Stronger Together response to CEP Scoping Report, September 2025

Stronger Together to Stop Calderdale Wind Farm (ST) is a coalition of eight local groups who intend to prevent the construction of Calderdale Energy Park (aka Calderdale Wind Farm).

www.stopcalderdaleenergypark.com

The groups involved in this response are:

Upper Calderdale Wildlife Network (UCWN)
Worth Valley Against Walshaw Moor Wind Farm (WV)
Walshaw Turbines Research Group (WTRG)
For Peat's Sake (FPS)

Stronger Together note the unhelpful structure of this Scoping Report (SR), compared to Calderdale Wind Farm Ltd.'s previous SR of 22 September 2023:

(https://portal.calderdale.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=S1E3AQDW0CF00)

- The first SR was published on 22 September 2023; the first response from a consultee (the Ministry of Defence) was not even received until 17 October 2023 and consultees continued to respond until the end of November 2023.
- This current SR has a closing date for responses of 29 September 2025, giving consultees less than a month to respond.
- The 2023 SR had 151 pages.
- The current SR has 577 pages about four times as many.
- The 2023 SR had a series of questions for consultees at the end of each section, which made it easy for consultees to respond.
- The current SR has no questions for consultees, which makes it not user-friendly at all.

Numerous egregious errors are identified and described throughout this response.

It is a matter of concern to us and should be for all consultees and the Planning Inspectorate that CWF Ltd. have taken so little care in the production of the current SR. We look to the Planning Inspectorate to insist on a correct SR so that consultees, statutory or otherwise, can make properly informed comments instead of wasting further time and money on responses to such an inaccurate document.

6. Ornithology

(Upper Calderdale Wildlife Network)

We make an initial comment regarding the independence of this scoping report as we believe all sections should give unbiased and objective information. We consider that this is undermined by such comments as:

Table 6.4: In respect of scoping out of non-target species "given the low potential for significant habitat loss, the limited scale of land take..."

and

6.65 in respect of Golden Plover "which may use the study area during key periods..."

The first statement fails to accept that this would be the largest wind farm in England covering 2352ha and incorporating 41×200 m high turbines and their associated foundations and infrastructure on one of the most nature protected areas of land in England. To state then that there is a low potential for habitat loss and limited scale of land take shows a lack of understanding of the scale of operations and magnitude of construction to achieve this proposal.

The second statement at a more detailed level understates the presence of Golden Plover. Since the Golden Plover are explicitly cited in the Special Protection Area (SPA), to suggest that they MAY use the study area during KEY periods is disingenuous.

We believe statements such as these are pre-judging the conclusion of any future report and are unacceptable in this context.

We note the term 'ornithological features' is used frequently instead of 'Birds'. We request that this term is no longer used: it is unnecessarily obtuse and we feel commodifies nature. We prefer plain English please.

The Ornithology Chapter fails to cross reference CEP's potential impacts on birds with the potential impacts on habitats/hydrology, although the two subjects are intimately linked. The birds are unable to exist unless their habitats including the peat hydrology are healthy.

Continuing the theme of the inaccurate habitat map presented at the nonstatutory public consultation, this chapter continues to peddle the false premise about the lack of blanket bog on Walshaw Moor, stating in **6.3.6**. that vegetation consists "mainly of rotationally burned upland heath managed for Grouse with areas of blanket bog and rough grazing...."

Literature cited

We note that nesting dates of moorland birds in English, Welsh and Scottish uplands published by the British Trust for Ornithology (BTO) is not cited as reference material, and we request that this is referred to, and breeding dates noted. Other important documents which are not referred to include:

UK Biodiversity Framework

The Kunming-Montreal Global Biodiversity Framework

DEFRA's Irreplaceable Habitats Policy

Natural England: New Definitions of Favourable Status for Blanket Bog and Heathland

Surveys

1] **6.3.4** states that "a small area of land would be excluded in the NE of the turbines area and subsequently to include new areas that include

access roads". It is not clear on the accompanying **figures 6.2 and 6.3** where the excluded area is.

2] None of the areas affected by proposed access roads and cable corridors are shown as areas where surveys are to be carried out. In particular this applies to peatland habitats affected by alternative routes A, B and C and potential cable corridors. These areas must be included within the survey, since the survey information would surely inform the selection of a preferred route. Parts of the wider Phase 2 SPA are within these search areas and birds would be affected by any proposed construction works within these areas.

We request that **Figure 6.3** is updated to show this information, and the full extent of surveys to be undertaken in 2025 and 2026 is fully noted.

National Policy Statement EN-5 states that "the applicant should consider and address routing and avoidance/ minimisation on environmental impacts of both on shore and offshore at an early stage in the development process"

We are concerned that, given the timetable of the works, set out in the programme document indicating that the Environmental Statement will be published in September 2026, there will be insufficient time to carry out this important survey work.

3] Baseline surveys

6.3.13 Field Surveys Overview

UCWN requested in their response to the 2023 Scoping Report (SR) that a winter roost raptor survey was carried out. This does not appear to have been scheduled in and we again request that this is carried out, to demonstrate the importance of this area of moorland for winter roosting for these birds specifically. **6.3.65** notes the importance of the area for winter roost for Hen Harrier, but we can see no other formal survey of these or other raptors.

UCWN also requested that a control site be set up to aid future monitoring, and this was also requested by the Royal Society for the Protection of Birds (RSPB). We cannot find any details of such monitoring in the SR.

We do not accept that land access restrictions are a major hurdle to achieving additional winter roost information, or control monitoring sites, since the Walshaw Estate owns most of the land surrounding the turbine area where such surveys would be done. This is all comparable peatland that forms part of the wider Phase 2 SPA. We consider this to be an important omission from the scoping report that must be addressed.

Given that this proposal is targeted at a site of national and international importance for birds, we consider it imperative that surveys are carried out to the highest standard to ensure a thorough baseline of the bird population living, breeding, feeding and roosting on and crossing Walshaw Moor is completely understood.

While we endorse the need for post construction monitoring as set out in **Table 6.2**, this does not provide equivalent data that comparable control and reference sites would.

There are no surveys cited that consider the effects of lighting on birds and particularly passage birds. It is known that artificial lighting can have a detrimental and disruptive effect on bird migration as well as local breeding populations of birds and this should be fully considered.

Passage Birds

The SR considers some passage birds which we note would be picked up in the vantage point (VP) surveys in spring and autumn. However, we are not satisfied that this would pick up high-level migrants of species such as Swift, particularly as surveys of these birds are planned in March and October, with Swift passage taking place around May and July -August. We realise that such high-altitude surveys would be challenging, however placing 200 m turbines on the highest land in the south Pennines is unprecedented, and could have a detrimental impact on Swift and other

migratory species that follow the high ground of the Pennine Chain. These vulnerable, declining, red-listed birds are understood to be susceptible to the low frequency infrasound emitted by wind turbines which can lead to disorientation.

We believe this is an under researched area which could have unintended consequences for bird populations, far beyond the proposed wind turbine site.

Receptors identified

6.3.6 states 'Habitats within the Turbine Area consist mainly of rotationally burned upland heath managed for grouse with areas of blanket bog and rough grazing (predominantly for sheep).' This is wrong and doesn't even match with the UK Habitat Classification Distribution map shown in chapter 7, which indicates that the largest part of the turbine area is blanket bog and degraded blanket bog, with upland heathland shown as a smaller proportion. We still consider that this map is inaccurate since we consider much of the area classified as upland heath is in fact degraded blanket bog.

We will expand further on this factor because it is a crucial part of understanding the importance of the peatlands on Walshaw Moor, which throughout this SR are underemphasised and wrongly defined. Both the active and damaged areas of blanket bog are recognised by the Joint Nature Conservation Committee citation for the SAC, which includes Walshaw Moor, and these are classed as Annex 1 habitats. This is confirmed by Natural England who state that:

'All blanket bog is a Habitats Directive Annex 1 habitat, and active blanket bog is a priority habitat under the Directive... the UK Biodiversity Action Plan Priority Habitat "encompasses all areas of blanket bog supporting semi-natural blanket bog vegetation, whether or not it may be defined as 'active'.'

Blanket bog habitat, both active and degraded, is the reason why this area is so important for birds.

6.3.60 UCWN have extensive records of raptors using Walshaw Moor and can confirm that there are at least two further species of owl including Short Eared Owl and Long Eared Owl known to breed on the moor and which are not noted in the SR. **6.3.60** also fails to mention Merlin, which is one of the birds cited in the designation of the SPA because of the internationally important breeding populations of this bird. Tawny Owl, Hobby, and Marsh Harrier are other raptors that have been recorded within the turbine area.

Raptor breeding habitat is not confined to cloughs, gritstone escarpments and dilapidated buildings but also heather and bilberry and flat open sites. Other species not noted in the scoping report which can be present within the turbine area in significant numbers are Greylag Geese and Pink-footed Geese, and also Little Ringed Plover, Green Sandpiper, and Common Sandpiper.

6.3.66 There are no target species listed in **6.3.16**. Can this be addressed?

Construction

- 6.4 4 states that the design of the turbine area has been adapted to minimise impacts. The design of the proposed development should take account of survey work yet to be completed, and we would expect the survey work to inform the design and turbine layout. If this is not the case, there seems little point in carrying out these surveys.
- **6.4.5** sets out the purpose of the outline Construction Management Plan and **6.4.7** states that construction work would avoid the peak nesting season. This is different to what we were told at the non-statutory consultation which was that construction would avoid the nesting season.

We have a number of concerns here:

- 1) The nesting season may change from year to year and April -May cessation in construction may not be appropriate every year.
- 2) The breeding season takes place over a much longer period than April to May, with some species arriving on the moor in February, and not

leaving until July. There are many fledgling birds on the moor until late June. These birds are extremely vulnerable as they are too young to fly and we are concerned that these species would be seriously affected by proposed construction works.

- 3) We are concerned about the phrase 'wherever practicable' in relation to construction work avoiding the peak breeding season. What are the circumstances where there would be construction work carried out during April and May?
- 4) **6.4.8** refers to the nesting season, is this April -May as noted above, or does it extend to encompass the whole nesting season, we believe it should, as the young of Lapwing etc are still at a fledgling stage in late June.
- **6.4.9** refers to the use of handheld equipment. This seems like an inserted generic paragraph: surely while desirable for wildlife, the use of handheld equipment will not be practical for this scheme.
- **6.4.10** states that artificial light will be avoided 'wherever practicable.' On a site of this importance for wildlife there should surely be a ban on any works taking place when artificial light is required. Again, it would be useful to understand the parameters for when this would not be practical.
- **6.4.11** states that all putrescible and edible wasteful be stored and disposed of in a timely manner. This must be off site.
- **6.4 15** there is no mention of habitat restoration during the operational phase of the wind farm, yet a major justification for this project being acceptable on this highly protected blanket bog habitat has been the restoration that is proposed.
- **6.4.1** states that 'consideration will be paid to the opportunity to introduce environmental measures (and mitigation) that will help to avoid or reduce the potential for an adverse significant effect to occur.' However, no time scale is given, and it is not clear if any environmental measures would take place during the construction phase.

Are we correct in assuming then that habitat restoration would not take place until the decommissioning stage?

We are also unsure of the intent of any proposed restoration, as removing the turbine structures and reinstating a veneer of peat like material over foundations and hard standings might result in the moor being returned to something like its prior appearance, but not its physical character.

Table 6.2 We endorse the RSPB's concern that not all VP surveys locations were located outside the Turbine Area, and are uncertain why there are access restrictions given that the Walshaw Estate owns the surrounding land.

Table 6.4 We do not agree with the premise that there is low potential for habitat loss and a limited scale of land take. Consequently, we do not consider it appropriate that all non-target bird species are screened out. Species that should be "common and widespread" such as Buzzard, Kestrel, Sparrowhawk, Raven, Wheatear, Whinchat and Stonechat are not necessarily as common as they should be and should not be scoped out.

At a detailed level, we note that no mention has been made of the potential effects of the Battery Energy Storage System (BESS) and its impacts on birds due to localised fragmentation of the habitats and loss of feeding and breeding areas, as we assume the BESS compound will be fenced off. It would be useful to know to what extent the selection of the BESS site will involve consideration of impact on the bird population.

(author: PB 12.9.25)

7: Biodiversity

(Upper Calderdale Wildlife Network)

We make an initial comment regarding the independence of this SR as we believe all sections should give unbiased and objective information. A major concern is the inaccuracy of the description of the moorland habitats, particularly in respect of this chapter, and the general under-representation of blanket bog and over-emphasis on areas of dry heath.

There are some significant errors in this section of the report. **7.4.20** refers to sites in Scotland, while **7.5.14** and **7.5.15** are almost identical. Such egregious errors undermine our confidence that this is an accurate and professional report.

We are also concerned about the failure to cross-reference information between this chapter, and the previous chapter on ornithology, and the chapter on peat hydrology, all of which are fundamentally linked.

