

REVIEW OF LANDSCAPE AND VISUAL IMPACT ASSESSMENT

Final Report

for

Rhondda Cynon Taf County Borough Council

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Tel: 029 2236 2416

Email: sw@whiteconsultants.co.uk

Web: www.whiteconsultants.co.uk



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1. Introduction

- 1.1. White Consultants were commissioned by Rhondda Cynon Taf County Borough Council (RCT) on 19 October 2020 to carry out an independent appraisal of visualisations and a Landscape & Visual Impact Assessment (LVIA) by Pleydell Smithyman (PSL). These have been submitted in support of a planning application (20/0986/10) for a chimney stack at Enviroparks, Hirwaun. This report primarily addresses the LVIA with the
- 1.2. The planning application is for a proposed 90m high chimney stack 3.95m wide to replace a previously consented (2017) 45m chimney stack, 3.5m wide. The proposed chimney stack is in a revised location in relation to other buildings and structures which have been consented as part of the 2017 application.
- 1.3. The purpose of this report is to carry out an independent review of the landscape and visual impact element of the Environmental Statement. It is in line with Landscape Institute TGN 1/20 and it will take into account if the assessment:
 - Meets the requirements of the relevant regulations.
 - Is in accordance with relevant guidance.
 - Is appropriate and in proportion to the scale and nature of the proposed development.
- 1.4. The study has been carried out in three stages. The first stage in October 2020 was a preliminary review of visualisations which was responded to by PSL in a clarification response in November 2020.
- 1.5. The second stage, completed in early November 2020, was a review which considered the proposals and associated LVIA and other information including:
 - Illustrative masterplan ENV_EPT_GEN_DR_A_6011 Rev P10
 - Elevations drawings (including ENV_EPT_GEN_DR_A_6020 Rev P2 and ENV_EPT_GEN_DR_A_6021 Rev P1)
 - Design and access statement, September 2020
 - Environmental statement Addendum (2020) Chapter 8 Landscape and visual effects.
 - Environmental statement Addendum (2020) Appendices 8.1- 8.5
 - Zone of theoretical visibility (ZTV) of consented and proposed stacks - M 19.144.D.002.
 - Visualisations including photos, wireframes and photomontages from viewpoints A to N.
 - LVIA figures 12.1-12.5 (2008)
- 1.6. Based on this, a series of recommendations were made requesting the following:
 - Confirmation of the nature of the emissions plume and whether the LVIA takes this into account.
 - Confirmation of which viewpoints were visited in April 2020 to inform the LVIA and ECA.
 - An assessment of the effects on BBNP LCAs and their special qualities which should inform a revised assessment on the effects on special qualities and purposes of the BBNP.
 - PSL may wish to review whether there are any LANDMAP aspect areas not assessed which may undergo significant effects.
 - As part of an addendum a visualisation method formalising the informal emails sent is desirable- to avoid the need to reference the latter.

- The recommended ECA colours should be tested and verified on site by interested parties at least from Viewpoints H and J (or nearby safer location) using official RAL colour swatches (see 3.22 above). It is suggested that it is important that all three colour options possibly with variations are reviewed with the objective of achieving the most recessive solution.
- 1.7. This request was sent to the developer's agents and a clarification response, dated November 2020, was received on 3 December 2020. This is reviewed in **Appendix E**.
- 1.8. This third stage report considers all the information submitted to reach conclusions.
- 1.9. It should be noted that White Consultants were not involved in reviewing the 2017 application and associated LVIA and have not been party to discussions between the developer and the competent authority and consultation bodies during scoping and subsequent consultations. It may also be relevant to note that White Consultants reviewed the 2008 Enviroparks proposals and LVIA for the Brecon Beacons National Park Authority and so are familiar with the project and landscape context.
- 1.10. This review is structured as follows:
- The site, context and proposed development.
 - The method used to undertake the assessment, including the criteria selected and the process followed.
 - The presentation of the assessment findings.
 - The accuracy and comprehensiveness of baseline and content and reasonableness of findings.
 - Consideration of policy including a review of the impact of the proposed development on the Brecon Beacon National Park (BBNP) purposes and special qualities.
 - Conclusions and recommendations.
- 1.11. The review has been carried out with reference to current guidelines and reports including the following:
- Guidelines for Landscape and Visual Impact Assessment third edition (GLVIA3), LI and IEMA, 2013
 - Landscape Institute Technical Guidance Note 06/19. Visual representation of development proposals.
 - Landscape information including LANDMAP and BBNP landscape character assessment.
- 1.12. Representative viewpoints were visited on site on one day in November 2020 in sunny weather with good, clear visibility. Photographs were taken from publicly accessible representative viewpoint locations.
- 1.13. Simon White, a chartered landscape architect with over 30 years' experience based in South Wales including LVIAs, related appraisals and LANDMAP, has carried out this assessment. The views in this report represent those of the assessor, not RCT.
- 1.14. Where appropriate, references to paragraphs in relevant submitted documents are indicated in brackets. Unless otherwise stated, the references are from the LVIA unless they are in bold text, in which case they are located in this review report e.g. appendices.

2. Site, context and proposed development

Site and location

- 2.1. The planning application site lies within the Hirwaun Industrial Estate lying north of the A465 Heads of the Valley trunk road. The site has existing road access from Fifth Avenue to the south and Ninth Avenue to the east. There is a steep embankment to the privately accessible Penderyn Reservoir to the north, a small hill to the west and gently rising land beyond other industrial buildings to the east. Other small units within the industrial estate lie to the south within strong mixed tree cover. The generally flat site in which the proposed chimney stack is proposed already has planning consent (2019) as the Enviroparks Energy from Waste (EFW) facility with phased development taking place. One building appears to have already been constructed. The overall development's purpose is as a gasification plant to recover energy from non-hazardous residues remaining after recyclable materials have been removed from the waste stream and to supply low carbon electricity to customers on and off-site.
- 2.2. The overall Enviroparks site is split by the boundary between the Brecon Beacons National Park (BBNP) and Rhondda Cynon Taf (RCT) and is allocated for industrial business development in RCT and employment in BBNP.

The development

- 2.3. The development proposed in the current planning application is described in Chapter 3 of the ES. It is concerned solely with the relocation and raising in height of an already consented chimney stack. The proposed chimney stack is 90m high and 3.95m in diameter and replaces a previously consented (2019) 45m chimney stack, 3.5m wide. The proposed chimney stack is in a revised location in relation to the other buildings and structures which have been consented in 2019 as part of the previous application. This is in the service yard on the eastern side of the Gasification Hall, and pipes link the chimney to this building. A continuous emissions monitoring systems gantry is proposed around stack with a deck height of 18.5 m above ground level, accessed by a permanent steel frame ladder. The proposed development lies entirely within RCT but very close to the BBNP boundary.
- 2.4. The chimney stack is proposed to have a smooth, flangeless external cladding in a graded colour scheme derived from an Environmental Colour Assessment in Appendix 8.5 of the ES. This has subsequently been revised as part of the PSL clarification response (November 2020). The colours currently proposed are RAL 7012- dark grey at the base, RAL 7006- brown/grey for the middle of the stack and RAL 7005- mid-grey at the top of the stack. If aviation warning lights are required these would be of the infra-red type, and stated as invisible to the human eye.
- 2.5. The exhaust gases from the super heater will be passed through a boiler and an economiser system that recovers heat to use around the process. The exhaust gases would then be cleaned by a combination of methods before being discharged under monitored conditions through the proposed stack. These are:
 - Chemical additions to abate pollutant emissions including:
 - Hydrated lime addition to reduce concentrations of sulphur dioxide and other gases transforming them into calcium chloride and other materials.
 - Application of powdered activated carbon adsorbs dioxins and dioxin like compounds and other volatile organic compounds
 - Addition of urea to abate oxides of nitrogen reducing them to nitrogen and water vapour
 - Filtering to remove air pollution control residues and other particulates.
- 2.6. Emissions would be controlled under environmental permit issued by NRW. PSL have stated that they understand that no emissions plume would be visible. This review assumes that there may be intermittent visibility of a water vapour plume depending on weather conditions and other factors.

3. Review of LVIA method

LVIA method

- 3.1. The PSL LVIA method is set out in ES Appendix 8.1. This appears to be the same as the 2017 LVIA method by Crestwood Environmental with a number of minor updates. It states that it is undertaken in accordance with GLVIA3 and both Landscape Institute Advice Note 01/11 and Technical Guidance Note 06/19 in respect of photography and visualisations. The LVIA Chapter 8 sets out the relationship with earlier assessments. The study states that it is based primarily on the 2017 assessment and also uses the 2008 assessment by Savills in respect of Figures 12.1 - 12.5. This is appropriate for the study providing it is of adequate quality to meet updated guidance and address policy and the information used is sufficiently up-to-date. The previous Crestwood Environmental LVIA for the approved 2019 scheme has effectively been accepted by the LPA and consultees so any shortcomings noted below should be considered as the professional opinion of the writer only.
- 3.2. The PSL response to the visualisation review indicated that a visit to the site and surrounding area was carried out in April 2020 but that not each viewpoint was visited and reassessed (6). At this time PSL state that they were stopped by a police roadblock close to the site and it was not appropriate for health and safety reasons to visit public locations and residential areas to undertake photography. The clarification response includes photos from site visits to viewpoints in November 2020.
- 3.3. The approach of comparing the assessments of the previous overall scheme and new overall scheme with the taller stack and exploring the differences is a valid approach.
- 3.4. The zone of theoretical visibility (ZTV) has a radius of 5km. This is carried over from the 2017 assessment for a lower stack. It is stated that, though a 10km radius was considered, there is no potential for significant effects beyond this 5km. A review of the ZTV on site indicates that there will be wider views of the higher stack and plume within the BBNP to the north but it is not likely to have significant effects at greater distances.
- 3.5. Changes to the baseline situation are recorded in Chapter 2 of the ES. This includes the reclamation of the Tower open cast mining site. Whilst the LVIA suggest that any changes are minor it is worth noting that the reclamation means that the proposed chimney stack is backclothed in part (in 2020) with a combination of green fields and seeded slopes of potential development sites rather than the dark grey of the open cast in views from BBNP (around Viewpoint H- Moel Penderyn- also used in the Environmental Colour Assessment (ECA)).

Landscape effects

- 3.6. The baseline situation is stated as including a review of available document sources e.g. published landscape character assessments and landscape policy guidance (8.13). Whilst one of the relevant Brecon Beacon National Park (BBNP) landscape character assessment (LCA) areas has been described, the effects on it have not been assessed (8.16) in addition to LANDMAP. It is relevant as it pertains to the special qualities of the National Park. PSL have declined to carry out this work.
- 3.7. Landscape sensitivity is derived from a combination of landscape value and susceptibility. Value is apparently only based on LANDMAP aspect area values. This is a limited approach. GLVIA3 mentions LANDMAP but also indicates that other information will contribute to understanding value eg designated areas such as National Parks (5.20) ie BBNP. It is also noted that a number of current LANDMAP aspect areas are omitted in the assessment, partly as the 2008 baseline is not entirely up-to-date eg historic landscape layer and visual and sensory layer. This was also the case in the previously accepted Crestwood Environmental LVIA.
- 3.8. Landscape susceptibility definitions are fair although a clear rationale for combining value and susceptibility is not given.
- 3.9. Landscape magnitudes of effect are given very outline descriptions which do not involve the addition or removal of key characteristics. It is likely that the stack would be

defined as a new key characteristic of the valley floor thus materially changing character.

