

**DEVELOPMENTS ON PEATLAND:**

**GUIDANCE ON THE  
ASSESSMENT OF  
PEAT VOLUMES,  
REUSE OF  
EXCAVATED  
PEAT AND THE  
MINIMISATION OF  
WASTE**

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## Introduction

This document is aimed at businesses engaged in activities that involve developments on peat. The principles contained herein apply to all forms of development on peat, although the examples used are taken from wind farms. This guidance ensures consistency in the application of the Scottish Environment Protection Agency's (SEPA) regulatory position on such developments and supports SEPA's Regulatory Position Statement on Developments on Peat.

The information contained in this guidance has been prepared by a joint working group involving Scottish Renewables, SEPA, and representatives from companies with development and construction experience in peatland environments.

## Aim, Objectives

The overriding aim of this guidance is to assist SEPA, planning officers, developers, consultants, contractors, and other parties responsible for environmental protection during the development process, by providing clear guidance of the potential waste issues that may arise during developments on peat and how these should be dealt with, within the hierarchical requirements of the Waste Management Licensing (Scotland) Regulations 2011.

The objectives underlying this aim are:

- 1) To provide clear guidance on the typical steps SEPA expect developers to take at each stage in the development process to seek to avoid 'waste' peat altogether, or at least minimised as far as is reasonably practicable and managed in the most sustainable and environmentally robust manner.
- 2) Provide guidance to ensure that relevant legislation is duly considered.
- 3) Provide examples and evidence of where peat has been reused in an acceptable manner.

# Guidance Structure and Content

This guidance has been structured around the three main stages in the development process:

**Stage 1: Environmental Impact Assessment**

**Stage 2: Post-consent / pre-construction**

**Stage 3: Construction**

Guiding Principles are also provided herein that further illustrate some actions that may be taken to reduce excavated peat volumes and reuse it in an appropriate manner without resulting in waste generation and subsequent waste management issues.

Excavated peat associated with development on peatland is not classed as waste provided it is suitable (from an engineering as well as environmental perspective) for a required and predetermined end use as part of construction works and reinstatement on a site. However, peat varies widely in physical characteristics depending on a number of factors such as physical location, groundwater, surface water and drainage, altitude, climate, topography, vegetation cover and past and present land management practices. Once excavated, unless it is handled appropriately, peat typically loses some of its physical structure and strength. This unconsolidated, and generally saturated, excavated material has a limited range of uses within construction works.

This document identifies valid options for the reuse of peat that are acceptable to SEPA under the terms of waste legislation and also provides guidance to assist peatland developers on what options may be available in terms of recycling or recovery should the material be considered to be unsuitable for use in its excavated form and therefore potentially classed as waste.

The options explored within this guidance are not exhaustive and are based on current knowledge, experience, evidence and published research and guidance. Alternative options may always be considered if applicable for the site. Whether or not a proposed use is appropriate or acceptable will ultimately depend on a range of site specific factors that will require to be considered on a site by site basis in consultation with SEPA.

Separate guidance concerning other environmental issues associated with developments on peatlands, such as ecological considerations, construction issues, carbon accounting etc. is available in separately published guidance, for example '**Good practice during windfarm construction**' and '**Floating Roads on Peat**'.

# Legislative Background

The overarching framework for National (i.e. UK) legislation is set by European Community (EC) Directives, with the relevant Directive on waste matters being 2008/98/EC (the Waste Framework Directive (WFD)) which came into force 12 December 2008.

Article 4 of this Directive sets out the waste hierarchy and requires that it is applied 'as a priority order in waste prevention and management legislation and policy'. The waste hierarchy is defined as follows:

- a) Prevention;
- b) Preparing for re-use;
- c) Recycling;
- d) Other recovery e.g. energy recovery; and
- e) Disposal.

The Directive also states that, 'Member States shall take into account the general environmental protection principles of precaution and sustainability, technical feasibility and economic viability, protection of resources as well as the overall environmental, human health, economic and social impacts.'