We are concerned about the lack of cross-reference between this section and Chapter 10 Landscape and Visual which considers mitigation. As restoration of the degraded areas of blanket bog is a key part of the Catchment Management Plan (CMP), we would expect consistent and accurate information to be emerging about how this is planned. However there appears to have been no collaboration between the authors of this chapter and that of Chapter 10 Landscape and Visual. At **7.5.27** reference is made only to mitigation at the decommissioning phase, 'this plan will aim to return the Proposed Development to a condition that aligns with the ecological and ornithological character and conservation objectives of the.... SPA' whereas at **10.4.6** reference is made to planting grasses alongside tracks and tree planting. Any thought of a comprehensive plan for restoration of areas of degraded blanket bog *NOW* seems to be ignored.

Literature

The following documents are not cited in the Policy Section of chapter 7:

UK Biodiversity Framework

The Kunming-Montreal Global Biodiversity Framework

DEFRA's Irreplaceable Habitats Policy

Natural England: New Definitions of Favourable Status for Blanket Bog and Heathland

Surveys

7.3.3 states that to date surveys have only been carried out within the Turbine Area. If the survey work is to inform the preferred access route

and cable routes into the site, this needs to be carried out in sufficient time to ensure this information can be used to inform the design.

Table 7.2 does not include an amphibians survey, apart from Great Crested Newt, although amphibians are mentioned in **7.5.22** and **table 7.13**, nor are they mentioned in the list of receptors in **7.4.22**.

The SSSI impact area (MAGIC) is not cited in **Table 7.3** with particular reference to the potential cable corridor and access routes.

- **7.4.7** states that in accordance with the Catchment Management Plan (CMP), up to 100ha per annum will be restored.
- 1) Will there be an assessment as part of the scoping process to determine how much of this has been carried out and how successful this has been given that monitoring has not been carried out by Natural England (NE) since 2017?
- 2) Is it the intent to continue the process of the habitat restoration and management on Walshaw Moor as outlined in the CMP, during the construction of the wind farm, or, as implied in **7.5.25**, is the intent to continue restoration at the decommissioning stage?
- **7.4.8** states that 'Ongoing monitoring has not yet been provided but is subject to ongoing discussion with Natural England and the Walshaw Moor Estate.' It is of great concern to us that this SR is based on a complete lack of monitoring from NE since the commencement of the Catchment Management Plan.

The surveys need to take account of the impact of permanently lighting the turbine towers during the operational phase.

Habitats

7 4.10 doesn't mention flushes, rocky outcrops, bracken and woodland.

7.4.12 states that habitat surveys will be carried out AFTER identification of the preferred option. This is repeated in **7.4.25**. We are highly critical of this approach as we consider it imperative that some form of habitat survey informs the selection of the preferred routes for cable corridors and access routes. Should we assume that the selection of a preferred route will not be influenced in any way by the habitats that are potentially crossed?

This reinforces our opinion that these surveys are little more than a token gesture. Furthermore, National Policy Statement EN-5 states that 'the applicant should consider and address routing and avoidance/minimisation on environmental impacts of both onshore and offshore at an early stage in the development process.' We are also concerned that, given the timetable of the works set out in the programme document indicating that the Environmental Statement will be published in September 2026, that there will be insufficient time available to carry out important survey work, as survey timings are very specific for species including bats.

- **7.4.14** states that 'after blanket bog, the most common habitat is dry heath which accounts for 544 ha (24.57%) of the Turbine Area including 513.54 ha of h1b5 dry heaths; upland heath (H4030)' which was in varying condition (225.54ha in good condition and 243.28 ha in poor condition)." This SR therefore shows that over 50% of the site is considered to be blanket bog, and we are confident that large sections of dry heath are in fact degraded blanket bog.
- **7.5.14** and **7.4 15** (which are almost identical) state that the oCEMP, oPMP and PWMS will be tailored to the ecology of the proposed development, and that biodiversity protection zones and areas will be identified. Are these a special designations that we have not heard about? Given that the existing SPA, SAC and SSSI designations are recognised as affording protection internationally and nationally why is a further layer required?

Insufficient consideration has been given to the importance of hydrological connectivity across the moorland, not only to the mosaic of Peatland habitats but also the internationally important assemblage of CHEGD fungi, for which Calderdale is particularly well known, We know that the hydrological influence of the peatlands and blanket bog has an important impact on the fungi which thrive on grasslands below the moorland but sometimes outside the Turbine Area. Consequently, impact on the hydrology of the moorlands will have an impact on these important areas too. This must be explored fully in the ES.

The impact of the BESS and the installation of an area of fenced of hard paved industrial zone within the moorland has not been addressed in this chapter of the SR. Installation of security fencing and water storage bunds and changes to the land form to accommodate the specific requirements of the BESS have not been considered. This could include:

- 1) Fragmentation of habitats caused by fencing which is not wildlife permeable.
- 2) Creation of hardstandings and new buildings which will destroy habitat.
- 3) Noise, lighting and disturbance associated with operation and maintenance of the BESS.
- 4) Fire risk to vulnerable peatlands.

Construction

- **7.15.8** states that a sensitive lighting strategy will be employed to avoid unnecessary light pollution minimising the impact of lighting on sensitive species. However **5.14** suggests that some operations, including turbine movements, would be carried out over a 24 hour period to accommodate transport to site avoiding major disruption to local transport networks. It is vital that this area is fully explored as the implication is that there would be frequent times when lighting would be necessary.
- **7.5.20** refers to the mitigation and compensation for the loss of habitats. UCWN want to stress that irreplaceable habitats such as blanket bog are

not possible to replace in any meaningful time scale. Consequently, we want all loss of habitats to be minimised otherwise the integrity of the entire peatland across the Turbine Area will be at risk.

- **7.5.21** notes the need for regular attendance on site during the operational period. The oCEMP must therefore take account of the sensitivities of many of the bird and animal species to disturbance, particularly during the breeding season, and timing of maintenance works needs to consider this.
- **7.5 27** states what elements of the scheme might be left in situ on completion of the project. The ES must give a clear assessment of the impact of leaving structures in place permanently and state precisely what would be left in place and particularly how this may affect the hydrology of the remaining peatland.

Table 7.10

In its Scoping Opinion of 2023 Calderdale Metropolitan Borough Council (CMBC) notes that assessments should be continued beyond the site boundary, but it is not explicitly stated that this will happen. Since blanket bog is a mosaic of interconnected habitats, there will be effects felt beyond the extent of the Turbine Area, so it is vital that any assessment covers these areas.

Table 7.2 states that bats will be surveyed within the Turbine Area. However, the SNC guidance states that bat surveys need to take account of the location and extent of commuting to foraging habitat used by bats which may include not just the site but also flight paths and habitats in the surrounding landscape. Since there is a large and diverse population of bats in and around Hardcastle Crags, it should be considered whether additional survey work needs to be completed to cover any bats moving between Walshaw Moor and Hardcastle Crags.

CMBC also requested the use of static detectors at height. While we recognise the difficulty of achieving this on open areas, we ask that this is explored within woodland areas within the Turbine Area, where this might be more easily achieved.

Table 7.12 sets out the definition of importance for Ecological Features. While the SAC, SPA features are noted as being of international importance, and the SSSI status of national importance, there is, however, no mention of the importance of this site towards meeting our obligations as part of the Kunming-Montreal Global Biodiversity Framework.

This requires protections for nature in the planning system to be maintained with the goal of providing "effective conservation and management" of at least 30% of the world's lands, inland waters, coastal areas and oceans by 2030. It is not possible for the UK to meet its international obligations if sites such as Walshaw Moor are irreparably damaged.

Table 7.13 gives no detail whatsoever of the construction process or operations. The section Operation of Wind Turbines **table 13** cites collision with turbine blades as a hazard for bats but fails to mention barotrauma.

Further baseline data

7.7. 15 states that further surveys are planned for potential cable routes and access routes and that once preferred designs and routes are agreed with the design team, surveys will be agreed with the design team based on the nature of the habitats and locations they are crossing.

We object strongly to the implication that the determination of the preferred route will be based solely on commercial, logistical and economic factors etc with no consideration of the ecology or of how potential new land uses, for cabling and access in the wider area might affect connectivity for wildlife, potential fragmentation of habitats and disturbance to the wider environment. We consider this is a major omission that should be timetabled in, and fully described in any decision making.

If this is not the case, the surveys proposed can only be used to inform small scale changes, within the preferred route and not be used to avoid areas of greatest value for wildlife, nor will appropriate information be available to consultees to make an informed decision about the scheme.

Table 7.15 implies that these surveys will only be carried 'where necessary' within cable corridor and site access search areas, despite extensive parts of these corridors and areas lying within zones of international importance for wildlife.

The long-termimpacts of these installations need to be fully understood as we understand these elements will remain permanently in situ. There will be long term impacts arising from decommissioning that are not mentioned: for example habitats will be reinstated over areas of foundations where the hydrology has been completely altered, and it will not be possible to reinstate these habitats to their original status. This appears not to be understood.

PB 22.9.25

8: Hydrology, hydrogeology, geology and peat

(Walshaw Turbines Research Group)

Comments on the peat slide risk laid out in **8.3.26** and **8.3.29** are given in the section on Chapter 12 Access Traffic and Transport.

The Peat and Hydrology models used to make the Scoping Report are inadequate and the Scoping Report should be withdrawn.

The information on peat and hydrology published by CWF Ltd and used to design the layout repeatedly published in the Scoping Report and at the Non-statutory Consultation is so inadequate that we believe the only option is to withdraw the Scoping Report, revise it without any turbine layouts, and also to withdraw the layout published for the Non-statutory Consultation. The status of the Non-statutory Consultation which was based on this turbine layout must then be decided by the Secretary of State, advised by the Planning Inspectorate.

To comment here on the Scoping Report account of Peat and Hydrology in detail would be to condone the process that has led to the present

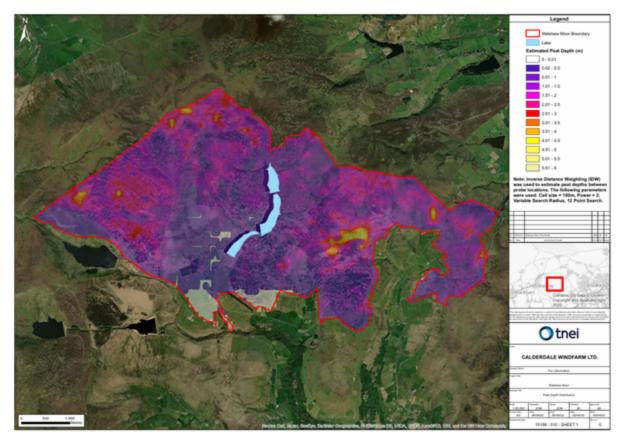
position. Such a layout should not be given status by being published in the Scoping Report and for the Non-statutory Consultation. It was not necessary for any maps of this layout to be presented in the Scoping Report and all the maps that give it status should be withdrawn. A list of the relevant maps is given at the end of this section.

We therefore reserve comment on Peat and Hydrology pending the withdrawal of all layout maps both in the Consultation Brochure and throughout the Scoping Report since they were designed on the basis of inadequate information about peat and hydrology.

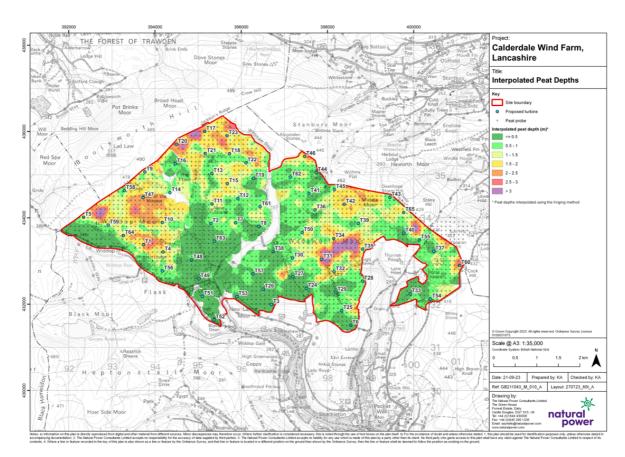
None of the layout maps presented in the Consultation Brochure were described as "indicative" and the word "indicative" does not appear anywhere in the brochure. The repeatedly published layout was designed on the basis of two models: one of Peat Depth and one of Hydrology. Our analysis will concern what the SR calls "western Turbine Area" which is the triangular area west of Greave Clough.

Peat Depth Models

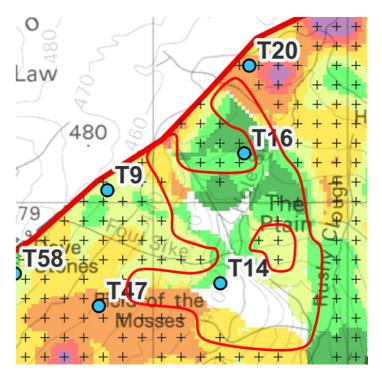
The published CWF Ltd. Peat Model currently consists of a Kriging-interpolated map of peat depths surveyed within the turbine area. The survey was made by TNEI in February 2022. The data set has not been published, but three maps of the data set have been published by CWF Ltd. and these are shown below as Peat Model 1, Peat Model 2 and Peat Model 3. The probing grid used by TNEI is preserved in Peat Model 2 and was based on a 100-metre interval.



