# 10 Hydrology, Hydrogeology and Geology Assessment

## 10.1 Introduction

10.1.1 This chapter provides a revised assessment of the likely significant effects on hydrology, hydrogeology and geology associated with the construction, operation and decommissioning of the revised proposed development. It details the post-submission consultation responses and how these have been addressed, relevant changes in policy, legislation and guidance, and the amendments to the original proposed development detailed and assessed in the EIA Report October 2023 that are relevant to hydrology, hydrogeology and geology.

10.1.2 As interrelationships exist between the assessment of effects on hydrology, hydrogeology and geology and certain other disciplines, reference should be made to the following chapters of the AEI:

- **AEI Chapter 8: Terrestrial Ecology**

10.1.3 This chapter is supported by the following figures and appendices:

- **AEI Figure 10.1: Peat Depth**;
- **AEI Figure 10.2: Private Water Supply**;
- **AEI Figure 10.3: Watercourse Crossings**;
- **Technical Appendix 10.1 Private Water Supply Risk Assessment;**
- **Technical Appendix 10.2 Peat Landslide and Hazard Risk Assessment;**
- **Technical Appendix 10.3 Watercourse Crossing Schedule.**

10.1.4 **AEI Figures 10.1 – 10.3** are referenced in the text where relevant.

10.1.5 All staff contributing to this chapter have undergraduate and/or postgraduate degrees in relevant subjects, have extensive professional geological and hydrological impact assessment experience, and hold professional membership of the Geological Society or Chartered Institute of Water and Environmental Management.

## 10.2 Legislation, Policy and Guidance

10.2.1 The legislation, policy and guidance with respect to hydrology, hydrogeology and geology used to prepare the original assessment in EIA Report October 2023 is still relevant to this assessment. The guidance listed below have been published since EIA Report October 2023 was submitted and therefore will be accounted for in this assessment.

### Guidance

- Guidance on Assessing the Impacts of Developments on Groundwater Abstractions[1] (SEPA, 2024);

[1] SEPA (2024) Guidance on Assessing the Impacts of Developments on Groundwater Abstractions. Available at https://www.sepa.org.uk/environment/land/planning/guidance-and-advice-notes/ Accessed on: 28 February 2025.

- Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems[2] (SEPA, 2024);
- Advising on Peatland, Carbon-Rich Soils and Priority Peatland Habitats in Development Management[3] (NatureScot, 2023); and
- Good Practice During Wind Farm Construction[4] (NatureScot, 2024).

## 10.3 Consultation

10.3.1 **AEI Table 10.1** provides a summary of the consultation responses received after submission of the EIA Report October 2023.

**AEI Table 10.1: Consultation Responses**

| Consultee / Date | Consultee Comment | Applicant Response / Action |
|---|---|---|
| Scottish Water<br>23 November 2023 | A review of our records indicates that the proposed activity falls partly within a drinking water catchment where a Scottish Water abstraction is located. Scottish Water abstractions are designated as Drinking Water Protected Areas (DWPA) under Article 7 of the Water Framework Directive. Dye Water supplies Rawburn Water Treatment Works (WTW) and it is essential that water quality and water quantity in the area are protected. | The north of the site is partially located within the Dye Water Drinking Water Protected Area (DWPA). The original proposed development and the revised proposed development are both located outwith the DWPA catchment. An assessment of potential effects for the revised proposed development is detailed in section 10.7. |
| River Tweed Comission (RTC)<br>11 January 2024 | It is recommended that construction avoids water bodies wherever possible. If construction is to be carried out near watercourses, a buffer zone of at least 50 m should be established. The potential for sediment transport and deposition should be carefully considered and the installation of appropriate siltation controls should be employed. Where river crossings are proposed SEPA's Engineering in the Water Environment Good Practice Guide should be consulted. The use of 'clear span bridge crossings' is encouraged wherever possible. | Embedded 50 m watercourse and waterbody buffers have been avoided by the revised proposed development, embedded mitigation is outlined in Chapter 10 of the EIA Report October 2023, with an outline of all proposed mitigation included in the draft CEMP.<br>**AEI Figure 10.3** and **Technical Appendix 10.3**, details the proposed watercourse crossings for the revised proposed development. |
| | Peat slides can have a direct impact on fisheries and peat disturbance can have indirect effects on water quality and quantity and abundance of invertebrates. A detailed survey of peat deposits present within the site should be undertaken to ascertain the | A detailed peat depth survey, carried out for the original proposed development, the results of which are shown in **AEI Figure 10.1,** the design of the revised proposed development has ensured that |

[2] SEPA (2024) Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems. Available at: https://www.sepa.org.uk/environment/land/planning/guidance-and-advice-notes/ Accessed on 28 February 2025.