The main national legislation potentially relevant to waste management activities involving waste peat are:

- **Environmental Protection Act 1990 (as amended)**
- **Landfill (Scotland) Regulations 2003 (as amended)**
- **The Waste Management Licensing (Scotland) Regulations 2011**

Where excavated or disturbed peat does not have a genuine and identified re-use for which it is suitable, it is possible that the peat will be classified as a waste material and regulated as such under the relevant legislation. SEPA will aim to regulate in a proportionate manner and ensure that the ultimate management of any waste peat will be designed to deliver environmental benefits. This will include consideration, on a site by site basis, of ecological and carbon stock benefits as well as economic, social and practical aspects.

# Stage 1: Environmental Impact Assessment

As part of the Environmental Impact Assessment (EIA) it will be necessary to demonstrate to SEPA, and other relevant parties, that the extent of peat at the study site has been investigated. Further information on the scope of site surveys and best practice is provided in the Scottish Government publication “**Developments on Peatland: Site Surveys & Best Practice**”.

For smaller scale developments seeking approval out with the EIA process, the overarching, general, guiding principles of minimisation through design and practice are equally applicable.

Furthermore, it is necessary to show:

- how, through site investigation and iterative design, the proposed development has been structured and designed to minimise, so far as reasonably practicable, the quantity of peat which will be excavated;
- that volumes of peat anticipated to be excavated by the proposed development have been considered; and
- how excavated peat will be managed.

Much of the scope of site investigation and data acquisition described within this document is already required to complete peat stability, hydrological and ecological surveys as well as carbon payback assessments normally undertaken as part of the EIA process. Coordination and knowledge exchange between surveyors and assessors is therefore essential to obtain adequate data to undertake robust assessments for each of the related EIA disciplines as well as consideration of the waste management aspects. The overall aim is to minimise the impacts associated with excavation of peat by using the following hierarchy of design principles: prevent excavation; reduce volumes of peat excavated; and reuse excavated peat in a manner to which it is suited.

# Desk Study & Initial Walkover

## Aim

To determine likelihood of peat being present at the site and expected extent, depth and habitat sensitivity. The objectives are to:

1. Define suitable scope for further survey / site investigation as required; and
2. Define data requirements for completion of peat excavation and reuse volume assessments.

## Scope of Works

1. Review topographic, geological, soil maps and aerial photography to provide outline habitat mapping. This may indicate typical peatland vegetation cover.
2. Conduct a site walkover, with the aim to verify the information gathered during the desktop study and to record targeted peat information, focussing on likely areas of peat and initial expectations of track alignments, turbine locations, borrow pits, crane pads, substation/control building and construction compounds.
3. If available, obtain initial findings from other baseline assessments (e.g. ecology, hydrology etc.) which might consider the presence, quantity and quality of peat at the study site.
4. Collate information gathered and draw up detailed and justified scope of works for further site investigation, including scope of peat probing and other site investigations required to meet the objectives of the data acquisition and assessment stages.

# Data Acquisition

## Aim

To obtain sufficient site / ground investigation data to inform site design such that the excavation of peat is minimised and preliminary volume estimates for excavated peat and intended reuse requirements can be calculated. The data should also allow for a degree of assessment of the characteristics of the peat and its likely suitability for reuse. All site investigation information, including visual observations and available ground investigation data, should be used to refine input parameters for calculating excavation and reuse volumes.

## Scope of Works

## Visual Assessment

1. Notes to be made on the presence and nature of peat deposits encountered, including observations on natural or man made topographical, hydrological and hydrogeological features as well as type and condition of vegetation cover.
2. Visual assessment should also be made of any other relevant geomorphological features. For example, the stability of natural slope angles in conjunction with the

fibrous or viscous nature of the peat and the type of mineral soil (for assessment of likely silt propensity and also the suitability of the material for reuse).