Peat Model 1 uses an inferior interpolation algorithm (inverse square distance weighting). A large area west of Greave Clough (usually called "the western turbine area" in the SR) might seem to have been adequately surveyed, but the algorithm has covered up the problem by allowing data far from the survey failure to be used to colour the map.



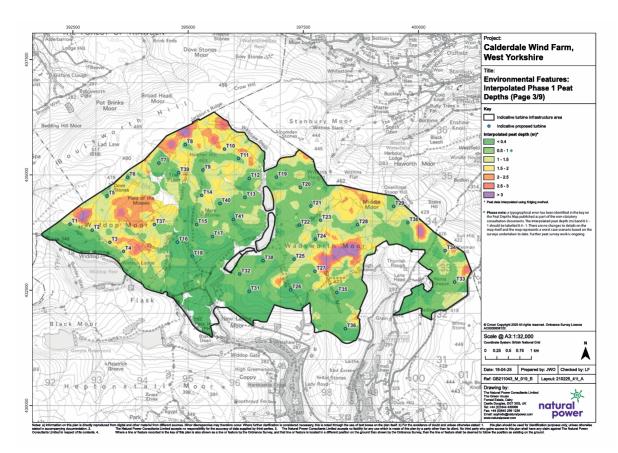
Peat model 2: Published September 2023 in the CWF Scoping Report Peat Model 2 uses the superior Kriging algorithm to interpolate the depths found in the survey. It also shows the probing grid. Notice that probe points are shown outside the NE turbine area which correspond to the mapped hump in Peat Model 1. Natural Power should be strongly commended for publishing the probing crosses and for leaving some of the map blank where the probing carried out by TNEI had failed. Because of high standards pertaining at Natural Power, the Kriging algorithm did not colour the blank area west of Greave Clough (near T14) because the probing had failed there. The extent of the probing failure is clear from the absent crosses.



Inside the red area the colouring of the peat depths used to design the layout published repeatedly in the Scoping Report and Consultation Brochure is based on a wholly insufficient probing interval. The Kriging algorithm is guessing at depths based on distance depths. Once the distances are too great the algorithm does not attempt any colour and the map is left white.

CWF Ltd were informed of the problem in this area by Robbie Moore M.P. in a letter from the House of Commons in October 2024. Far from remedying the problem, CWF Ltd. used the deficient Peat model to create a new iteration of the layout, published in the Consultation Brochure on 29 April 2025, and used throughout the Scoping Report.

Despite the high standards at Natural Power, the definition of "deep peat" in England is > 30 cm while in Scotland it is > 50 cm. Natural Power used a 50 cm definition to create Peat Model 2 which therefore lacks the 30 cm contour that defines "deep peat". This fault was remedied in Peat Model 3, but no further data was obtained.



Peat model 3: Published for the Launch of CEP Non-statutory Consultation 29 April 2025 and corrected twice on 1 May 2025. Peat model 3 uses the same data as model 2 to colour the present depth of "deep peat" in England correctly. The model now has a 40 cm contour around the dark green area.

At publication on 29 April 2025, Peat Model 3 had two glaring errors. A turbine T42 was sited where T38 is now to be found; and the Key had an error in that the scale reads < 0.4 and 0.5 -1 with a gap for depths between 0.4 and 0.5. The T42/T38 error was corrected at 10.30 on 1 May 2025 after it had been pointed out by a member of the public at 09:06 on the same day. The scale error was corrected by the insertion of the note now present below the key. This note could not be inserted in the glossy version of the Consultation Brochure so a sticker was inserted carrying the same information. The blank area west of Greave Clough persists in Peat Model 3. No further survey work had been done to remedy the survey problem that had now persisted from February 2022 until 29 April 2025.

The design iteration that led to the layout published at the Non-statutory consultation and used throughout the Scoping Report for CEP was therefore made using an incomplete peat model. In fact that design originally had 42 turbines, with T38 lying between T37 and T39 and T42

where T38 now lies. This fact (evident from the turbine numbering) was confirmed by CWF lead consultant Donald Mackay at the Trawden Exhibition of CEP on 29 May 2025. When asked about the anomalous position of T38 in the layout he said, "T38 was originally on the blank area of the peat survey, so we moved it." The deficiency in the Peat Model was therefore obvious at the design meeting.

A fossil of that 42-turbine layout persists in the Scoping Report, because the Shadow Flicker map **18-1** still has T42 and no T38. The cause will be clear to any expert user of windPRO software. A second fossil is the stated power of CEP. It was intended to be 42 times 7.2 MW which is 302 MW. In fact it is 41 times 7.2 MW which is 295 MW.

Hydrology

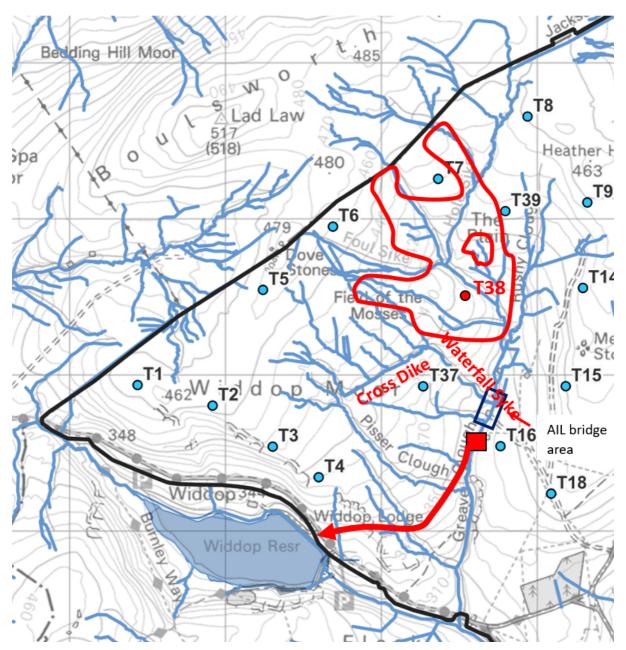
The CWF Ltd peat model used to design the layout repeatedly mapped in the Scoping Report is therefore at its most deficient in the only named area that **4.3.11** acknowledges is at risk of surface water flooding. "A large area at risk of surface water flooding, on the western side of the Turbine Area, is the Waterfall Syke and Cross Dike." No other area is named in the Scoping Report.

It is this western side of the Turbine Area (west of Greave Clough) where the hydrology and peat errors in the models used to design the 42/41-turbine layout are concentrated.

A very serious omission is made in the hydrology models **Figures 8-1**, **8-2**, **8-3** and in the hydrology map presented at the Non-statutory Consultation. Most of the runoff in the Greave Clough catchment is intercepted by a sluice and sent by a tunnel to Widdop Reservoir as shown below.



In a storm the sluice and tunnel can be overwhelmed and the water goes over the sluice dam down a spillway designed for the purpose, direct to Henden Bridge via Graining Water. The hydrology maps used to design the 42/41-turbine layout therefore do not correspond to peak flow. We can summarise all these deficiencies on a detail of the hydrology map published for the non-statutory consultation. The hydrology maps published in Scoping Report are very weak and do not permit analysis of hydrology.



The red outline shows the extent of probing failure in the peat depth model. Cross Dike and Waterfall Syke are at the centre of the surface water flooding risk described in 4.3.11. The original position of T38 is shown. The sluice in Greave Clough and the tunnel carrying normal flow to Widdop Reservoir are shown in red. Greave Clough cannot be bridged for AIL delivery except in the box shown west of T16 where there is currently a footbridge. Walshaw Moor Estate quadbike tracks climb the 11% slope west of this footbridge.

Access to T1, T2, T3, T4, T5, T6, T7 and T37 therefore requires transit of terrain whose hydrology and peat were inadequately understood at the design meeting. Coding on maps published by CWF Ltd suggest this design meeting was at the end of February 2025.

The following maps in the Scoping Report give status to a layout that should now be explicitly withdrawn until proper work has been done in the area.

The Scoping Report is part of the document sequence that forms the legal foundation of the proposal. It is not in the interests of Consultees, the investors in CWF Ltd. or the Secretary of State representing the British people that the Scoping Report should remain unrevised.

The following maps imply that the dangerous layout has a status that is not justified by the information available to CWF Ltd when it was designed.

- 10-1 National Character Areas
- 10-2 Landscape Designations
- 10-3 Registered Parks and Gardens
- 10-4 Green belt
- 10-5 Visual Receptors
- 10-6 Blade Tip ZoV
- 10-7 Hub height ZoTV
- 13-1 Noise Sensitive Receptors
- 18-1 Study Area Shadow Flicker.

The following maps published for the Non-statutory Consultation display the layout designed on the basis of the inadequate information.

Proposed Turbine Layout [p 14]

International and National Designations [p 18]

Peat Depth and Hydrology [p 19]

Public Access and Cultural Heritage [p 20]

(Author: NIPM 22/09/25)

10: Landscape and visual

This response has been prepared on behalf of Stronger Together to Stop Calderdale Windfarm by Penny Bennett who is a Chartered Landscape Architect with 44 years of experience.

Literature cited

The following reports need to be documented / referred to:

Visual Representation of Development Proposals TGN 06/19 (Landscape Institute) although under review it is the most comprehensive guidance for technical visualisations used in LVIA

Planning for onshore wind, Research Briefing for House of Commons Felicia Rankl Oct 2023

Study area

10.3.2 states that the assessment of cable connection would concentrate on a 1km buffer either side of the proposed route. There may well be points at which the cable corridor would have an impact on mature trees, groups of trees or woodland. Where this is the case, professional judgement should be used to extend the visual envelope appropriately.

Relevant Baseline Conditions: landscape character

- **10.3.4** states that the relevant landscape character areas will be verified on site and refined where appropriate. It is also good practice to review the landscape character information being used.
- **10.3.6** the author refers to weathered 'tors'. These are features of granite landscapes such as Dartmoor; gritstone features are termed outcrops. The inaccurate description continues further down this paragraph when it states that 'Landcover is predominantly open moorland, largely rough grassland...' This is incorrect. The moorland is **not** largely rough grassland and the National Character Area (NCA) 36 goes to some lengths to reinforce the importance and extent of the blanket bog areas which is usefully summarised in the table below:

7.2 Biodiversity Action Plan (BAP) Priority habitats

The NCA includes the following areas of mapped priority habitats (as mapped by the national UK BAP habitat inventory March 2011 (unless stated)) Footnotes denote local/expert interpretation.

Habitat	Area (ha)	% of NCA
Blanket Bog	28,702	24%
Broadleaved Woodland (National Inventory of Woodland & Trees)	3,142	3%
Upland Heathland	1,419	1%
Lowland Dry Acid Grassland	721	1%
Lowland Meadows	773	1%
Purple Moor-grass & Rush Pastures	613	1%
Floodplain Grazing Marsh	99	<1%
Lowland Calcareous Grassland	15	<1%
Upland Calcareous Grassland ¹	88	<1%
Upland Hay Meadows ²	15	<1%
Fens	348	<1%
Lowland Heath ³	18	<1%
Lowland Raised Bog	18	<1%

Source: Natural England (2011)

To say that the mosaic of upland landscapes is of ecological value is an underestimate, given much of the upland plateau in the South Pennines has international and national wildlife designations. This is reinforced in the summary of the first page of NCA 36 which states that "The area contains internationally important mosaics of moorland habitats"

10.3.8 cites wind farms in the vicinity. Those on Todmorden Moor should be included in the list.

Relevant Baseline Conditions: Landscape Designations

Table 10.1 does not include the Nidderdale National Landscape, and this should be added.

Viewpoint Assessment

10 3.25 notes that no viewpoints have been selected in relation to the site access search areas or cable corridor search areas. While it is understood that the identification of specific visual receptors is not appropriate at this stage, the SR should confirm that the zone of theoretical visibility (ZTV) has been used to help to inform route selection, particularly where there is a chance that areas of mature trees and woodland may be affected by cable and access routes, and loss of such trees and woodland due to cable works would have a visual impact.

Table 10.2 Proposed viewpoint locations

It is unclear at what stage viewpoints will be finalised. **Table 10.2** includes a number of new viewpoints which were omitted from the 2023 SR and in **10.3.23** and **10.3.24** the parameters for viewpoint selection are set out. It is stated that stakeholder feedback will be taken account of, but it is uncertain how this will happen. **Table 10.4** summarises comment from stakeholders from the 2023 SR and a number of important viewpoints are highlighted as missing in 2023, which are still omitted two years later for example:

Sheepstones Edge

The Yorkshire Three Peaks

Haworth, the Parsonage

Blackstone Edge

Leeds Liverpool Canal between Blackburn and Barrowford

The comments in **table 10.4** say that the viewpoint selection has been refined and altered in response to the previous SR, although we note the landscape and visual SR was written when turbine heights of between 149m and 200m high were being considered. Now the turbine heights are confirmed at 200m high the selection of viewpoints will cover a comparatively larger area. It is stated that viewpoints will be reviewed as the design process evolves, but at what point can stakeholders discuss this with the applicant?