- 3.10. Landscape significance definitions are fair generally.

Visual effects

- 3.11. Viewpoint value definitions are limited in scope.
- 3.12. Visual susceptibility is given a fair definition in the method. However, in reviewing how susceptibility is assessed for some viewpoints there are concerns e.g. viewpoint M (LVIA Appendix 8.3, 8.94). Here it suggests that susceptibility to change is medium as the site is set down in the valley within the context of an industrial park and contained by planting. This judgement should feed into the magnitude of change/effect not the sensitivity of receptor. As such, this factor both reduces the sensitivity of receptor and the magnitude of effect ie is double counted reducing/avoiding the potential for a significant effect.
- 3.13. The magnitudes of visual effects appear to be prescriptive in terms of distance which should depend on the size and extent of development.
- 3.14. Levels of visual significance have fair definitions generally. However, the definition of moderate significance as noticeable long-term or large-scale deterioration in low sensitivity but high-quality views is an unlikely scenario. If the view is high-quality and the development is noticeable the effect is likely to be more than moderate significance.
- 3.15. As already stated, it is appreciated that PSL have used the same method as Crestwood Environmental to try to achieve consistency and compatibility with the assessment that supported the consented development. This is proportionate but the findings are subsequently viewed with caution in this review.

Cumulative effects

- 3.16. There is no defined method for assessing cumulative effects even though this is referred to as being covered in the 2017 Appendix 12.1.

Visualisations

- 3.17. These were reviewed in a previous visualisation review report which has been responded to by PSL in October and subsequently in November 2020 with a method used for producing visualisations.

Environmental colour assessment (ECA)

- 3.18. The method for the assessment is set out in Appendix 8.5. This states that the *'approach has been informed by review of Technical Information Note 04/2018 published by the Landscape Institute'* (1.3). The process described in this technical note is based on a technical survey, analysis and synthesis of the colours found within an identified area. This usually begins with desktop studies followed by on-the-ground surveys during which the baseline colours within the given area are collected, identified and recorded. The winter months are stated as the most appropriate time to carry out surveys and most practitioners work with a Natural Colour System colour swatch to record colours. After developing a colour palette and materials these are usually tested on site to achieve the best fit.
- 3.19. The original ECA produced by Pleydell Smithyman explores the colours using three existing winter photographs (viewpoints C, H and J) taken by Crestwood Environmental in 2016 as part of the 2017 LVIA.
- 3.20. As noted in initial visualisation review, the views of C and H are considered to be hazy. For example, the background colours of Viewpoint each photo are mix of cool and warm greys which reflect atmospheric interference against landform in shadow rather than land cover colours. Whilst these weather conditions do pertain part of the time and can represent landscape seen at a distance they tend to add a grey patina to landscape colours and are not necessarily representative of the site and its environment all year round. Viewpoint J photo is helpful, although overcast.

- 3.21. The PSL clarification response in November 2020 includes much better quality photos for the viewpoints with an additional viewpoint added. These appropriately inform the desk study. The photomontage options appear to be useful. Based on these it is agreed that Option 3 appears to be least intrusive based on the colours pertaining to those photos. However, whilst the colours appear to be relevant, they do not appear to have been tested in the field. They reflect the duller and most muted colours which may be helpful in making the structure as recessive as possible but their accuracy or suitability needs to be verified. The most important views are from within the National Park rather than towards the National Park.
- 3.22. Overall, it is recommended that the colours should be tested on site at least from Viewpoints H and J using official RAL colour swatches- it is suggested that it is important that all three colour options possibly with variations are reviewed with the objective of achieving the most recessive solution. PSL suggest that there are many appropriate colour combinations and others can decide as part of a planning condition. If this is the case then suitably qualified representatives of NRW, BBNP and RCT should undertake a site visit, preferably on a clear winter day with sun and cloud, with RAL swatches and the PSL desk study.
- 3.23. Having stated some shortcomings in the method, a professional judgement has been made on the merits of the development, LVIA and ECA in this review based on the information provided.

4. Review of presentation

- 4.1. As mentioned in the LVIA and above, figures and data from the previous 2008 assessment and photos and text from the 2017 assessments have been used. This is understandable to an extent as only one element of the previously consented development is being changed, but it adds complexity to the assessment.
- 4.2. Figures 12.1 to 12.5 from the 2008 assessment are referred to. These map constraints, and landscape character (apparently redundant as it is not used as part of the assessment), an approximation of the visual and sensory aspect areas and vegetation cover, ridge lines and public access.
- 4.3. The 2008 LANDMAP assessments in Appendix 8.2 are virtually unreadable and it is very difficult to establish where the site is in relation to each aspect area (with the exception of the visual and sensory which is illustrated in Figure 12.4). Whilst the 'inherited' assessment is not good practice and has not been checked it is not necessarily expected for this LVIA to undertake a new LANDMAP impact assessment due to consideration of a proportionate approach.
- 4.4. The photographs from key viewpoints have been updated in November 2020 and are adequate to underpin the LVIA and ECA desk study. It is noted that now the development from Viewpoint H is seen against reclaimed green fields rather than the open cast mine.
- 4.5. Figure 8.1 ZTV is up-to-date showing the difference between the visibility of a 90m stack compared to a 45m stack which is helpful.
- 4.6. Having stated some shortcomings in the output, a judgement has been made on the merits of the development, LVIA and ECA in this review based on the information provided.

5. Appraisal of LVIA- effects on landscape character

- 5.1. A review of the effects on landscape character is set out in **Appendix C**.
- 5.2. The LVIA assesses the operational effects on landscape character in ES Chapter 8 main text 8.53- 8.62 and Appendix 8.2. It states that sources consulted to establish the up-to-date baseline included LANDMAP and the Brecon Beacons Landscape Character Assessment (LCA)(8.9).
- 5.3. In relation to the BBNP Management Plan 2015 to 2020 the relevant special qualities of the National Park are listed as:
- rural setting and open land
 - sense of place and cultural identity
 - sweeping grandeur and outstanding natural beauty
 - ‘living patchwork’ landscape and
 - enjoyable accessible countryside with widespread varied recreational opportunities.
- 5.4. The special qualities listed in the Local Development Plan 2007- 2022 are set out in full in **Appendix B** of this review. It is noted that the LVIA states that in pre-application consultation Brecon Beacon National Park Authority (BBNPA) stated they had concerns about only two of the special qualities - sweeping grandeur and outstanding natural beauty and the ‘living patchwork’ of contrasting patterns, colours and textures (8.56). It is suggested that the first special quality i.e. ‘*a National Park offering peace and tranquillity with opportunities for quiet enjoyment, inspiration, relaxation and spiritual renewal*’ is also relevant as views of development can have an adverse effect on tranquillity.
- 5.5. The National Park’s Dark Sky Reserve Status is also noted in the LVIA.
- 5.6. The LVIA acknowledges the BBNP LCA adjacent to the site- Landscape Character Area 4: Waterfall Country and Southern Valleys. The distinctive characteristics relevant site and locality are summarised as (8.29):
- Dramatic landform is steep enclosed valley separated by ridges of flatter, higher land.
 - Land-use predominantly of pastoral agriculture but with extensive areas of forestry.
 - Limestone walls and hedge banks enclosing regular fields in valleys, with some hedges. Higher land less enclosed with more use of post and wire fencing.
 - A range of historic features in the landscape.
 - Development concentrated in valley floors, particularly along the A4067 and A4059. Some into visibility with settlement, roads and other development beyond the National Park boundary
- 5.7. The overall strategy of maintaining and enhancing the special qualities of the landscape including resisting development which would impact on views from the area is mentioned.
- 5.8. The LVIA does not mention the special qualities related to this LCA. These include:
- Scenic quality and sense of place where sensitivities include the introduction of incongruous features into the landscape.
 - Perceptual qualities whether sensitivities include loss of tranquillity due to visible or audible developments.
- 5.9. It does not appear that an assessment of the effects on this LCA are carried out and they are not mapped in the assessment to show their relationship to the site.

- 5.10. The other BBNP LCA within the study area is Landscape Character Area 3: Fforest Fawr. This is not mentioned in the LVIA. Its characteristics include:
- Glaciated landscape with a steep northern escarpment and a series of elevated summits with landform to the south being less dramatic, forming a gently sloping plateau deflected by river valleys
 - Predominantly unenclosed moorland with extensive prehistoric ritual landscapes particularly in the south-east
 - Very lightly settled
 - Sense of tranquillity, remoteness and relative wildness.
- 5.11. The area's relevant special qualities include:
- Scenic quality and sense of place
 - Landscape quality and integrity
 - Perceptual qualities
- 5.12. The relevant sensitivities of the above special qualities include to built or other developments which may detract from the sense of tranquillity and remoteness, and also visual impacts including night-time light pollution associated with developments beyond the National Park boundary.
- 5.13. The full BBNP LCA descriptions are located in **Appendix A** of this review. A limited indicative assessment of the effects on the two LCAs is included in **Appendix C**. This concludes that there is a significant adverse effect on LCA 4: Waterfall Country and Southern Valleys. This includes Penderyn (CYNONVS833) LANDMAP visual and sensory aspect area- see below.
- LANDMAP assessment**
- 5.14. A summary of the assessment on the LANDMAP aspect areas is set out in LVIA Table 8.2. This indicates any changes in the assessment levels resulting from the revised stack compared with the consented 2019 scheme. The assessment covers 2008 LANDMAP aspect areas from the five aspects: visual and sensory, geological landscape, landscape habitats, historic landscape, and cultural landscape.
- 5.15. As noted above, the LANDMAP historic landscape and visual and sensory assessments do not include all the up-to-date relevant aspect areas in the study area. These are considered briefly in this review (**Appendix C**) and no significant effects are found.
- 5.16. The LVIA finds that there are significant adverse effects on two aspect areas both in which the site is located:
- Penderyn (CYNONVS833) visual and sensory aspect area- major to moderate/major significance of effect
 - BBNP (CYNONCL042) cultural landscape aspect area- major to moderate/major significance of effect
- 5.17. Both these areas undergo the same number of significant effects from the consented scheme although the level of significance of effects of the revised scheme is slightly higher on CYNONCL042.
- 5.18. The review of this assessment based on **Appendix C** concludes (as a matter of professional judgement) that:
- The sensitivity of various areas are underplayed - especially those within BBNP.
 - The magnitude of effect is sometimes more and sometimes less than the LVIA states.
 - The historic landscape is stated as undergoing no effect in any aspect area which is not a consistent finding with other aspects. In LANDMAP, all aspects contribute to landscape character and should be considered. However, this review has not found significant effects.