3. Visual observations should be fed into the initial design of tracks (e.g. floating roads, drainage requirements, etc), and likely borrow pit configurations (e.g. shallow and wide or steep and incised into hillside etc).

### Peat probing and coring

1. Peat probing should occur at sufficient intervals (refer to ‘**Good practice during windfarm construction**’ and “**Developments on Peatland: Site Surveys & Best Practice**” guidance documents) along proposed tracks where peat is identified as being present. Peat probing should also be conducted at each area of proposed site infrastructure. Full depth of peat should be measured to underlying strata. Where this is not possible, the depth of probing must be fully justified dependent on the intended works.
2. A representative sample of peat cores (hand held auger / Russian corer) should be taken in order to assist with classification of peat characteristics, for example properties of acrotelmic and catotelmic material.
3. Density of peat probing and coring may be reduced where peat is not present (although a selection of confirmatory / control points should be probed for verification purposes). Where access restrictions or other constraints (e.g. dense forestry cover) restrict the peat probing and coring density that would otherwise apply then justification should be provided.

## Data Integration / Assessment

### Aims

1. Collate and interpret all gathered data.
2. Calculate preliminary estimated volumes of excavated materials and potential reuse volume requirements based on initial site design / layout.
3. Determine whether there is likely to be negative or positive overall peat balance, and whether the generation of excess material will be avoided, and, if not, where reductions in the volumes of excavated materials may be achieved.
4. In the context of the overall environmental, human health, economic and social impacts, refine site layout to reduce volumes of excavated material and reduce carbon impacts of the project construction activities.
5. Prepare a draft Peat Management Plan.

### Scope of Works

1. Conduct preliminary excavation and reuse volume calculations and identify intended methods of reuse.
2. Explore the sensitivity of the parameters used in the volume calculations to inform and refine proposed mitigation and good construction practices and potential further site investigation works.
3. Where possible, record specific examples of how overriding principles of



prevention and minimisation of peat disturbance are to be taken into account in the design of the site.

4. Ensure the assessment also feeds into and considers results of the peat stability assessment, carbon payback assessment and the assessment of the economic viability of the project (e.g. all constraints should be considered together to determine the optimum site design that avoids / minimises risks as far as is reasonably practicable).
5. Identify limitations and make recommendations for further site investigation (post-consent) in order to steer detailed design and micro-siting such that opportunities for further reductions in excavated peat volumes can be implemented where possible.

## Stage 2: Post Consent / Pre-construction

As part of the EIA it will have been demonstrated to SEPA and other interested parties that, on the basis of the investigation and data gathered, it is likely that the excavated materials at site can be managed in an appropriate manner. The site material mass balance calculations may be further developed and refined post planning consent, and prior to the relevant works commencing, as a consequence of any further or more detailed ground investigation or survey works required to inform detailed design or required under planning consent conditions.

## Further Site Investigation (including intrusive works)

### Aim

To further determine the peat characteristics across the site to allow detailed design of the site infrastructure and to ensure the general principles of waste prevention and minimisation are met. The aim is to define and carry out suitable site investigation methods at a sufficient density to increase certainty of peat data, which would enable the site infrastructure layout or construction methodology to be refined in order to confirm (or reduce) the estimated volume of excavated peat and to further inform the peat excavation and reuse volume assessments.

### Scope of Work

1. Review all the data collected during the Environmental Impact Assessment stage.
2. Detail proposals for further site investigation (ground investigation) for the site and borrow pits including, as required: Locations for trial pits and boreholes;
  - Areas for and density of additional peat depth probing;
  - Locations for further peat coring;
  - Area to be covered by detailed topographic survey; and
  - On-site chemical and off-site lab testing.
3. Carry out further site walkover surveys to check all information available to date, and suitability of the proposed methods and equipment for ground investigation.
4. Conduct the ground investigation and topographic survey work.