Given the vast area over which this development will be visible, we would like to see viewpoints also from:

Lund Tower, above Cowling

Simon's Seat on the Bolton Estate in the Dales

Pinhaw Beacon above Lothersdale

Within the Peak District.

Environmental Measures

10.4.1 states 'Consideration will be paid to the opportunity to introduce environmental measures (and mitigation) that will help to avoid or reduce the potential for an adverse significant effect to occur.' The NCA gives very clear guidance in the statements of environmental opportunity on the opportunities to restore and improve ecological links between moorland habitats, restoring degraded areas of blanket bog to active sphagnum dominated bog to promote peat formation, and heath communities where matt grass has become dominant.

This needs to be so much more than a 'consideration' but rather a complete ethos which thoroughly understands the critical importance of the landscape which is to be altered and embraces every opportunity to restore and enhance the moorland environment.

10.4.2 - 10.4.4 describe the scope for landscape design to mitigate the potential landscape and visual effects.

Given the importance of the ecological features on the potential turbine area, will there be a hierarchy of mitigation between issues of landscape and visual importance and ecological importance, and will this be clearly set out and made transparent in the ES?

Construction

10.4.6 refers to the routing and siting of elements of the proposed development to avoid notable landscape features. How are these notable landscape features defined, and, for instance, do these correspond with important ecological features such as blanket bog?

The 'key potential mitigation measures' miss the point completely with regard to the restoration of the blanket bog. The objectives state that native grass/ moorland species to be planted to assist in blending the track into the surrounding moorland context. Given that grasslands make up a small percentage of the areas on Walshaw Moor the emphasis here is misguided. Meanwhile mention of woodland creation (when blanket bog is not even mentioned) is bordering on the irrelevant. The mitigation

process needs to consider what the objectives are in the restoration of the vegetation. It seems that the aim is to recreate the vegetation patterns that were here prior to development which in places is degraded habitat brought about by years of mismanagement, not to take the opportunity to restore an internationally important area of blanket bog, for biodiversity, carbon sequestration, flood control and protection of water quality.

There are the clear objectives set out in the NCA which provides clear and concise guidance that should be followed. The oLEMP would also need to fully understand the objectives of the Catchment Management Plan, and the requirements of any Biodiversity Net Gain (BNG).

The statement that careful consideration will be made of any planting proposals to complement the landscape character is worrying and demonstrates a lack of understanding of the ecological value of the landscape of the proposed turbine area. Restoration must take full account of the restoration of the peatland vegetation and hydrology and understand the challenges of restoring irreplaceable and irreparable peatland habitats.

It is hugely concerning that the restoration of this precious landscape is being entrusted to those that appear to have no grasp of its importance.

Scope of the assessment

Table 10.4 reviews comments made by consultees. A recurring comment refers to need for cumulative assessment but there is no detail given as to what cumulative effects should be considered. These should include cumulative sequential effects along key public rights of way, including the Pennine Way in both directions, considering the effects from the furthest point north and south from where the proposal would be seen.

This will reinforce the massive scale of the visual impact on this path. Other important routes where cumulative sequential effects should be considered include:

The Pennine Bridleway Brontë Way Leeds Liverpool Canal
Calderdale Way
Burnley Way
Pendle Way
Calder Aire Link
E2 European Long-Distance Path
Scenic road routes: Widdop Road
A6033 from Hebden Bridge to Oxenhope

A further point made by UCWN when commenting on the 2023 SR was that the sense of openness should be considered. This is not quite the same as the sense of openness considered in a planning context which is related to the green belt, but the sense of being able to experience wide open spaces unimpaired by built development.

Effects scoped out from the Detailed Assessment

Table 10.5 states that no townscape assessments will be carried out in the urban parts of the study area. We consider that there will be sufficient impact on the urban areas to merit townscape studies which should be considered for Haworth, Heptonstall, Trawden, Pecket Well, Stanbury and Oxenhope as skylines and backdrops to these developments will be affected by this proposal.

The effects arising from the decommissioning phase should be considered as there are likely to be long term changes resulting from the reinstatement of vegetation over hard standings as outlined in chapter 7. This is because the impervious concrete hard standings and foundations remaining in the ground will result in a permanent change to the hydrology and patterns of vegetation that will be impossible to change.

Likely significant effects scoped into the Detailed Assessment

10.5.4 does not consider the BESS. In contrast to the largely clean lines of the wind turbines, the BESS will be a smaller scale but piecemeal development with security fencing and associated small buildings and the landscape and visual effects of this need to be fully assessed.

Table 10.6 states that the design of the Proposed Development should be considered in relation to the landform of local context, but there is a

regional context here: Walshaw Moor is the highest ground in the South Pennines and the impact of this development on this landform will be felt across the region.

Similarly, the study area of 15km underestimates the extent of the potential impact of this development across the wider region.

Consultation

10.6.5 doesn't include perceptual qualities as one of the categories that will be assessed in the LVIA. Para 5.3.7 of GLVIA states that the importance of perceptions of landscape is emphasised in the European Landscape Convention: for instance, the perceptions of wildness and tranquillity and how this would be affected should be considered.

Physical effects on Landscape Elements

10.6.6 states that physical effects of the development are restricted to within the footprint of the development. We consider that these effects would extend beyond the footprint of the Turbine Area. As the blanket bog is hydrologically linked it is likely that the effects will extend to other parts of the peatland mosaic even if they are outside the proposed site.

Effects on views

10.6.8 we consider that there will also be perceptual effects caused by the introduction of lighting to turbines, such as the loss of dark skies.

Cumulative effects

Sequential cumulative effects which are described in **Table 7.1** of GLVIA are not mentioned as part of the scoping. This has already been mentioned in respect of views from footpaths etc (**10-4**).

Significance of Effects – nature of effects

10.6.28 suggests that the landscape and visual effects of windfarms are difficult to categorise as beneficial or adverse. We disagree: this is not necessarily the case and it is important that this is understood in the LVIA. For instance, if wildness is an accepted feature of the landscape character of the South Pennines NCA and, by introducing new development into that landscape, the character of wildness will be LOST, this is clearly a negative effect, because it is a clear attribute and characteristic of the landscape character which no longer exists. We consider that it is hard to claim that there is an element of subjectivity here. We note that the LVIA will adopt a precautionary approach here which we believe to be essential.

Decommissioning

As noted earlier, since it will not be possible to reverse the effects of much of the proposed installation there will be permanent changes to the hydrology of the moor which in turn will have an impact on the vegetation.

Assumptions Limitations and Uncertainties

LVIA should be iterative documents which respond to changes as they happen, so it is expected that there will be changes to the LVIA as the design evolves.

(Author: PB 21/9/25)

11: Cultural heritage

(Worth Valley Against Walshaw Moor Wind Farm)

4.3.21

- 1] The diaresis in 'Brontë' is omitted.
- 2] The landscape is known as 'Brontë country', not 'Bronte countryside (sic)'. Nor should the landscape be described solely as 'literary' for the reasons stated in our response to 10.3.06 below.

- 3] Top Withens is known simply as that, not 'Top Withens Farmhouse'.
- 4] Top Withens is believed to be the inspiration for the **location** of Wuthering Heights.

4.3.28

- 1] The diaresis in 'Brontë' is omitted.
- 2] The 'Bronte Way (sic)' may have a closest point to the turbine area but does not have a 'closet point'.

10.3.06

The landscape is not purely 'literary'. It should be described as 'cultural'. It has connections not only with the Brontë sisters but also with Ted Hughes, Sylvia Plath, Fay Godwin, Bill Brandt, LS Lowry, Kate Bush and many more.

10.3.21

The location of Wuthering Heights is Top Withens, not 'Top Witherns'.

10.3.22

Visualisations should include kinetic photomontages and should include imaging from both Penistone Hill looking west towards the proposed site, trig point TP7008 Withins Height looking west towards the proposed site and Heptonstall looking east towards the proposed site. Visualisations should also include night-time photomontages.

Table 10-2

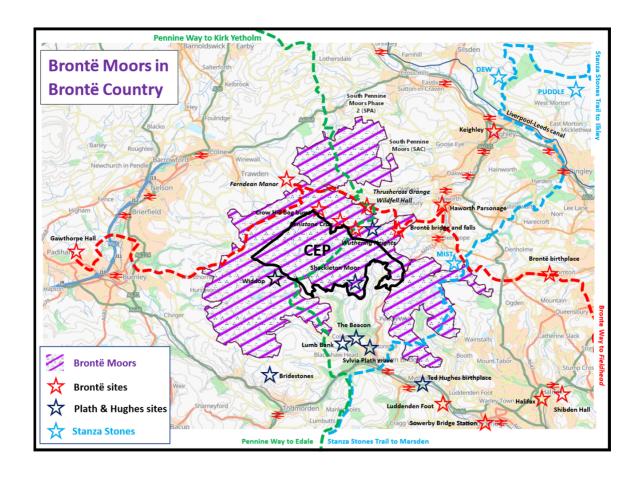
- 1] Viewpoint 3: the diaresis in 'Brontë' is omitted. Top Withens has connections not only with Emily Brontë but also those people referred to in 10.3.06 above and others.
- 2] Viewpoint 8: the diaresis in 'Brontë' is omitted in both the viewpoint location and the visual receptor type/rationale for selection in assessment.
- 3] Viewpoint 26: Crow Nest Bingley. Surely the location is meant to be Crow Nest Park in Lightcliffe, Halifax, the site of the mansion Crow Nest

House which belonged to Ann Walker, the partner of 'Gentleman Jack', Anne Lister? This should be clarified.

- 4] Viewpoints from Great Whernside, Ingleborough and Pen-y-Ghent should be included.
- 5] Viewpoints from the 'Brontë Stones Walk' should be included.

11.3.9

'The Proposed Development and the area surrounding the settlement at Haworth' is not an adequate description of the extent and cultural importance of the landscape. As the map below indicates, the culturally significant area of this moorland extends from Padiham in the east to Ilkley in the north-west to Fieldhead in the east and Marsden in the south, and encompasses the work of Ted Hughes, Sylvia Plath, Simon Armitage, Fay Godwin, Bill Brandt, LS Lowry, Kate Bush and many others as well as the Brontës.



The area 'Brontë Moors' shaded in purple is also the South Pennines Special Area of Conservation and Special Protection Area.

Table 11-6

- 1] pp. 392-394: the diaresis in Brontë is omitted.
- 2] p. 392: The Brontë Society should be one of the 'external stakeholders'.
- 3] the general scope of the analysis of the impact of the proposed development on the cultural landscape should be extended to encompass the work of Ted Hughes, Sylvia Plath, Simon Armitage, Fay Godwin, Bill Brandt, LS Lowry, Kate Bush and many others working across all media, as well as the Brontës. This analysis should also take into account the ongoing impact of the cultural landscape for future generations of artists of all practices.
- 4] p. 395: the assumption that 'decommissioning will remove all above ground elements of the Proposed Development (with the exception of tracks and hardstanding) and thus return the landscape to its previous state (as it is now) or enhanced landscape state, therefore removing any ongoing effects on heritage assets through a change in setting. Therefore, there will be no likely significant effects on the significance of any heritage assets from the decommissioning process, so this has been scoped out of any further assessment' is incorrect. The remaining tracks and hardstanding will irrevocably alter the iconic and currently virtually untouched moorland landscape. This effect of the decommissioning process should be included in further assessment.

11.6.27 and 11.6.28

The diaresis in Brontë is omitted.

11.6.29

We reiterate the point that decommissioning will NOT return the landscape to its previous point or enhanced landscape state. The remaining tracks and hardstanding will irrevocably alter the iconic and currently virtually untouched moorland landscape. This effect of the decommissioning process should be included in further assessment.

(Author: LM 10/09/25)

12: Access, Traffic and Transport

(Walshaw Turbines Research Group)

Omissions and errors in Chapter 12 are significant and systemic, so full comment is reserved, pending an accurate revision of the Scoping Report (SR) and an extended deadline to allow detailed attention to a more accurate document. Several prima facie A.I. hallucinations (plausible sounding random falsehoods) in the SR Chapter 12 are noted.

Policy on matters noted in these comments

These comments address important matters that are either absent from scoping, lack articulation because of weak integration across chapters, or are systemically erroneous.

Unexplained suppression of Option A

An Option A access route for AIL via Halifax was published in the non-statutory consultation on 10 June 2025 [Consultation Brochure (CB) p 23]. The suppression of Option A in SR is noted, and comment is reserved.

Prima facie A.I. hallucinations in the SR

The use of A.I. to produce the SR need not have been a problem, but uncritical use of A.I. is indicative of a failure of supervision by qualified human intelligence. Because providing information and analysis is not the purpose of the SR stated in **1.4.2**, it is surprising to find any prima facie A.I. hallucinations in the SR.

