be refined, augmented and amended as part of the periodic review process, to enable the project to take advantage of advances in knowledge and good practice associated with habitat management and land management over the intervening decades.

Appendix A Report conditions



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Report Conditions

This report has been prepared by Aqua Terra Consultants Ltd. (Aqua Terra) in its professional capacity as soil and groundwater specialists, with reasonable skill, care and diligence within the agreed scope and terms of contract and taking account of the manpower and resources devoted to it by agreement with its client and is provided by Aqua Terra solely for the internal use of its client.

The advice and opinions in this report should be read and relied on only in the context of the report, taking account of the terms of reference agreed with the client. The findings are based on the information made available to Aqua Terra at the date of the report (and will have been assumed to be correct) and on current UK standards, codes, technology, and practices as at that time. They do not purport to include any manner of legal advice or opinion. New information or changes in conditions and regulatory requirements may occur in future, which will change the conclusions presented here.

Where necessary and appropriate, the report represents and relies on published information from third party, publicly and commercially available sources which is used in good faith of its accuracy and efficacy. Aqua Terra cannot accept responsibility for the work of others.

Site investigation results necessarily rely on tests and observations within exploratory holes only. The inherent variation in ground conditions mean that the results may not be representative of ground conditions between exploratory holes. Aqua Terra take no responsibility for variation in ground conditions between exploratory positions.

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1. Introduction
2. Overview of the project and its purpose
3. Document scope and relevance
4. Regulatory & legislative context
5. Habitats Regulations considerations
6. Environmental Impact Assessment and document context
7. Water Regulations
8. Waste Regulations
9. Protected species licensing (as required)
10. Timeline & phases
11. Pre-application considerations
12. Post-consent review cycles
13. Expected decommissioning date
14. Expected decommissioning period
15. Objectives
16. Clearly stated aims of the DRP
17. Methodology
18. Detailed steps for infrastructure removal and site restoration, including;
19. Turbines
20. Turbine bases and foundations
21. Permanent hardstandings
22. Transformers and inverters
23. Substation
24. Role of stakeholders and consultation
25. Role of NRW or successor organisation
26. Role of landowners
27. Collaboration with other stakeholders
28. Public consultation (if required)
29. Environmental and ecological considerations
30. Surrounding habitats
31. proposed restored habitats
32. Site sensitivity
33. Impact mitigation
34. Updated surveys – anticipated required scope and type, including licensing considerations
35. Ecological protection plan
36. CEMP
37. Resource management
38. Source of materials for restoration
39. Handling and disposal of waste materials
40. Reuse and recycling strategies
41. Review and reporting mechanism
42. Periodic review schedules
43. Stakeholder communication plan
44. Update and revision methodologies
45. Appendices
46. Detailed maps and site plans
47. Pertinent legal documents/ permits
48. Historical/ background data as pertinent to restoration