# Peat volume calculations and design

## Aim

To analyse the information gathered from the further site investigation and in the context of the consented site design to refine, if appropriate, the estimate of the volumes of peat that would be excavated and reused. This process can be an iterative one, building on the calculations performed at Environmental Impact Assessment stage.

## Scope of Works

1. Review all the data provided by the ground investigation and topographical survey.
2. Calculate potential peat volumes, based on planning consent design. The volumes of peat excavation should identify each area of the site from which the peat will be excavated e.g. each section of the track layout, crane pads, borrow pits, construction compound, etc. The volumes of peat reuse should identify the intended valid reuses of peat.
3. Carry out design review and peat quantity review to assess whether potential surplus or unsuitable peat will be generated by the construction process. The revised volumes should take into account possible further mitigation methods and valid methods of reuse for the excavated peat.
4. Prepare a Peat Management Plan. Annex 1 contains a checklist of information that should be contained within a Peat Management Plan. This would typically be monitored by the Ecological Clerk of Works, Environmental Manager or other suitably qualified person. The Peat Management Plan should support and inform the Site Waste Management Plan if it is expected that any waste peat will be generated.

## Stage 3: Construction Stage

### Tender Design Validation

#### Aim

To confirm with reasonable certainty the likely peat excavation volumes with the aim of ensuring that, as with earthworks, as far as reasonably practicable, there is a balance of material use across the project and disturbance of peat and associated haulage is kept to a minimum.

#### Scope

At the start of the construction stage the tender design will be validated by the civil contractor, including as required:

1. Initially undertake detailed topographic survey work.
2. Confirm the turbine supplier's specific infrastructure requirements.
3. Re-evaluate the planned turbine layout, hardstandings, track alignments and borrow pits in light of the ground conditions actually found on site and any other detailed constraints, e.g. ecological and archaeological. Stage 1 and Stage 2 will have endeavoured to relocate tracks and turbines previously sited in areas of deeper peat and peat instability (linking to the peat stability information and risk register). Within micro-siting allowances, the alignment and design of tracks, hardstanding orientation and construction methods will be reviewed to avoid/minimise peat disturbance as much as possible in light of the more detailed topographic/design information available once construction actually commences on site.
4. Where necessary update the Peat Management Plan and, if relevant, the Site Waste Management Plan.

## Peat management and monitoring

#### Aim

To ensure that peat excavation volumes are minimised and to monitor and develop peat management measures on an ongoing basis.

#### Scope

1. The Contractor (and the Ecological Clerk of Works if applicable) will walk the proposed route of the site tracks and location of infrastructure to validate the initial design or to inform where/how amendments to the location of infrastructure or the track alignment and track construction methodology should be undertaken.
2. During the construction stage the Contractor will regularly review and update the site material mass balance calculation and maintain as-built records of excavated and reused volumes.
3. Consider SEPA requirements in the event of any significant changes to the Peat Management Plan or Site Waste Management Plan.

# Guiding Principles

## Prevention and Reduction through Design

One of the key objectives in site design and construction is to prevent and / or minimise the excavation of any peat onsite, as far as reasonably practicable. This helps ensure that, as much as possible, the existing environment is protected and the net carbon benefits of the site are maximised. The following table provides some possible ways to prevent and reduce peat excavation at the design stage.