[3] NatureScot. (2023). Advising on Peatland, Carbon-Rich Soils and Priority Peatland Habitats in Development Management. Available at: https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management Accessed on: 28 February 2025.

[4] NatureScot. (2024). Good Practice During Wind Farm Construction. Available at: https://www.nature.scot/doc/good-practice-during-wind-farm-construction Accessed on 28 February 2025.

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|---|---|---|
| | risk of peat slide during construction. All construction should avoid areas of deep peat and where this is not possible appropriate mitigation measures should be put in place. Natural peat drainage channels should be preserved throughout the development; excavated material should not be stockpiled in CAR areas of unstable peat; concentrated water flows onto peat slopes should also be avoided. | areas of peat greater than 1 m have been avoided.<br>Technical Appendix 10.2 of the EIA Report October 2023 details the Peat Landslide Hazard Risk Assessment (PLHRA) for the site, the likelihood of a peat landslide occurring was deemed to be negligible to low across the site. |
| | Controlled Activity Regulations require any activity that is liable to cause water pollution to be authorised by SEPA. This includes point source pollution (e.g. sewage and trade effluent) and diffuse pollution (fuel, concrete spills, sediment discharge) all of which can be detrimental to the survival of fish. SEPA has produced guidelines for the prevention of pollution. | Best practice construction measures have been implemented to minimise disturbance and pollution during construction, this is outlined in Chapter 10 of the EIA Report October 2023. |
| | Particular attention should be paid to acidification issues if they are known to be a problem in the area. Anthropogenic acidification of freshwaters is largely caused by the input of sulphur and nitrogen compounds, derived from the combustion of fossil fuels, exceeding the buffering capacity of the soils and underlying rocks through which the streams flow. Peat deposits and marine derived sulphates can also contribute to acidity. Salmonid fish are particularly sensitive to acid water, particularly due to the increased mobility of labile aluminium in acid conditions which is toxic to aquatic organisms. | Additional mitigation measures outlined in Chapter 10 of the EIA Report October 2023, will be included within a CEMP prior to commencement of construction activities. This will include a water quality monitoring plan that will be prepared and agreed upon with Scottish Borders Council, in consultation with SEPA, before the commencement of construction. It is anticipated that this will include a programme of pre-construction monitoring over a period to be specified in the plan. |
| | The developer should assess the potential impacts of tree felling on the aquatic environment including nutrient release, increased acidification risk, loss of habitat, impacts on hydrology, increased fine sediment transport and deposition, all of which can have a detrimental impact on fish populations and should therefore be addressed in the ES. In addition, the mulching of fallen trees in situ should be avoided. The Forest and Water Guidelines should be consulted for further information. | |
| NatureScot<br>26 January 2024 | The Longcroft Outline Biodiversity Enhancement Restoration Plan (Appendix 8.6) describes the measures proposed. …With regards peatland restoration, there is insufficient detail presented to enable us to | Where limited peat deposits may be excavated as a result of the revised proposed development, all of it can be reused on-site as detailed in the Outline |

| | | |
|---|---|---|
| | advise on the suitability of restoration measures. | PMP in Technical Appendix 10.3 of the EIA Report October 2023. |
| Scottish Environment Protection Agency (SEPA)<br>13 February 2024 | As works within the buffer zone of Cleekhimin House PWS cannot be categorically ruled out at this stage, we recommend that Option 3 - Planning Condition B of LUPS-GU31 is applied, to ensure that appropriate monitoring is undertaken during any works. Any monitoring should include a 12-month baseline period prior to any works. Therefore, we advise the applicant to start baseline monitoring as soon as possible. This should ensure there are no significant delays, should it be necessary during the proposed works to widen the track near the PWS. | An updated assessment of potential effects for the revised proposed development on PWS is detailed in section 10.7 with additional mitigation and monitoring outlined. |
| Ironside Farrer<br>26 April 2024 | The following recommendations are made by Ironside Farrer:<br>• Please provide further information on the rationale and approach adopted for the peat depth survey and the justification/ clarification for the reduced probing relative to some of the infrastructure locations to allow acceptance.<br>• A further justification should be provided as to why the consequence and overall risk has not been calculated. | A response was issued on 10 June 2024 to address the Ironside Farrer recommendations.<br>A 100 m grid was undertaken across the developable area, which showed peat was not present across most of the site. In line with relevant guidance, where no peat was observed during phase 1 surveys, additional high-resolution probing was not deemed necessary. High resolution (phase 2) peat depth surveys were targeted in areas within or adjacent to where probe depths exceeded 0.5 m during phase 1 surveys, and where ecological data indicated potential peatland habitat. **AEI Figure 10.1** shows a peat depth interpolation overlain by the revised proposed development.<br>An assessment of the likelihood of peat instability has been calculated across the entire development. All areas of infrastructure are sited within areas of negligible or low likelihood of a peat slide occurring. Where the areas of negligible or low likelihood of a peat landslide occurring have been identified, a detailed impact assessment was not considered necessary given that the model shows that it is unlikely that a peat slide will occur. |