The EIA developed on the foundation of the SR will consist mainly of information and analysis and will be intensely vulnerable to A.I. hallucination if this is not nipped in the bud in the SR. Logika and CWF Ltd should supply a full account of A.I hallucination in the SR.

Weak cartography at critical points

Weak cartography at critical points is noted. Consultees should not have to provide adequate maps.

Failure to proofread by management of Logika and CWF Ltd.

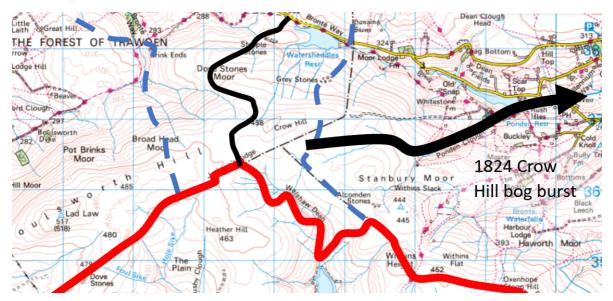
Readers should not have been embarrassed by extensive and systemic errors in a public document concerning a Nationally Significant Infrastructure Project. Subsequent revisions should be signed off as proofread by named Logika senior management and accepted as proofread by the Project Director of CWF Ltd.

Comment themes

- A) The risk of a peat slide on the new Crow Hill access track.
- B) Implications for traffic of the West Yorkshire aggregates problem.
- C) Systemic errors in SR 12.4, 12.6 and 12.7
- D) Rights of way and the Countryside Rights of Way (CRoW) Act 2000.

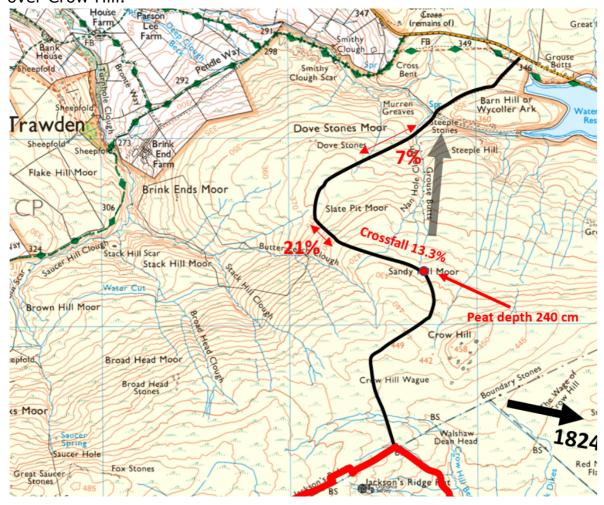
A) The risk of a peat slide on the new Crow Hill access track.

12.3.2 states that access to the turbine area for AIL will be by a new track. **4-2** has a map of the relevant Site Access Search Area and the brochure [CB p 24] for the non-statutory consultation gives a map of the Considered Access Route over Crow Hill. Neither map is adequate, so two maps are given in these comments. The route (black curve) over Crow Hill is shown on our Map 12A with the turbine area boundary (red), the search area borders (blue dashes) and the peat slide (thick black arrow) (**8.3.26**) known as the 1824 Crow Hill bog burst.



Map 12A Detail of the Site Access Search Area over Crow Hill showing path of 1824 Crow Hill bog burst. Map: WTRG after SR **4-2**]

Map 12B is on a larger scale and shows the Considered Access Route over Crow Hill.



- **Map 12B** Considered Access Route over Crow Hill showing potential peat slide on Crow Hill access track and the 1824 bog burst on Crow Hill. Map: WTRG after CB p 24. Data: WTRG.
- **12.2 12.3.2** states that all abnormal indivisible loads (AIL: the turbine components) will be delivered up the section of Crow Hill between the blue dashed lines in **Map 12 A**. **12.5.2** confirms that AIL will come via Crow Hill. The Crow Hill terrain is existential for the proposal because all turbine components come as AIL over Crow Hill.

The SR account of Crow Hill terrain is deficient

- **12.3** The SR has little to say about the soil mechanics of Crow Hill over which the turbine components must come. The remarks about Crow Hill are confined to **8.3.26** and **8.3.29**, both quoted in full:
- **8.3.26** 'To the north and outside of the Turbine Area, there are two recorded peat landslides, one of which is known as the Crow Hill bog burst (Ross, 2020), described by the Rev. Patrick Brontë. LiDAR data indicates no equivalent features within the proposed turbine area."

Note the tendency of this statement to minimise the significance of the Crow Hill bog burst for the proposal. Although the 1824 Crow Hill catastrophe indeed started slightly outside of the Turbine Area, all the turbine components will be delivered across Crow Hill. Ross 2020, though excellent, is primarily a post-doctoral literary resource and together with the instancing of the Rev. Patrick Brontë, who was not a soil engineer, but the father of three of the most famous women in the history of the world, 8.3.26 tends to suggest that the 1824 bog burst was a remote, academic, or even gothic event.

12.4 " **8.3.29** A large proportion of the Cable Corridor Search Areas and eastern Site Access Search Areas have no superficial deposits and where present, lie within peat deposits. The western Site Access Search Area is underlain by superficial deposits of Glacial Till where present."

This is prima facie A.I. hallucination on soil mechanics. The incoherence of **8.3.29** shows that no detailed consideration has been given to the Crow Hill soil mechanics, and essential matters to be scoped into the Access baseline, and dealt with at once, are therefore laid out here in detail.

Crow Hill peat slides

- 12.5 The Site Access Search Area over Crow Hill is adjacent to, and for 20 ha includes, the locus of the 1824 Crow Hill bog burst, the catastrophic peat slide of 8.3.26. The reference (Ross 2020) states that the river of peat and boulders was over 2-metres deep at Ponden Hall, some 3 km from the burst. The explosion of the bog was heard in Leeds, and the river Aire above Leeds was so polluted by its tributary the Worth that the reservoir water pumps were stopped. A peat stain could be seen as far as the Humber.
- **12.6** The "considered access route" (CB p 24) traverses the top of the Nan Hole Clough drainage funnel (see Map 12 B). The traverse has a crossfall of 13.3% and a preliminary peat survey by WTRG has found peat of depth 240 cm on the traverse. The slope is convex.
- **12.7** The 1824 bog burst was not triggered by immediate human activity and began at a similar altitude to the Nan Hole Clough traverse. The considered access route crosses similar terrain as the 1824 slide, but the ground will also have been disturbed by the construction of the track; will have been loaded by hundreds of tonnes of aggregate that form the track; and will carry the heavy AIL. There is a prima facie case that the track may cause a peat slide, that the probability during construction is at least Scale 3 (SR ref 133 5.5), and that the worst impacts of that peat slide would be catastrophic, involving multiple loss of life and the stranding of the project.
- **12.8** It is indicative of the danger of the Crow Hill terrain that in an otherwise overcrowded proposal, the layout advanced in CB, and mapped inconsistently in the SR, avoids putting turbines on Jackson's Ridge of Crow Hill, even though the wakes would stream NE in the prevailing wind and not reduce the aerodynamic efficiency of the array, as so many of the indicated turbines will do.
- **12.9** A second Crow Hill peat slide occurred on 19 May 1989. Dykes and Warburton ($\frac{Mass\ movements\ in\ peat\ (2006)}{movements\ in\ peat\ (2006)}$) give a photograph of the remnants of the 1989 slide taken in 2005. The extent was 3.6 ha, and 46000 m³. The peat was originally 2-3 metres deep and 0.3-0.5 metres of depth remains. The terrain is not steep and corresponds to the ground

crossed by the Crow Hill access road at 440 metres just before the last bend. A prolonged drought had affected England from November 1988, punctuated by short-lived but often abrupt phases of wet weather. On 19 May 1989, a record 2-hour point rainfall of 193 mm was recorded at Walshaw Dean Lodge in the middle of the turbine area. This is the record daily rainfall for May, and the most intense 2-hour rainfall recorded in Britain. It is known as the "Halifax Storm". The 1989 Crow Hill peat slide and 1824 Crow Hill catastrophe had in common intense rain following a drought. Droughts in the Walshaw catchment include 2023 when emergency pipes were laid by helicopter from Walshaw Dean to Ponden reservoirs, and the ongoing drought of Spring and Summer 2025.

Survey and analysis required

- **12.10 8.2.2** references "Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (Scottish Government, 2017) (<u>SR footnote 133</u>)" which should set the baseline method for peat landslide risk assessment on Crow Hill.
- **12.11** Equation 8 of \underline{SR} footnote 133 states that the safety factor F can be modelled by the equation

$$F = \frac{c' + (\gamma - m\gamma_w)z\cos^2\beta\tan\phi'}{\gamma z\sin\beta\cos\beta}$$

Given the existential nature of the peat slide risk for the whole proposal, slope convexity, the triggering factors of very heavy deliveries, the weight of aggregate used to build the track, a predicted pattern of long dry spells and intense rain, and the proximity of the catastrophic peat slide of 1824, values of c' (effective cohesion) and z (peat depth) must be established by onsite peat coring and probing at a variety of saturations m. Note the known high z-value already found (peat depth 240 cm at the turn) and the high β -value = tan $^{-1}(0.133)$ calculated on the published track. Other peat depths already obtained are reserved.

12.12 Values of c' from peat coring should be presented in tabular form at a range of values of m including full saturation, correlated with values of z at the same locations and the resultant value of F. Peat cohesion is strongly dependent on fibrosity and saturation. Fibrosity is likely to vary over short scales, so a 10-metre probing-and-coring grid is minimum. Given the existential nature of the area, a finer grid may be indicated.

Site and access choice cause survey difficulties

- **12.12** Given the present drought, it is possible that c' at values of m near (and at) saturation might not have been measured by 28 February 2026. A dispensation from Natural England to perform peat coring and peat depth probing during the ground nesting bird season of 1 March 31 July 2026 should be sought to allow ongoing measurement of cohesiveness in a variety of saturation regimes.
- **12.13** Dykes and Kirk [p 391] explain why the Yorkshire drought of summer 1824 might be a proximate cause of the September 2 Crow Hill catastrophe. The same explanation applies to the 1989 Crow Hill peat slide. Dykes and Kirk explain that in a drought, dry peat masses with "lower water contents and lower liquid limits" undergo "a decrease in particle size" which triggers "the close packing of the organic particles and the consequently smaller pores and higher bulk density." Consequently, it "would take a smaller increase in water content to bring about significantly higher water pressures or even a change of state."
- **12.14** The present difficulty of obtaining cohesiveness values at high saturations is a consequence of weather instability that itself contributes to the baseline risk of peat slides on Crow Hill, and are further consequent of the site choice and access choices made by CWF Ltd.
- **12.15** Because of the existential nature of the Crow Hill access, statutory consultees and the Secretary of State must have high confidence in the survey for peat depth z and effective cohesiveness c' and in the reliability of the subsequent analysis. The work should be independently conducted and peer reviewed and published in good time before the beginning of Statutory Consultation, which may have to be delayed.

Maximum parameter values should be justified

Justification of the maximum gradient of any access track over Crow Hill relative to safe practices in AIL delivery, likely delivery method, track engineering and default manufacturer limits, should be given. The present value on the presented track in <u>CB</u> p 24 is 21% (our **Map 12 B**).

12.17 Justification of the maximum crossfall of any access track made over Crow Hill should be given. The present value presented in <u>CB</u> p 24 is 13.3% (our **Map 12 B**)

Mitigation of peat slide risk on Crow Hill

12.18 On current evidence, the Crow Hill peat landslide probability under baseline worst-case scenario is "Likely: scale 3" or "Probable: scale 4" (<u>SR ref 133 table 5.1</u>)

The impacts (multiple deaths and stranding of the project) are "Extremely high: Scale 5" (SR ref 133, table 5.2)

The indicative risk baseline is then medium or high (<u>SR ref 133 table 5.3</u>) and the reference states:

"Where the risk level for a zone is medium or high, avoidance or specification of mitigation measures would normally be the only means by which project infrastructure could be considered acceptable within that zone at the proposed development site."

- **12.19** Specific measures to mitigate peat slide on Crow Hill must be stated in the baseline Access assessment and follow SR ref 133 table 5.66. Mitigation measures should not be generic. Given a peat slide on Crow Hill, the trigger with the highest Bayesian likelihood would be an AIL convoy, and the only reliable mitigation may be avoidance of the area by AIL. If the proposal continues to depend on Crow Hill access, a justification would be required. The baseline would give a foundation for ongoing monitoring during construction and operation if it has been shown to be reasonably safe to proceed.
- **12.20** A regime of ongoing monitoring of the Crow Hill terrain during operation should be scoped into baseline, since access over Crow Hill may be required by the emergency services in the event of a wildfire, turbine fire or BESS lithium fire, and a peat slide would form part of the Fire Service risk assessment. Robust data might then be available for the decommissioning phase, when frequent heavy traffic may again be using the Crow Hill access.