PREVENT AND REDUCE	REQUIREMENT AND OUTLINE METHOD
<p>Where possible position site infrastructure in areas of shallower peat or design appropriate engineering solution to avoid and/ or minimise excavation of peat (for example floating roads and piling solutions).</p>	<p>Within the EIA process it may be necessary to redesign the locations of site components due to peat constraints found on site.</p> <p>An appropriate level of peat probing at an early stage of design is therefore necessary to demonstrate how the layout and design of the proposal, including any associated borrow pits, foundations, hard standings and roads, avoids impact on peat areas where possible, taking into consideration other constraints identified as a result of the environmental impact assessment.</p>
<p>Minimise infrastructure that could impact peat.</p>	<p>Where possible, and taking into account safety and construction logistics, consider the following:</p> <p>Review track layout and remove redundant tracks on site by designing turning places rather than circular tracks.</p> <p>Where safety considerations allow, reduce the number of passing places by carefully planning the curvature of tracks and reinstate passing places post construction if possible.</p> <p>Reducing the size of the temporary construction compound by removing non-essential components or stacking worker’s cabins if safe to do so.</p> <p>Where safety, construction and turbine delivery logistics allow, consider removing or minimising the need for creating separate lay down areas on virgin ground by storing turbine components at the port, on previous hardstandings, alongside crane hardstandings or in passing places during construction.</p>

PREVENT AND REDUCE	REQUIREMENT AND OUTLINE METHOD
	<p>Where safety, construction and turbine delivery logistics allow, consider removing or minimising the need for creating separate lay down areas on virgin ground by storing turbine components at the port, on previous hardstandings, alongside crane hardstandings or in passing places during construction.</p> <p>Use areas of previous development (former quarries, redundant areas of hardstanding, brownfield land etc) if available or suitable for site infrastructure.</p> <p>Avoid laying underground cables in virgin ground and align within track verges. Where installation in virgin ground is required, select the least intrusive method of installation (e.g. mole ploughing). Backfill cable trenches with peat, maximizing the use of available peat turves or excavated material originating locally or from the trench (provided this meets required electrical insulation properties etc).</p>
<p>Minimise the detriment to peat if excavation cannot be fully avoided.</p>	<p>Replace cut roads with floating roads over areas of deep peat.</p> <p>Design piled foundations where ground conditions allow and peat conditions are such that removing the peat would cause more disturbance. This practice would be dependent on safety, cost and construction logistics and consideration of other potential environmental impacts such as noise, vibration and disturbance of wildlife.</p>
<p>Prevent peat displacement from the development of borrow pits</p>	<p>On some sites it may be possible to plan construction of tracks through areas where rock can be easily won to minimise the number and size of borrow pits needed.</p> <p>Consider economic viability and practicality (construction logistics and transport impacts) of importing aggregate rather than opening up borrow pits on sites which have significant overburden.</p>

# Reuse

The key guiding principle is to only re-use peat where it is suitable for the identified and required use.

Careful handling is essential to retain any existing structure and integrity of the excavated materials and thereby maximise the potential for excavated material to be reused. The following principles should be considered at all stages but predominantly in the design, planning and implementation of the construction phase of the development:

- Minimise plant movements and haul distances in relation to any earthworks activity including peat management.
- Develop appropriate temporary storage areas for excavated peat close to the excavation. Suitable storage areas are more appropriately sited in areas with lower ecological value (e.g. deforested commercial forestry sites) and low stability risk.
- Reuse should occur as soon as possible after excavation where practicable.

The following are some examples of valid re-uses of excavated peat during construction:

## REUSE

Road verges, turbine foundations, hard standing, substation platforms.

## REQUIREMENT AND OUTLINE METHOD

Dressing off and reinstating peat on the slopes and edges of constructed infrastructure as soon as practicable after construction. This is a necessary part of the landscaping restoration process and should create a suitable tie-in with the surrounding topography, thereby reducing visual impacts while seeking at the same time to retain as much of the existing habitat as possible.

Verge reinstatement on cross slope cut track.

Verge is slightly raised above road level to act as a visual screen looking upslope. Turfs have been sympathetically handled and replaced on the reinstated material to encourage vegetation re-growth in keep with surrounding habitat.



## REUSE

Verge reinstatement of floating track.

Peat is used to gradually grade the raised verge of the floating track to tie into the surrounding land thereby reducing the visual impact of a raised floated track. Turfs were placed using a long reach excavator.