## 10.4 Scope of Additional Environmental Information

10.4.1 This chapter considers the likely significant effects of the revised proposed development upon hydrological, hydrogeological and geological receptors during the construction, operation and decommissioning phase. As detailed in **AEI Chapter 3: Revised Proposed Development Description** the revised proposed development includes:

- removal of seven wind turbines (T1-T4 and T17-T19), the revised proposed development will comprise 12 turbines.
- removal of one borrow pit, reducing the number of borrow pits from three to two.
- relocation of a temporary concrete batching plant.

10.4.2 As the revised proposed development has reduced the number of wind turbines and the location of remaining wind turbines is unchanged, it is assumed the impacts to hydrological, hydrogeological and geological receptors will be consistent with the EIA Report October 2023. Therefore, the embedded and additional mitigation outlined in the EIA Report October 2023 will remain relevant.

# 10.5 Methodology

10.5.1 The assessment methodology used within this chapter is unchanged from Chapter 10 of the EIA Report October 2023. While the site boundary has been reduced, study areas are unchanged from the EIA Report October 2023. No additional field surveys have been undertaken.

# 10.6 Baseline

## Current Baseline

10.6.1 There have been no changes to published baseline mapping and sources referred to in the EIA Report October 2023. There have been no further field surveys undertaken following the EIA Report October 2023.

10.6.2 As outlined in detail below, certain receptors were found to be of Low sensitivity in the EIA Report October 2023, and were scoped out of assessment of effects. As there has been no change to the current baseline, receptors bedrock geology, peat, public water supplies and GWDTEs are scoped out of assessment of effects for the revised proposed development. Where there have been updates to guidance for peat, groundwater abstractions and GWDTEs this has been summarised below.

## Surface Water

10.6.3 A watercourse crossing survey was carried out in August 2023, with the watercourse observations detailed in Technical Appendix 10.4. The design of the revised proposed development has reduced the number of watercourse crossings required from 12 to 11, as shown in **AEI Figure 10.3**. With the exception of details relating to watercourse crossing WC12, Technical Appendix 10.4 is considered to remain applicable to the revised proposed development.

## Peat

10.6.4 Peat depth surveys carried out as part of the EIA Report October 2023 (Phase I in February 2023, Phase II in August 2023) shows that much of the site is absent from peat with localised deposit found in the north and east of the site (**AEI Figure 10.2**). The design of the revised proposed development has ensured that areas of peat greater than 1 m have been avoided, as shown in **AEI Figure 10.1**.

10.6.5 Technical Appendix 10.2 of the EIA Report October 2023 details the Peat Landslide Hazard Risk Assessment (PLHRA) for the site, the likelihood of a peat landslide occurring was deemed to be negligible to low across the site. Due to there being no change to baseline conditions onsite with regards to peat and infrastructure being sited outwith areas of deep peat the initial assessment of peat landslide risk is unchanged.

10.6.6 Given the limited peat deposits on-site have been avoided by design, an outline peat management plan was scoped out of the previous assessment. The revised proposed development infrastructure includes the removal of seven wind turbines (T1 to T4 and T17 to T19) and a borrow pit, as well as the relocation of a temporary concrete batching plant. There is no increase in impacts to peat, or requirements to excavate peat/carbon-rich soils, associated with the revised proposed development.

10.6.7 Following the completion of field surveys, NatureScot provided updated guidance, *Advising on Peatland, Carbon-Rich Soils and Priority Peatland Habitats in Development Management*. Given the limited peat deposits and peatland habitats on-site, there are no additional assessment requirements associated with the updated guidance.