Requirement for an early report on Crow Hill

Given that access via Crow Hill is existential for the proposal, 12.21 statutory consultees should not be required to maintain concern for the proposal as a whole under very short deadlines (42 days for the nonstatutory consultation and just 29 days for the SR) until independent research is completed and the report on access via Crow Hill is published. Detailed research and analysis of the Crow Hill access should be published before the beginning of the Statutory Consultation since it is existential for the proposal. The consultation is anticipated to begin in "Winter 2025" and must be delayed if no conclusion on peat slide risk on Crow Hill has been reached. If consultees are to engage with confidence in Statutory Consultation, they must be convinced ab initio that there is safe access to the site before they are required to expend further public money, charitable funds and expert management time responding to the proposal. Consultees should not have to wait until the whole-site geomorphological map of **8.6.4** is complete, especially since that map will not necessarily include the off-site access across Crow Hill and might be too general and small scale.

Ecological status of Crow Hill

12.22 The Crow Hill section of the search area is part of the South Pennines Phase 2 SAC and SPA, should be part of the baseline assessment of the impact on designated land, and should be accorded a separate assessment as it is outside the Turbine Area boundary. A preliminary walkover found excellent active bog west of Nan Hole Clough. The area is part of the 7.1% already regarded by DEFRA as counting towards England's 30 by 30 target under the Kunming-Montreal GBF. Present policy on SAC/SPA designated land and the K-M GBF is summarised in the joint Policy paper issued by DESNZ and DEFRA on 14 July 2025: Unlocking benefits for people, nature and climate: Actions to jointly address climate change and biodiversity loss in England. This paper should be referenced in future revisions of the SR, and its contents should inform all revised chapters.

SR is over-confident about Crow Hill

12.23 19-1 states: "Given the nature and type of development, it is considered that the Proposed Development is unlikely to result in any type of major accident/disaster."

This is prima facie an over-confident assessment of Crow Hill.

B) Implications of the West Yorkshire Aggregate Problem for Access and Transport

- **12.24** It has been known for at least 70 years that if West Yorkshire sandstones are crushed to aggregate, they are too weak, porous and susceptible to frost for roadstone or technical concrete. This is called the West Yorkshire Aggregate Problem (WYAP).
- 12.25 The problem and its extent are confirmed in the fourteen separate annual aggregate assessments (2012-2025) of the five West Yorkshire councils. The assessments have not been found in the materials used for the desk study by Logika. A typical statement of the problem from the assessments is:
- A1.2.2 "The sandstones are too weak and porous for the manufacture of concrete or for road building and are commonly used in low specification situations and for bulk fill."
- **12.26** The relation of the WYAP to Calderdale Wind Farm and Calderdale Energy Park has been a commonplace at least since April 2024. The matter was formally raised by Robbie Moore M.P. in a letter to CWF Ltd. from the House of Commons in October 2024. No indication of the WYAP appears in the SR.
- **12.27** The only public acknowledgement by CWF Ltd. or Logika of the WYAP, and only as it relates to the onsite rock, was made by CWF Ltd consultant Donald Mackay on the <u>CEP Webinar</u> (21 May 2025, 43:40-45:27) in response to a question put by a member of the public during the Non-statutory Consultation. Donald Mackay's answer includes the statement that "The naturally occurring materials on the site are not the best quality for construction."

Borrow pits supply the equivalent of local quarry waste

12.28 5.8 "Borrow pits" should state the agreed deficiency of onsite rock for technical aggregates in the Chapter 5 baseline, and the West Yorkshire annual aggregate assessments should be explicit in the baseline assessment for Access and Transport in Chapter 12. The same point

should be stated in **8.6.1. 9 (bullet point 8)**. Given the WYAP, the aggregates that can be won from onsite borrow pits are only suitable for bulk fill. This low-grade material is widely available in West Yorkshire as a waste product from the quarrying and cutting of building stone, a point repeatedly confirmed by the annual aggregate assessments.

Walshaw Moor is an internationally designated SAC and SPA and already part of England's attempt to reach the 30 by 30 requirement of the Kunming-Montreal GBF, so it is most unlikely that on-site borrow pits to extract what is available nearby as quarry waste will be consented. Once the force of this rationale has been understood, borrow pits should be scoped out of SR because there should not be any.

Limestone and ferrous sulphate are toxic to sphagnum

- **12.29 4.3.16** describes the Natural England Walshaw Catchment Restoration Plan (2017-2042) a programme of interdependent habitat management and infrastructure management techniques agreed between Natural England and the Walshaw Moor Estate, designed to protect, restore and improve important blanket bog habitat. The plan states (8.1.6) "Aggregate used on tracks will be inert materials". The blanket bog is very acid; limestone aggregate is highly alkaline; and the reaction between bog and limestone releases bicarbonate which is toxic for sphagnum moss.
- **12.30** All concrete is strongly alkaline, so concrete turbine foundations must be protected from the acid environment. Since it will not initially interact with the bog environment, limestone immobilised as concrete aggregate may be thought acceptable on protected peatlands. **5.2.2** specifies a large rebar and concrete gravity foundation for each turbine and **5.1.16** states that the foundations will remain in situ after decommissioning. The concrete/bog barrier will eventually rupture. The long-term poisoning of internationally designated blanket bog as concrete and rebar deteriorate to produce mobile toxic carbonate and ferrous sulphate, the moss killer sold in all garden centres, should be scoped in, and may be impossible to mitigate in a Special Area of Conservation without the careful removal of the foundations at decommissioning.

Integration of aggregate aspects across chapters

Aggregates are existential to the proposal and should be integrated in the SR and fully referenced in the Access baseline. An explicit worst-case scenario should be stated:

"Bulk fill will be local quarry waste imported from off-site; concrete aggregates and inert roadstone will be imported from out of West Yorkshire; if granite is specified for roadstone it will be imported from out of Yorkshire, or out of England if Glen Sanda on Loch Linnhe is chosen; the need to import all aggregates to CEP will cause unusual traffic intensity compared to the majority of large wind farms that are built from internal resources once the first borrow pit is reached."

Given its size, internationally designated blanket bog, distance from the sea and unfavourable geology, CEP as described in the SR may need the most extensive bulk material movements by distance and weight of any wind farm in the UK.

C) Systemic errors in SR 12.4, 12.6 and 12.7

12.32 The following list is restricted to errors indicating a systemic failure of drafting and supervision by Logika and the client CWF Ltd. A full list of errors is reserved. Some of the errors could not have been made by a qualified human. The simplest explanation of the extent and non-human nature of the errors is that they are A.I. hallucinations that were missed by the senior management of Logika and CWF Ltd when they proofread the chapter.

12.4.2

- a] Bullet point 2. "A6068 between the M56 and Colne". The A6068 does not join the M56. For "M56" read M65.
- b] Bullet point 6. "A6063 between Hebden Bridge and Cross Roads." For "A6063" read A6033.
- c] Bullet point 7. "A464 between Todmorden and Mytholmroyd." For "A464" read A646. This error is particularly indicative of A.I. hallucination, because any human qualified to write or check a chapter on Access and Transport would know that the "A464" must be in the M4 corridor from London to South Wales.

12.4.5

d] Bullet point 2. "A6068 between the M56 and Cowling; Count sites 28783 (Colne)"

For "M56" read Colne. Here "M56" cannot be read as "M65" because the M65 count is in the previous bullet point.

12.4.8

e] "Onsite PRoW present on the A6063". For "A6063" read A6033 or A6068 or both.

12.4.11

f] "The A6068 is operated by Lancashire County Council and is mainly a two lane distributor road. It connects the M56 to West Yorkshire and passes through the town of Colne."

For "M56" read M65. For "West Yorkshire" read North Yorkshire.

12.4.16

g] "The A464 provides an east-west connection between Lancashire and West Yorkshire, connecting Burnley to Halifax."

For "A464" read A646. For "east-west" read "west-east" because Lancashire is west of West Yorkshire and Halifax is east of Burnley. This error is prima facie caused by A.I. hallucination, with the A.I. confused by the "West" in "West Yorkshire". No human qualified to write the chapter could make this error. It would have been picked up had human senior management at Logika or CWF Ltd proofread SR with care. Note that the A646 is not shaded in the Map 4-2 access corridors.

12.6.6

h] Bullet point 6: "Users of the A6063 between Hebden Bridge and Cross Roads."

For "A6063" read A6033.

i] Bullet point 9: "Residents living alongside the A6068 between the M56 and Cowling".

For "M56" read M65.

j] Bullet point 10: "Residents living alongside the A644 between Todmorden and Mytholmroyd."

For "A644" read A646.

12.7.1

- k] Bullet point 6: For "A6063", read A6033.
- I] Bullet point 7: For "A6063", read A6033.
- m] Bullet point 8: For "A6063", read A6033.
- n] Both **12.4.13** and **12.4.14** are incoherent. Other corrections are possible, but both items should probably read:
- "It is unlikely that the peak of construction will have a significant impact on the A56, **but** an impact assessment will be undertaken, given that it may be used for the import of bulk materials to the site."
- o] **12.4.17** states that the A629 may be used for bulk materials with significant impacts. The A629 does not connect with the site. The final distributor road after the A629 will be the A6033, but **12.3.3** states that "Currently, temporary access to the east will be taken for general construction traffic and construction staff from the A6033" with no mention of the significant impacts of bulk materials. The bulk materials on the A629 in **12.4.17** evaporate before they move onto the A6033 in **12.3.3**.

D) Public rights of way and the Pennine Way national trail

- **12.33 12.4.16** states that PRoW users within the site will be considered as highly sensitive receptors. Since the site is almost all open moorland under the Countryside and Rights of Way (CRoW) Act 2000, a protocol for those exercising their rights under the CRoW Act should be scoped in, and such users should also be considered as highly sensitive receptors. The protocol should cover construction, operational and decommissioning phases.
- **12.34** The CRoW Act is an achievement of our democracy, governing the relation of ordinary English (and later Welsh, but not Scottish) people, and their guests, with the oligarchic and feudal landownership pattern of moorland. The access baseline should scope in the <u>closing words of Lord Whitty</u>, which are indicative of parliament's intention in the matter of this relation.

"In the spirit of compromise and balance, which I have advocated throughout the Bill, we have not taken away the land from the landowners, who have recognised their responsibilities. Tonight, we have, to some extent at least, given the land to the people."

- **12.35** Since the CRoW Act, a network of light-footed desire paths has become established on Walshaw Moor, often on previously suppressed rights of way. These should be mapped and scoped into the impact assessment on Access. The guidebook "West Yorkshire Moors" by Christopher Goddard will be of great use and should be part of the baseline Access assessment references. Goddard's 2nd edition maps a substantial aggregate track around Thurrish Rough, and a vehicular bridge over Mare Greave Clough, neither of which are present on the maps published by CWF Ltd. at the non-statutory consultation [CB p14 et al]. In all subsequent documents, CWF Ltd. must use maps which show all relevant features appropriate to scale and topic. Weak and incorrect cartography has been a systemic management problem for CWF Ltd. and has worsened as the project becomes more articulated. A full account has been lodged separately with the Planning Inspectorate.
- **12.36** Most of the SR array maps (they are inconsistent) and the array map published in the <u>Consultation Brochure</u> [p 14] when combined with the SR **note 291** on rotor diameter, indicate that the blades of T21 would oversail the Pennine Way, a National Trail, by 24 metres. The same maps show that T18 is sited directly on the junction of two PRoW. Buffer sizes around the Pennine Way and PRoW should be scoped into the Access baseline and in the case of the Pennine Way should be justified relative to its national and cultural status as an institution of our democracy.
- **12.37 Table 16-4** p 498 states that "Currently, construction works may temporarily disrupt use of public rights of way (PRoW) during construction [...] Any potential physical impacts will be assessed in the Transport and Access chapter with mitigation measures secured to minimise disruption (see Chapter 12: Access Traffic and Transport)". No indication of such assessment appears in Chapter 12. Several similar statements in **Table 16-4** are meant to be assessed in Chapter 12, but no indications of such assessments are present in Chapter 12. Integration across the chapter silos in the SR here, and elsewhere, has been neglected, and should be rectified in subsequent revisions. The EIA will not be an integrated assessment of the impacts of the proposal if the SR is allowed to remain so disjointed. The complexity of integration in the SR, and the EIA for which it is the foundation, are consequent on the size of the proposal and the choice of controversial land on which to build it, and the complexities must be accepted by the applicant.

12.38 16.4.5 refers to "Proposed permissive paths". Walshaw Moor is open access moorland under the CRoW Act (2000). The relationship between these "permissive paths" and the status of Walshaw Moor as open access moorland the CRoW Act should be made explicit in the Access baseline.

The systemic error rate in Chapter 12 is much too high in a planning document for a Nationally Significant Infrastructure Project.

