



Frodsham Solar DCO - EN010153

Local Impact Report (LIR)
Cheshire West and Chester Council (CWCC)
(S60 of the Planning Act 2008)

22 December 2025

Deadline 1

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The following appendices are provided separately:

- Appendix 13** Figure 13.2 of the SEI from Frodsham Windfarm (FWF) consent
- Appendix 14** Gowy Marsh Waste Disposal site Solar (location plan)
25/03414/FUL
- Appendix 15** North of Rake Lane (Hobbs Lane), Helsby Solar (location plan)
25/01339/FUL
- Appendix 16** CWCC Climate Emergency Plan (Outcome 5)
- Appendix 17** Cheshire and Warrington Sustainable & Inclusive Economic
Strategy
- Appendix 18** Vale Royal Local Plan Policy GS4 (Changes to North Cheshire
Green Belt)
- Appendix 19** Thornton le Moors Air Quality Management Area (AQMA)
location plan
- Appendix 20** Thornton le Moors Air Quality Management Area action plan
- Appendix 21** Enforcement Notice plan for traveller site (southern site) (Brook
Furlong)
- Appendix 22** i) Enforcement Notice ii) appeal decision for traveller site
(southern site)
- Appendix 23** Netherton Hall Local Walks leaflet
- Appendix 24** Frodsham Festival of Walks 2025 brochure
- Appendix 25** DNS Welsh Government decision for Solar Farm near Llanwern

1. Introduction and terms of reference

- 1.1 This report comprises the Local Impact Report (LIR) for CWCC and has been prepared in the name of the Head of Planning and Place Making under the Council scheme of Officer delegation.
- 1.2 The purpose of the LIR is set out in s60(3) of the Planning Act 2008 (as amended), i.e. *“a report in writing giving details of the likely impact of the proposed development on the authority’s area.”*
- 1.3 Consideration has been given to the National Significant Infrastructure Projects: Advice for Local Authorities (last updated 16 December 2024) and the Planning Inspectorate’s Advice note one: Local Impact Reports (April 2012) (Version 2) in preparing this LIR.
- 1.4 Cheshire West and Chester Council (**CWCC**) is the host local authority for the Frodsham Solar Project (**the Proposed Development**). The Order Limits of the DCO include land wholly within the administrative boundary of CWCC.
- 1.5 To avoid unnecessary repetition, the LIR needs to be read in conjunction with CWCC’s Relevant Representation (**RR**) [RR-037](#) and reference to the RR is made where relevant.
- 1.6 CWCC will endeavour to complete a Statement of Common Ground (**SoCG**) with the Applicant. The Applicant provided CWCC with a first draft of the SoCG on 10 December 2025. Comments on this first draft have yet to be provided back to the Applicant, but it is expected that comments can be incorporated and an update on progress provided for Deadline 2.
- 1.7 The RR’s made reference to the Applicant’s Potential Main Issues for the Examination (**APP-131**). The LIR uses the Planning Inspectorate’s Initial Assessment of Principle Issues ([OD-006](#)) (16 Sept 2025) to inform the assessment of impacts.
- 1.8 As with the RR, this LIR is prepared having regard to Paragraph 4.1.5 of the Overarching National Policy Statement for Energy (NPS EN-1) that the Secretary of State for Energy Security and Net Zero (SoS) should:
 - consider potential benefits including its contribution to meeting the need for energy infrastructure, job creation, reduction of geographical disparities, environmental enhancements, and any long-term or wider benefits; and
 - consider potential adverse impacts, including on the environment, including long term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate, or compensate for any adverse impacts, following the mitigation hierarchy.
- 1.9 The LIR is structured with the following initial chapters:

- Site location and surroundings
 - Relevant planning history
 - Details of the proposal
 - Assessment methodology / Rochdale envelope
 - Planning policies and local context
- 1.10 This is followed by several short summary / introductory chapters on various topics; with the detail of the impacts on various aspects then contained in a series of Appendices.
- 1.11 The Appendices cover the impacts in relation to the following:
- An example/explanation of the format of the appendices table
 - Socio-economic impacts
 - Landscape and visual
 - Green Belt
 - Biodiversity
 - Flood risk and drainage
 - Ground conditions (peat and contamination)
 - Transport and public rights of way
- 1.12 There are further appendices providing details of the travellers' sites.
- 1.13 Whilst noting guidance in PINS Advice note one: Local Impact Reports (April 2012) (Version 2) regarding the importance of the Examining Authority having the local authority's views on DCO articles, requirements and DCO obligations, it is considered more appropriate to provide CWCC's views as part of the Written Representations (WR) which are also submitted at Deadline 1. More detailed comments on the DCO articles/ requirements etc will be provided at Deadline 3.

2. Site location and surroundings

- 2.1. The site is located at Frodsham Marsh, Frodsham, Cheshire West and Chester (**the Site**).
- 2.2. The site and site context is described in the Applicant's description set out in Chapter 4 of the Planning Statement (**APP-128**) and Chapter 1 of the Environmental Statement (ES) Volume 1 (**APP-034**) – Section 1.3.
- 2.3. The main area of development is within the Solar Array Development Area (**SADA**) covering an area of some 246ha located at the eastern extent of Frodsham, Helsby and Lordship Marshes, between the Mersey Estuary and the M56.
- 2.4. The Order limits also include the routes of the main access via Grinsome Road (off Pool Lane, Ince) and land for the proposed grid connection/private wire connection to local businesses; with connection to the SPEN/National Grid Frodsham substation to the east side of the River Weaver.

- 2.5. The Order Limits also cover the existing Frodsham Windfarm (**FWF**) mitigation area (as shown in Figure 13.2 of the SEI¹ (**Appendix 13**)) which together with an additional area incorporating the former fishing pools to the north, and an additional northern part of Cell 2, is proposed as the basis for the Non-Breeding Bird Mitigation area of some 64ha.
- 2.6. A further area of agricultural land (some 5.58ha) to the south side of Moorditch Lane is included to form the Skylark Mitigation Area.

Details of the characteristics of the local area, such as urban and landscape qualities and nature conservation sites.

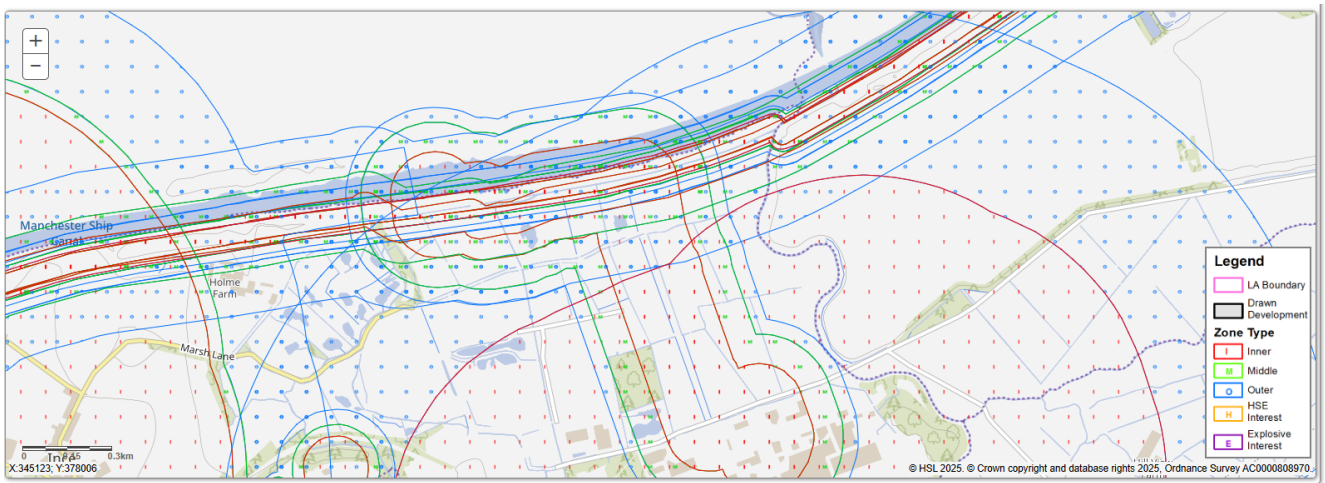
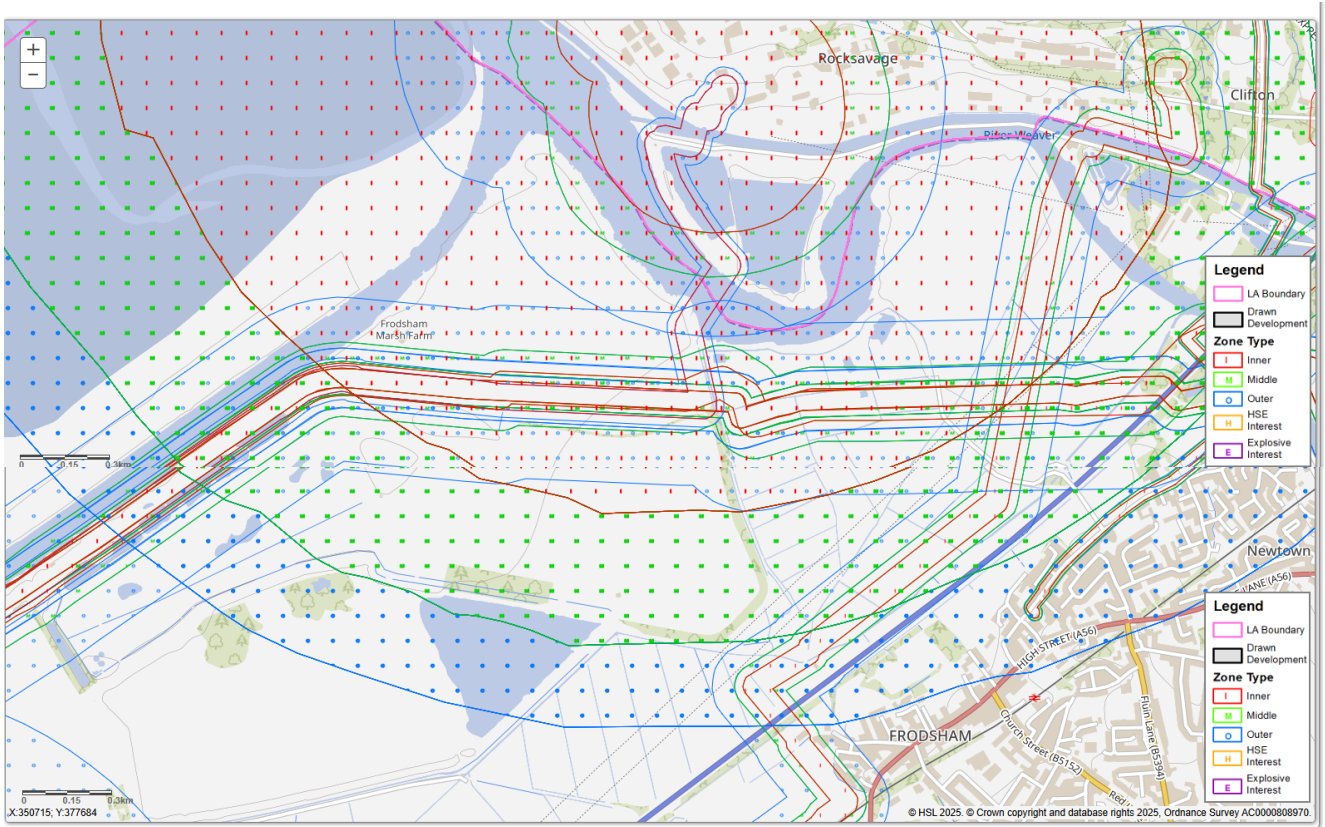
- 2.7. Details of the characteristics of the local area, such as urban and landscape qualities and nature conservation sites are provided in the Applicant's Environmental Statement and accompanying documents.
- 2.8. The Site's relationship with the Mersey Estuary has a dominant influence on the site and the proposed development needs to have regard to the recognised local, national and international importance of the estuary, particularly in relation to nature conservation and ecology. The landscape character of the area is also highly influenced by the presence of the Mersey Estuary, as are the cultural heritage aspects (including archaeological interest). The areas of ridge and furrow within the SADA are shown on Figure 11-1 (**APP-123**)

Constraints relevant to the site and area.

- 2.9. Numerous different infrastructure is situated and crosses the site of the proposed development, including substations, pumping station, pipelines, sewers and water pipelines, underground and overhead powerlines / pylons, FWF infrastructure and cabling. Utilities constraints are shown on Fig 1-6 of (**APP105**).
- 2.10. Some of the pipelines are major hazard pipelines crossing through the site, including:

10021 Essar Oil UK Ltd
6759-0143 National Gas
6764-01048 Cadent Gas Ltd
6799 Essar Oil Ltd
7129 Essar Oil Ltd

¹ Supplementary Environmental Information August 2011 submitted for FWF and referred to in the FWF consent.



Extracts above show the consultation zones of major hazard pipelines

2.11. CWCC advised that the implications in terms of the proximity of development to nearby major hazard sites and/or major accident hazard pipelines should be confirmed following consultation with the HSE. The Applicant has referenced consultation with the HSE in the Consultation Report (Appendix 10: Section 42 Applicant Response)(APP-032).