### Private Water Supplies

10.6.8 A Private Water Supply Risk Assessment (PWSRA) was undertaken as part of the EIA Report October 2023 (Technical Appendix 10.1 and **AEI Figure 10.2**), which scoped eight sources into assessment of effects. Following the completion of field surveys, SEPA provided the following guidance note, *Guidance on Assessing the Impacts of Developments on Groundwater Abstractions*. Following a review of this guidance, it is not considered that there will be any change to the baseline of PWS and which PWS are scoped into assessment of effects.

### GWDTEs

10.6.9 The EIA Report October 2023 undertook an assessment of potential GWDTEs, which found no GWDTEs to be present within 100 m and 250 m buffers from the original proposed development. Following the completion of field surveys, SEPA provided the following guidance note, *Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems*. Following review of this guidance, it is not considered that there will be any change to the baseline and assessment of GWDTEs, and GWDTEs being scoped out of assessment of effects.

### Future Baseline

10.6.10 The future baseline characterisation of the site under a 'do nothing' scenario remains the same as detailed in the EIA Report October 2023 as there has been no change to land use. Impacts would be caused by different current activities occurring across the site, including pastoral farming, heather burning, and grouse rearing and shooting.

## 10.7 Updated Assessment of Potential Effects

### Design Amendments

10.7.1 As outlined in section 10.3, the revised proposed development includes:

- removal of seven wind turbines (T1-T4 and T17-T19), the revised proposed development will comprise 12 wind turbines.
- removal of one borrow pit, reducing the number of borrow pits from three to two.
- relocation of a temporary concrete batching plant.

10.7.2 The infrastructure location of the revised proposed development is unchanged excepting where wind turbines and associated access tracks have been removed.

## Construction Effects

### *Summary of Assessment of Original Proposed Development*

10.7.3 The assessment of effects of the original proposed development in the EIA Report October 2023 identified no significant effects to hydrological, hydrogeological and geological receptors during the construction phase, except PWS. Construction of the original proposed development is assessed to have potential to affect the water quality and water quantity of PWS.

10.7.4 As outlined within Technical Appendix: 10.1 of the EIA Report October 2023, one PWS was considered to be potentially significantly affected by the original proposed development, PWS Longcroft. This is due to the unknown location of the pipework connecting the source to the properties supplied, which could be overlain and potentially impacted by the proposed access track.

10.7.5 The magnitude of impact from the original proposed development prior to any additional mitigation, was considered to be low, on a high sensitivity receptor (PWS Longcroft). Therefore, there is potential for a direct, temporary, short-term effect of Moderate significance, which is considered to be significant.

### *Assessment of Revised Proposed Development*

10.7.6 As the revised proposed development has reduced the number of wind turbines and the location of remaining wind turbines and infrastructure is unchanged, the impacts to hydrological, hydrogeological and geological receptors is considered to be the same or less than the EIA Report October 2023. The impact of the revised proposed development to surface water and groundwater flow and quality, removal and compaction of peat and designated sites during the construction phase is considered to be Minor to Negligible and therefore, not significant.

10.7.7 As outlined within the EIA Report October 2023, there is considered to be potential significant risks to PWS Longcroft. As the location and works required at the proposed access track is unchanged, there is considered to be no change to potential impact to PWS Longcroft. The magnitude of impact prior to any additional mitigation, is considered to be Low on a High sensitivity receptor (PWS Longcroft). Therefore, there is potential for a direct, temporary, short-term effect of Moderate significance, which is considered to be significant.

10.7.8 Following further consultation with SEPA, PWS Cleekhimin House is also scoped into assessment of effects. This is due to its location within SEPA groundwater abstraction infrastructure buffers, 100 m downslope of the existing public road. As upgrades and widening of the existing public road cannot be discounted, any works upslope of PWS Cleekhimin House source within this 100 m buffer may affect its water quantity and quality. The magnitude of impact prior to any additional mitigation, is considered to be Low on a High sensitivity receptor. Therefore, there is potential for an indirect, temporary, short-term effect of Moderate significance, which is considered to be significant.

## Operational Effects

### *Summary of Assessment of Original Proposed Development*

10.7.9 The assessment of effects of the original proposed development identified no significant effects to hydrological, hydrogeological and geological receptors during the operational phase when taking account of embedded mitigation and good practice.

#### *Assessment of Revised Proposed Development*

10.7.10 As the revised proposed development has reduced the number of wind turbines and the location of remaining wind turbines and infrastructure is unchanged, the impacts to hydrological, hydrogeological and geological receptors during operation is considered to be unchanged from the EIA Report October 2023. Therefore, the impact of the revised proposed development to surface water and groundwater flow and quality, fluvial geomorphology, and the drying out of peat during the operational phase is considered to be not significant.