12.39 Despite only being given 29 days for the task, careful human readers have found far too many serious systemic errors permeating the SR, some of which have been identified in these comments on Chapter 12. The error rate should be explained by Logika and CWF Ltd. and they should provide an accurate revision of the SR so that it forms a firmer legal foundation in the document sequence. Calderdale Energy Park is a controversial proposal because it is built on doubly internationally designated land, counting towards the 30 by 30 target being pursued jointly by DESNZ and Defra; and is "within the Brontë Country" – the CWF Ltd. description of the situation of CEP on the internationally revered landscape which has provided inspiration for some of the most famous novels ever written.

Given the choice by CWF Ltd of such controversial land, it is not in the interests of CWF Ltd, their investors, and the Secretary of State representing the British people, that the legal foundation of the document sequence for Calderdale Energy Park should be an unrevised SR that is riddled with errors and prima facie A.I. hallucination.

- **12.40** The deadline for comments on the SR should be extended, and the deadline for comment on any subsequent more accurate versions should be much longer than the 29 days provided for the SR, since consultees must take great care in reading when there is already a history of serious systemic error and omission, and prima facie A.I. hallucination.
- **12.41** The errors in Chapter 12 seem unusually egregious in a document relating to a Nationally Significant Infrastructure Project submitted to the Secretary of State. Lest this form a precedent, a justification for this deviation from the normal courtesies of precision should be given by Logika and CWF Ltd, relative to their peculiar difficulties.

- **12.42** Several instances of a failure to integrate the SR across chapter silos have been noted. A full account of integration failures cannot be expected from consultees in just 29 days, especially when there are so many, and such serious, errors and lacunae within single chapter silos. Integration of an SR (and subsequent EIA) across disciplines is always complex for applicants, but particularly so if the proposal is large and on such controversial land.
- **12.43** Integration of the disciplines is the task of the CEP Project Directorate, which should have an overview of all chapters, and the agency to achieve some integration on key points at least. Far from attempting this complex task, the Project Directorate have not even checked the SR for glaring methodological errors in single chapter silos.
- **12.44** Generative A.I. has only recently become widely available, so there is little precedent for what is an acceptable rate of A.I. hallucination in such a document as this SR. As A.I. use by planning consultants can only increase, it may be helpful to all applicants for the Secretary of State to issue guidance on the nature and extent of A.I hallucination (and related A.I. slop) that might be condoned in an applicant document relating to a Nationally Significant Infrastructure Project.

(Author: NIPM 16/09/25)

13: Noise and Vibration

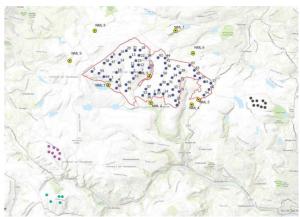
(Walshaw Turbines Research Group)

The omissions and errors in Chapter 13 are significant and systemic, and full comments are reserved pending a corrected SR with a realistic deadline for more detailed attention.

13.1 Chapter 13: Noise and Vibration was found to be unchecked with serious errors, to embed a fundamental modelling error, and to use cut-and-paste material from previous studies that would not apply to the layout being modelled. This very serious matter is dealt with in our 13.11 below. The disclaimer in **13.6.18** does not excuse the conduct of Chapter

- 13. Either the SR should have waited for a correctly spaced layout, or noise modelling should not have been reported in the SR.
- **13.2 Figure 13-1** (Drawn by 'ST,' checked by 'MT' dated 19/08/2025) (below left) shows the result of modelling noise. It uses the layout for CEP presented at the <u>Non-statutory Consultation</u> on 29 April 2025 in the corrected version of 1 May 2025. Its last revision is 05, made on 29/08/2025.





13-2 (Drawn by 'ST', checked by 'MT' dated 09/07/2025) (above right) concerns the noise impact of cumulative wind turbines in the area. Its last revision 02 was made on 29/08/2025. For reasons that should be explained by Logika and CWF Ltd, but which would be immediately apparent to experienced users of windPRO, it uses the former 65-turbine layout for CWF described by CWF Lead Consultant Donald Mackay (Trawden public exhibition 29 May 2025) as "worse than useless".

Two completely different layouts, one of them "worse than useless", have been used on adjacent maps revised on the same day.

13.3 The General Notes printed on **13-1** and **13-2** state:

"This drawing is to be read in conjunction with all engineer's, architect's or other relevant drawings and specifications."

The authors of Chapter 13 have themselves not read **13-1** in conjunction with **13-2**. It is indicative of management weakness at Logika that the senior consultant for Noise did not do so either, nor did the CWF Ltd. Project Directorate notice these adjacent conflicting drawings when they checked the document before it was submitted to the Secretary of State.

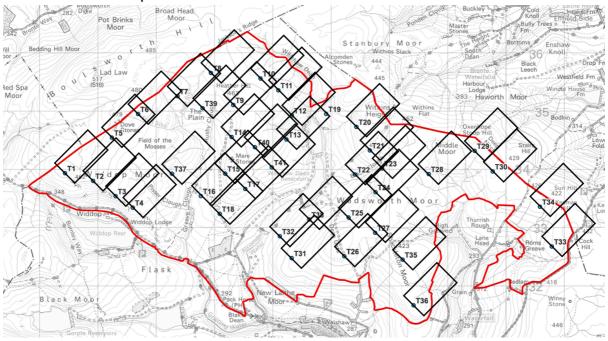
- **13.4** The productions of ST and MT in SR must all be checked, corrected and published in a revised SR. An analysis of the work of ST appears below in our 13.20-13.25 below.
- **13.5** The modelling assumptions used in **13-1** are set out in **13.3.5**:
- "13.3.5 In order to determine noise sensitive receptors for which it was suitable to undertake background noise monitoring for the wind turbine operational noise assessment preliminary desktop noise modelling was undertaken using EMD windPRO software290. An initial indicative wind turbine layout based on the layout presented at the non-statutory consultation was input into the software and, using noise data for a candidate turbine representative of the type that could be installed on the site²⁹¹, a noise contour plot was produced (shown on **Figure 13-1**)."

Note 291 reads:

"Candidate turbine used for predictions is the Vestas V162 7.2MW with a 119 m hub and 200 m tip."

- **13.6** Overcrowded wind farms can generate penetrating noise and damaging vibration through resonance and by the amplitude modulation effect known as acoustic beats. This is mitigated by proper turbine spacing and is not found to a problem on existing properly spaced wind farms. The minimum spacing used in practice in all consented UK wind farms is 3 RD (across the prevailing wind) by 5 RD (downwind). The 5 RD downwind spacing is to allow the slow-moving turbulent wake behind a turbine to dissipate somewhat before the next downwind turbine. The 3 RD crosswind spacing is to prevent turbulence thrown off sideways by a turbine from affecting its neighbour in the row.
- **13.7** When the layout described in **13.3.5** is combined with the turbine type described in **note 291** (rotor diameter (RD) 162 metres) the result is gross overcrowding, particularly on Heather Hill and around Black Clough. One or other of the modelling assumptions in **13.3.5** must have been incorrect because the outcome of both assumptions used together is a grossly overcrowded wind farm. The figure below shows the minimum 3 RD by 5 RD footprints using the assumptions of the noise model in

13.3.5. In correctly spaced wind farms, there is almost no overlap between the footprints.



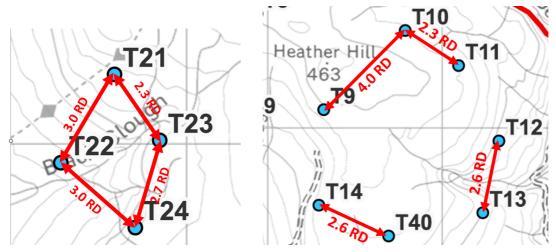
Map 13.7 When both assumptions of **13.3.5** are used, an unviable overcrowded wind farm results. Note the extreme overcrowding on Heather Hill (around T40) and especially in Black Clough (the cluster T21-T24).

13.8 For comparison, the 3 RD by 5 RD spacings of the three real wind farms (Todmorden Moor, Coal Clough and Ovenden Moor) in the study area of **13-2** are shown below.



Maps 13.8 a,b,c. The real wind farms shown in 13-2 are well spaced on 3 RD by 5 RD footprints.

13.9 The simplistic windPRO modelling used in **13-1** cannot identify potential resonance tonal noise and amplitude modulation noise caused by the tight-packed turbines, especially those in Black Clough and on Heather Hill,



Map 13.9 Gross overcrowding in Black Clough and on Heather Hill.

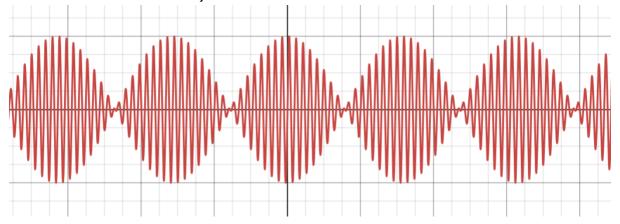
13.10 The modelling method of **13-1** is simplistic and finds noise intensity by the inverse-square-distance weighted average noise intensities of the array turbines. Some noise due to a grossly overcrowded array will usually be tonal noise in narrow frequency bands at resonant harmonics; or amplitude modulation noise caused by acoustic beats, the interference pattern of two sound sources of similar frequency in proximity. Neither of these array-determined features can be captured by the averaging method of **13-1**.

Amplitude modulation (AM)

13.11 The paragraphs **13.5.2-13.5.20** constitute a cut-and-paste argument for scoping out AM noise. The argument is unsound because it adduces studies made on correctly spaced actual wind farms, but the layout mapped and modelled here is grossly overcrowded. **13.5.20** concludes: 'At present, it seems evident that reliable predictions of AM in the context of development planning and noise assessment guidance are unlikely to be practically feasible in the near future.'

This conclusion is wrong in the case of the overcrowded wind farm modelled in the SR, because there is an a priori mechanism for AM when the turbines are so close together, the familiar <u>acoustic beats</u> used by piano tuners.

If two turbines are close together the frequency and amplitude of their noise can be almost the same. To illustrate the a priori mechanism of AM in CEP by acoustic beats, we show the result of adding two sine waves with similar frequencies and equal amplitude. One is at 16 Hz (four octaves below middle C) and the other at 18 Hz.

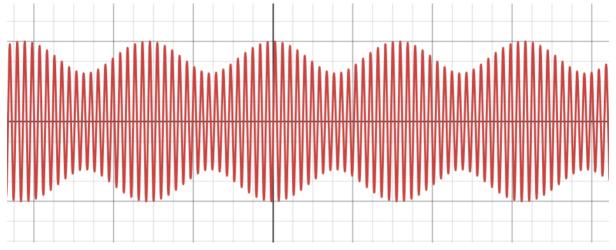


The resulting sound wave exhibits the amplitude modulation called acoustic beats. The envelope of the wave form can be calculated using a standard identity:

$$\sin A + \sin B \equiv 2 \sin \left(\frac{A+B}{2}\right) \cos \left(\frac{A-B}{2}\right)$$

The two waves with frequency 16 Hz and 18 Hz combine to give a wave form whose pitch will be 17 Hz but whose amplitude will modulate with a frequency of 1 Hz. The piano tuner knows the strings have the same pitch when no AM occurs when they are played together.

If the turbines are further apart, then the amplitudes of interfering waves will be more varied. In the diagram below we show sum of 16Hz and 18Hz wave forms but with different amplitudes. There will still be AM, but less extreme.



The grossly over-crowded wind farm modelled in Chapter 13, advanced at the non-statutory consultation, mapped throughout the SR except where other layouts are erroneously inserted, and used for modelling in SR Chapter 13, would make AM likely, a priori. AM must remain scoped in while the layout is overcrowded.

By international norms the layout is even more overcrowded

- **13.12** The upwind spacing in the 21-24 cluster is about half the traditional UK minimum of 5 RD. This minimum is itself well below the 6 RD-10 RD typical in countries with a higher regard for energy wastage, noise and vibration damage to turbines in onshore wind farms. Without ever being justified, wake losses through a skimped 5 RD spacing are now accepted in UK onshore wind farms, with the costs borne ultimately by electricity bill payers. It is not the intention of this comment to open a discussion of systemic wake losses in UK wind farms, but to highlight that 5 RD is already a bare minimum and the 2.6 RD upwind spacing in the 21-24 cluster in the model is thus far below the international norm.
- **13.13** Overcrowded wind farms have larger wake losses and generate less electricity from the expensive plant, with the wasted kinetic energy expressed as excess noise in turbulent air. The costs are borne by electricity bill-payers. Everyone pays for the noise.
- **13.14** Before further comments can be made on the noise modelling methods of 13.3.5, a correct revision of the SR should assess noise using modelling assumptions that do not result in a grossly overcrowded wind farm, and revised maps that all relate to the correct proposal. Critical thinking must always be used when deploying cut-and-paste research.

Vibration

13.15 The tone of **13.5.22** is polemical, as though the SR is picking a fight with itself. **13.5.22** does not mention that the principal victim of excessive operational vibration caused by resonance in an overcrowded wind farm is the wind farm itself. We all pay for resonance vibration in overcrowded wind farms.