Water Environment – Mersey Estuary, River Weaver - areas of flood risk

- 2.12. The Site is heavily influenced by its location along the Mersey Estuary (and the associated Manchester Ship Canal), and the River Weaver to the eastern side of the site.
- 2.13. The Application submission is supported by ES Chapter 9 Flood Risk (**APP-042**) and the updated Flood Risk Assessment (**AS-19** to **AS-28**).
- 2.14. There are numerous watercourses (ditches) crossing the site, and these include both ordinary watercourse and Environment Agency designated Main rivers (Image 9-1 in **APP-042**) and Appendix D of the Water Framework Directive Assessment (**APP-084**). The Main rivers within the site are labelled: Red Wal ditch, The Lum, Ship Street Course (Marsh Green also passes along the northern boundary to the Skylark Mitigation Area (SMA)). It is noted that no crossing point is shown for access to the SMA on the indicative watercourse crossings point plan (Appendix K of **APP-084**) and D41 is not identified as a Main river.
- 2.15. A large part of the SADA is subject to flood risk, with the majority of the eastern area of the proposed solar array being Flood Zone 3 on the EAs flood mapping for Fluvial and Tidal flooding (Appendix F of EN010153/DR/6.2 Vol 2. Appendix 9-1 FRA and Drainage Strategy Part 1 of 5 (**AS-020**).
- 2.16. There are two pumping stations in the area (Frodsham and Ince), pumping water to the River Weaver and Manchester Ship Canal respectively. The area benefits from flood defences as described in the FRA.
- 2.17. The Environment Agency is one of the main stakeholders in relation to the water environment and along with the Lead Local Flood Authority their technical expertise and representations on the impacts of the development need to be considered alongside the LIR.

Designations

- 2.18. Key designations are shown on Figure 1-3 of Vol3 Chapter 1 of the ES (**APP-105**).
- 2.19. In terms of statutory designations for ecology, small sections of the main development area and NBMMA along the northern boundary of the Order Limits adjacent to the Manchester Ship Canal, fall within the Mersey Estuary SSSI.
- 2.20. The Mersey Estuary RAMSAR site is of international significance, and the Mersey Estuary Special Protection Area (SPA) boundaries are immediately northwest of the Order Limits (some 72m referred to in Table 8-8 of **APP-041** Chapter 8 Ornithology). The Mersey Estuary Site of Special Scientific Interest falls within and adjacent to the Order Limits.
- 2.21. In terms of non-statutory designated sites for nature conservation virtually the whole of the Order Limits fall within a local wildlife site (LWS). Only a narrow strip along the northern boundary to the Manchester Ship Canal does not lie within an LWS; and this is with the Mersey Estuary SSI

- 2.22. Frodsham, Helsby, Ince Local Wildlife Site is the main LWS covering the main development area, but there are others including Frodsham Fields Studies Centre LWS covering the SPEN/National Grid area to the east of the River Weaver. There are numerous other LWS's nearby. See Figure 4 (**APP-075**) (Habitats Baseline Report).
- 2.23. The heritage designations are shown in Figures 11-3 and 11-4 (**APP-123**). There are no heritage designated assets within the main Order Limits. However, there are notable heritage assets to the south in Frodsham, including Frodsham Town Conservation Area, Castle Park (Frodsham) Conservation Area, and Castle Park Registered Park and Garden. Overton, St Lawrence Conservation Area is further south, but elevated with intervisibility to the SADA. There are numerous listed buildings within these areas. The Grade II Listed War Memorial on top of Frodsham Hill is notable in terms of the SADA being prominently positioned within the asset's setting. Somewhat further to the west is The Promontory Fort On Helsby Hill 250 m North West Of Harmers Lake Farm Scheduled Monument.



View from Frodsham Hill.

- 2.24. There are also heritage assets concentrated around Weston Conservation Area to the north on the edge of Runcorn.
- 2.25. There are no statutory designated landscape designations covering the site. However, there are non-statutory designations of Areas of Special County Value to the south and south east of the site; Helsby and Frodsham Hills ASCV and Weaver Valley ASCV. See Fig. 6-3a of Chapter 6 Figures Part 1 of 13 (**AD-109**).
- 2.26. In terms of access and the National Cycleway Network, Moorditch Lane and Brook Furlong are part of the NCN route 5, connecting to Lordship Lane. NCN 5 continues along the southern side of the M56. Also Fig. 6-3a of Chapter 6 Figures Part 1 of 13 (**AD-109**). The Sandstone Trail passes through Frodsham to meet with NCN 5; and the Frodsham War Memorial is a key view point along the trail.

2.27. The site is designated as part of the North Cheshire Green Belt also as shown on the figure referred to above.

3. Relevant planning history and likely cumulative effects

Shortlist of reasonably foreseeable developments – (APP-058)

3.1. The application documents (**APP-057** and **APP-58**) provide a summary of relevant planning history in terms of cumulative effects.

Frodsham windfarm (FWF)

3.2. In terms of the previous planning history on the site, the Frodsham windfarm (**FWF**) is the most notable development of relevance.

3.3. The Planning Statement (**APP-128**) sets out relevant planning history in relation to the consent granted by the Secretary of State for Energy and Climate Change under Section 36 of the Electricity Act 1989, for the construction and operation of a Wind Turbine Generating Station of up to 57MW (reference 12.04.09.109C). The consent included for deemed planning permission (reference 10/00597/DECC).

3.4. The FWF comprised the following principal components:

- i) Up to 19 wind turbines; each not exceeding 125 metres to blade tip.
- ii) One anemometry mast, not exceeding 80 metres in height.
- iii) Underground 33kV / 132kV electrical cabling.
- iv) A 33kV / 132kV electricity substation.
- v) Access track.
- vi) A canal berth.
- vii) Habitat mitigation and creation.
- viii) Buildings (including administration offices) and civil engineering works.

3.5. The consent is for 25 years, expiring in February 2042.

3.6. There is an inevitable interrelationship between the Frodsham Solar project and FWF which requires careful examination. This includes taking account of Frodsham Solar's proposals for adding mitigation in the form of the Non Breeding Bird Mitigation Area (NBBMA) to the existing mitigation areas associated with FWF, including Cell 3, Cell 2 and part of Cell 5 (shown on the SEI Fig.13.2 Proposed Mitigation (**Appendix 13**)). There is also a need to assess the implications in terms of FWF being a temporary consent to 2042, and the expectation regarding decommissioning (or possible re-powering).

3.7. Frodsham Solar will have adverse negative impacts on the existing mitigation provided for FWF during the construction period. FWF is subject to planning conditions regarding maintenance of its mitigation for the duration of the windfarm, and there would be a temporary break in provision during construction of the new NBBMA, and ongoing loss/impact during the operational phase on Cells 2 and 5 as

short sward grassland provision for non-breeding birds under FWF's outline habitat creation management plan (**RR-37 Appendix I** – section 2.3).

- 3.8. The decommissioning of the FWF has potential to add adverse cumulative impact e.g. to any replacement activities/campaign during operation of Frodsham Solar.

Hynet Runcorn CO2 pipeline spur

- 3.9. The Hynet Runcorn CO2 spur pipeline was included in the short list of reasonably foreseeable developments (Ref: 78 **APP-058**) as a project at EIA scoping stage (24/01171/SCO). The planning application has now been made.
- 3.10. 25/02108/FUL - Construction of a new Carbon Dioxide Spur Pipeline and Above Ground Installation (AGI) and ancillary equipment to serve the Viridor Energy from Waste (Efw) Facility Carbon Capture Plant at Cross Lane, Frodsham. The location plans are provided in CWCC's Written Representations (WR). The application was validated on 15 August 2025 and is pending.
- 3.11. The issue of cumulative effects, and in particular the relative timing/programmes of Frodsham Solar, the Runcorn Spur CO2 pipeline (and also the Hynet North West Hydrogen Pipeline (PINS Ref: EN060006)) has been raised as at the Issue Specific Hearing 1 (ISH1). CWCC consider that further assessment of the impacts of the relative timing needs to be carried out and presented.
- 3.12. Frodsham Solar and the Liverpool Bay CCS Ltd appear to be progressing on the basis that the Runcorn Spur CO2 pipeline works would be carried prior to works to provide the NBBMA. Frodsham Solar consider that Liverpool Bay CCS Ltd should assess the impacts of their application where the pipeline programme might fall later, with installation post completion of the NBBMA. CWCC consider that Frodsham Solar also need to assess this scenario; it is not just for the pipeline applicant to consider.

Other pending solar farm applications

- 3.1. There are other recent solar applications in the vicinity.
- 3.2. 25/03414/FUL - Construction and operation of a photovoltaic solar array and ancillary infrastructure at Gowry Marsh Waste Disposal Site, Ince Lane, Wimbolds Trafford, Chester, CH2 4JP The application covers some 46 hectares. The location is shown on **Appendix 14** The application was validated on 21 November 2025 and is pending. *This development was included in at EIA screening stage on the short list by the Applicant (Ref: 83 on APP-058).*
- 3.3. Another solar farm application has also been made, on a site closer to Frodsham Solar to the north of Rake Lane.
- 3.4. 25/01339/FUL - Construction and operation of a solar photovoltaic (PV) farm with associated infrastructure and landscape and ecological enhancements for a temporary operational period of 40 years at land North of Rake Lane, Dunham On

The Hill, Chester. The application covers some 77 hectares. The location is shown on **Appendix 15**. The application was validated on 23 May 2025 and is pending.

- 3.5. It is appropriate to update the assessment to include the above. The initial view is that this later application is unlikely to result in a significant addition to the issues already considered.

Traveller sites

- 3.13. The planning history in relation to the traveller sites off Moorditch Lane are covered in more detail in the Environmental matters (travellers' sites) further below. The two adjacent traveller sites that are enclosed by the Order Limits are shown in **Appendices 11 and 12**.

4. Details of the proposal

- 4.1. The Proposed Development comprises a ground-mounted solar energy generating station with a total capacity of approximately 147 megawatts (MW) of electricity, as well as the storage of approximately 100 MW of electricity in a Battery Energy Storage System (BESS) along with associated infrastructure.
- 4.2. The proposed development is as described in the Applicant's description set out in Chapter 4 of the Planning Statement (**APP-128**) and Chapter 2 of the Environmental Statement (ES) Volume 1 (**APP-035**), and section 2.4 in particular ('Key Components of the Proposed Development').
- 4.3. The Planning Statement refers to the Proposed Development comprises a new solar energy generating station and an associated on-site Battery Energy Storage System (BESS) along with associated infrastructure and works. The proposed development also includes works to form ecological mitigation areas; notably the NBBMA and Skylark mitigation areas, but also other areas including works around the LUM and a wetland area adjacent to Cell 3).
- 4.4. The Proposed Development is broken down into several areas:
- i) Solar Array Development Area (SADA) that would include solar photovoltaic (PV) modules and support frames, internal access tracks, cabling, inverters, transformers, the solar array substation (known as the 'Frodsham Solar Substation) and the BESS;
 - ii) Main Site Access route;
 - iii) SPEN Grid Connection linking Frodsham Solar Substation to the SP Energy Networks (SPEN) Frodsham Substation
 - iv) SPEN / National Grid Substation and access to the substation compound
 - v) Private Wire Connection to local businesses
 - vi) Non Breeding Bird Mitigation Area (NBBMA)
 - vii) Skylark Mitigation Area
- 4.5. The main development areas are shown on Fig 1-2 (**APP-105**).

5. Assessment methodology / Rochdale Envelope

5.1. Under the IAoPI (**OD-006**) and 3. Planning Matters a. consideration needs to be given to topics including:

a. Whether the assessment methodology including scoping, is consistent with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. Whether it reflects best practice, has been applied consistently, and is evidenced and reasoned. The use of professional judgement and assumptions.

5.2. And :

b. The flexibility sought for the detailed design, construction, and operational phases. Whether the extent of flexibility adopted in the Rochdale Envelope is reasonable and consistent. Whether a reasonable worst-case scenario has been assessed. The regard given to Advice Note 9: Rochdale Envelope and Advice Note 17: Cumulative effects assessment relevant to nationally significant infrastructure projects

5.3. CWCC have raised some relatively small points of concern via the Relevant Representations in relation a few aspects of the EIA assessment and professional judgement e.g. in terms of the landscape and visual assessment, flood risk assessment. However, in general terms the EIA assessment methodology is considered to be appropriate and well-reasoned.

5.4. In terms of the flexibility sought and the Rochdale Envelope, CWCC do not raise concerns with the principle (noting PINS Advice Note 9 relating to the Rochdale Envelope). Subject to controls in the DCO and associated documents (with amendments to address the matters raised elsewhere in the CWCC's submissions, it is considered appropriate to provide flexibility to allow for the most efficient arrangement at time of construction (or major replacement). It is essential that the Applicant maintains consistency across the relevant application documents; and it may be prudent to clarify that where any inconsistency is found, the latest approved document should take precedence.

5.5. Paragraph 2.3.6 of Chapter 2 of the ES (**APP-106**) sets out the documents including the Works Plans (**AS-007**) along with the Design Principles of the Design Approach Document (**APP-130**) and the documents to be certified under the DCO that provide the basis of the Rochdale Envelope for this development.

5.6. Chapter 2 above does not explicitly refer to the Design Parameters Statement (**APP-132**); and for ease of reference/clarity, it is suggested that rather than the documents referred to in 2.3.6; the Rochdale Envelope be couched in terms of the Design Parameters Statement, the Works Plans and the documents to be certified in the DCO.