- Penderyn (CYNONVS833) visual and sensory aspect area- the level of major to moderate/major significance of effect is agreed but the effects diminish more slowly with distance than the LVIA states.
- Cadair Fawr (CYNONVS735) visual and sensory aspect area-the effect is likely to be of moderate rather than minor/moderate significance.
- BBNP (CYNONCL042) cultural landscape aspect area- major to moderate/major significance of effect

Effects on BBNP special qualities

- 5.19. For reference, the special qualities are set out in **Appendix B**. The LVIA discusses the effects on two special qualities (based on consultation with BBNPA). In respect of the *'sweeping grandeur and outstanding natural beauty'* special quality it states that in views from the National Park (viewpoints G, H and M) the stack would be seen within the context of pylons and typically be partly backclothed by established industrial development and perceived in the valley base surrounded by woodland and quite distinct from the *'sweeping open moorland'* of the National Park in the foreground (LVIA 8.59). It further states that no significant landscape or visual effects would occur at these locations and consequently the increase stack height would not materially impact this special quality. This appears to contradict the landscape and visual impact assessment which indicates that the area in which viewpoint H is located (Penderyn CYNONVS833) and the viewpoint itself both undergo significant adverse effects at Year 1. Viewpoint H is stated as reducing to moderate and not significant effects at year 15 on the basis of screening of the elevation of one low building (not the stack). This is considered in this review to be a tenuous justification. If significance of landscape and visual effects is a measure of effect on special qualities then there is a material effect. The effects from Cadair Fawr (CYNONVS735) (Viewpoint M) are also understated, albeit not quite significant.
- 5.20. The LVIA goes on to state that this special quality is also perceived outside the Park - viewpoints I, J, K, L and N. It states that the stack would be seen below or close to the horizon compared to pylons which frequently break the skyline. This is not entirely the case - the revised stack does break the skyline when viewed from viewpoints I and L. Overall, however none of the effects are considered to be significant.
- 5.21. In terms of the second cited special quality of *'working 'living patchwork' of contrasting patterns, colours and textures'* the LVIA states that the proposed stack colours, informed by the Environmental Colour Assessment, enables the stack to be more reflective of the surrounding landscape context. It states that this is particularly relevant in views from outside the designation and therefore the proposed development would not materially impact this special quality. This depends partly on whether the ECA is accurate and whether the assumption of the best case scenario of minimising effects is reasonable. From the more sensitive parts of the BBNP the stack is seen in the valley against a backcloth of landform, which is generally helpful. The colour assessment and its findings are discussed elsewhere (3.18 onwards) in this review.
- 5.22. The further relevant special quality of *'...peace and tranquillity with opportunities for quiet enjoyment, inspiration, relaxation and spiritual renewal'* is eroded by the proposal with reference to BBNP LCAs 3 and 4 and viewpoints H and M. The stack and emissions would be seen, sometimes in the context of the developed valley floor with the backcloth of the scarp, and almost always with windfarms beyond, but would add a further industrial development presence and process to the view. This would be likely to cumulatively erode enjoyment, relaxation and the potential for spiritual renewal, although it is noted that BBNPA has not raise this is an issue.

6. Appraisal of LVIA- visual effects

- 6.1. The LVIA assesses operational visual effects in ES Chapter 8 main text 8.63- 8.102 and Appendix 8.3. It states that it focuses on the differences between the proposed development and the consented 2019 scheme.
- 6.2. The viewpoints assessed are the same as used for the consented development although the ZTV indicates a larger area of intervisibility. The additional areas of note are primarily to the north in the National Park north of Cwm Cadlan and south of Cadair Fawr, and outside the National Park along a stretch of the A465 to the east. The LVIA states that these are not considered to be ‘material’ changes.
- 6.3. The LVIA indicates that the revised stack would typically be more noticeable than the consented stack but the assessed magnitude of effects does not consistently increase in all locations (8.64). This is because:
- The change in height may not be sufficient to change the magnitude of effect from one category to another
 - Direct views are likely to experience a greater magnitude of effect than oblique views or fleeting views
 - The relationship of the stack to existing infrastructure such as pylons varies
 - The degree of screening in the foreground may or may not remain effective
 - The degree of skyline impact of the stack
 - The effect of different backdrops to the stack
 - The visibility of the stack in relation to consented buildings, with an increase in magnitude more likely if the stack is the only element visible.

These are reasonable assumptions.

- 6.4. The LVIA breaks down and explores the effects derived from the representative viewpoints on recreation receptors, road receptors, miscellaneous receptors and residential receptors. Effects are explored on public rights of way in open access land close to and intervisible with the site both in the rising slopes of the National Park to the north and the valley sides and coalfield scarp to the south. Local roads are also assessed including the A465 and access roads. The effect on the potentially worst affected dwellings close to the site are also considered in a Residential Visual Amenity assessment (which is considered below).
- 6.5. The LVIA summarises the effects in Table 8.3. At Year 1 it states that there are significant adverse effects at viewpoints:
- A, B, C- major effects (C is an increase in level from the 2019 scheme)
 - D, H- moderate/major effects
- 6.6. These are primarily close by viewpoints, some only privately accessible by fishermen (B, C). Viewpoint H lies well within BBNP on the slopes below Moel Penderyn to the north.
- 6.7. At Year 15 the LVIA states that the number of significant adverse effects decreases, located only at viewpoints:
- B, C- major effects (both an increase in level from the 2019 scheme)
- 6.8. The number of significant effects remains the same in the revised and 2019 scheme.
- 6.9. The review of the LVIA is set out in **Appendix D**. The conclusions derived from this are that (as a matter of professional judgement):
- The sensitivity of various viewpoints are underplayed - especially those within BBNP.
 - The magnitude of effect is sometimes more and sometimes less than the LVIA states.

- Viewpoint D- the level of moderate/major significance of effect would be expected to remain at year 15 as the height of the intervening planting is unlikely to increase markedly to screen the stack which is prominent from this location.
 - Viewpoint H (Moel Penderyn)-the level of moderate/major significance of effect would be expected to remain at year 15 as the stack will remain noticeable and the boundary mitigation planting will only partially screen one elevation of the nearest low building which does not justify a significant reduction in magnitude of change.
 - Viewpoint M (Mynydd y Glog) - the sensitivity of this viewpoint in open access land within the BBNP is considered to be greater than medium to high. As such the likely significance of effect is likely to be moderate/major and significant at year 1 and year 15.
- 6.10. Overall, this review considers that there will be five viewpoints undergoing significant effects at year 15 rather than two stated in the LVIA. The significance of this is that this review considers that the significant effects intrude further into the National Park than the LVIA. However, it is important to note that the spread of effects in the National Park still appears to be relatively limited due to the location of the development within a developed valley bottom so the overall consideration of balance of this with other factors needs to be taken into account.

Residential Amenity Assessment (RVA)

- 6.11. Seven dwellings close by are identified by the LVIA as potentially having views of the proposed stack. Of these, the LVIA considers that four do not undergo significant effects. Three are assessed for effects on residential visual amenity using computer-generated images as the Covid-19 pandemic prevented an assessment from the dwellings. These are discussed below.
- 6.12. The effects on Buckley's Bungalow (A) is likely to have a similar view as at a nearby viewpoint (F) but at an oblique angle. The dwelling/guest house is more sensitive than the road and the development would be noticeable from the drive and garden but the effects are unlikely to be significant on the dwelling itself and the development would not be overbearing.
- 6.13. Views to the development from Reservoir House (B) appear to be restricted by intervening woodland in both winter and summer with limited effects.
- 6.14. Tre-banog-uchaf (C) is located on the elevated ground north of Penderyn reservoir. The LVIA considers that the effects would be moderate and not significant, with no overbearing effect identified. Assessing the image this appears to understate the effect with the revised stack breaking the skyline of the scarp to the south and being prominent in views. Whilst not overbearing, the effect would be major moderate on residents of this dwelling.
- 6.15. Tai-cwplau (D) appears to have an oblique view above existing nearby sheds which is likely to be not significant.
- 6.16. Tre-banog-Isaf (E) is well screened by intervening trees and is orientated sideways on to the development.
- 6.17. A dwelling between D and E is not included in the assessment but appears to be screened/filtered by trees and hedges along the adjacent lane although this has not been assessed in detail.
- 6.18. Tyle-Morgrug (F) at 1.5km away is stated as having mature intervening field boundary hedgerows close to the dwelling filtering views to the extent it is unlikely that the other parts of the revised stack would be visible. A review of Google Earth (2018) indicates an intervening tree boundary 100m from the property at about the same level which may have some screening effect although it is likely to be less effective in screening the upper part of the stack than other parts of the development. The effect may not be significant.

- 6.19. Views from Ty Newydd Hotel and Ty Newydd cottage (G) are said to be screened by tree cover. This appears to be the case from Google Earth (2018) although it is likely that visitors will have clear views towards the stack on the approach road based on views of the nearby pylons.
- 6.20. Overall, there is one likely significant effect on a dwelling (Tre-banog-uchaf) but none are likely breach the threshold for unacceptable effects on residential visual amenity.

7. Cumulative effects

- 7.1. The LVIA refers to Appendix 12.3 as the assessment of cumulative effects. This is in the 2017 report and so possibly this should read Appendix 8.3. Cumulative effects are noted at each viewpoint by referring to the individual and cumulative assessment for the Hirwaun Power project from the same viewpoint. The additional effects from combining the effects of the separate developments are assessed as being not significant. As stated above, there is no defined method for assessing cumulative effects. In summary, the LVIA states that only moderate cumulative landscape and visual effects are identified, assessed as not significant (8.104). This is an increase on the 2017 assessment.
- 7.2. Despite an opaque method for determining cumulative effects, it is considered that this judgement on cumulative effects is reasonable. The proposed development does combine with existing industrial development and windfarms to further erode the scenic qualities and tranquillity of this edge of the National Park but is considered to fall beneath the threshold of significant effects.

8. Consideration of policy

- 8.1. The LVIA indicates that the statutory purposes of National Parks are confirmed at Planning Policy Wales to conserve and enhance natural beauty, wildlife and cultural heritage and to promote opportunities for public understanding and enjoyment of their special qualities (6.3.6). The statutory duty of the planning authorities to have regard to National Purposes applies to all activities affecting the designation, whether those activities lie within or in the setting of the designated area (6.3.5). The proposed stack is very close to the boundary of the National Park and within its setting. BBNP policy SQ1: Special Qualities reinforces the objective to conserve and enhance the special qualities the Brecon Beacons National Park.
- 8.2. Relevant RCT LDP policies include policies AW5 New Development, AW6 Design and Placemaking, AW8 Protection and enhancement and NSA 25 Special Landscape Areas.
- 8.3. Overall, the LVIA concludes that the proposed scheme would not materially impact on the two specified special qualities of 'sweeping grandeur and outstanding natural beauty' or the 'working living patchwork of contrasting patterns, colours and textures' (8.117). This review considers that there are adverse effects on 'sweeping grandeur and outstanding natural beauty' and on 'peace and tranquillity' which are material considerations albeit affecting a relatively limited area of the National Park. As such, the development does not conserve and enhance the natural beauty of this part of the setting of the BBNP or enjoyment of its special qualities but the optimal colouration of the stack would assist in minimising effects.
- 8.4. The LVIA goes on to state that the increase in size of the stack would typically be most noticeable from close range locations but at no location does the proposed development result in significant adverse effects upon visual amenity where previously there were no significant effects as a result of the permitted scheme (8.122). Whilst this review considers that more viewpoints undergo significant effects, this may have also applied to the previous consented scheme which has not been assessed in this review.
- 8.5. In considering the increased stack size, this review considers that there are likely to be slightly greater effects on policies than the consented scheme. It is therefore imperative

that the optimum solution for the stack colour is chosen based on the recommendations set out in the review of the ECA.

9. Conclusions and recommendation

- 9.1. The proposed development and LVIA and relevant supporting information have been carefully assessed in this review using desk study and on-site assessment. The development comprises of the relocation of a proposed chimney stack to just outside the National Park and raising it from 45m to 90m with associated colour scheme to mitigate effects.
- 9.2. The LVIA by PSL is primarily based on a previous LVIA by Crestwood Environmental which considered the whole approved Enviroparks scheme including a lower stack. This approach is justified by PSL as proportionate to the limited change proposed. The PSL submission also includes an environmental colour assessment. The PSL LVIA study was constrained by Covid-19 lockdown restrictions which limited site assessment in April 2020. This was rectified through site visits in good weather in November 2020.
- 9.3. This review has identified shortcomings in the submission which have been pointed out to PSL who have submitted responses. Some of the comments made in this review also effectively apply to the Crestwood Environmental LVIA which was considered adequate by the local planning authority and consultees in supporting the previously approved scheme (noting that the location of the stack was within BBNP previously).