### Decommissioning Effects

#### *Summary of Assessment of Original Proposed Development*

10.7.11 The potential effects during the decommissioning phase of the original proposed development were deemed to be similar or less than the effects during the construction phase of the original proposed development.

#### *Assessment of Revised Proposed Development*

10.7.12 The potential effects during the decommissioning phase of the revised proposed development will be similar or less than the construction phase. Due to reduced site activity and a reduced number of wind turbines, impacts are predicted to be of the same or lesser magnitude, with resultant effects being the same or lesser significance to construction phase effects.

## 10.8 Mitigation

10.8.1 The embedded and additional mitigation outlined in Chapter 10 of the EIA Report October 2023 remains applicable as the revised proposed development has reduced the number of wind turbines and the location of remaining wind turbines and infrastructure is unchanged.

10.8.2 As significant effects were identified for PWS Longcroft and PWS Cleekhimin House as a result of the revised proposed development, additional mitigation is proposed. During any upgrade and widening works to the existing public road at PWS Cleekhimin House, these will be closely monitored with daily visual observations undertaken by an onsite Environmental Clerk of Works (ECoW). Mitigation measures to prevent impacts to water quality will be closely adhered to and undertaken over as short a timescale as possible to ensure minimal disruption. At PWS Longcroft a watching brief will be employed, with excavation closely monitored by the ECoW. If pipework associated with the PWS is identified this will be marked and a detailed design strategy outlined to either lay the pipework under the access track, or redirect it, to maintain supply.

10.8.3 To ensure the continued water quality at the PWS', water quality monitoring will be undertaken at PWS Longcroft and PWS Cleekhimin House. A Water Quality Monitoring Plan (WQMP) will be prepared and agreed with Scottish Borders Council, in consultation with SEPA, prior to commencement of construction. The following sampling frequency is proposed as a minimum and will be fully outlined within the Construction Environmental Management Plan (CEMP):

- monthly for 12 months prior to construction upslope of the PWS;
- monthly throughout construction upslope of the PWS; and
- monthly for 12 months following construction upslope of the PWS.

10.8.4 The additional mitigation measures outlined in Chapter 10 of the EIA Report October 2023, will be included within a CEMP prior to commencement of construction activities. These mitigation

measures are considered to be robust and implementable and will reduce the potential impacts on hydrological receptors.

## 10.9 Updated Assessment of Residual Effects

### Construction

10.9.1 As noted above, no new significant potential construction phase effects were identified, taking account of embedded and good practice mitigation, except for potential effects to PWS Cleekhimin House. The level of potential effect assessed for all impacts are Minor to Negligible, except for effects to PWS Longcroft and PWS Cleekhimin House, which are Moderate and considered therefore to be significant. Following the implementation of additional mitigation and monitoring, the residual effects are considered to be Negligible on High sensitivity receptors, therefore there is potential for an indirect, temporary, short-term effect of Minor significance, which is considered to be not significant.

### Operation

10.9.2 As noted above, no new significant potential operational phase effects were identified, taking account of embedded and good practice mitigation. The level of potential effect assessed for all operational phase impacts of the revised proposed development is Minor. No additional mitigation measures are considered to be necessary, therefore the residual effect significance for most impacts is unchanged, remaining as Minor, and not significant.

### Decommissioning

10.9.3 The residual effects of the decommissioning phase will be similar to construction, however, due to reduced site activity, these will be of lesser magnitude.

## 10.10 Updated Assessment of Cumulative Effects

10.10.1 There are no new cumulative developments within 10 km of the site. The cumulative effects on hydrological, hydrogeological and geological receptors is considered to consistent or less than presented in the EIA Report October 2023.

## 10.11 Summary of Effects

10.11.1 As the revised proposed development has reduced the number of wind turbines and the location of remaining wind turbines and infrastructure is unchanged, the impacts to hydrological, hydrogeological and geological receptors is considered to be consistent [with?] or less than the EIA Report October 2023.

10.11.2 The PWSRA (Technical Appendix 10.1) of the EIA Report October 2023 scoped eight PWS into further assessment, with one PWS identified as requiring additional mitigation. PWS Longcroft was assessed to require additional mitigation and monitoring due to the unconfirmed location of its supply pipework. Following further consultation with SEPA, PWS Cleekhimin House has also been identified as requiring additional mitigation and monitoring, due to the source being located within 100 m groundwater abstraction infrastructure buffers of the revised proposed development. Additional mitigation will therefore be undertaken at both PWS Longcroft and PWS Cleekhimin House, including water quality monitoring undertaken.