5.7. It is noted that some amendments to the Works Plans in connection with comments on the draft DCO have been / are suggested by CWCC.

6. Planning Policies and local context

6.1. The legislative background and national policy framework are described in the Applicant's Planning Statement (**APP-128**) and Policy Compliance Statement (**APP-129**). It is not considered necessary to repeat or comment in detail on the national policy position in the LIR.

6.2. The Development Plan policies relevant to the site are comprised in the following:

- i) Cheshire West and Chester Local Plan (Part One) Strategic Policies (**LP1**) (adopted on 29 January 2015)
- ii) Cheshire West and Chester Local Plan (Part Two) Land Allocations and Detailed Policies (**LP2**) (adopted on 18 July 2019)
- iii) Ince Neighbourhood Plan (**INP**) (made on 30 October 2023)
- iv) Frodsham Neighbourhood Plan (**FNP**) (made on 25 November 2024)

6.3. With regard to LP1 the following policies are of particular relevance:

- STRAT 1 Sustainable development
- STRAT 2 Strategic development
- STRAT 9 Green Belt and countryside
- STRAT 10 Transport and accessibility
- STRAT11 Infrastructure
- ECON1 Economic growth, employment and enterprise
- SOC5 Health and well-being
- ENV1 Flood risk and water management
- ENV2 Landscape
- ENV3 Green Infrastructure
- ENV4 Biodiversity and geodiversity
- ENV5 Historic environment
- ENV6 High quality design and sustainable construction
- ENV7 Alternative energy supplies

6.4. With regard to LP1 policies the Site's location in the Green Belt (STRAT9) and the natural environment Policy ENV4 are particularly relevant, as part of the Site is within the Mersey Estuary SSSI, the majority of the Site is within a Local Wildlife Site, Frodsham Score and the estuary adjacent to the Site are within the Mersey Estuary RAMSAR and (SPA).

6.5. A major part of the Site is also within the Environment Agency's Flood Zone 3a and Policy ENV 1 is significant.

6.6. Under Policy ENV7 'Alternative energy supplies' there is support for renewable and low carbon energy proposals where there are no unacceptable impacts on:

- Landscape, visual or residential amenity
- Noise, air, water, highways or health
- Biodiversity, the natural or historic environment
- Radar, telecommunications or the safety of aircraft operations.

6.7. The following policies of LP2 are of particular relevance:

- T5 Parking and access
- GBC2 Protection of landscape (*with regard to the nearby Areas of Special County Value*)
- M4 Proposals for exploration, appraisal or production of hydrocarbons
- DM1 Development of previously developed land
- DM2 Impact on residential amenity
- DM3 Design, character and visual amenity
- DM11 Safeguarding areas around aerodromes
- DM29 Health impacts of new development
- DM30 Noise
- DM31 Air quality
- DM32 Land contamination and instability
- DM34 Development in the vicinity of hazardous installations
- DM38 Waterways and mooring facilities
- DM40 Development and flood risk
- DM41 Sustainable Drainage systems
- DM44 Protecting and enhancing the natural environment (core areas)
- DM45 Trees, woodland and hedgerows
- DM46 Development in conservation areas
- DM47 Listed buildings
- DM48 Non-designated heritage assets
- DM49 Registered Parks and Gardens (*Caste Park Frodsham*)
- DM50 Archaeology
- DM52 Solar Energy
- DM53 Energy generation, storage and district heat networks (*in relation to the BESS*)

6.8. Policy DM52 'Solar energy' is of particular note, and Policy DM53 'Energy generation, storage etc' in relation to the BESS. (See **RR-037** paragraphs 2.9 to 2.12)

6.9. Frodsham Neighbourhood Plan (**FNP**) policies of particular relevance include:

- EDVE2 Tourism and visitor economy
- GSRL2, GSRL4 and GSRL5 - Local Green Space
- CA1 Footpaths and Cycle Paths

6.10. With regard to Policies in Ince Neighbourhood Plan (**INP**), the policies referred to in the Policy Compliance Statement (**APP-129**) capture the relevant policies. It is noted that only the proposed access from Pool Lane, utilising Grinsome Road/Kinetic Street and Marsh Lane (Restricted Byway RB40) falls within the limits of INP. As such of particular relevance are:

- FBC1 Footpaths, Bridleways and Cycleways
- NAT1 and NAT3, FBC1, LGC1 and CC3

Frodsham Neighbourhood Plan

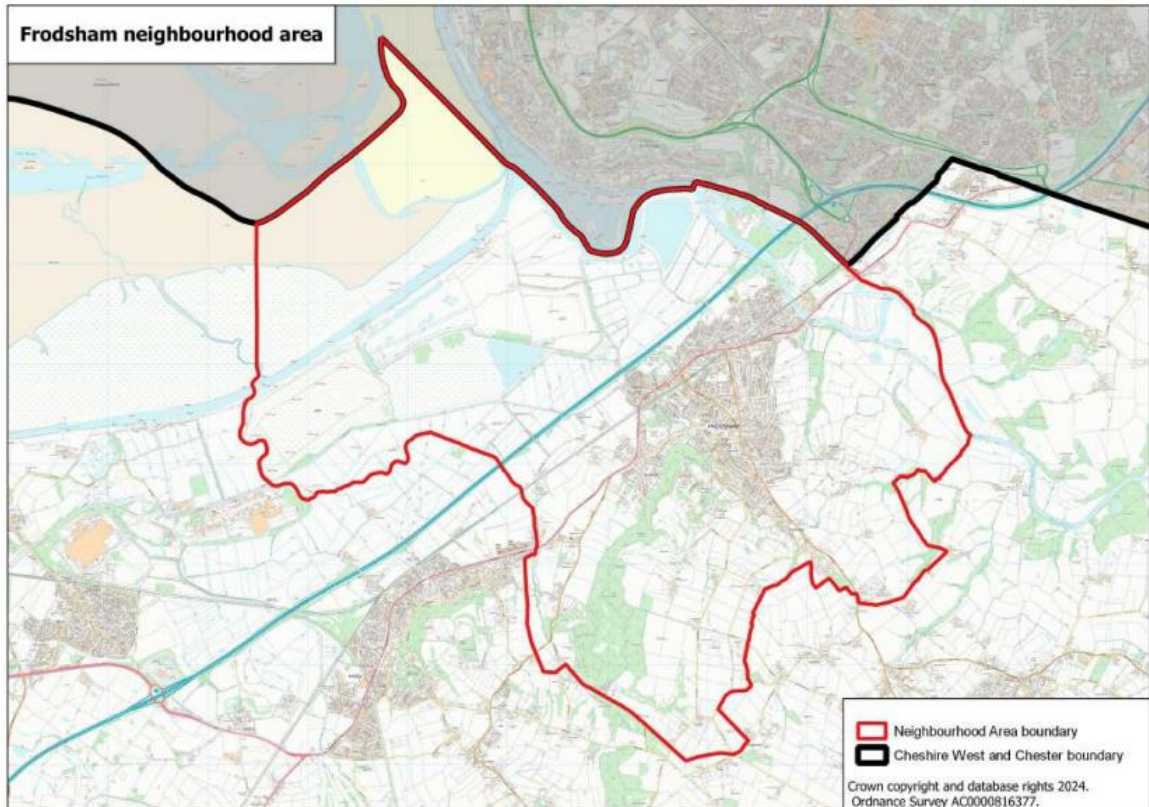


Fig 2 – Designated Neighbourhood Plan Area
Extract from FNP

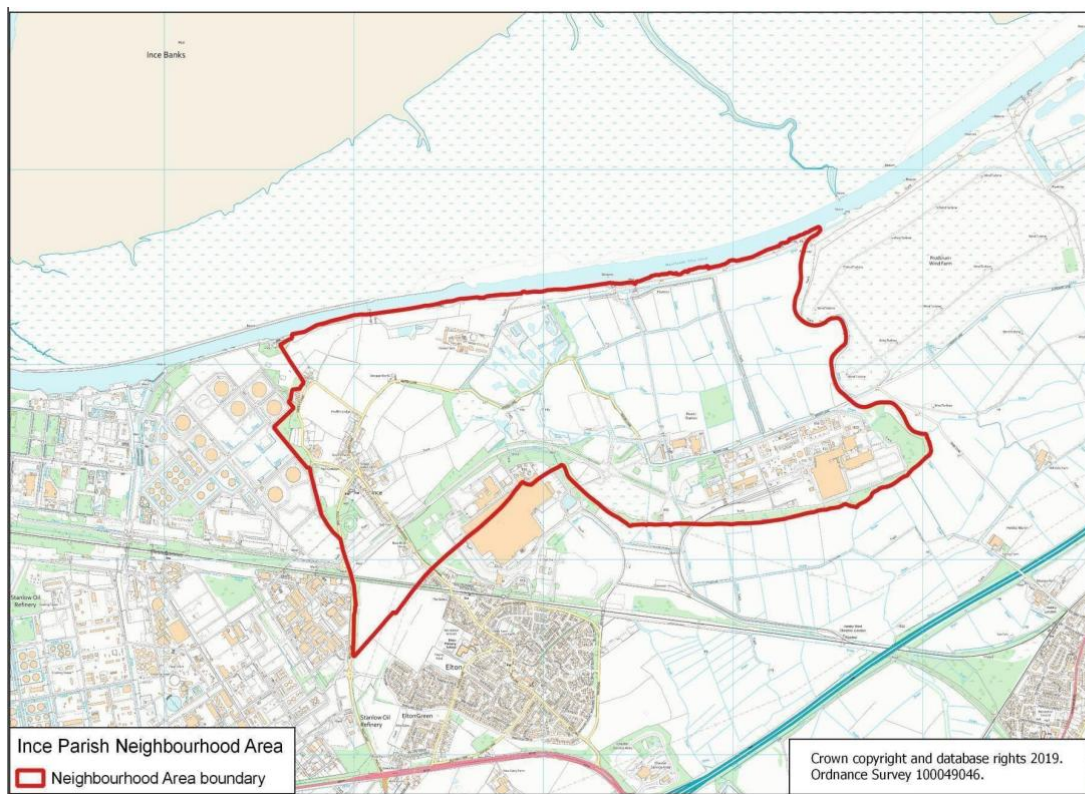
- 6.11. In terms of FNP policies to highlight, EDVE2 Tourism and recreation seeks to promote Frodsham as a visitor and a green tourist destination. Developments will be supported where a number of criteria are satisfied, and of note to the current proposal are the following:
- Will not result in adverse impacts on the ecological value and function of Frodsham Marshes
 - Enhance the existing visitor attractions
 - Promote the use of the Weaver navigation and the adjoining riverside, whilst protecting its amenity value, navigational safety and environmental quality.
 - Demonstrate that potential effects on biodiversity, noise and environmental impacts have been explored and avoidance and mitigation measures employed.
- 6.12. Please also refer to **RR-037** paragraphs 7.26 and 7.27. See also the ecology comment on FNP policy at **Appendix 5** (E.008)
- 6.13. There are concerns regarding adverse impacts on ecological value and function of Frodsham Marshes as set out in the RR-037 and elsewhere in the LIR. It is likely that there will be some temporary impacts during construction on existing visitor attractions such as Hover Force and use of the River Weaver, although these adverse impacts are liable to be of relatively short duration. During the operational phase it is liable to be the change to the character of the site that influences the

level of attraction of the area for visitors/recreational, and any diminution of the ornithological interest would also impact on visitors for this purpose.