Method and presentation

- 9.4. The main comments on the method and presentation are:
- The method and assessment tends to understate the level of effects in some locations. This is primarily a matter of professional judgement.
 - The photomontages and key photographs used for the ECA are not adequate as the sole guide to choosing the colours of the stack. This is critical and requires an on-site visit with an official RAL colour swatch to verify the optimal colours. This should at least be a planning condition.

Landscape character effects

- 9.5. The LVIA effects on landscape character are limited to consideration of effects on LANDMAP aspect areas with significant effects on two areas- Penderyn (CYNONVS833) visual and sensory aspect area and BBNP (CYNONCL042) cultural landscape aspect area. The assessed effects on some areas are agreed but the spread of effects are wider than stated.
- 9.6. There is no LVIA assessment of the effects on the BBNP LCAs and it is not clear if this was agreed with RCT and consultees (eg NRW, BBNPA). The effects are considered by this review as significant on one LCA- 4: Waterfall Country and Southern Valleys. The effects on the BBNP special qualities are informed by the effects on the LCA.
- 9.7. The LVIA does not find significant effects on BBNP special qualities. This review find significant effects on a limited southern part of the National Park in regards to *'sweeping grandeur and outstanding natural beauty'* and *'peace and tranquillity'*.

Visual effects

- 9.8. Overall, this review considers that there will be five viewpoints undergoing significant effects at Year 15 rather than two stated in the LVIA. The significance of this is that this review considers that the significant effects intrude further into the National Park than the LVIA. However, it is noted that the spread of effects in the National Park still appears to be relatively limited due to the location of the development within a developed valley bottom and seen against a large scale landscape backcloth.
- 9.9. There is one likely significant effect on a dwelling (Tre-banog-Uchaf), but no dwellings are likely breach the threshold for unacceptable effects on Residential Visual Amenity.

Cumulative effects

- 9.10. Despite an opaque method for determining cumulative effects, it is considered that this judgement on cumulative effects is reasonable. The proposed development does combine with existing industrial development and windfarms to erode the scenic qualities and tranquillity of this edge of the National Park.

Summary and conclusions

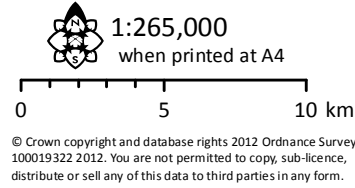
- 9.11. In conclusion, notwithstanding the adverse effects found in this report, it is considered that, with appropriate colour mitigation, the effect of the stack is likely to be minimised, especially seen in the context of the developed valley bottom and against a backcloth of higher upland landforms to the north and south.
- 9.12. This report addresses landscape and visual effects and it is appreciated that its findings will be balanced in the planning decision-making process with other considerations including any benefits that may arise.

Appendix A: Brecon Beacons landscape character assessment extracts

Brecon Beacons National Park Landscape Character Assessment

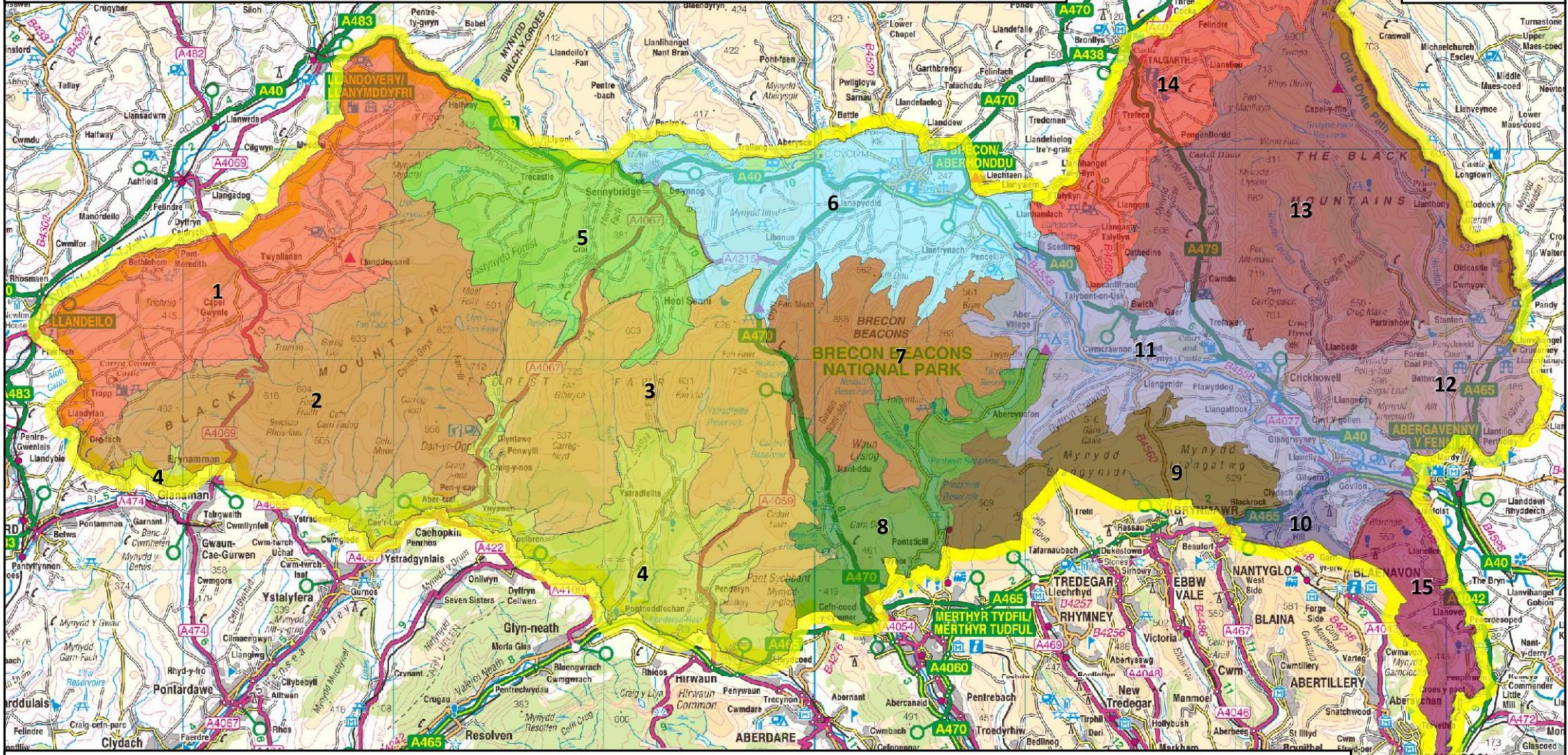
Landscape Character Areas
August 2012

Note: The boundary of the National Park does not always relate to changes in landscape character. Therefore Landscape Character Areas may extend beyond the National Park Boundary. Please refer to Landscape Character Assessments prepared by relevant Unitary Authorities.



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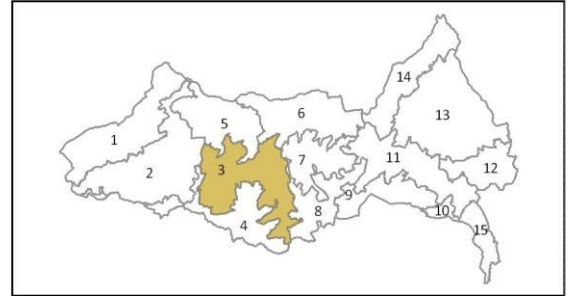
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- | | | | | |
|--------------------------|---|--|----------------------------|--------------------------------|
| 1. Towy Valley Foothills | 4. Waterfall Country and Southern Valleys | 7. Central Beacons | 10. Clydach Gorge | 13. The Black Mountains |
| 2. Y Mynydd Du | 5. Western Usk Tributaries | 8. Talybont and Taff Reservoir Valleys | 11. Eastern Usk Valley | 14. Wye Valley Foothills |
| 3. Fforest Fawr | 6. Middle Usk Valleys | 9. Mynyddoedd Llangatwg and Llangynidr | 12. Skirrid and Sugar Loaf | 15. Blorenge Summit and Slopes |

LANDSCAPE CHARACTER AREA 3: FFOREST FAWR**Broad Landscape Type: UPLANDS****Description****Location and Context**

This upland LCA is located towards the west of the National Park, between the uplands of the Central Beacons (to the east) and Mynydd Du (to the west). To the north and south are lower, enclosed Upland Valley landscapes.

**Summary Description**

A bleak, upland moorland landscape, the character of which is locally influenced by its past use as a royal hunting ground and more recent estate ownership, apparent through the dry stone boundary walls, estate cottages, shelterbelts and former rabbit farms. Remains of prehistoric and medieval occupation, and later industrial archaeological sites, are visible in the landscape. Away from the occasional roads which run across the area, it feels tranquil, and with a sense of remoteness and relative wildness. Its distinctive flat-topped summits and steep northern escarpment are prominent in views from the north.



View north up Afon Llia, with Maen Llia on the horizon

Historical Development of the Landscape

The area's long history of private ownership (first as a royal hunting forest and latterly as the Cnewr Estate) make it distinct from surrounding areas by its dry stone walls, estate cottages, shelter belts etc. Although this landscape feels empty and unsettled today, it has not always been so. The lack of recent development means that many features of earlier phases of occupation have survived including prehistoric monuments (cairns, standing stones etc.), field systems, abandoned medieval settlements, industrial sites (e.g. quarries and railway lines) and WW2 defences.

Distinctive Characteristics

- Complex underlying geology, with the Senni and Brownstones formations of the Old Red Sandstone in the north, a broken band of Carboniferous Limestone across the middle, and Marros Group sandstones and mudstones in the south. All three units form north-facing escarpments, that of the Old Red Sandstone being the most imposing.
- A glaciated landscape with a steep northern escarpment and a series of elevated summits. Cwms, and deep valleys are separated by intervening ridges (generally running north-south). Landform in the south of the LCA is less dramatic, forming a gently sloping plateau dissected by river valleys.
- Steep, fast flowing and rocky mountain streams (often spring-fed, or sourced from upland bogs), flow into larger rivers in valley bottoms. Ystradfellte Reservoir located near centre of LCA.
- Predominantly unenclosed moorland used for open grazing, with some forest blocks, particularly in the south and west of the LCA.
- Trees almost entirely coniferous, planted in forestry blocks often with sharp outlines. Distinctive coniferous shelter belts in the northern part of the area.
- Very few field boundaries, but dry-stone walls marking estate boundaries are distinctive to this LCA. Occasional post-and-wire fences.
- Semi-Natural Habitats of Principal Importance to Wales including marshy grassland, dry heath, acid/ neutral flushes and small areas of blanket bog. Vegetation composition reflects variations in underlying geology.
- Extensive prehistoric ritual landscapes, particularly in the south-east. Also evidence of Roman road, medieval settlements, industrial archaeology, WW2 defences and estate influences.
- A very lightly-settled landscape today, with occasional estate cottages and farms at its periphery. However in the past it has been much more densely settled, and the landscape contains evidence of settlement over millennia.
- An elevated, simple and expansive landscape, with colours and textures varying subtly with the underlying geology. Much of the LCA remains inaccessible except on foot, giving a sense of tranquillity, remoteness and relative wildness.