10.11.3 The embedded and additional mitigation measures set out in the EIA Report October 2023 remain applicable to this assessment, as no new significant effects were identified as a result of the revised proposed development, except for potential impacts to PWS.

10.11.4 The significance of residual effects on hydrology, hydrogeology and geology receptors following the implementation of these mitigation measures are considered to be Minor to Negligible and therefore not significant. Potential effects, mitigation measures and residual effects are summarised in **AEI Table 10.2**.

**AEI Table 10.2: Summary of Residual Effects**

| Receptor and Impact Pathway | Original Proposal Development | | Revised Proposed Development | |
|---|---|---|---|---|
| | Magnitude of Impact | Residual Significance | Magnitude of Impact | Residual Significance |
| **Construction** | | | | |
| Impacts on Surface Water Quality | Minor | Not Significant | Minor | Not Significant |
| Impacts to Groundwater Flow | Minor | Not Significant | Minor | Not Significant |
| Impacts to Groundwater Quality | Minor | Not Significant | Minor | Not Significant |
| Compaction of Soils | Negligible | Not Significant | Negligible | Not Significant |
| Impacts to PWS (PWS Longcroft, PWS Cleekhimin House) | Minor | Not Significant | Minor | Not Significant |
| Impacts to Designated Sites (River Tweed SAC, SSSI) | Minor | Not Significant | Minor | Not Significant |
| Removal and Impact on Peat | Negligible | Not Significant | Negligible | Not Significant |
| Peat Landslide Impact on Watercourses | Negligible | Not Significant | Negligible | Not Significant |
| **Operational** | | | | |
| Impacts on Surface Water Flow | Minor | Not Significant | Minor | Not Significant |
| Impacts on Fluvial Geomorphology | Minor | Not Significant | Minor | Not Significant |
| Impacts on Groundwater Flow and Drying out of Peat | Minor | Not Significant | Minor | Not Significant |

| Receptor and Impact Pathway | Original Proposal Development | | Revised Proposed Development | |
|---|---|---|---|---|
| | Magnitude of Impact | Residual Significance | Magnitude of Impact | Residual Significance |
| Impacts on Surface Water Quality | Minor | Not Significant | Minor | Not Significant |
| **Decommissioning** | | | | |
| All decommissioning effects are assessed as being the same as, or lesser than, construction phase effects. | | | | |

# 10.12 Conclusion

10.12.1 The revised proposed development removed seven wind turbines and one borrow pit. The location of the remaining wind turbine and associated infrastructure are unchanged with the exception of a temporary concrete batching plant. The chapter confirms the original assessment within the EIA Report October 2023 remains largely valid, with minimal changes to the baseline conditions.

10.12.2 The impacts to hydrological, hydrogeological and geological receptors during the construction, operation and decommissioning phase of the revised proposed development is considered to be Minor to Negligible and therefore, not significant, with the implementation of guidance and best practice measures, except for PWS Longcroft and PWS Cleekhimin House. The additional mitigation outlined in the EIA Report October 2023 remains applicable with new additional mitigation including daily visual monitoring by the onsite ECoW and water quality monitoring has been proposed for both PWS Longcroft and PWS Cleekhimin House.

10.12.3 The cumulative effects on hydrological, hydrogeological and geological receptors is considered to be unchanged from the EIA Report October 2023 and no additional mitigation measures are therefore required.

10.12.4 The significance of residual effects on hydrology, hydrogeology and geology receptors following the implementation of these mitigation measures is considered to be Minor to Negligible and therefore not significant.

# 10.13 References


- NatureScot. (2023). Advising on Peatland, Carbon-Rich Soils and Priority Peatland Habitats in Development Management. Available at: https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management Accessed on: 28 February 2025.
- NatureScot. (2024). Good Practice During Wind Farm Construction. Available at: https://www.nature.scot/doc/good-practice-during-wind-farm-construction Accessed on 28 February 2025.
- SEPA (2024) Guidance on Assessing the Impacts of Developments on Groundwater Abstractions. Available at https://www.sepa.org.uk/environment/land/planning/guidance-and-advice-notes/ Accessed on: 28 February 2025.
- SEPA (2024) Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems. Available at: https://www.sepa.org.uk/environment/land/planning/guidance-and-advice-notes/ Accessed on 28 February 2025.