- 6.14. The mitigation in the form of permissive paths and potential/option for a visitor car park on Moorditch Lane is welcomed in terms of public access. Such initiatives, should be seen as mitigation rather than enhancement due to the adverse impact of the Frodsham Solar development on users enjoyment of the existing PROW network (both during construction when there will be physical closures and operational phase when the impact is related more to the experience of using the PROW passing through large scale solar development compared with the current open landscape).
- 6.15. In terms of the GSRL policies in FNP, the Applicant makes reference to new areas of accessible natural greenspace through the site, as well as permissive paths. Whilst some limited improvements to recreation and access should be acknowledged, the green spaces are primarily for ecological mitigation, with limited access/opportunity for recreation. Mitigation measures to improve the condition of public rights of way, and the provision of bird viewing areas and educational displays are acknowledged.
- 6.16. The wildfowlers currently enjoy expansive areas in pursuit of their recreational activities, and the solar development will displace this activity.
- 6.17. The FNP also references Frodsham Marshes as attracting large numbers of NW based amateur birdwatchers and ornithological societies across the UK.
- 6.18. It is difficult to quantify, but the spread of solar development alongside the River Weaver and across the marshes may inhibit other potential sustainable leisure development that would be supported under GSRL4. The provision of permissive paths to the southern side of the SADA is aimed at improving accessibility and health and well-being for all and is supported by GSRL5.
- 6.19. In May 2018, Frodsham was selected as a 'pilot' town for Active Cheshire (a CWCC wide initiative to embed physical activity into all aspects of everyday life by 2040). The FNP notes that despite the discontinuation of this initiative, the ambition of the idea continues to remain important for the community. The explanation to GSRL5 expands on this:

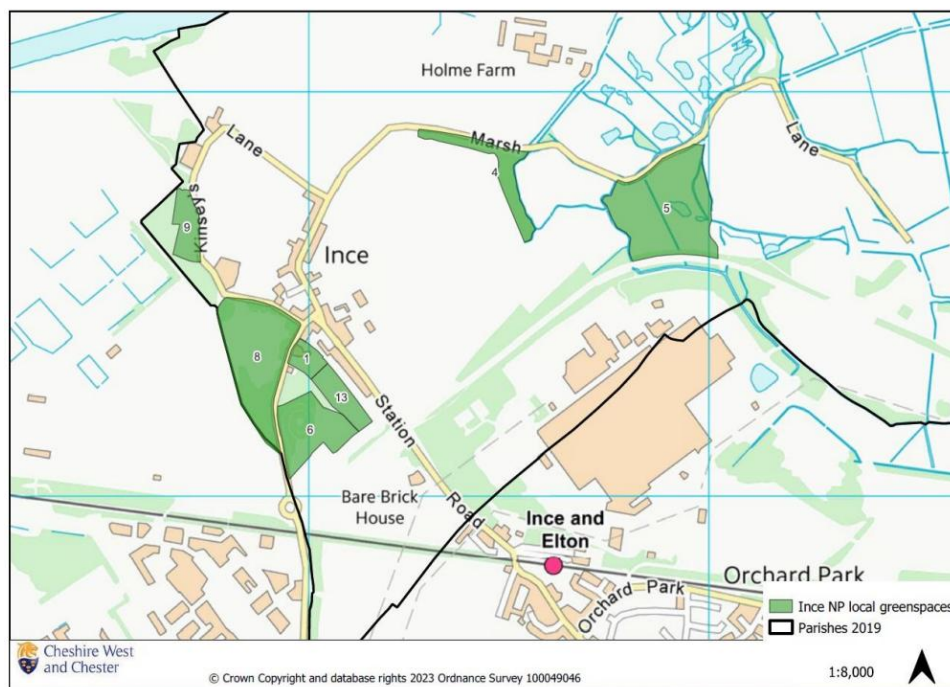
"The effects of the pandemic have reinforced the concern for, and focus on, health and wellbeing across communities. Both the local population and visitors value the green spaces in Frodsham and the easy access to the surrounding countryside. This was one of the five most valued things about Frodsham when the Frodsham Community were asked "what mattered to them?"
- 6.20. Please also refer to paragraphs 11.3 and 11.4 in **RR-037**.

Ince Neighbourhood Plan



Extract from INP

6.21. Under Policy LGS1 (Goldfinch Meadows) is one of several sites (5 on the plan) designated as Local Green Space in line with NPPF paragraphs 101 and 102 (July 2021 version)² and Local Greenspace Guidance in PPG and this lies adjacent to Grinsome Road on the north side.

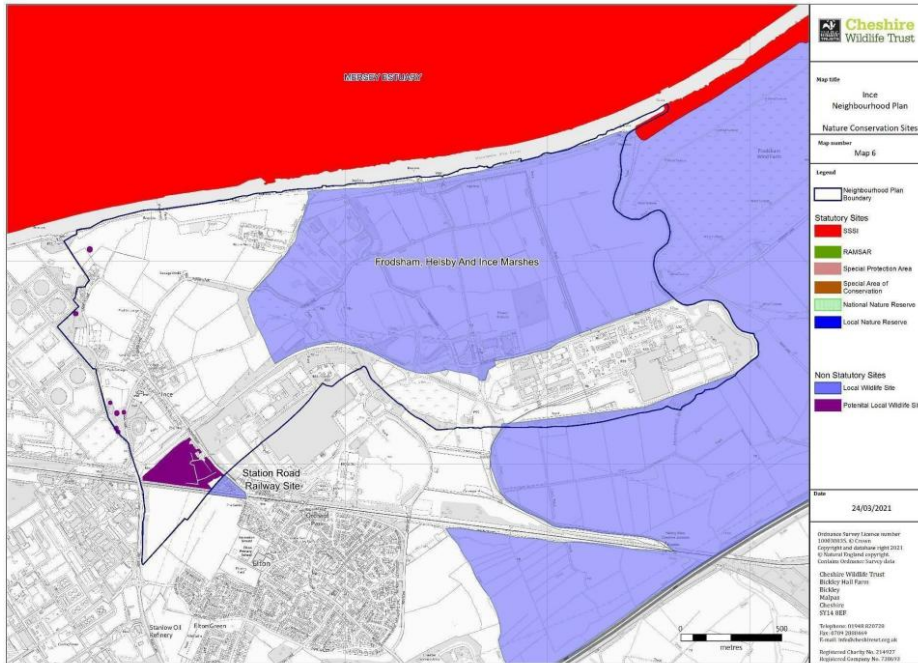


8.6 Figure F - Map of Local Green Spaces

Extract of INP – Local Green Spaces

² Paragraphs 106 and 107 in NPPF 2024.

6.22. Policy NAT 1 Wildlife Sites, Indicative Wildlife Corridors and Biodiversity complement Local Plan Policies ENV4 and DM44, noting the addition of reference to 15m buffers from development where appropriate.



9.16 Figure 6 – Nature Conservation Sites

Extract of INP – Nature Conservation Sites

6.23. Marsh Lane itself is identified as within an indicative wildlife corridor.



Extract of INP – Indicative Wildlife Corridors

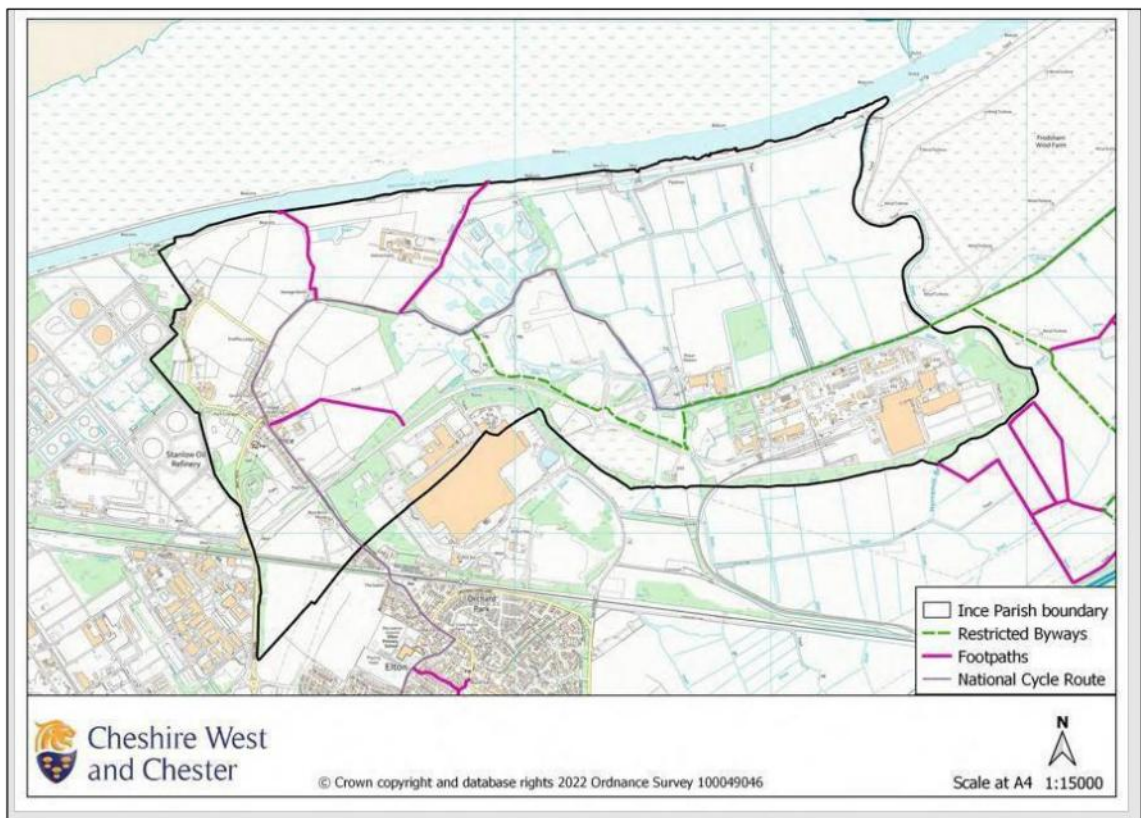
6.24. The criteria in Policy NAT 3 Design and Wildlife should be embedded in the control documents (oCTP, oCEMP, oDEMP) where relevant e.g. particularly the use of hedgehog-friendly fencing during any construction/decommissioning and surface water protection measures. Policy NAT 5 Trees and Hedgerows is relevant in support of LP2 Policy DM44, noting a replacement ratio of 3:1 for hedgerows additional to the 2:1 replacement of trees.

6.25. Policy FBC1 - Footpaths, Bridleways and Cycleways has the objective of improving access to the countryside through enhancement of footpaths, cycle paths and bridleways which support the health and wellbeing of the community whilst also benefiting flora and fauna by enhancing and protecting green corridors between habitats.

“Access to the countryside will be promoted through protection and maintenance of the existing Public Right of Way (PROW) network and cycleways (Figure N), their enhancement where possible, and the safety of users of rural roads and lanes. ...”

6.26. The proposed development will have adverse impact on accessibility using Marsh Lane (RB40) for a relatively substantial temporary period during construction of Frodsham Solar.

11.10 Figure N - Public Rights of Way



Extract from INP – Figure N

6.27. Policies CC1 and CC2 are covered in **APP-129**

6.28. Policy CC3 – Sustainable Transport covers matters including the need for transport assessment. Despite significant amounts of movement during construction (and decommissioning) CWCC do not consider that there would be unacceptable impact on highway safety or that the residual cumulative impacts on the road network would be severe.

Emerging Local Plan

- 6.29. CWCC carried out consultation on the Regulation 18 Issues and Options Local Plan between 4 July and 29 August 2025. Feedback on the Issues and Options document is under review and the Regulation 19 Publication / Pre-submission Plan is expected in the Autumn of 2026.

7. Summary of project impacts on the local area

- 7.1. The following sections provide an overview on various topic areas and commentary on associated impacts. The Appendices 1 to 10 provide further details of impacts across a range of topic areas.

8. Need, site selection, alternatives etc.

- 8.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:
- *Need case, site selection, alternatives, technology, generation capacity, and grid connection. The level of overplanting. The security of the grid connection. Grid reform. Whether a connection agreement is required for the full generation capacity.*
- 8.2. There is an acknowledged national priority for renewable energy, but there is also a particular local need, with much energy intensive industry and business in the area. The scheme has the potential to deliver renewable energy locally where it is needed, but as yet there is no firm commitment that local business will make a direct connection and establish a direct private wire connection, which has already been reduced from two to one from the pre-application proposals.
- 8.3. The proposed 147MW solar farm represents a significant contribution to Cheshire West and Chester's Climate Emergency Response Plan, directly supporting the transition to low carbon energy and decarbonisation.
- 8.4. The proposal will deliver clean power, equivalent to the energy demand of 40,000 homes and also provide energy resilience for the energy-intensive industries within the area. The benefits could be further enhanced by committing to the development of a private wire connection to Protos which could support balancing the generation potential with the local capacity limits.
- 8.5. The development aligns with the priorities of the Cheshire West and Chester's Climate Emergency Plan, which emphasises the urgent need to decarbonise our energy supply and reduce reliance on fossil fuels. The development directly contributes to Outcome 5 (**Appendix 16**) to meet a significant proportion of electricity demand, from locally generated renewable energy across the borough. The development would support 23% of the 2045 target (**Appendix 17** - Cheshire and Warrington Sustainable & Inclusive Economic Strategy) to deliver 1GW of Renewable Power and Storage across Cheshire and Warrington.

- 8.6. The Applicant has set out the case for site selection and alternatives, and whilst CWCC have concerns expressed in the various topic areas (especially in relation to ecology impacts, landscape, Green Belt and flood risk) the location close to the National Grid and SPEN substations to make the necessary grid connection is accepted as a key factor in finding a technically and commercially viable location.
- 8.7. With regard to overplanting, CWCC consider that whilst a generally accepted means of securing an operational efficiency and a means of countering the degradation of panels over time, there concern that by overplanting and seeking maximisation of the extent of solar array there will be disproportionate adverse environmental impact.
- 8.8. The application (**APP-001**) proposes ground mounted solar photovoltaic electricity generation with an export capacity of 147MW of renewable energy. This is understood to be 147MW of alternating current. However, there is no upper limit of export capacity referred to in the draft DCO (Work No.1). The explanatory memorandum (paragraphs 1.4.4 and 1.45 of **AS-016**) sets out the advantages of not having an upper limit. There is reference the gross electrical output capacity of over 50MW, to be consistent with the threshold for consideration under the DCO process. CWCC consider that it would be of public interest and transparent for the export capacity of each phase and the cumulative total to be confirmed as part of notices to be provided under Requirement 3 (4) of Schedule 2 relating to phasing and date of final commissioning (**PD2-026**).
- 8.7. The development makes potential provision for direct private wire connection to business to potentially bolster meeting local businesses energy requirements. However, there is uncertainty about whether the local benefit will be further enhanced by commitment to the private wire connection. Commitment to the establishment of at least one private wire connection would be encouraged.
- 8.8. Also, the scheme does not provide equivalent direct benefits to local residents. The Applicant's commitment to establishment of a community benefit fund, whilst welcome, and providing some local benefit does not appear to be directed at delivering direct energy benefits to local residents.
- 8.9. Overall, the proposed development will have a substantial positive impact in delivering on the need aspect once in the operational phase.
- 8.10. Socio-economic impacts are covered in **Appendix 2**

9. EIA methodology

- 9.1. Under the IAoPI (**OD-006**) and 3. Planning Matters d. consideration needs to be given to topics including:

The adequacy of the assessment and mitigation for each environmental topic. Consideration of scope, methodology, study area, receptors, and their sensitivity. Baseline conditions and how they were identified.