As well as resonance tonal noise and AM noise, the impacts of the layout and turbine size modelled in **13.3.5** will include to some extent:

a) Higher vibration and bending stress on rotor blades

- b) Uneven torque and dynamic forces in main shaft and bearings
- c) Increased mechanical stress in the gearbox and generator

These impacts should be scoped into the Noise and Vibration baseline while the proposed layout remains grossly overcrowded. The mechanical costs of vibration in overcrowded wind farms are ultimately borne by electricity bill-payers.

Tendency to overcrowd by uprating

- **13.16** Developers and turbine manufacturers have strong incentives to overcrowd onshore wind farms. It should be nipped in the bud at Scoping, and consultees and regulators must pay attention to uprating consequences throughout the consent pathway, especially since UK onshore wind farms that use a 5 RD downwind spacing are already overcrowded by international norms.
- **13.17** Overcrowding is especially likely to occur when turbine uprating is implemented between proposals inside the same boundary, as it has been between Calderdale Wind Farm (4.8 MW turbines correctly spaced) and Calderdale Energy Park (7.2 MW turbines grossly overcrowded).
- **13.18** Overcrowding can inflate curtailment payments, about which <u>Prime Minister Starmer has said</u> "It's a problem that wasn't fixed over the last 14 years, but a problem that we are determined to fix as we go forward". As it happens, CWF Ltd. proposed a correctly spaced wind farm under the Conservatives and a grossly overcrowded one under Labour.
- **13.19** Some large wind farms built or consented on the Scottish islands (for which no Westminster government was responsible) form useful examples of overcrowding by uprating with which some CWF Ltd. consultants will be familiar. The uprating between CWF (65 4.8 MW turbines correctly spaced on 3 RD by 5 RD footprints) and CEP (41 7.2 MW turbines grossly overcrowded on 3 RD by 5 RD footprints) should be justified by Logika and CWF Ltd.

Maps drawn by 'ST'

13.20 Following the inconsistency found in **13-1** and **13-2**, the other drawings by 'ST' were tracked across the SR.

- 13.21 There is a very serious omission concerning storm runoff in Greave Clough in the hydrology maps 8-1, 8-2 and 8-3 (drawn by 'ST' and checked by 'SM'). These omissions relate to 4.3.11 and the acknowledged large area at risk of surface water flooding "on the western side of the turbine area, around Waterfall Syke and Cross Dike." The maps 8-1, 8-2 and 8-3 omit the sluice and tunnel to Widdop Reservoir from Greave Clough. Normal outflow and storm outflow from the Greave Clough catchment are entirely different if the sluice and tunnel are overwhelmed. The correct normal outflow from Greave Clough is not as shown in the three maps.
- 13.22 Note that 8-1, 8-2 and 8-3 are all less useful than the single hydrology map published in the consultation brochure [CB p 19], which showed the indicative layout on the hydrology map and thus gave early warning of the flood danger potential, though the sluice and tunnel were also absent. CEP is dangerous for flooding because it is overcrowded. This has pushed infrastructure onto steep edges which will accelerate runoff. Consultees who want to remark in detail on the flood danger of CEP as laid out would have to refer to the Consultation Brochure for the Non-statutory Consultation because the maps in the SR, as well as being incomplete, are inadequate for that purpose.
- **13.23 18-1** on Shadow Flicker (drawn by 'ST' and checked by 'MT') has a T42 but no T38. The same error on all seven maps published for the non-statutory consultation on 29 April 2025 was brought to the attention of the CWF Ltd Project Director on 1 May 2025 by a member of the public, who was thanked in writing. The error was then corrected on seven maps produced for non-statutory consultation, with a pop-up notification of the corrections to seven erroneous maps that has recently been taken down but is shown below.

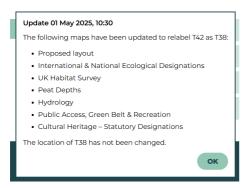


Fig 13.23 Pop-up notification of the T42 error. Image: CWF Ltd

The revision dates on **18-2** all long postdate the acknowledgment of the error by the Project Director, and why the error persists in **18-2** should be explained by the Project Director, but expert users of windPRO will know how a poorly trained user with no overall understanding of the proposal and its document history might make this error. Logika should explain why the error was not caught by the more experienced chapter and volume editors, and CWF Ltd. should explain why it was not caught by the Project Director, who was acutely aware of the T42 problem following the events of 29 April-1 May 2025.

- **13.24** Across the SR, 'ST' drew, 'MT' checked, and clients were able to make comments on three maps (**13-1**, **13-2**, **18-2**) each having a final revision date of 29/08/2025 which used three different turbine layouts. It is not plausible that checker 'MT' could have missed these three variations if these maps were in fact checked on 29/08/2025 as stated, so they seem not to have been checked at any point.
- **13.25** Logika and CWF Ltd. should want to guarantee the correctness of all the maps in subsequent revisions of the SR submitted to the Secretary of State. Consultees and investors whose time and money has been wasted by this SR should be given an explanation for the authorship, drafting and checking failures, and clear lines of management and accountability at Logika should be published in subsequent revisions of the SR.

13.27 13.6.18 is a disclaimer. It states:

"An indicative layout and candidate turbine have been used to inform this Scoping Report, including predicted noise levels and the identification of noise sensitive receptors, and it is anticipated that these could differ from the candidate turbine and layout submitted with the DCO application."

CWF Ltd. and Logika should explain why Chapter 13 models a layout that should not be built. Comments on what CWF Ltd. hoped to gain from the incompetent chapter are reserved pending that explanation.

13.28 The noise analysis in Chapter 13 is neither competent nor scientific.

- a) Two different layouts have been presented in adjacent drawings **13-1** and **13-2**. This is because the drafter 'ST' selected two layouts from the windPRO library, both with titles beginning "Calderdale" one of which was for Calderdale Energy Park and the other was for Calderdale Wind Farm. This is simple carelessness that should have been picked up by the chapter editor and by the senior management of Logika and CWF Ltd. during checking and proofreading.
- b) Because Calderdale Energy Park is grossly overcrowded, including a cluster with a downwind spacing as low as 2.3 RD, the intensity averaging algorithm supplied by windPRO and used to draw the contours in **13-1** will not capture the resonance and AM noise phenomena.
- c) The SR is oblivious to the overcrowding despite stating the model rotor diameter in the assumptions. The SR is modelling a wind farm that should never be built, and which would have noise properties that the simplistic modelling by inverse-square weighted averages cannot predict.
- d) In **13.5.2-13.5.20** the SR presents some cut-and-paste research into Amplitude Modulation. Because that research was done with a sample of actual wind farms, they will not usually be grossly overcrowded, so the evidence adduced is irrelevant to SR's argument.
- e) The cut-and-pasted research concludes that "At present, it seems evident that reliable predictions of AM in the context of development planning and noise assessment guidance are unlikely to be practically feasible in the near future."

For the SR grossly overcrowded model the reverse is the case. Acoustic beats will make AM predictable a priori in the grossly overcrowded CEP layout used in the model.

- f) The studies adduced may be scientific. They way they are used is not scientific. Science is not a cut-and-paste activity. It always requires critical thinking.
- g) Government policy on renewable energy is complex and expensive and depends on maintaining a widespread belief in scientific process among the electorate. It is essential that the modelling and the use of scientific research in any Scoping Report for a wind farm should be competent and

scrupulous. This is not the case in Chapter 13 of the SR and this is not excused by the disclaimer **13.6.18**. All published modelling should have been delayed until a correct layout was available so that public confidence in the proposal was maintained.

13.29 Consultees include councils who are very short of money for basic activities, and charities that depend on public generosity. They should not have to spend money responding in a very short timeframe to a Scoping Report that is riddled with errors and models a wind farm layout that should not be built.

(Author: NIPM 16/09/25)

15: Socio-economics and tourism

(For Peat's Sake)

Overall, this section leans towards overstating the benefits of CEP and understating its costs, both tangible & intangible.

15.2.1 'No legislation specific to socioeconomics & tourism' ... leading to interpretation and bias towards CEP.

Much of the rationale in this section is based on broad brush regional/ national secondary data, lacking focus on the more relevant local economy. To capture meaningful input primary research needs to be conducted supported by more targeted secondary data.

Some parts are void of specific relevance and true understanding of the area and its many tourist assets and unique South Pennine cultural heritage.

There are flaws in the BiGGAR's Economics Wind Farm Methodology. Using broad ONS data is limiting, missing out small local businesses and voluntary contributions. Regional averages don't focus on local impact. There's a bias towards project positives for CEP with client-commissioned reports/research. The broad approach masks local impacts, the tourism trade-offs hidden and cultural heritage and landscape effects diluted.

15.3.2 Regarding 'Study Areas' ... other 'relevant' local authority areas is vague. This should clearly specify inclusion of all communities bordering Walshaw Moor and Brontë Country, with input from constituents, parish

councils and bordering local authorities (in accordance with the Aarhus Convention).

- **15.3.3** Economic impacts and key tourism assets should be quantified in communities bordering Walshaw Moor and Brontë Country. They are interconnected.
- **15.3.4/5** Baseline data is macro level and not tailored to the communities the proposal impacts. This is too abstract to give clear understanding of the local economy surrounding the proposed development.
- **15.3.16** What is the relevance of this reference to fuel poverty? It is to be expected that populations in more northern or exposed locations will face higher fuel bills.
- **15.3.18** "These figures indicate that tourism in Calderdale is no more important to the local economy than is the case for Yorkshire and the Humber and England as a whole". What is the source for this misleading statement. Hebden Bridge/Haworth and surrounding communities are tourist hotspots. What percentage of tourism revenue in Calderdale (tangible & intangible) does Hebden Bridge tourism assets account for? What percentage of Bradford for Haworth?

15.3.20

Active should include several fell running events, winter Spine race, mountain biking, wild swimming, connection with nature/mental health/retreat/reflection/wellbeing. Ancient Packhorse/trekking routes, Calderdale Way, Pennine Way.

Discovery also Lumb Falls, Wuthering Heights & Bronte Moor, Gibson Mill, Hardcastle Crags, National Trust, Cragg Vale, Bell House Coiners/ 'King' David Hartley, the Arvon Foundation Centre at Lumb Bank, Heptonstall, Jerusalem Farm, the unique cultural heritage landscape, churches and farmsteads.

Events many village fetes celebrating cultural heritage & tradition, Hebden Bridge Open Studios events celebrating arts drawing inspiration from the uniqueness of surrounding South Pennine landscapes and poets

like Sylvia Plath, Ted Hughes, besides the Brontës. Wainsgate Chapel music and spoken word events, the Most Wuthering Heights Day Ever on Penistone Hill in Haworth.

Films several film and tv versions of Wuthering Heights with a new one to be released in February 2026; Jane Eyre, The Gallows Pole, Gentleman Jack, Last Tango in Halifax, Happy Valley, Riot Women, God's Own Country.

There is a vibrant social economy locally with tourists supporting cafes, shops, pubs, restaurants and many local businesses in both Hebden Bridge, Haworth and neighbouring communities.

15.5.2 More emphasis should be placed on the relevance of Bradford, which is UK City of Culture 2025. In terms of the wider context of Brontë Country, Keighley, Thornton and Ilkley are just as relevant as communities directly bordering the site of the proposed wind farm.

'It is proposed that the decommissioning phase is scoped out of the socioeconomics assessment as described in 15.9' This should be scoped in to the socio-economics assessment.

(Author: CS 18/09/25)

16: Human health

(Worth Valley Against Walshaw Moor Wind Farm)

16.4.5

'Proposed permissive paths' have never been mentioned. At the moment most of the proposed wind farm site is open access land under CRoW: will this no longer be the case if the development goes ahead?

Table 16-14

This is NOT scoped in in Chapter 12 Access, Traffic and Transport.

16.5.4

'it is *uncertain* whether this land is important for access to open space, leisure and play': this needs to be established

(Author: LM 18/09/25)

17: Aviation

(Worth Valley Against Walshaw Moor Wind Farm)

The Scoping Report has not included Oxenhope Airfield GB-0151. To be found at OS grid SE 045 344 this airfield is 4.3km from the nearest turbine on Yeomans Hill, has a number of regular local users and should definitely be scoped.

(Author: LM 18/09/25)

18: EIA Other Matters (Shadow Flicker)

(Worth Valley Against Walshaw Moor Wind Farm)

Fig 18-1

The map for the 'Study Area' for shadow flicker shows no Turbine 38 but includes a Turbine 42 (there are only 41 proposed turbines). The latter error appeared on the CEP website at the Launch on 29 April 2025 and was pointed out to CWF Ltd. on 1 May 2025 by a member of the public. The error was corrected by CEP, and a pop-up notification was put on the website which has only recently been taken down. Since the same error has now been perpetrated in the SR, CWF Ltd would do well to reinstate the correction notification for their own benefit. As CWF Ltd. acknowledge in para 10.4.2 of the current SR, 'the layout of the Proposed Development is a vital part of the EIA process'.

(Author: LM 10/09/25)