Landmap Components (See Appendix 3 for components of all LANDMAP Aspect Areas)

| | |
|--|---|
| Key Visual and Sensory Aspect Areas | Fforest Fawr West (O); Fan Fawr/Fan Llia [Fforest Fawr East] (O); Cadair Fawr (H); Carreg Cadno (O); Mynydd y Garn (H); Y Wern Forest (M); Senni Valley (H); Nant y Fedwyn Upland (M); Ystradfellte Reservoir (H) |
| Key to Landmap evaluation criteria: (O) Outstanding: of international importance. (H) High: of regional or county importance. (M) Moderate: of local importance. (L) Low: of little/no importance | |

Settlements

Settlement is very limited in this area, but the estate buildings have a distinctive architecture, often symmetrical, whitewashed and embellished with porches etc. This LCA forms the horizon in views from a number of settlements to the north and south.

Key Views

Key views out from within the LCA include those from the summits, with panoramic views over surrounding lower land, and across to the neighbouring uplands. The LCA is an important component in views from surrounding areas, often forming the horizon.

Evaluation

Special Qualities

The natural beauty and recreational factors that make this landscape special are summarised in the table below, along with examples of their sensitivities to landscape changes:

| Criteria | Special Qualities for this Landscape Character Area | Sensitivities |
|---|--|---|
| Scenic quality and Sense of place | <ul style="list-style-type: none"> High scenic quality and a strong sense of place, particularly where there are views of distinctive summits and over surrounding lower land to provide a landscape context. | Impacts from built or other developments (including quarrying within the LCA) which may detract from the LCA's sense of tranquillity and remoteness. |
| Landscape quality and integrity | <ul style="list-style-type: none"> An extensive area of upland which is particularly valued for the integrity of its historic landscapes, and for its tranquillity and sense of remoteness. | Visual impacts, noise and night-time light pollution associated with developments beyond the National Park boundary. |
| Perceptual qualities | <ul style="list-style-type: none"> High tranquillity, resulting from many factors including openness, perceived naturalness, low noise (though roads have localised impacts at the periphery of the LCA), landform and dark skies (this LCA is within the BBNP core dark skies area). With the exception of occasional roads and Penwyllt quarry, few factors detract from the tranquillity. The LCA's inaccessibility, openness, timelessness and relative lack of human influence also contribute to its sense of relative wildness. In poor weather conditions the landscape becomes much more hostile and disorientating. | <p>Features which break the smooth, open skylines.</p> <p>Small-scale features within the landscape (e.g. Glastir markers and waymarking) which have an individual and cumulative impact on the sense of remoteness and relative wildness.</p> <p>Traffic impacts: visual and noise.</p> <p>Neglect of estate features such as stone walls, particularly if estate management or ownership changes in the future.</p> |
| Artistic and cultural associations | <ul style="list-style-type: none"> Associations with Opera singer Madam Adelina Patti, who lived at Craig-y-nos (in LCA 4) and had a private area at Penwyllt railway station. | |
| Rarity or representativeness | <ul style="list-style-type: none"> An example of an extensive upland landscape with a history of private land ownership going back to Medieval times, leaving distinctive traces in the landscape. The links between geology, biodiversity and people through time are readily apparent. The LCA also contains cliff habitats which support plant communities unique to the Brecon Beacons and are important examples of glacial geomorphology | <p>See above</p> <p>Cliff habitats are sensitive to damage by climbing, abseiling etc.</p> |
| Natural heritage features | <ul style="list-style-type: none"> Extensive SSSIs, designated for their vegetation representing limestone and brownstone plant communities including some Alpine plants, rare hawkweeds and whitebeam species unique to the Brecon Beacons. National Nature Reserves at Ogof Fynnon Ddu and Craig Cerrig-gleisiad. Part of the Brecon Beacons SAC is also within this area. | <p>Changes in land management, e.g. changes in grazing levels affecting the composition of moorland vegetation.</p> <p>Changes in environmental conditions (e.g. air and water quality) and water retention</p> |

| | | |
|--|--|--|
| | <ul style="list-style-type: none"> An important geological landscape, within the Geopark and containing good examples of limestone features such as limestone pavements (some designated RIGS sites), solution hollows and sink holes. The Ogof Ffynnon Ddu cave system (designated SSSI) is the deepest (and one of the largest) in Britain. | affecting surface vegetation, geological exposures and cave systems. |
| Cultural heritage features | <ul style="list-style-type: none"> A rich archaeological environment with an exceptionally large assemblage of prehistoric ritual sites (including ring cairns, round cairns and standing stones designated Scheduled Monuments). Other Scheduled Monuments include a section of Roman road, deserted Medieval settlements, Post-medieval pillow mounds (resulting from rabbit farming) and WW2 infantry support trenches. Other archaeological sites include those associated with mining and transport, including quarries, tramways (e.g. the Brecon Forest Tramroad) and the route of the Neath and Brecon Railway with its station at Penwyllt. South-east part of LCA included on the Register of Landscapes of Historic Interest in Wales (no.48). | Damage to archaeological features through natural processes (e.g. erosion), neglect, visitor pressure and also visual impacts on their settings. |
| Opportunities for landscape enjoyment | <ul style="list-style-type: none"> Opportunities to explore and appreciate some of the most remote land in the National Park (and in Southern Britain) via the Beacons Way, extensive open access land and publicly-accessible nature reserves. Summits afford spectacular views. | Insensitive visitor management and over-intensification of visitor numbers may impact on the LCA's special qualities. |
| Recreation provision and access | <ul style="list-style-type: none"> Accessible from major roads, and can be appreciated whilst driving along them. Caving offers further recreational opportunities. | |

Contribution to Ecosystem Services and Green Infrastructure (refer to sections 4.6 & 4.7 for terminology)

Principal ecosystem services include provisioning through rough grazing and fresh water supply, and regulation and supporting services through deep peat, organic soils and water regulation. Plantations provide timber and wood fuel. In common with the rest of the National Park, this LCA also contributes to cultural services such as spiritual enrichment, cultural heritage, recreation and tourism, and aesthetic experiences. There is potential for electricity generation through high head micro-hydro schemes. Green Infrastructure features include open access land, open water, rivers, woodland plantation, and the Beacons Way long distance trail. The Ogof Ffynnon Ddu - Pant Mawr and Craig Cerrig-gleisiad National Nature Reserves offer educational and leisure opportunities.



Prehistoric Standing Stone at Maen Llia



The distinctive table-top summit of Fan Gyhirych. Note the estate wall



Craig Cerrig gleisiad NNR on the Old Red Sandstone northern scarp

Forces for Change in the Landscape

Local Forces for Change and Their Landscape Implications

(See also the general forces for change described in section 6.0)

Past and Present

- Past construction of reservoirs and planting of forestry plantations, in this LCA and in adjacent LCAs which can be seen in views. Ongoing management/ clearance of plantations.
- Past quarrying leaving scars in the landscape. Continued occasional quarrying activities (particularly Penwyllt) locally reducing tranquillity.
- Developments beyond the National Park boundary affecting views from the area and its special qualities, especially to the south.
- Light pollution from roads, settlements and other developments affecting dark skies (particularly to the south of the LCA).
- Past and present estate management (e.g. shelter belt planting) affecting the landscape.
- Theft of walling stone, especially adjacent to roads, and poor maintenance of walls.
- Visually intrusive modern road signage on minor roads.
- Loss of traditional moorland vegetation (e.g. heather moorland) and ecological resilience resulting from changes in grazing practices (see section 6.0 for more detail).
- Bracken encroachment on side slopes.
- Repeated damage by wild fires.
- Acid rain, pollution and artificial drainage caused ecological degradation of upland habitats, particularly peat bogs, affecting biodiversity and the water flows in underlying cave systems.
- Loss of archaeological features as a result of natural processes (e.g. limestone solution and river erosion) and damage (e.g. illegal 4x4 vehicles/ off-road motorbikes on the Sarn Helen Roman road).
- Tir Gofal agri-environment scheme within the Cnewr estate.

Future

- Potential changes in land management /private ownership may affect the retention and management of estate features such as walls and cottages.
- Loss of traditional hillfarms, and potential changes to agri-environment schemes affecting grazing patterns and vegetation, e.g. effects and outcomes of the Glastir Common Land Element.
- Management of plantations, particularly if trees are cleared.
- Tree loss due to disease e.g. *Phytophthora ramorum*.
- Continued loss of archaeological features.
- Climate change potentially affecting environmental conditions and upland vegetation.
- Continued development pressure and planning applications beyond the southern boundary (e.g. windfarms (TAN 8 area), quarrying, open casting and waste developments) affecting views south from the area and impacting on tranquillity and dark skies.
- Positive moorland management schemes improving the condition and variety of upland vegetation.



Insensitive road sign, Tawe valley



Penwyllt quarry



Deer fencing along dry stone wall

Strategy

Overall Strategy

To protect and enhance the special qualities of the landscape, including tranquillity, remoteness and relative wildness, and its historic features, long views and open skylines. Development beyond the National Park boundary does not undermine the views or special qualities of the area. Positive land management enhances its biodiversity, geodiversity and distinctive estate features. The outstanding archaeology of the area is appropriately managed, protected from damage, recorded where necessary and its settings are respected. Visitors are encouraged to visit and appreciate the area and its special qualities (including its extensive Nature Reserves), but without putting unacceptable visitor pressure on the landscape or its biodiversity.

LCA-Specific Management Guidelines

Protect

- Protect the **undeveloped character** of the landscape, and its special qualities including **tranquillity, remoteness, and dark night skies**.
- Protect the **open moorland** landscape, avoiding the development of vertical structures and the planting of trees.
- Protect the **geological and geomorphological features** of the area such as limestone pavements.
- Protect and enhance valuable **moorland habitats**.
- Protect surviving **estate features** (e.g. stone walls).
- Protect (through appropriate management) the area's rich **archaeological landscape**, in particular its prehistoric features around Cwm Cadlan and Mynydd-y-glog, and record archaeological features which are being lost through natural processes.
- Protect the **views** to and from the National Park which are integral to its setting.

Manage

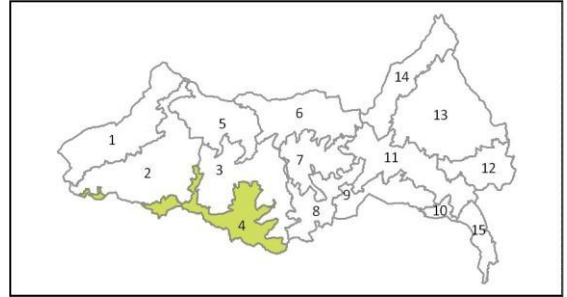
- Work with land owners and commoners to manage and enhance valuable **moorland habitats** (e.g. heather moorland and blanket bog), retaining and increasing the area's biodiversity.
- Manage **wetland sites** such as blanket bog to increase carbon sequestration and water storage capacity, reducing impacts of water flows on cave and river systems and potentially reducing downstream flooding.
- Work with landowners and commoners to manage **grazing land** using a viable grazing regime which supports traditional hillfarming, encourages biodiversity and retains an open moorland landscape.
- Manage **forestry plantations** with regard to their existing and potential biodiversity, and potential damage to underlying archaeology. Use/ develop forest management plans where possible.
- Manage **recreational pressure** to avoid visual scarring and damage to sensitive habitats and archaeological features. Minimise impacts of recreation on **perceptions of remoteness and tranquillity**.