## REQUIREMENT AND OUTLINE METHOD



Verge reinstatement of floating track.

Low angle of reinstated slopes reduces run off and therefore reduces peat loss and improves chances of vegetation regeneration along verges.



Screening bunds

Where a requirement is demonstrated, suitable peat may be used to create screening bunds along tracks, around the perimeter of buildings/substation compounds etc.

Reinstatement of cable trenches

Peat may be utilised as backfill material for cable installations although electrical and thermal design criteria will need to be considered and it is important that only peat uncontaminated with debris is used for this application (i.e. no large stones or tree stumps, etc).

## REUSE

Reinstated cable trench  
(marker posts indicate cable  
route alignment).

## REQUIREMENT AND OUTLINE METHOD



Borrow pit restoration

Peat may be reused within borrow pits for the purpose of their restoration provided the method of reuse and final restoration profile is in keeping with overall habitat and environmental reinstatement objectives and requirements at the site and presents no residual risks from pollution of the environment or harm to human health.

The design and proposed methods for restoration should consider the potential for delivering environmental benefits in the shorter term, including consideration of methods for enhancing vegetation regeneration (e.g. careful turf replacement and or reseedling if appropriate to the local environment and habitats) and preventing desiccation and carbon losses from the peat used in the restoration.

Peat used in this manner should not require any treatment before its use and only the quantity necessary for landscape and/or peatland restoration purposes is used. Unconsolidated peat may be the most suitable material for this purpose.

Fencing may be justified in the medium term e.g. if it is required to enable exclusion of grazing stock, and therefore encourage vegetation recovery, or to allow stabilisation of the surface until vegetation cover is established.

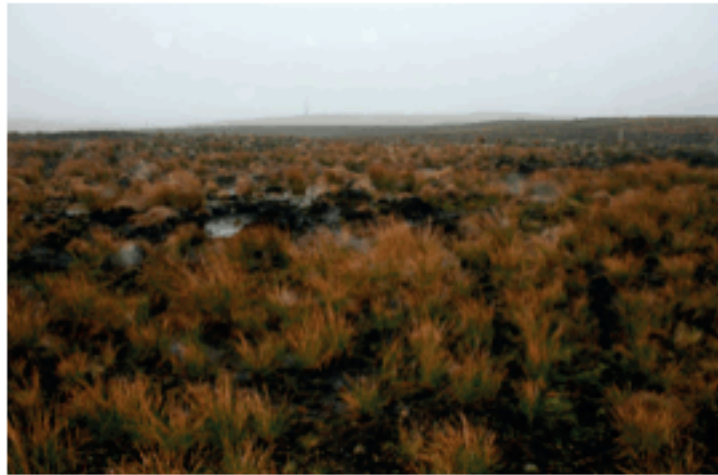
The following sites are examples of where all the above principles and requirements were met and excavated peat was successfully reused. The key points of each example qualifying it for successful reuse within all applicable frameworks are noted.



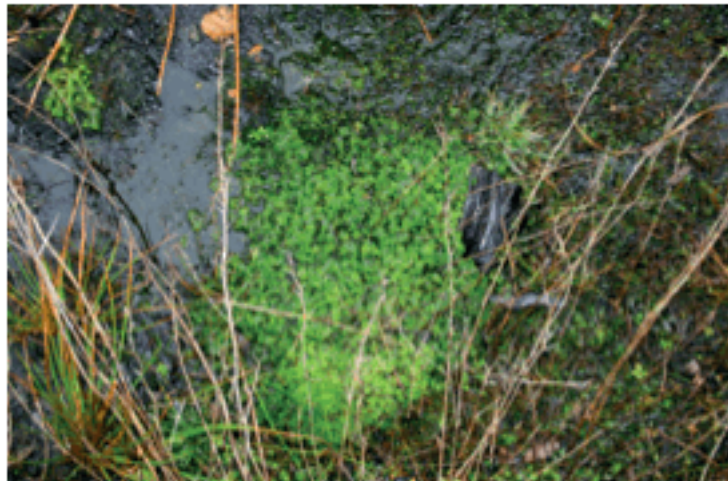
## REUSE

This borrow pit's design was bowl shaped with unconsolidated peat used at depths up to 5-6m within the centre designed to create a saturated mire type habitat. Acrotelmic material (turves) was used on the surface to speed up natural vegetation recovery.