- 9.2. In general, CWCC have not raised concerns with the Applicant's EIA methodology for assessment. Where there are gaps or concerns these have been raised in the various topic areas, notably in relation to ecology, trees, flood risk (sequential assessment).
- 9.3. With regard to flood risk and the sequential assessment, whilst it is considered that there are some shortcomings in the sequential assessment regarding identification of potentially preferable locations in terms of flood risk, CWCC acknowledge that the scale of the development limits the options, and disaggregating the scheme, e.g. to use apparently sequentially preferable land south of the M56 appear to add significant technical issues/costs (e.g. linking back to the grid connection) and whilst lower flood zone land may be available to the south side of the M56, other impacts such as landscape and visual impacts would need to be considered. CWCC's conclusion is that development in Flood Zone 3 is a matter to be considered in the planning balance, not necessarily that other locations should be pursued further.

10. Phasing programme / duration of development etc.

- 10.1. Under the IAoPI (**OD-006**) and 3. Planning Matters e. consideration needs to be given to topics including:
- 10.2. *e. The magnitude and duration of construction, operational and decommissioning phase adverse and beneficial effects, mitigation, residual effects after mitigation and their significance. The control of preliminary works. The consideration given to any potential for large scale replacement of the solar panels, other works during the operational phase and the wider effects resulting from the consequent human disturbance.*
- 10.3. The Applicant's ES provides details of the magnitude and duration of construction, operation and decommissioning phases.
- 10.4. During the construction phase there are areas where significant adverse effects are assessed including:
- Landscape and visual
 - Frodsham Helsby and Ince Marshes LWS
- 10.5. During the operational phase the main beneficial significant effects identified in the ES relate to:
- Greenhouse Gas emissions
- 10.6. There is disagreement with the Applicant over the landscape conclusions in relation to the significance of beneficial effects, such as the net gain in tree cover. Reference is also made to the significant beneficial effects associated with the new waterbodies and wetland vegetation. However, in the context of the scale and adverse impact of the proposed development in terms of landscape character, and that these features are largely to mitigate the harm (whether landscape or ecological) it is not considered

appropriate to assign some of these more secondary impacts as being significant in terms of their magnitude of impact.

- 10.7. The ES does acknowledge that there would be significant adverse visual effects in Year 0, with some significant adverse visual effects remaining on parts of the PROW at Year 10.
- 10.8. There is also disagreement with the Applicant's ES assessment in terms of the view from Frodsham War Memorial as set out in **RR-037**.
- 10.9. During the operational phase the main adverse significant effects identified in the ES relate to
- 10.10. There are concerns relating to the assessment of ecological matters, as set out in the RR-037 and as such it is not possible to conclude on the significance of effects in relation to ecology.
- 10.11. There is also a lack of clarity/certainty over the cumulative effects of other projects, notably the Runcorn CO2 spur pipeline, which leaves concerns in relation to cumulative impacts during construction.

11. Green Belt

- 11.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:

Green Belt. Consideration of grey belt, inappropriate development, harm, openness, planning balance, very special circumstances, and critical national priority.

- 11.2. CWCC's assessment of the Green Belt and grey belt etc is provided in **RR-037**. CWCC's further comments in response to the Applicant's response to RR's (**OD2-027**) will be provided at Deadline 2. The LIR does not attempt to address planning balance, or very special circumstances, and CWCC's view on critical national priority is provided in the RR (paragraphs 5.51 and 5.59).
- 11.3. However, in order to provide some background context to the value of Frodsham, Helsby and Lordship Marshes as part of the North Cheshire Green Belt (and also to highlight the importance of the landscape) the ExA's attention is drawn to the circumstances leading up to inclusion of this area as part of the Green Belt.
- 11.4. The Frodsham, Helsby and Lordship Marshes were added into the North Cheshire Green Belt in terms of general extent in the Cheshire 2011 Replacement Structure Plan, adopted in October 1999.
- 11.5. The Green Belt boundary was established during the former Vale Royal Borough Council period and development of the adopted Vale Royal Borough Local Plan First Review Alteration (June 2026) (VRLP).

- 11.6. The reasons and explanation to VRLP Policy GS4 (Changes to the North Cheshire Green Belt) (b) Frodsham, Helsby and Lordship Marshes, set out the background to inclusion of this area as part of the Green Belt (**Appendix 18**). The land had previously (since 1979) been safeguarded for large-scale industry of national importance. There was however growing international awareness of the value of the Mersey Estuary in nature conservation terms. Point (iii) of the r/e to Policy GS4 states:

“In addition the Marshes represent a major open area between the heavy industrial sites at Ellesmere Port and Runcorn and therefore perform the function of separating large built up areas. Their openness is essential to this function.”

- 11.7. In the Report of the Public Inquiry into objections to the Draft Vale Royal Borough Local Plan First Review, 1999 (GB5) the Inspector’s conclusions in respect of the objection to the inclusion of the Marshes within the Green Belt are noted. Para 13.5 is reproduced:

13.5 - I share the EiP Panel’s view that it is difficult to conceive any development that would now justify disrupting the openness and spectacular vistas across this important part of the coastline. The Green Belt is a more logical and appropriate protection to this open landscape than the Section 77 Direction currently applied. I note the Company’s preference for a non-Green Belt policy providing a presumption against development except for agriculture and its own operations. To my mind the Marshes form a natural part of the much wider swathe of Green Belt land and that the approach offers the best and most effective way of protecting its particular quality of openness.

- 11.8. The proposed development has substantial adverse impact on the essential characteristics of openness and permanence; and on the purposes of the Green Belt, in particular purpose a) to check the unrestricted sprawl of large built-up areas, purpose b) to prevent neighbouring towns merging into one another, and purpose c) assisting in safeguarding the countryside from encroachment.
- 11.9. The impacts occur during construction, operation and decommissioning. Permanence is referred to in the context that 40 years operational life of the development is a substantial period, and such a break in maintaining openness goes against the normal sense of permanence as being continuing in the same state.
- 11.10. **Appendix 4** provides further details of the Green Belt related impacts. Despite some mitigation of Green Belt harm by virtue of the proposed decommissioning after the 40-year operational life of the development, the residual harm remains substantial.

12. Climate change

- 12.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:

Climate change. Greenhouse gas emissions from the lifecycle of the solar panels and other equipment, and their replacement during the operational phase. Downstream greenhouse gas emissions from the use of electricity. The offset electricity comparator. Benchmarking against other solar energy developments.

- 12.2. Mitigation measures to reduce GHG are referred to in the ES Chapter 5 (**APP-038**); and to be delivered through the detailed CEMP, OEMP and DEMP.
- 12.3. The Applicant's greenhouse gas (GHG) assessment (**APP-060**) breaks down the assessment into the construction, operational and decommissioning phases; and the results are summarised in Table 5.14 of **APP-038**.
- 12.4. It is noted that the Applicant's ES refers to CWCC's Emergency Response Plan which in turn was informed by the Tyndall Carbon Budgets for CWCC, and in response the GHG emissions have been compared to the local carbon budgets produced by the Tyndall Carbon Budget tool (Table 5-15 of **APP-038**).
- 12.5. CWCC's carbon budgets decrease over the lifetime of the development from 8.1m tCO₂e at construction in 2027, to 0.8m tCO₂e at decommissioning in 2042. During this period the net direct emissions as a percentage of the budget does not exceed 3.28% of CWCC'd budget. The ES assessment includes consideration of the offset in GHG emissions as a result of the solar scheme displacing electricity generated from gas fired power stations.
- 12.6. CWCC will respond to the Applicant's submission in relation to any further information provided on these aspects at Deadline 2.
- 12.7. **Appendix 2** also provides further details in relation to climate change impacts.
- 12.8. Climate change is linked closely with impact in relation to Flood Risk, and the Environment Agency's representation need to be taken into account in relation to those aspects. Flood Risk is dealt with further below, and in **Appendix 9**.
- 12.9. Whilst there are GHG emissions associated with the proposed development, that will have some adverse impact, the move towards renewable energy is beneficial in the wider assessment

13. Landscape and visual effects

- 13.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:

Landscape and visual. The height of solar panels in the photo montages and whether the latest layout is modelled. The assessment of visual effects at the Frodsham War Memorial. Whether a residential visual amenity assessment is required. The consideration given to National Character Areas. Low reflective material for the solar panels. Mitigating the impacts of security fencing, lighting, and cameras. Hedges. The consideration given to landscape management guidelines in the design and in the mitigation measures.

- 13.2. CWCC's assessment of the landscape and visual impacts is provided in **RR-037**, and **Appendix 3** provides further details. Comments on the residential visual amenity assessment (**RVAA**) and National Character Areas (**NCAs**) are provided in

WR Appendix A to the CWCC's Written Representations covering CWCC's response to the ISH1 matters not covered in the oral representations.

13.3. With regard to the **height of solar panels**.

13.4. The Applicant will need to confirm whether the latest layout has been modelled. CWCC do not consider that the Applicant's description of the solar panel arrays as low-level to be helpful to an appreciation of the impacts resulting from the development. The use of the term low-level is probably comparative in relation to other potential forms of development, such as a housing development, but with (maximum) panel heights of between 3.5m and 4m (depending on location within the SADA) it is clear that the structures would be significantly higher than any observer at close proximity, e.g. as seen from the site's public right of way network.

13.5. In August 2024 CWCC recommended addition to the design Objective 2: Landscape and Views in the Frodsham Solar Farm: Draft Design Objectives (March 2024). The following additional landscape design objectives were suggested (see Table 6-4 in **APP-039** page 6-39):

- Mitigation - Consider, and seek to mitigate where possible, impact on the open character of the marshes and existing views within and across the marshland and wider landscape character (estuary/weaver and hills). The mitigation measures should not in itself result in landscape and visual adverse effects.
- Consider potential impacts on the value of the landscape.
- Consider potential cumulative landscape and visual impacts.
- This should include an assessment of the capacity to accept change.

13.6. With regard to the above CWCC are of the view that the adverse impact of the development in terms of landscape character is reflective of a landscape that has been subject to substantial change over recent decades, but it has largely retained its essential open character, almost as a contrast to some of the urban influences, but that the proposed development goes beyond the landscape's capacity to accept change without substantial adverse impact on the important qualities of the landscape.

13.7. Low **reflective material** for the solar panels.

13.8. The use of anti-reflective material is proposed (as indicated in the Glint and Glare assessment. CWCC consider this aspect should be included in the list of matters for detailed design approval in Schedule 2 Requirement 6 of the DCO (**PD2-006**)

13.9. Mitigating the impacts of **security fencing, lighting, and cameras**.

13.10. In terms of the security features (fencing, lighting and CCTV) the measures set out in 6.7.12 of **APP-039** are considered appropriate, although there is liable to be a substantial residual impact in relation to the sense of enclosure of the currently open landscape as a result of the security fencing, even though this is expected to be mainly open mesh fencing up to 2m high (Fig.2-5g of **APP106**) the impact of this will contrast markedly with the current sense of openness to the landscape.

13.11. There is potential for some adverse landscape/visual impacts arising from some of the habitat mitigation measures, notably with reference to the screening measures (2m high timber fencing) for the Skylark Mitigation Area (para. 6.11.1 to 6.11.3 of the oLEMP (**PD2-024**))

13.12. **Trees and hedges** - CWCC's Senior Tree Officer has raised concerns about the arboricultural survey not following British standard guidelines (BS5837:2012).

13.13. The decision to record some of the trees under an 'Area' designation does not accord with the recommendations in BS5837:2012. This may result in an under-reporting of the number of tree losses, as the actual number of trees is not recorded. The AIA should be revised to show actual numbers of trees being removed to facilitate the Proposed Development; as this assists in assessing the appropriate number of replacement trees to be planted. Recording tree losses by canopy area might assist with assessing the actual loss, and tree canopy area information should be provided as a useful metric.

13.14. Extract from BS5837:2012):

"4.4.2.2 Individual trees, groups of trees and woodlands should be assessed for their quality and benefits within the context of proposed development, in a transparent, understandable and systematic way. The quality of each tree or group of trees should be recorded by allocating it to one of four categories (see 4.5). The categories should be differentiated on the tree survey plan by colours (see 4.5 and Tables 1 and 2), and/or by suffixing the category adjacent to the tree identification number on the tree survey plan (e.g. 217-A, 218-C etc; see 4.4.2.1).

4.4.2.3 Trees growing as groups or woodland should be identified and assessed as such where the arboriculturist determines that this is appropriate. However, an assessment of individuals within any group should still be undertaken if there is a need to differentiate between them, e.g. in order to highlight significant variation in attributes (including physiological or structural condition). NOTE The term "group" is intended to identify trees that form cohesive arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally, including for biodiversity (e.g. parkland or wood pasture), in respect of each of the three subcategories (see 4.5)."

13.15. It is noted that from the arboricultural assessment that the approach taken refers to positions where it is not expected that development will affect trees.