Plan

- Plan to **reduce quarrying** activities within the LCA.
- Plan to reduce the **visual impact** of mineral extraction, wind turbines and other development beyond the National Park boundary.
- Plan to retain the area's **dark skies** and reduce incidence of light pollution, in particular along the southern boundary.
- Plan for the **creation, extension and linking of traditional moorland habitats**, e.g heather, blanket bog and heath. Reduce the overall area of acid grassland and encourage heather regeneration (whilst maintaining a mosaic of habitats for ground nesting birds and to retain species diversity).
- Plan to encourage landowners, public bodies and NGOs to re-open old railway line as a **cycle route**.

LANDSCAPE CHARACTER AREA 4: WATERFALL COUNTRY AND SOUTHERN VALLEYS**Broad Landscape Type: UPLAND VALLEYS****Description****Location and Context**

This LCA is located in the south of the National Park, adjacent to the National Park boundary. It includes the villages of Ystradfellte, Penderyn and Glyntawe, and comprises the enclosed limestone landscapes to the south of Y Mynydd Du and Fforest Fawr LCAs. It includes a small outlier of similar character to the west of Brynmanan, and is partially intervisible with land beyond the southern National Park boundary.

**Summary Description**

The predominantly limestone geology of this LCA creates its characteristic rough texture and grey colour, appearing in the crags, walls and buildings of this enclosed and relatively settled pastoral landscape. Ancient woodlands surround the streams and spectacular waterfalls which are found in the south of the LCA, flowing in deep, fern-filled gorges. Between the valleys are ridges of higher land with a more open quality and long views. The dark green of the extensive blocks of conifers in the south of the area contrasts with the surrounding grasslands.



The Nedd Fechan river near Pont Melin-Fach has a popular riverside path and is designated SSSI and SAC

Historical Development of the Landscape

The relatively sheltered natural landform of this area has made it a focus for settlement, agriculture and transport for many centuries. Historic villages, farms, roads, bridges and fields are integral parts of this landscape. Evidence also remains in the landscape for Bronze Age settlement and ritual activity (cairns), Iron Age hillforts, Roman occupation (roads and camps) and later industrial activities including quarrying, lime burning, water-powered mills and a gunpowder factory. 20th century changes to the landscape included forest plantation and road improvements.

Distinctive Characteristics

- A complex underlying geology. Carboniferous limestone in the north with extensive cave systems. Elsewhere, predominantly sandstones and mudstones of the Marros Group and South Wales Lower Coal Measures.
- A dramatic landform of steep, enclosed valleys, separated by ridges of flatter, higher land.
- A series of fast-flowing, rocky streams and rivers running along the valley floors, often in shallow gorges. Numerous waterfalls – some spectacular- particularly at changes in geology. Many waterfalls are accessible, including the popular Sgwyd yr Eira ('fall of snow')
- Land use predominantly pastoral agriculture, but with extensive areas of forestry, particularly in the south of the area.
- Limestone walls and hedgebanks enclosing irregular fields in valleys, with some hedges (predominantly beech or hawthorn). Higher land less enclosed, with more use of post-and-wire fencing.
- A well-wooded landscape, with ancient broad-leaved woodland in valleys and along streams, with blocks of conifer plantation on higher land.
- Key Semi-Natural Habitats of Principal Importance to Wales including broadleaved woodland, wet woodland, a range of grasslands (calcareous, neutral and acid), fens, limestone pavement and wet heath.
- A range of historic features in the landscape giving the area a strong sense of time-depth and reflecting the LCA's past use for settlement, agriculture, transport and industry.
- Settlements include villages of Ystradfellte and Penderyn, plus numerous scattered farms. Development concentrated in valley floors, particularly along the A4067 and A4059. Some intervisibility with settlements, roads and other development beyond the National Park boundary
- Limestone geology, field patterns and woodland creating a strongly textured landscape in the valleys, with grey and green the dominant colours. Higher areas are more open and simple in composition, with dark blocks of conifers contrasting in colour with the surrounding grassland.

Landmap Components (See Appendix 3 for components of all LANDMAP Aspect Areas)

| | |
|--|---|
| Key Visual and Sensory Aspect Areas | Nedd Fechan and Mellte Valleys (O); Penderyn (M); Tawe Valley and Cwm Twrch (M); Upper Tawe Valley (H); Coed-y-Rhaiadr (M); Gwaun Hepste (M); Hepste Valley (H); Black Mountain Southern Slopes; Bryn Henllys Open Cast (L) |
| Key to Landmap evaluation criteria: (O) Outstanding: of international importance. (H) High: of regional or county importance. (M) Moderate: of local importance. (L) Low: of little/no importance | |

Settlements

Settlement within this LCA is relatively limited, with small settlements including the clustered, valley floor villages of Ystradfellte and Penderyn, both with ancient church sites. Traditional buildings are usually stone built and painted white, with slate roofs. There are several settlements to the south (along the A4067 and A4109, outside the National Park boundary) which have a close visual relationship with this LCA. It provides their setting and backdrop when viewed from the south, and developments in these villages (which are generally linear in form, following the contours of the hillsides) are visible from the National Park.

Key Views

Long views across the area may be viewed from adjacent Upland LCAs, and from within the valleys themselves. Southern parts of the LCA (particularly higher land) have intervisibility with land beyond the National Park boundary, with long views southwards. Magnificent close-up views of waterfalls may be experienced from riverside paths.

Evaluation**Special Qualities**

The natural beauty and recreational factors that make this landscape special are summarised in the table below, along with examples of their sensitivities to landscape changes:

| Criteria | Special Qualities for this Landscape Character Area | Sensitivities |
|--|---|--|
| Scenic quality and Sense of place | <ul style="list-style-type: none"> The combination of rivers, waterfalls, woodland and pastoral land against a rugged limestone backdrop gives the area high scenic quality and a strong sense of place. | Changes in traditional land management, and introduction of incongruous features into the landscape |
| Landscape quality and integrity | <ul style="list-style-type: none"> Continuity of land use and restriction of development to the main roads along valley floors has generally enabled the LCA's landscape quality and integrity to be retained over the majority of the area. | As above |
| Perceptual qualities | <ul style="list-style-type: none"> Waterfalls paths stimulate many senses, with unique combinations of sight, feel, sound and smell. They also provide opportunities to experience closeness to nature; their enclosure and visual isolation enabling a sense of tranquillity. Parts of the LCA are within the core dark skies area. | Loss of tranquillity due to visible or audible developments. |
| Rarity or representativeness | <ul style="list-style-type: none"> Contains some of the most dramatic and accessible waterfalls in the National Park. | |
| Natural heritage features | <ul style="list-style-type: none"> High nature conservation importance, including numerous SSSIs covering woodlands, river systems, meadows, grasslands and other habitats. Three sites are also designated SAC for their variety of woodland and wetland habitats and the plants and butterflies they support. An important geological landscape, containing some of the largest cave systems in Britain. The area is within the Geopark and contains RIGS and geological SSSIs (exposures and limestone pavements). | Changes in woodland and grassland management (e.g. changes in grazing practices). Cave systems are vulnerable to changes in surface conditions, e.g. denudation of peat bogs leading to increased groundwater flows. |
| Cultural heritage features | <ul style="list-style-type: none"> An historic landscape with a strong sense of time-depth. Scheduled Monuments and other archaeological sites and buildings reflect the survival of features in the landscape from many periods, including Roman roads, small traditional farms and industrial sites. The gardens of Craig-y-nos-Castle (home of opera singer Adeline Patti) are listed grade II* as an example of a romantic high Victorian garden in a spectacular setting. | Decline in traditional hillfarming leading to loss of landscape features. Archaeological features vulnerable to natural processes (e.g. limestone solution; water erosion) as well as damage or neglect. |

| | | |
|---|--|--|
| <p>Opportunities for landscape enjoyment</p> | <ul style="list-style-type: none"> • Opportunities include caving, canoeing cycling and walking, including the many accessible ‘Waterfall Country’ paths. These paths enable access to many waterfalls, including the iconic Sgwyd yr Eira and Upper Henrhyd waterfalls. | |
| <p>Recreation provision and access</p> | <ul style="list-style-type: none"> • A variety of recreation opportunities, with visitor infrastructure concentrated along main roads. Visitor attractions include Dan-yr-Ogof showcaves, Craig-y-nos Country Park, Porth-y-ogof cave entrance and Penderyn distillery. Accessible from main roads and from settlements outside the National Park to the south. | |

Contribution to Ecosystem Services and Green Infrastructure (refer to sections 4.6 & 4.7 for terminology)

Principal ecosystem services include extensive pasture (food provision), woodfuel and timber and water resources. In common with the rest of the National Park, this LCA also contributes to cultural services such as spiritual enrichment, cultural heritage, recreation and tourism and aesthetic experiences.

Green Infrastructure features include the extensive accessible woodland at Coed y Rhaiadr. Other features of note are the tributaries of the Tawe, Neath and Amman, and their associated landscapes. There are a number of recreational, leisure and cultural heritage assets such as Craig-y-nos Country Park and the access to Dan-yr-ogof caves.



Ystradfellte village in its landscape setting



*Upper Henrhyd waterfall.
(Photo by Robin Lines)*



Bluebell woods in the Nant Cyw valley

Forces for Change in the Landscape

Local Forces for Change and Their Landscape Implications

(See also the general forces for change described in section 6.0)

Past and Present

- Past mining of silica and gunpowder works in the Nedd and Mellte valleys.
- Past planting of extensive forestry plantations, particularly in the south of the area changing the composition of the landscape.
- Management of forests, especially as trees reach maturity.
- Decline in traditional hillfarming (particularly in more marginal areas) resulting in a loss of traditional practices such as common grazing, and landscape features such as dry stone walls. Economic pressures for farms to expand/ amalgamate, and to construct larger agricultural buildings.
- Loss/ alteration to vernacular domestic and agricultural buildings.
- Ongoing quarrying at Penderyn, adjacent to the LCA.
- Extensive existing opencast workings and a wind farm just beyond the southern boundary of the National Park are prominent in views, especially from higher land.
- Impact of light pollution on the area's dark skies.
- Recreation pressure (car parking, footpath erosion, litter, wild camping etc.) at popular sites, particularly along main roads.
- Localised 'urban fringe' issues such as fly tipping.

Future

- Continued decline in traditional hillfarming affecting the landscape and biodiversity of the area.
- Uncertainty over future agricultural grants potentially affecting stocking numbers and the maintenance of historic features such as walls and hedgebanks.
- Management of forests, particularly once trees have been felled.
- Tree loss due to disease e.g. *Phytophthora ramorum*.
- Continued implementation of the *Waterfall Country Management Plan*.
- Potentially significant impacts from future wind farm developments in close proximity to this area (TAN 8 areas E and F are close to the southern boundary of the National Park).
- Applications for further opencasting, quarrying, waste schemes and electricity schemes just beyond the southern boundary which would affect views from this area.



Forestry plantations and pylons in the south of the LCA, near the National Park boundary.



Afon Hepste quarry near Penderyn



Windfarm beyond the National Park boundary to the south, viewed from within the National Park.

Strategy

Overall Strategy

To maintain and enhance the special qualities of the landscape, in particular its historic features and magnificent waterfalls, resisting development which would impact on views from the area. Agriculture is supported, and traditional practices such as common grazing encouraged. Woodlands, rivers and other semi-natural habitats are well managed, as are historic features and their settings. The landscape is accessible to visitors and local people, with opportunities for appropriate recreation. Geological features, including caves, are in good condition. The special qualities of the area are not compromised by inappropriate development within or outside the National Park.