## REQUIREMENT AND OUTLINE METHOD



In this example key plant species (*Sphagnum* species and *Eriophorum vaginatum*) required for the establishment of a typical mire vegetation community and the formation of an 'active' bog system (actively forming peat) were recorded to be present in the early years post construction (in this case <3 years).



This borrow pit's design allowed unconsolidated peat to be used at depths of up to 2-3m to create a wetland habitat in line with habitat management plan objectives for the site. In this case the borrow pit was excavated downslope and the downslope worked face acted to retain high water levels within the restored area thus preventing peat drying out. Acrotelmic material (turves) was used where available on the surface and vegetation regrowth is observed to be progressing towards natural conditions in early years post construction (in this case <2 years).



## REUSE

The designed shallow open aspect of this borrow pit profile allowed use of 1-2m of peat to create habitat similar to surrounding environment. Acrotelmic material (turves) was used where available on the surface and vegetation regrowth is observed to be progressing towards natural conditions in early years post construction (in this case <2 years).

Photo shows borrow pit towards the end of the construction phase.

The final borrow pit profile is comparatively level and flat with gentle slopes which blend in with the surrounding slope of the hillside. [The photo below is of this same borrow pit following restoration].

This is the restored borrow pit shown in the above photo. Six full growing seasons have passed since restoration was completed. The restored area is regenerating very well with 80% vegetation cover, the majority of which is heather (*Calluna vulgaris*), in line with the surrounding vegetation which is composed of dry dwarf shrub heath.

## REQUIREMENT AND OUTLINE METHOD



## REUSE

Peatland restoration (water table restoration, habitat enhancement, wetland creation etc)

Peat dams have been used successfully in blanket bog restoration by blocking up active ditches and raising the water table back to its original level.

Peat dams used for blocking wider ditches. In some circumstances (and provided the conditions are appropriate, risks have been assessed and the nature of the peat material used is suitable) it may be beneficial to place peat behind such dams in order to speed up the restoration process and associated vegetation regeneration

## REQUIREMENT AND OUTLINE METHOD

Peat may be used for ditch blocking as part of peatland restoration on blanket or raised bogs. This may be required as mitigation or enhancement measures and may form part of a Habitat Management Plan for the site. The aim of ditch blocking is to raise the water table to restore the blanket bog conditions. Saturated peat may be the most suitable material for this use (refer to '**Good practice during windfarm construction**' guidance, Section 14.5).

Peat may be required for creation of specific habitats, e.g. wetlands. This could be employed as part of borrow pit restoration, ditch blocking, lochan restoration, etc.



## Treatment and Reuse

Excavated peat, in particular unconsolidated peat, will typically lose some structural integrity upon excavation and subsequent handling (e.g. through double handling or haulage around the site). As noted in the previous section, there are some valid options for reuse of unconsolidated material provided no further treatment is required and it is demonstrated that the material is suitable for that use. However, in some cases, while the material may be required for a predetermined end use, it may require prior treatment to render its physical state into a form suitable for the required restoration or landscaping purpose. In these situations, SEPA should be consulted to determine the appropriate waste management licensing requirements for the treatment, recovery and use of the material.

The following table provides examples of treatment options that may be feasible, although it should be noted that in most cases a combination of options may be appropriate and selection and viability of options will be dependent and justified based on the environmental benefits and carbon impacts on a site by site basis.