2.1.7 Where trees formed a contiguous canopy they may have been grouped, in line with the guidance of BS 5837:2012. If densely wooded areas are not expected to be directly affected by development proposals only the significant trees at the woodland perimeter will have been surveyed.

13.16. Further clarity on identifying trees (and hedgerows) to remain and the controls to protect them is needed to assess the development's impact on trees and hedges.

13.17. One of the adverse impacts is the removal of Category A trees as part of the establishment of the NBBMA (Group G034 – Figure 3 Tree Constraints Plan(s) and

Figure 4 – Tree Impacts Plan (3)). Any removal of Category A trees should be soundly justified.

13.18. **Landscape management.** In terms of consideration given to landscape management guidelines in the design and in the mitigation measures, the oLEMP (**PD2-024**) provides the main document, linking the design to the management as part of the mitigation measures; although other supporting documents (including the NBMMS (currently an appendix to the oLEMP) and the oPROW management plan) assist in securing the project design principles.

13.19. The phasing/programme of implementation of the mitigation measures is key to their success. Monitoring, review and adaptation to ensure objectives are being delivered is essential. Landscape and habitat issues are intertwined (e.g. grassland management), and critical to the success of the habitat mitigation (especially the NBBMA) is the establishment of long-term stewardship of the area by a suitably qualified nature conservation body.

13.20. Effective management (and intervention if necessary) of the ‘blue infrastructure’ e.g. water storage area in the NBBMA, will be significant to the success in achieving objectives.

13.21. One of the potential adverse impacts in relation to landscape management is at and post the decommissioning stage. As a temporary consent, the associated landscape management is also structured to be temporary. It is important that, as a minimum, robust restoration and aftercare provisions are in place (and appropriately funded) for at least a minimum period after completion of decommissioning.

13.22. **In conclusion** to the landscape and visual impacts, the mitigation proposed through the embedded design of the proposed development including: retaining features and field boundaries/pattern where practical, enhancing landscaping within the Order limits, establishing development free buffers etc is positive (paragraph 6.7.2 of **APP-039**). However, overall, and the point has been made earlier in relation to Green Belt, the proposed development would have a substantial adverse impact on the essential and highly valued quality of openness of the landscape; and this translates to a substantial adverse impact in terms of landscape character and visual amenity of the area. The impacts are such that it is not practical to mitigate, and there would be substantial residual impact. The impact would be long-lasting and experienced during construction, operational and decommissioning phases.

13.23. CWCC’s representations on the importance of and the adverse impacts arising from the development on the view from Frodsham War Memorial (Viewpoint 9) are now well documented. These concerns are expressed in other Interested Parties representations, notably Climate Action Frodsham (**RR-040**), and these need careful consideration.

14. Ecology overview

14.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:

- 14.2. *Biodiversity, habitats, and species. The regard given to Advice Note 10: Habitats Regulations Assessment relevant to nationally significant infrastructure projects. The consideration given to statutory and non-statutory designated sites. Protected species scoping for detailed assessment and the adequacy of the surveys undertaken to date. The mitigation measures including the Non-Breeding Birds Mitigation Area and the Skylark Mitigation Area.*
- 14.3. **Mersey Estuary RAMSAR SPA and SSSI:** Currently, it is not demonstrated that the development would not have a significant adverse impact on the designation, due to impacts on functionally linked land. In terms of Habitat Regulation Assessment, it is the LPA's view that the current Information to Inform Habitat Regulations Assessment has insufficient information on which the ExA, as the competent authority can make an assessment, and that the current information demonstrates adverse impacts on the Mersey Estuary RAMSAR and SPA.
- 14.4. There are various issues in terms of construction impacts on non-breeding birds qualifying species for the Mersey Estuary that have not been fully assessed. There are concerns that the solar panels will cause displacement and reduction in population size of non-breeding bird associated with the designated site, due to reduction of functionally linked land available for use and obstruction of flight paths; including those originally protected under the Frodsham Windfarm Mitigation proposal.
- 14.5. During operation, the area of Functionally linked land would be reduced, decreasing its resilience and ability to sustainably support non-breeding bird populations. In addition, the introduction of an expanded and upgraded public right of way network across the marsh has not been fully assessed in terms of ecological impacts and should be reduced in extent near sensitive areas. There are concerns with decommissioning of the non-breeding bird mitigation area, due to the impacts being different to that during construction, due to the birds having been restricted to smaller areas. There are also concerns with long-term management of the NBMMA not being secured, with no control over its apparent decommissioning if handed back to landowners.
- 14.6. There are concerns that the cumulative construction impacts of the Runcorn Carbon Dioxide Spur have not been fully assessed or mitigated for. The pipeline route runs through the most sensitive areas of the Order Limits in terms of non-breeding birds.
- 14.7. The principle of providing a higher quality smaller mitigation area in place of larger mitigation areas is flawed, as this will reduce areas for birds to move if displaced, render the bird populations more vulnerable to disease and reduces the contiguous area of functionally linked land and therefore its resilience and long-term viability. There are concerns that the survey data is not robust enough on which to base the Non-Breeding Bird Mitigation Strategy and that the methodology used is flawed.
- 14.8. **Protected Species:**
i) Breeding birds - There are concerns that the Skylark Mitigation Area (SMA) has been reduced significantly since the PEIR stage of the development without justification. There are concerns that the SMA is not appropriately located and has not been surveyed to assess current Skylark presence and therefore suitability.

ii) **Bats** - There are concerns that trees proposed for removal have not been subject to bat survey and so bat roosts presence and the mitigation and compensation measures required are unknown.

iii) **Otters** - There are concerns regarding the obstruction of Otters from feeding areas, due to solar farm fencing and fencing of the NBBMA.

iv) **Badgers** - There are concerns that the development has unnecessary direct impact on setts, will obstruct badgers foraging and commuting routes and that the introduction of footpaths will displace badgers from the area. Recommended surveys have not been carried out.

v) **Reptiles** - Justification on survey extent is required, to ensure robust survey and assessment has been carried out.

14.9. **Local Wildlife Sites:** The development is liable to lead to rescinding part of the LWS designation, and the remaining area of the LWS will be left vulnerable to degradation.

14.10. The **Biodiversity Net Gain** information submitted demonstrates that habitat loss, including priority habitat loss, has not been properly accounted or compensated for and significant amounts of habitats have been misclassified. There is no supporting document to understand the methodology behind the metric or to provide further assessment.

14.11. **Appendix 5** provides further details of the Biodiversity related impacts.

14.12. **In conclusion** to the biodiversity. The impacts and concerns over the assessment of impacts and mitigation methodologies form the CWCC's primary concern with the development. The concerns extend over the construction, operational and decommissioning stages of development (and beyond in terms of the longer-term implications for restoration and aftercare). Large parts of the development impact on areas that are already functioning as mitigation for the FWF. Whilst a time-limited development, the duration of the effects will be experienced over a long period; the impacts are multiple and affecting sensitive receptors of international, national and local importance, as seen by the coverage over a large part of the FLL to the Mersey Estuary, and the LWS. Substantial residual harm is likely, after mitigation is taken into account.

15. Water Environment - Flood risk, drainage and water quality

15.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:

Water environment and water contamination, including the regard given to Advice Note 18: The Water Framework Directive. Matters relevant to the Marine Management Organisation. Changes to land drainage. The flood risk assessment, heights at which panels should be mounted, potential loss of flood plain storage, sequential and acceptance tests, permits. Wider effects resulting from the proposed reconfiguration of the ponds and ditches

- 15.2. CWCC's comments on the water environment are made subject to Natural England's comments on hydrology. Natural England provided an update on obtaining specialist advice relating to comments on hydrology (**AS-035**).
- 15.3. The Applicant provided a Water Framework Directive (WFD) Assessment (**APP-089**) as required by the Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive.
- 15.4. The site is located within a WFD designated groundwater body, the Wirral and West Cheshire Permo-Triassic Sandstone Aquifers Water Body.
- 15.5. The Environment Agency (EA) in their Relevant Representation (RR-024) refers to insufficient water quality management measures in the outline Operational Environment Management Plan (OEMP) and that the development may therefore pose a risk of deterioration in the status of Water Framework Directive (WFD) waterbodies. Deterioration of WFD water quality is a risk to water bodies if leaks and spillages of fuel, chemicals, or hazardous materials occur.
- 15.6. The EA also refer to the development adding receptors in the area drained by Frodsham pumping station, and that this may lead to the residual life of the pumping station needing to be extended (RR EA016). All sources of flood risk that could pose a risk to the site, could benefit from Frodsham pumping station mitigating those risks through draining the floodplain.
- 15.7. The EA refer to possible underestimation of flood risk in the Applicant's assessment; although it appears that clarification from the Applicant may resolve the assessment issue.
- 15.8. The EA highlight that dry islands within the site may form in the event of a flood, preventing safe access and egress in during the event. It is not clear how long water would remain on-site, and operatives could be cut off from egress from the site for long periods of time.
- 15.9. The EA also refer to the proposed crossing design potentially reducing conveyance of water during high flow conditions, preclude access to riverbanks, and damage ecological processes and species.
- 15.10. It is understood that further discussions have been ongoing between the Applicant and the EA to resolve issues, and the Applicant has presented an updated Outline Flood Warning and Evacuation Plan (**PD2-029**), which has incorporated comments from CWCC's Emergency Planning team.
- 15.11. The EA is best placed to comment on the FRA height of panels.
- 15.12. Comment on the sequential assessment and flood risk is dealt with in the RR and further comment in the WR (and briefly in relation to the EIA methodology earlier in the LIR).
- 15.13. **Appendix 5** provides further details of the Flood risk and drainage impacts. CWCC defer to the Marine Management Organisation in terms of any additional impacts in their remit.

16. Waste disposal and management

- 16.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:
- 16.2. *Waste disposal and management. The application of the waste hierarchy. The availability and capacity of suitable waste facilities.*
- 16.3. Representations from the Environment Agency need to be considered in relation to permitting of waste.
- 16.4. The decommissioning stage will be most pertinent to waste disposal and management, and comments are made in the WR's regarding the importance of controls in relation to decommissioning.
- 16.5. There will also be aspects of waste to deal with during the construction and operational phases.
- 16.6. An overview of waste management is provided in Chapter 2 of the ES 'The Proposed Development' (**APP-035**) and each of the environmental management plans dealing with the construction, operational and decommissioning phases will include a waste management plan (para. 2.8.2 of APP-035).
- 16.7. The description of waste arisings during the operational phase as being very limited (para. 2.8.14) seems to underplay the potential for generation of waste. Reference is made to equipment needing replacement, but the magnitude of carrying out major replacement activities during the operational phase for the solar arrays and BESS in particular is not apparent from the description, although it is anticipated that the quantum of non-recyclable material would be low. It is not suggested that the waste generated during the operational phase would be significant in ES terms, but the point should be noted.
- 16.8. The works to form the NBBMA involving the removal of former dredging deposits from Cell 3 to lower the ground levels of the NBBMA have the potential to generate substantial surplus material, whether this is used on site or used/disposed off-site. There will also be soil arisings from cabling and other intrusive works (piling). The intention is to re-use material on site under a Materials Management Plan (para. 2.8.9 of APP-035) thereby limiting the generation of waste needing disposal off-site.
- 16.9. Appendix B of the oLEMP (**PD2-024**) is the Outline NBBMS, and this details the options for reengineering Cell 3 to form the NBBMA, with the preferred option being to use excess material to infill the fishing/canal pools (although it is noted new ponds would be created within the SSSI, which presumably will generate other arisings).

17. Other environmental matters (Agriculture and soils, ground conditions,)

- 17.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:

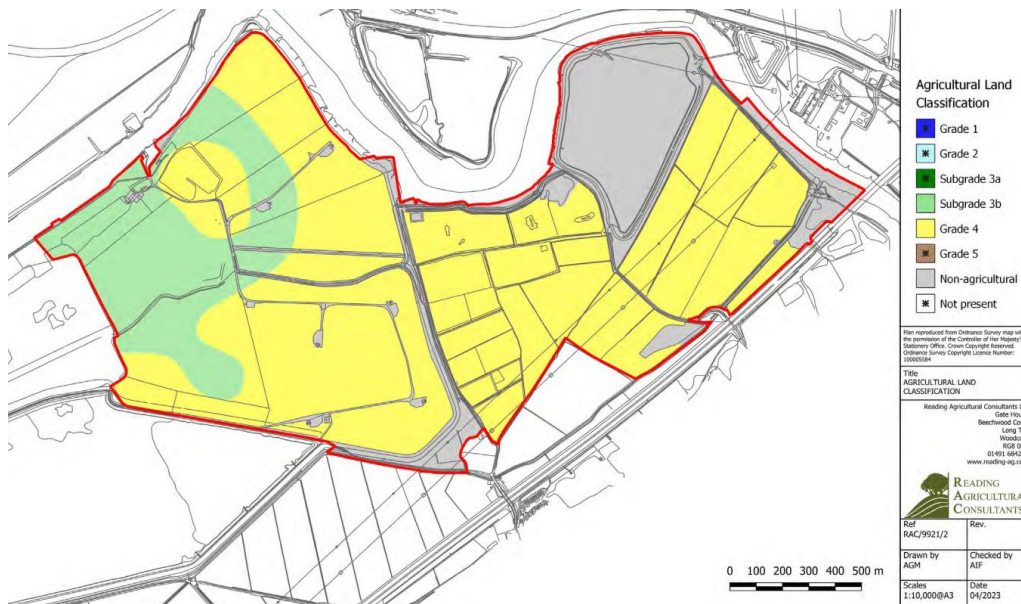
Ground conditions, soils, agriculture, ground contamination, mineral resources, and geological conservation. The consideration given to existing land contamination and the wider effects resulting from dealing with contamination.