LCA-Specific Management Guidelines

Protect

- Protect (through appropriate management) **historic features** within the landscape, including those associated with **farming and settlement**.
- Protect the **built heritage** of the area, particularly **vernacular buildings**.
- Protect the **upland skylines** and occasional **long views** which form the backdrop to the area.
- Protect vulnerable **geological sites** such as limestone pavements.

Manage

- Manage **semi-natural habitats** such as grasslands and moorlands through appropriate management and grazing.
- Manage **farmlands**, encouraging a viable farming community which farms in a traditional way to maintain the landscape and biodiversity of the area.
- Manage broadleaf **woodlands** using traditional techniques (e.g. coppicing) to encourage age and species diversity.
- Manage **coniferous forests** to maximise biodiversity and minimise visual impacts and damage to archaeology, particularly following felling.
- Manage (and record where necessary) **archaeological sites**, particularly where they are at risk (e.g. 4x4 damage to Sarn Helen Roman Road)
- Manage **recreation**, encouraging visitors and local people whilst minimising impacts on the area's biodiversity, heritage and special qualities.
- Manage **cave systems** (and related surface vegetation and activities) to protect subterranean habitats and features.

Plan

- Plan for **community education and involvement** in the management of the area, developing links with the communities beyond the National Park boundary.
- Plan for the **creation, extension and linking of semi-natural habitats**, e.g woodland and grasslands.
- Plan to **reduce the visual impacts** of existing open-cast sites, windfarms, quarries and other development beyond the National Park boundary, and **resist applications** for future development which would **harm the special qualities** of the area.
- Plan to retain the area's **dark skies** and reduce incidence of light pollution.
- Plan **recreation** strategically across the National Park, reducing pressure on 'honeypot' sites.

Appendix B: Brecon Beacons special qualities

Appendix 2: Special Qualities of the National Park

Extract from *National Park Management Plan: Managing Change Together*, Section 3: Special Qualities, Table 3.1, Page 28.

| Special Qualities | Stakeholder Quotations |
|--|---|
| A National Park offering peace and tranquility with opportunities for quiet enjoyment, inspiration, relaxation and spiritual renewal. | <i>“Isolated from ‘commercial bustle’ of everyday life in the UK.”</i> |
| A feeling of vitality and healthfulness that comes from enjoying the Park’s fresh air, clean water, rural setting, open land and locally produced foods. | <i>“A place that is relatively free from the roar of traffic and has ‘clean’ air.”</i> |
| A sense of place and cultural identity —“Welshness” – characterized by the indigenous Welsh language, religious and spiritual connections, unique customs and events, traditional foods and crafts, relatively unspoilt historic towns and villages, family farms and continued practices of traditional skills developed by local inhabitants to live and earn a living here, such as common land practices and grazing. | <i>“Breathing space close to home for those who live in the Park and for those in the industrial valleys.”</i> <i>“A sense of timelessness.”</i> |
| A sense of discovery where people explore the Park’s hidden secrets and stories such as genealogical histories, prehistoric ritual sites, relic medieval rural settlements, early industrial sites, local myths and legends and geological treasures from time immemorial. | <i>“A rich archaeological resource – still to be explored and understood.”</i> <i>“A cultural landscape where history, people, culture and activity are obviously linked.”</i> |
| The Park’s sweeping grandeur and outstanding natural beauty observed across a variety of harmoniously connected landscapes, including marvellous gorges and waterfalls, classic karst geology with caves and sink holes, contrasting glacial landforms such as cliffs and broad valleys carved from old red sandstone and prominent hilltops with extensive views in all directions. | <i>“Stunning views!”</i> <i>“Brecon Beacons National Park has great variety of beautiful geography in a compact area.”</i> |
| A working, living “patchwork” of contrasting patterns, colours, and textures comprising well-maintained farmed landscapes, open uplands, lakes and meandering rivers punctuated by small-scale woodlands, country lanes, hedgerows and stone walls and scattered settlements. | <i>“Outstanding landscapes and countryside and well-maintained agricultural land.”</i> <i>“The back garden of the Valleys.”</i> |
| Extensive and widespread access to the Park’s diversity of wildlife and richness of semi-natural habitats , such as native woodlands, heath land and grassland, natural lakes and riparian habitats, ancient hedgerows, limestone | <i>“The variety is special, particularly the vast difference between the park’s eastern and western areas.”</i> |

| Special Qualities | Stakeholder Quotations |
|--|--|
| pavement and blanket bogs including those of international and national importance. | <i>“A place where local people and visitors can learn about the environment.”</i> |
| In the context of the UK, geographically rugged, remote and challenging landscapes. | <i>“Outstanding and beautiful natural environment to be treasured, respected and preserved.”</i> |
| Enjoyable and accessible countryside with extensive, widespread and varied opportunities to pursue walking, cycling, fishing, water-based activities and other forms of sustainable recreation or relaxation. | <i>“Opportunities for all ages to engage with the natural landscape.”</i> |
| An intimate sense of community where small, pastoral towns and villages are comparatively safe, friendly, welcoming and retain a spirit of cooperation. | <i>“Seeing it stay as it is but accepting there may have to be change.”</i> |

Appendix C: Review of effects on landscape character

Table 1: Enviroparks, Hirwaun- Review of landscape effects

| Landscape receptors | Name | Pleydell Smithyman assessment | | | | This report comment |
|----------------------------|----------------|-------------------------------|---|--------------------------|------------------|--|
| | | Sensitivity | Magnitude | Significance of effect | Nature of effect | |
| LANDMAP | | | | | | |
| Visual and sensory | | | | | | |
| CYNONVS833 | Penderyn | Medium | Very large to medium at close to medium range | Major to moderate /Major | Adverse | <p>Sensitivity: not agreed. Much of the area lies within BBNP which contributes to value and is susceptible to industrial installations with 90 m high structures. The likely sensitivity overall is at least high/medium.</p> <p>Magnitude of effect: agree very large effect close to but larger than medium at medium range (0.5 to 1km).</p> <p>Significance: Major</p> |
| CYNONVS833 | Penderyn | Medium | Medium to very small at medium to long-range | Minor/moderate | Adverse | <p>Sensitivity: as above</p> <p>Magnitude of effect: underplays effect. Visual effects in ‘long range’ are considered to undergo medium effects (H) and some slopes across the area run towards the development.</p> <p>Significance: underplayed- Major/moderate to minor/moderate.</p> |
| CYNONVS340 Actually 430 | Hirwaun Common | Medium | Medium at long range | Moderate | Adverse | <p>Sensitivity: agreed (as turbines on it and outside designation)</p> <p>Magnitude of effect: agreed</p> <p>Significance: agreed</p> |
| CYNONVS735 | Cadair Fawr | Medium | Small to medium long-range | Minor/moderate | Adverse | <p>Sensitivity: not agreed. It is open moorland grazing within BBNP and so is high sensitivity.</p> <p>Magnitude of effect: not agreed. It is likely to be small on the area as a whole as it is at a distance and the proposed development is sited in a developed valley landscape separated from the moorland by a settled valley landscape.</p> |

| | | | | | | |
|----------------------------|----------------|--------------------------------------|-------------------------------------|-------------------------------|-------------------------|---|
| | | | | | | Significance: not agreed. Likely to be moderate significance (not significant). |
| | | Pleydell Smithyman assessment | | | | |
| Landscape receptors | Name | Sensitivity | Magnitude | Significance of effect | Nature of effect | This report comment |
| CYNONVS368 | Tower colliery | - | - | - | - | Area lies to the south of the site at close range. Sensitivity: Medium to low Magnitude of effect: Medium Significance: Minor/moderate |
| CYNONVS522 | Aberdare | - | - | - | - | Area lies directly adjacent to the site to the south. Sensitivity: Low Magnitude of effect: Moderate Significance: Minor/moderate |
| Landscape habitats | | | | | | |
| CYNONLH051 | - | Medium | Small- from the additional planting | Minor/moderate | Beneficial | Sensitivity: agreed Magnitude of effect: agreed Significance: agreed |
| Geological landscape | | | | | | |
| CYNONGL028 | - | Medium | Very small | Minor | Adverse | Sensitivity: agreed Magnitude of effect: agreed Significance: agreed |
| Historic landscape | | | | | | |
| CYNONHL117 | Cynon Valley | Medium to | No effect at close to | Neutral | Adverse | Sensitivity: agreed |

| | | | | | | |
|----------------------------|-----------------|--------------------------------------|------------------|-------------------------------|-------------------------|---|
| | Corridor | high | long-range | | | <p>Magnitude of effect: not agreed - the development lies within the area and introduces a noticeable new element into the area with a tall stack thus modifying its character, albeit remaining industrial. The effect is minor/moderate.</p> <p>Significance: not agreed- the effect is likely to be moderate.</p> |
| | | Pleydell Smithyman assessment | | | | |
| Landscape receptors | Name | Sensitivity | Magnitude | Significance of effect | Nature of effect | This report comment |
| CYNONHL150 | Moel Penderyn | Medium | No effect | Neutral | Adverse | <p>Sensitivity: agreed</p> <p>Magnitude of effect: agreed</p> <p>Significance: agreed</p> |
| CYNONHL176 | Penderyn | Medium | No effect | Neutral | Adverse | <p>Sensitivity: not agreed- this area is an important multi-period fieldscape with the sensitivity likely to be at least medium to high.</p> <p>Magnitude of effect: the development lies directly adjacent and is noticeable in conjunction with the multi-period landscape and as such has some effect- low.</p> <p>Significance: not agreed cash the effect is likely to be moderate to minor.</p> |
| CYNONHL183 | Tower colliery | Low to medium | No effect | Neutral | Adverse | <p>Sensitivity: agreed</p> <p>Magnitude of effect: agreed</p> <p>Significance: agreed</p> |
| CYNONHL687 | Rhondda uplands | Medium | No effect | Neutral | Adverse | <p>Sensitivity: agreed (as turbines on it and outside designation)</p> <p>Magnitude of effect: agreed</p> <p>Significance: agreed</p> |
| CYNONHL903 | Hirwaun Common | Medium | No effect | Neutral | Adverse | <p>Sensitivity: agreed</p> <p>Magnitude of effect: agreed</p> <p>Significance: agreed</p> |

| | | | | | | |
|----------------------------|---|--------------------------------------|--|-------------------------------|-------------------------|---|
| CYNONHL002 | Hirwaun Common south (sic) (name should be Mynydd y Glog) | - | - | - | - | <p>Sensitivity: this area is a multi-period fieldscape with the sensitivity likely to be at least medium.</p> <p>Magnitude of effect: the development is at a distance and is a minor element in conjunction with other development and as such has a limited effect- very low.</p> <p>Significance: the effect is likely to be minor.</p> |
| | | Pleydell Smithyman assessment | | | | |
| Landscape receptors | Name | Sensitivity | Magnitude | Significance of effect | Nature of effect | This report comment |
| CYNONHL003 | Penderyn relict field scope | - | - | - | - | <p>Sensitivity: this area is a multi-period fieldscape with the sensitivity likely to be at least medium.</p> <p>Magnitude of effect: the development lies close by and is noticeable in conjunction with the multi-period landscape and as such has some effect- low.</p> <p>Significance: the effect is likely to be moderate to minor.</p> |
| Cultural landscape | | | | | | |
| CYNONCL041 | The Rhigos | Medium | Small to medium | Moderate /minor | Adverse | <p>Sensitivity: agreed</p> <p>Magnitude of effect: agreed</p> <p>Significance: agreed</p> |
| CYNONCL042 | Hirwaun | Medium | Medium to large at close to medium range | Moderate | Adverse | <p>Sensitivity: not agreed - would expect the sensitivity to be medium to low</p> <p>Magnitude of effect: agreed</p> <p>Significance: agreed</p> |
| CYNONCL044 | BBNP | High | Large at close range | Major | Adverse | <p>Sensitivity: agreed</p> <p>Magnitude of effect: agreed</p> <p>Significance: agreed</p> |