REUSE	REQUIREMENT AND OUTLINE METHOD
Blending	Unconsolidated and/or saturated peat may be blended with more consolidated peat or granular material (mineral soil or rock aggregate) in order that it can be used for reinstatement without any engineering or containment measures.
Dewatering	Unconsolidated and / or saturated peat can be dewatered by e.g. natural gravity and drainage, or mechanical pressing or filtration. Appropriate disposal or discharge of the aqueous fraction needs to be considered and discussed with SEPA. Dewatered peat may be suitable as a horticultural product. However, to deliver such a product the peat will require to be milled to meet required product specifications and there are limits on particle size, moisture content, density and contamination (e.g. seeds, stones and other foreign matter). These complexities may preclude this option, although it is possible that on some sites it may be viable providing logistics are favourable. It is essential that the negative carbon impacts are evaluated and considered in the decision making process.

# ANNEX 1: PEAT MANAGEMENT PLAN

While there are no defined requirements for the layout or content of a Peat Management Plan, the following provides a guide to what should be considered when preparing such a plan:

Subject	Aspects to be addressed within peat management plan
Peat Conditions	Briefly describe the peat conditions on site and how this was determined (with reference to EIA if necessary).
Excavation and reuse volume estimates and reuse requirements.	Provide detail on what activities will generate volumes of peat and the expected / estimated volumes. Identify where and what volumes of material are required for reinstatement and landscaping purposes (e.g. alongside road verges and reinstatement of other infrastructure).
Classification of excavated material	Consider the likely physical nature of the material and confirm it will be suitable for the reuses proposed.
Use of peat in borrow pit restoration.	<p>Identify whether there is a requirement to restore borrow pits or other specific restoration areas on site (other than reinstatement and landscaping of site infrastructure). Provide information on intended final restoration profile and method statement for how this is to be achieved, the likely volumes of material required to and where the material is to be sourced. Demonstrate that any restoration materials are suitable and are required to meet the restoration profile and objectives.</p> <p>If specific habitat management objectives are applicable, describe how these objectives are to be met.</p> <p>Confirm borrow pit design has taken account of medium and long term restoration objectives relating to habitat and environment.</p> <p>Restoration should be achieved without requiring any further material treatment.</p>
Use of peat for other restoration purposes (e.g. peatland restoration, ditch blocking etc.).	Identify where the source material required for the ditch blocking is to come from and consider the logistics and methods required to transport it and use it at the ditch blocking site / peatland restoration area. The requirement for this activity to take place (in the context of peatland restoration / habitat management), the methods to be employed, and the suitability of the material to be used has to be demonstrated.
Handling excavated materials	Describe how excavated soils and turves will be handled so as to avoid cross contamination between distinct horizons and ensure reuse potential is maximised. For example, the storage time for peat turves should be minimised and turves should only be used for surface restoration.

Temporary storage	<p>Describe construction phasing and programme and intended methods of handling and holding of all excavated materials, including peat. It is desirable to keep haul distances of excavated peat as short as possible in order to minimise the potential impact on its structure. It is important that temporary storage is safe and keeps the material suitable for its planned reuse.</p> <p>Identify areas for any temporary storage areas required for peat, taking into account constraints and mitigation requirements identified in the EIA and existing peat slide/stability reports. Describe any intended drainage, pollution prevention and material stability mitigation measures that may be required.</p> <p>When planning the temporary storage areas any additional disturbance areas should be minimised.</p>
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## Related guidance:

### **Developments on Peatland: Site Surveys & Best Practice**

[Scottish Natural Heritage, SEPA, Scottish Government, The James Hutton Institute – 2011]

### **Floating Roads on Peat**

[Forestry Civil Engineering, Scottish Natural Heritage – August 2010]

### **Good practice during windfarm construction**

[Scottish Renewables, Scottish Natural Heritage, Forestry Commission, SEPA – October 2010]

### **Regulatory Position Statement - Developments on Peat**

[SEPA – February 2010]

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