17.2. Policy SOC5 health and wellbeing of LP1 and Policies DM32 land contamination and instability of LP2 provide relevant policy background.

17.3. The Environment Agency is responsible in relation to controlled waters, and CWCC's Environmental Protection Unit (EPU) have commented from a human health perspective (see Appendix A to CWCC's WR and **Appendix 6** below).

17.4. Section 7.11 of the Planning Statement (**APP-128**) provides details of the agricultural land position. This includes the local policy position (Policy DM52 of LP2 on Solar energy) that it should be demonstrated that there are no suitable sites on previously developed land, and then to avoid the best and most versatile (BMV) land.

17.5. Appendix 17.2 of the ALC survey (**APP-048**) reveals that the site is mainly Grade 4 with some Grade 3b land. It is noted that the Skylark Mitigation Area (SMA), last in arable use, is not included in the survey area. Given the works to the SMA are for habitat creation, it is unlikely that there would be a permanent loss/damage to BMV were this to be Grade 3a or above. Similarly, Cell 3 (last used for grazing and as part of the habitat mitigation for FWF) is not included in the survey area, but it seems very unlikely that this area would be BMV (given the history of issues with managing thistle growth to maintain the short sward grassland for the habitat mitigation).



Extract from ALC report Appendix 17.2 of APP-048)

17.6. Piling and ground disturbance and the areas of the Site where there is the potential for localised contamination. Design of the proposed buildings on site also need to consider potential gas risk.

- 17.7. Comments in relation to peat deposits, and the need for further investigation has been made elsewhere in CWCC's representations.
- 17.8. Consideration also needs to be given to the Environment Agency's representations (**RR-024**) relating to the ground stability and the protection of flood defences.
- 17.9. The application is supported by an outline Soil Management Plan (**APP-0141**) setting out various good practice measures. Experience has shown that stockpiles on sites can be an attraction for Badgers, and the risks of establishing a Badger sett needs to be addressed (especially as reference is made to stockpiling for up to approximately one year).

18. Other environmental matters (noise, vibration, air quality, dust and nuisance), residential amenity and impact on traveller sites)

- 18.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:

Noise, vibration, air quality, dust, and nuisance.

- 18.2. Policy SOC5 health and wellbeing of LP1 and Policies DM2 impact on residential amenity, DM30 noise and DM31 air quality of LP2 provide relevant policy background.

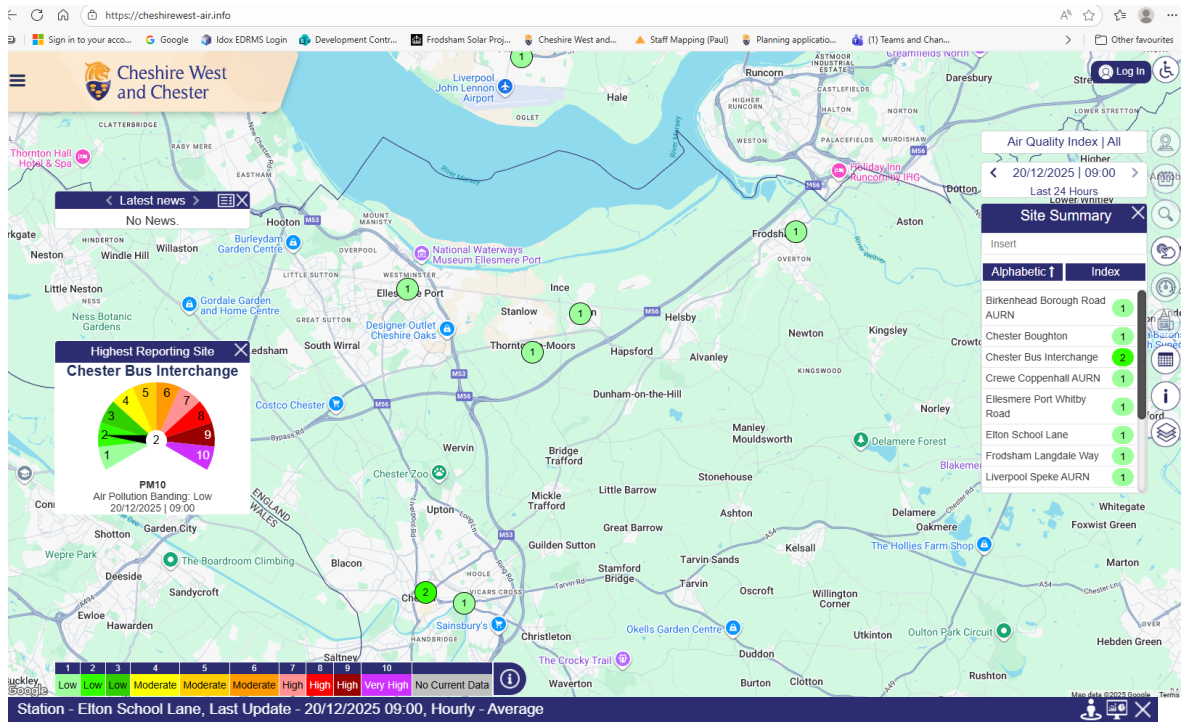
Noise & vibration and nuisance

- 18.3. The application is supported by a noise impact assessment in the ES appendices (**APP-054**). The noise assessment covers the construction, operational (including replacement activities) and decommissioning phases.
- 18.4. CWCC's Environmental Protection team (EPT) noted at the pre-application stage that given the existing high background levels arising predominantly from the M56, predicted levels at residential properties are unlikely to present any loss of residential amenity. The exception to this are the Traveller sites located on the intersection of Moorditch Lane and Brook Furlong. The location is significantly closer to the proposed development and standard acoustic assessment criteria are not valid as the noise insulating properties of caravans are, in general, significantly lower than that of houses. There are other confounding matters at the Traveller sites as it is possible that the noise climate already exceeds levels specified in BS8233.
- 18.5. EPT are satisfied that the relevant NSRs have been identified in section 2.41 – 2.43 of the noise assessment. The layouts are indicative at this stage with two proposed locations for the BESS and substation and both have been assessed accordingly. In the event the proposed locations change, further assessment will be required.

- 18.6. We note the assessment locations selected for the noise survey and agree their suitability for the purpose. The survey was conducted over a weekend thus ensuring the likely quietest period was captured when traffic levels were likely lower. As such EPT are satisfied that the data obtained can be relied upon for the purpose of this assessment.
- 18.7. EPT agree with the use of the ABC method under BS5228:2009 for the determining appropriate construction noise limits. Table 5.1 shows expected construction noise levels will be well below residual noise levels and the maximum values permitted under BS5228. It should be noted that piling is required and will likely present significantly higher and noticeable levels at receptors than the averaged 1hour values listed within the table.
- 18.8. Local knowledge suggests continuous flight auguring is not possible within this area but should nonetheless be considered as a best practice if feasible but only if extensive piling is required across the site. Isolated periods of piling, both temporally and geographically are unlikely to be present an issue for residents. Such matters can be addressed through the CEMP which should include a section for piling activities and the control of noise.
- 18.9. The potential measures set out in 5.3.21 of the assessment are appropriate for further consideration within the CEMP and in particular limiting construction hours to between 08:00 and 18:00 hours Monday to Friday and 08:00 to 13:00 hours Saturday, except by agreement.
- 18.10. Operational noise is consistently well below background levels by a minimum of 11dB at all receptors including the Traveller site (R6). Highest predicted levels at R6 are 47-48dB with quieter night-time levels and over 10dB below background irrespective and as such likely to be inaudible or discernible. Generally operational levels will be significantly lower for much of the time, as per Appendix 8, confirming the impact of noise on all sensitive receptors does not require further consideration.
- 18.11. In summary EPT agree with the report conclusions and that a CEMP represents the best tool for ensuring relevant good practice is followed during the construction phase and that no conditions are required for operational noise.

Air quality and dust

- 18.12. Air Quality is addressed in Section 7.18 of the Planning Statement (**APP-128**), and reference is made to the construction dust assessment in the ES appendices (**APP-055**). This deals principally with the construction phase.
- 18.13. CWCC currently only have two Air Quality Management Areas (AQMA) in the borough. Historically, there were more, including one at Fluin Lane in Frodsham.
- 18.14. The nearest current AQMA is the Thornton le Moors AQMA (**Appendix 19**) declared in September 2016 because of measured exceedances of the 15-minute objective for sulphur dioxide primarily arising from an industrial source.



Last Data | Graphing | Statistics | Site Information | Site Photos

Last DataTitle

Last AQI Update: 20/12/2025 09:00

Parameter	Pollution Band	AQI Calculation Period	Latest (15 minutes) Concentration
SO2	Low (Index 1)	15 minute mean	0.8 µg/m³

Station - Frodsham Langdale Way, Last Update - 20/12/2025 09:00, Hourly - Average

Last Data | Graphing | Statistics | Site Information | Site Photos

Last DataTitle

Last AQI Update: 20/12/2025 09:00

Parameter	Pollution Band	AQI Calculation Period	Latest (15 minutes) Concentration
NO2	No Data	Hourly mean	
PM10 grav	Low (Index 1)	24 hour mean	12.9 µg/m³

Station - Thornton-le-Moors Park Road, Last Update - 20/12/2025 08:30, Hourly - Average

Last Data | Graphing | Statistics | Site Information | Site Photos

Last DataTitle

Last AQI Update: 20/12/2025 08:30

Parameter	Pollution Band	AQI Calculation Period	Latest (15 minutes) Concentration
NO2		Hourly mean	
SO2	Low (Index 1)	15 minute mean	2.7 µg/m³
PM10 grav		24 hour mean	

Extracts from Cheshire West and Chester Air Quality Monitoring Site – last accessed 20 December 2025 (<https://cheshirewest-air.info>)

- 18.15. CWCC has been monitoring SO2 in Thornton le Moors in real-time since the summer of 2013 (see above).
- 18.16. The main cause of SO2 exceedances in the AQMA is the stack which serves the catalytic cracker unit at the Stanlow Essar refinery site to the north of the A5117.

- 18.17. The combined effects of refinery emissions and particular meteorological conditions can result in short-term episodes of elevated SO₂ in Thornton le Moors.
- 18.18. CWCC's Air Quality Action Plan for the AQMA (**Appendix 20**) shows three key priorities for implementation:
- Priority 1 – Reduce emissions of SO₂ from the catalytic cracking unit
 - Priority 2 – Reduce overall emissions of SO₂ from the refinery
 - Priority 3 – Provide real-time ambient monitoring data to site operator in a timely manner
- 18.19. The Applicant's Construction Dust Assessment (**APP-055**) comments that the construction and operational traffic associated with development would not have a material impact on the objectives of the AQMA as traffic emissions are not a significant contributing factor to the pollutant of concern, SO₂, due to the low levels of sulphur in road vehicle fuel.
- 18.20. The Construction Dust Assessment concentrates on issues arising from dust (particular matter) generated on site, and potential impacts on residential and ecological receptors.
- 18.21. The above assessment refers to the greatest sources of dust are likely to be the soil moving activities in the NBBMA, internal haulage and movements along the unbound stretch of the Main Site Access. The works in the NBBMA are expected to last 9 months (para 6.2.6). *This is relevant to the construction phasing impacts and ecology considerations.*
- 18.22. In terms of sensitive residential receptors the two traveller sites are noted as they are immediately adjacent to the proposed works.
- 18.23. The assessment concludes in relation to the ecological impacts that there is a *high risk* of ecological impacts associated with earthworks and construction works due to the presence of FFL associated with the Mersey Estuary SPA / Ramsar site. It is noted that this is considered to be a precautionary position as the habitats of the designated features, and the FFL, are not considered to be particularly sensitive to dust impacts. Further, the proximity of the SSSI to the NBBMA and location of the unbound stretch of the Main Site Access within a Local Wildlife Site result in a *medium risk* of ecological impacts

19. Other environmental matters (Traveller sites)

- 19.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:

Traveller Sites

- 19.2. Under section 149 of the Equality Act 2010, a public authority must, in the exercise of its functions, have due regard to the needs of the people with protected characteristics, in order to eliminate discrimination, harassment or victimisation, advance equality of opportunity and foster good relations between persons who share a relevant protected characteristic and persons who do not share it.
- 19.3. The noise section above in particular references consideration of the Traveller sites.
- 19.4. This section provides some additional background. There are two traveller sites adjacent to each other at the junction of Brook Furlong and Moorditch Lane.
- 19.5. With regard to the southern site (with a frontage to Moorditch Lane), CWCC issued an enforcement notice in relation to this site (land off Brook Furlong, Frodsham, Cheshire, WA6 7BZ) on 1 September 2022 (under reference 22/00395/EMCOU). The subsequent appeal under reference APP/A0665/C/22/3307792 was dismissed on 26 July 2024. The enforcement notice was upheld and planning permission refused with corrections and variations to the notice.
- 19.6. The breach of planning control was substituted with:
- “Without planning permission the material change of use of the land to use for the stationing of caravans for the purpose of human habitation and the construction of hardstanding and associated engineering operations to facilitate that change of use”*
- 19.7. The requirements of the notice were as follows:
- “i. Cease the use of the land for the stationing of caravans for the purposes of human habitation and remove all of the caravans, including static caravans and touring caravans from the land;*
- ii. Remove associated domestic structures, and hardstanding and restore the land to its condition prior to the breach of planning control.”;*
- 19.8. The time period for compliance was extended to 12 months. The enforcement notice, accompanying plan is appended at **Appendix 21** and the enforcement notice / appeal decision is appended at **Appendix 22**.
- 19.9. The period for compliance with the enforcement notice expired on 26 July 2025.
- 19.10. However, a planning application 22/03308/FUL on a smaller part of the southern site (see **Appendix 11**) for the following is pending:
- Change of use of land to use as a gypsy caravan site for 5 pitches to include 5 static caravans and 5 touring caravans and erection of 5 amenity buildings, laying of hardstanding and new access*
- 19.11. With regard to the northern traveller site (with frontage to Brook Furlong) there is a pending planning application 22/02292/FUL for:

“Change of use of land to use as a residential caravan site for 5 gypsy families, each with two caravans including no more than 5 static caravan/mobile home, with associated hardstanding and erection of 5no. ancillary amenity buildings”.