| | | | | | | |
|--|--|-------------------------------|--|------------------------------------|-------------------------|---|
| CYNONCL044 | BBNP | High | Very small to medium at medium to long-range | Moderate /major to minor/ moderate | Adverse | Sensitivity: agreed Magnitude of effect: agreed Significance: agreed |
| | | Pleydell Smithyman assessment | | | | |
| Landscape receptors | Name | Sensitivity | Magnitude | Significance of effect | Nature of effect | This report comment |
| CYNONCL056 | Designated landscape areas | Medium | No direct or indirect effects | Neutral | Adverse | Sensitivity: agreed Magnitude of effect: not agreed - the stack does actually lie within this area within a few metres of the BBNP and this area boundary. The magnitude of effect is large at close range. Significance: not agreed - the effect is likely to be moderate as it is on the very edge of a large dispersed area. |
| BBNPA landscape character areas | | | | | | |
| 3 | Fforest Fawr | - | - | - | - | Sensitivity: As open elevated moorland with long views within BBNP it is likely to be high sensitivity although views of industrial development and windfarms to the south already exist. Magnitude of effect: not agreed. It is likely to be small on the area as a whole as it is at a distance and the proposed development is sited in a developed valley landscape separated from this LCA by another LCA (4 below). Significance: Likely to be moderate significance. |
| 4 | Waterfall Country and Southern valleys | - | - | - | - | Part of the overall Enviroparks site lies in the area and the stack lies directly adjacent to the boundary. Sensitivity: Likely to be high sensitivity as a scenic landscape within BBNP, although enclosed wooded valleys in places and views of industrial development and windfarms to the south already exist. Magnitude of effect: agree very large effect close to reducing with |

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | distance to medium and small to medium for intervisible slopes to the north, north west and east. These areas cover a proportion of the eastern part of the LCA. Significance: Likely to be major significance. |
|--|--|--|--|--|--|--|

Notes

- Yellow background indicates additional significant effects identified in this review. These effects take into account the plume as well as stack.

Appendix D: Review of visual effects

Enviroparks, Hirwaun- Review of visual effects of revised stack scheme (2020)

| Vpt no | Viewpoint location | Pleydell Smithyman assessment | | | | This report comment |
|--------|--|-------------------------------|---------------------------|---|--|---|
| | | Sensitivity | Magni- tude- Year 1 | Signific- ance of effect- Year 1 | Signific- ance of effect- Year 15 | |
| A | Northern boundary of site near public footpath | Medium | Very large | Major | Moderate | Sensitivity: not agreed- medium/high as PROW in BBNP but near industrial estate. Magnitude: agreed. Significance: agreed. |
| B | Southern edge of Penderyn reservoir | Medium | Very large | Major | Major | Sensitivity: not agreed- medium/high as in area used for recreation in BBNP albeit not public access. Magnitude: agreed. Significance: agreed. |
| C | Northern edge of Penderyn reservoir | Medium to high | Large to very large | Major | Major | Sensitivity: agreed Magnitude: agreed. Significance: agreed. |
| D | Public footpath near the farmstead of Tai-cwpiau | Medium to high | Large | Moderate /major | Moderate | Sensitivity: not agreed- high as PROW in BBNP with visual connection to the rural slopes to the north. Magnitude: agreed Significance: not agreed- likely to be major at Year 1 and at least moderate/major at Year 15 as stack will remain prominent.* |
| E | Layby on the A465 | Low | Medium to large | Moderate | Minor / moderate | Sensitivity: agreed Magnitude: agreed. Significance: agreed. |
| F | Fifth Avenue adjacent to | Low to | Medium | Moderate | Moderate | Sensitivity: agreed |

| | | | | | | |
|---------------|--|--------------------------------------|------------------------------------|---|--|---|
| | hotel access road | medium | | | | Magnitude: not agreed- moderate to moderate/high. Significance: agreed. |
| | | Pleydell Smithyman assessment | | | | |
| Vpt no | Viewpoint location | Sensitivity | Magnitude- Year 1 | Significance of effect- Year 1 | Significance of effect- Year 15 | This report comment |
| G | Track to property of Tylemorgrug | Medium to high | Very small to <small>small</small> | Minor/moderate | Minor | Sensitivity: agreed as not general public access. Magnitude: could be medium if viewpoint located around 50m to the east without barn and tree in the foreground. (Poorly located viewpoint is not in accordance with guidance). Significance: not agreed-could be likely to be moderate/major if in worst case location around 50m to the east. However, on a private track so not visited and weight limited. |
| H | Public bridleway near Moel Penderyn | High | Medium | Moderate / major | Moderate | Sensitivity: agreed Magnitude: agreed Significance: not agreed-remains moderate/major at Year 15 as stack will remain noticeable and boundary mitigation planting will only partially screen one elevation of the nearest building which does not justify a significant reduction in magnitude of change.* |
| I | Sports field on the north eastern margin of Rhigos | Medium to high | <small>Small</small> | Minor/moderate | Minor | Sensitivity: agreed Magnitude: agreed Significance: agreed |
| J | A461 near junction with public footpath | Medium | <small>Small to medium</small> | <small>Minor/moderate</small> | <small>Minor/moderate</small> | Sensitivity: agreed Magnitude: agreed Significance: agreed |
| K | Public footpath between Rhigos and the A4061 | Medium to high | <small>Small to medium</small> | <small>Minor/moderate</small> | <small>Minor/moderate</small> | Sensitivity: agreed Magnitude: agreed |

| | | | | | | |
|--------|---|-------------------------------|---------------------------|---|--|--|
| | | | | | | Significance: not agreed. It would be expected that the effect would be moderate with the combination of magnitude and sensitivity. |
| | | Pleydell Smithyman assessment | | | | |
| Vpt no | Viewpoint location | Sensitivity | Magni- tude- Year 1 | Signific- ance of effect- Year 1 | Signific- ance of effect- Year 15 | This report comment |
| L | Public footpath near the southern edge of Cefn Rhigos | Medium | Small to medium | Minor/moderate | Minor/moderate | Sensitivity: not agreed- medium/high as a PROW outside BBNP. Magnitude: agreed Significance: not agreed- moderate (not significant) |
| M | Open access land above Pontbren Llwyd | Medium to high | Small to medium | Moderate | Moderate | Sensitivity: not agreed. High as open access land in BBNP. Magnitude: agreed Significance: not agreed. Small to medium effect on a high sensitivity receptor is likely to be moderate/major and significant at year 1 and year 15. |
| N | A4061 near layby and promoted viewpoint | High to very high | Small | Moderate | Minor/moderate | Sensitivity: agreed Magnitude: agreed Significance: agreed. |

Notes

- **Blue** text shows change from 2019 consented scheme (all higher/larger).
- **Pink** background indicates LVIA significant effects. The LVIA identifies the same number of significant effects as for the 2019 assessment with the lower 45m stack although the level of effect increases in some instances.
- **Yellow** background indicates additional significant effects identified in this review. These effects take into account the plume as well as stack.
- * indicates that the effect is not significantly greater than for the 45m stack.

Appendix E: Review of PSL clarification response dated November 2020

| Draft stage 1 LVIA review recommendations summarised in White Consultants, email, 11/11/20 | Summary of PSL response dated November 2020 | White Consultants comments on PSL response |
|--|--|--|
| Confirmation of the visual nature of the emissions plume (eg velocity, height, frequency) and whether the LVIA takes this into account. A repeat of the Chapter 2 description is not required. | PSL understands there is no plume. | <p>We note and accept this as the basis for the PSL assessment.</p> <p>ES Ch 3 Scheme description 3.10 iv states that urea is added to abate oxides of nitrogen, reducing emissions to nitrogen and water vapour. In our experience, water vapour can be visible in certain weather conditions, displaying an occasional white plume, and so our assessment is based on this.</p> |
| Confirmation of which viewpoints were visited in April 2020 to inform the LVIA and ECA. | PSL were constrained to the site and limited parts of surrounding area due to Covid restrictions. | This effectively confirms that the updated LVIA by PSL was essentially a desk study based on Crestwood's 2016/2017 information and photos. PSL have subsequently visited key viewpoints in late November which now act as a reasonable basis for the assessment. |
| Confirmation if the ECA involved analysis of other photographs either from the same or other viewpoints or was tested and verified on site using official RAL colour swatches. | A revised ECA is included which appears to benefit from higher quality photos taken in November as part of the clarification response. | <p>Viewpoints in BBNP are reconsidered- H and M. The other viewpoints C and J remain the same.</p> <ul style="list-style-type: none"> • Viewpoint H- 3 middle ground colours are changed to reflect less misty conditions. One colour tone is corrected (RAL 7030). • Viewpoint M- additional viewpoint colours are analysed using higher quality photos. • Both of the above analyses lead to a change of one colour in the recommended Option 3- RAL 7005. This is darker and a reasonable suggestion. <p>However, the above analysis remains a desk study essentially relying on digital reproduction of colours and without testing on site with official RAL colour swatches. This is critical in making sure that the visual impact of the stack is minimised as far as possible. It is strongly recommended that a competent person/persons carries this out before implementation. Whether this is done before the planning application is considered or, if approved, as a condition is for RCT to</p> |

| | | |
|---|---|---|
| | | decide. In any case, the developer should bear the cost of obtaining and providing official RAL swatches. |
| Draft LVIA review recommendations summarised in White Consultants, email, 11/11/20 | Summary of PSL response dated November 2020 | White Consultants comments on PSL response |
| A visualisation method formalising the informal emails sent is desirable- to avoid the need to reference the latter and minimise the number of documents that need to be considered. | This is provided. | This is helpful- no further information is required. |
| An assessment of the effects on the two BBNP LCAs within the study area and their special qualities which should inform a revised assessment on the effects on special qualities and purposes of the BBNP. (LCAs and special qualities attached). This should include an additional assessment of the effects of the proposals on the peace and tranquillity special quality. | PSL does not undertake an assessment of the two BBNP LCAs within the study area and their special qualities. No explanation is given. PSL briefly addresses the overall effects on the peace and tranquillity special quality based on their consideration of scenic quality which they consider as the only relevant component of tranquillity. | The BBNP landscape character assessment informs special qualities and effects on the designation. It was omitted from the 2017 Crestwood assessment as well as this assessment. Instead, there is general consideration of BBNP’s special qualities combined with consideration of LANDMAP. RCT has a duty to take the purposes of BBNP into account and these are informed by the special qualities. White Consultants note this omission and carry out an assessment of the LCAs to inform decision-makers as part of this report. |
| The 2008 LANDMAP assessment has been used as baseline. PSL may also wish to review whether up to date LANDMAP aspect areas not assessed in this 2020 assessment (or the 2017 assessment) undergo significant effects. This is not essential in consideration of the proportionate nature of the assessment required and the expected consideration of the BBNP LCAs and associated special qualities. | PSL do not choose to update the LANDMAP assessment. | This is not essential but is an indication of a limited updating of Crestwood’s LVIA. |