- 19.12. Therefore, at this stage, whilst the future of these traveller sites remains uncertain, it is considered appropriate to have regard to the various impacts arising from the Frodsham Solar development on these traveller sites.
- 19.13. The PPTS (Planning Policy for Traveller Sites) sets out Government's planning policy. Cheshire West and Chester also have a policy in the Local Plan (Part One) (LP1) as set out in Table 4 of the Policy Compliance Statement (**APP-129**).

20. Glint and Glare - (highways, air traffic, ecology)

- 20.1. CWCC's comments on the Glint and Glare assessment (**APP-056**) in response to the ISH1 Agenda item relating to Residential Visual Amenity Assessment (RVAA) are provided in the Appendix to CWCC's Written Representations, and these should be read in conjunction with the LIR.
- 20.2. The Glint and Glare Assessment also covers assessment in relation to highways (roads and Weaver Navigation users), Liverpool John Lennon Airport.
- 20.3. However, the assessment does not cover impacts on sensitive ecological receptors and this is a major omission.
- 20.4. The impacts on the M56 motorway are within the remit of National Highways (NH), and in its relevant representation (**RR_031**) NH is satisfied that the Applicant's glint and glare assessment demonstrates no adverse impact on the safety of Strategic Road Network (SRN) users.
- 20.5. Liverpool Airport Ltd.'s relevant representations (**RR-042**) are noted:

The application site for this proposal occupies statutory safeguarding zones surrounding Liverpool Airport, specifically the aerodrome OLS/IFP, Renewable Energy and Wildlife safeguarding zones. The zones exist to maintain the safe operation of aircraft at Liverpool Airport. Whilst not exhaustive, the concerns primarily extended to: Glint and Glare – Aircraft will not be detrimentally impacted by glint and glare from the Frodsham Solar. Changes in Wildlife Patterns – Aircraft will not be detrimentally impacted by changes to Wildlife Patterns (specifically any increases in bird populations or relocation of bird populations closer to the aerodrome) by the development of Frodsham Solar. Thermal Plume - Aircraft will not be detrimentally impacted by any Thermal Plume from Frodsham Solar.

- 20.6. The Canal & River Trust do not raise any specific mention of Glint and Glare in its relevant representations (**RR-010**)

21. Other matters (including safety and security, BESS & fire risk, hazardous installations)

- 21.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:
- *Accidents, disasters, fire risk, human health and wellbeing, safety, and security.*
 - *Aviation and defence.*
- 21.2. The Applicant/Frodsham Wind Farm Ltd may wish to comment on the risk of ice throw in relation to the windfarm operation and potential impacts on the Solar development and its operatives. It is anticipated that the risk of ice through would be managed in relation to precautionary switching off turbines when there is a risk of ice build-up.
- 21.3. The Environment Agency has already raised the issue of whether the development provides for safe and secure means of access in the event of flooding. The updated oFWAP (**PD2-029**) has addressed the points made by CWCC's Emergency Planning Team in this regard. CWCC is not in a position to confirm that there would or would not be safe access in a flood event, but no doubt the absence of any objection from CWCC's Emergency Planning team or Cheshire Fire and Rescue Service will be taken into account when weighing up the planning merits.
- 21.4. The application is supported by an outline Battery Safety Management Plan, which identifies the potential risks associated with a BESS failure and measures proposed to manage the risk (including BESS location within the site). The proximity to the Travellers sites as one of the closer sensitive receptors is noted in the management plan.
- 21.5. Policy DM34 of LP2 states that development in the vicinity of hazardous installations will be supported providing it would not result in a significant increase in the number of people being subjected to threshold levels of risk. This is in accordance with policy SOC5 of LP1, which states that development that gives rise to significant adverse impacts on health and quality of life will not be allowed.
- 21.6. The aviation aspects relating Glint and Glare (and other matters) are addressed in the preceding section.

22. Cultural heritage

- 22.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:

Historic environment, including the consideration given to archaeology on the site, the potential for disturbance to peat deposits, and to the setting of heritage assets. The potential for harm to non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments

- 22.2. There are a number of heritage assets of which the setting would be subject to change as a result of the construction and operational phases of the Proposed Development.
- 22.3. Chapter 11 of the ES 'Cultural heritage' (**APP-044**) provides an appraisal of the various heritage aspects (in conjunction with various appendices). Any impact of the Proposed Development is largely associated with the effect on the wider setting/landscape of the assets in which they are experienced. Whilst some of the assets identified were positioned or constructed with the wider setting in mind, the landscape has been altered over time with various developments carried out previously.
- 22.4. In general it is considered that the level of harm to the significance of the designated heritage assets is less than substantial.
- 22.5. Historic England's Relevant Representations (**RR-033**) lists the appendices to the ES Cultural Heritage chapter:
- Appendix 11.1 is a detailed Cultural Heritage Study,
 - Appendix 11.2 is a gazetteer of all designated and non-designated heritage assets within the boundary of the Proposed Development and the defined study area around it.
 - Appendix 11.3 includes historic map extracts and Lidar images,
 - Appendix 11.4 includes photographs of the Proposed Development site and the area around it, including key heritage assets, and
 - Appendix 11.5 is a Setting Assessment dealing specifically with the impact of the Proposed Development on designated heritage assets in its vicinity.
- 22.6. Historic England (HE) consider that the assessment of the impacts of the Proposed Development in Volume 1, Chapter 11 of the ES and the supporting appendices has been carried out in accordance with current best practice, and has fully identified the extent and nature of those impacts.
- 22.7. HE consider that the site of the Proposed Development is not without archaeological potential, but most of the undesignated heritage assets identified as potentially surviving within the Proposed Development boundary are unlikely to be affected, either due to their location or because they are buried beneath a thick layer of dredged material.
- 22.8. Some features of minor significance which might be directly impacted by the development include areas of relatively recent ridge and furrow, and some modern ventilation shafts.
- 22.9. As noted elsewhere in CWCC's submissions the main archaeological interest of the site lies in the deep accumulation of sediments, including layers of peat which have the potential to include important palaeoenvironmental material underlying it.
- 22.10. The potential for impacts no peat have been raised in CWCC's **RR-037** and in the Written Representations. Further investigation is expected to be carried out under the oWSI (**AS-029**).

- 22.11. Proposals for mitigation of the impacts of the construction include photographic recording of the ventilation shafts and targeted programmes of investigation of the other non-designated heritage assets which might be directly impacted.
- 22.12. National Trust's Relevant Representations (**RR-002**) in relation to the development's impact on Helsby Hillfort need careful consideration in weighing up the impacts from Viewpoint 13 (**APP-114**).
- 22.13. **Appendix 7** also provides further details in relation to cultural heritage impacts.

23. Traffic and transport

- 23.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:

Traffic, transport, and access. The effects on traffic using the River Weaver (Note: the effects on the River Weavers are dealt with below under tourism and recreation).

- 23.2. National Highways (NH) have the remit in relation to the Strategic Road Network (SRN), and the LIR does not attempt to address the SRN impacts. The LIR needs to be read in conjunction with the representations from NH including **RR-031**. It is noted from those relevant representations that:

"The Authorised Development is located adjacent to the M56 motorway between Junctions 12 and 14, in proximity to the Weaver Viaduct, and containing multiple crossing points of the motorway via overbridges for local active travel movements. The SRN in this location is a critical corridor for regional and national connectivity and any works in close proximity to the SRN and change of use to the overbridges must be carefully considered to ensure their continued safe use."

- 23.3. The Applicant has provided a Transport Assessment (TA) (**APP-134**) and Outline Construction Traffic Management Plan (**APP-135**).
- 23.4. NH have confirmed that the proposed development will not result in a severe impact on the SRN during the operational phase.
- 23.5. The construction phase will generate the highest level of, and it is essential that this is managed effectively to minimise disruption; particularly given the number of other developments proposed in the area, and potential cumulative impacts on the M56 and M53 junctions and corridors.
- 23.6. The Applicant's TA provides an assessment of cumulative impacts (Section 7.0) (**APP-134**). However, NH are undertaking a study of the cumulative traffic generation for the major development proposals in the area to understand where the likely impacts will be, the scale of those impacts, and their likely timings. As a

result it would be premature to be definitive about the impacts of the development on the SRN at present.

- 23.7. In terms of local impacts, it is useful that NH raise the issue of engagement with Cheshire Oaks retail park and consideration of their existing Peak Traffic Management Plan in order to minimise construction impacts during known periods of peak traffic relating to Cheshire Oaks.
- 23.8. In terms of construction access, the main access is via Pool Lane and Grinsome Road. However, the construction access for the grid connection to the SPEN Substation would be from Junction 12 of the M56 via the A557 and A56 and then using the existing SPEN Substation access road. CWCC's Highway Officer considers that this will require a negligible number of HGV and staff movements spread out over a long duration.
- 23.9. Section 4.6 of the TA details the operational impact and this shows that 10 full time equivalent staff will be required to conduct standard maintenance and operation. The TA refers to traffic associated with routine replacement or major repairs, as not requiring regular HGV access. This type of activity is referred to as being expected once every 5 – 10 years. It is not clear whether the description at 4.6.4 refers to major replacement campaigns, and whether such activities would generate more HGV activity. The TA does not appear to address the sort of major replacement campaigns during the operational life of the development that is referred to elsewhere in the submission.
- 23.10. Section 4.7 of the TA refers to decommissioning and is expected to take between 12 and 24 months and be less of an impact than the construction phase.
- 23.11. Table 6.4 of the TA – Link Percentage Impact Assessment Summary (2028) shows that the predicted traffic impacts on the adopted highway network will not exceed the threshold levels to warrant an environmental impact assessment.
- 23.12. Table 6.5 of the TA – Junction Percentage Impact Assessment Summary (2028) shows that the construction traffic impact on the junction of Pool Lane and Thornton Green Lane will be at or below 5% in both peak hours.
- 23.13. Section 7 of the TA deals with cumulative impacts of the cumulative traffic flows during the peak for each local development occurring at the same time. The Highway Officer notes that the impact from this would be unacceptable however this scenario with all development assessed taking place and overlapping is understood to be an extremely unlikely event. As noted above, NH's cumulative assessment work is expected, and should be taken into account.
- 23.14. **Appendix 10** also provides further details in relation to traffic impacts.

24. Tourism and recreation (including Public Rights of Way)

- 24.1. Under the IAoPI (**OD-006**) and 3. Planning Matters h. consideration needs to be given to topics including:
- *Socio-economics, tourism, recreation, land use, human equality issues, and public rights of way*
 - *The effects on traffic using the River Weaver.*
- 24.2. Chapter 12 of the ES 'Tourism and recreation' (**APP-045**) provides an assessment of likely impact on a range of recreational and business interests in Frodsham.
- 24.3. Impacts on the footpaths and public rights of way are referred to in CWCC's **RR-037** (Sections 11 and 19). Section 19 comments relation to the outline Public Rights of Way Management Plan (**APP-140**).
- 24.4. In terms of Local Plan policy in relation to Public Right of Way/Restricted Byway, policies SOC6 and STRAT10 of LP1, policy DM37 states that development incorporating or adjacent to recreational routeways must protect and, wherever possible, enhance Public Rights of Way, footpaths, cycle routes, canals and waterways.
- 24.5. The Proposed Development has direct and indirect (on-site and off-site) impacts on footpaths (including bridleways and other rights of way), which cover the construction, operational and decommissioning phases.
- 24.6. The site can be accessed via a network of paths including Restricted Byway, the status of which includes public access on foot, horse, cycle and with non-motorised vehicles.
- 24.7. The closure of RB40 to pedestrians potentially for circa 30-34 months represents a long diversion (in duration and distance) for those using this route, e.g. employees walking from Helsby to some of the large industrial sites around the Protos site. NPS-EN3 (paragraph 2.10.41) advises applicants to keep, as far as practicable and safe, all PRoW open during construction.
- 24.8. The closure of other routes such as RB98 and RB103 for long durations impacts on the availability of circular routes, especially for non-pedestrians using Frodsham Marshes.
- 24.9. The Proposed Development is considered to have a greater adverse impact on the local and wider (beyond the Order Limits) enjoyment of the footpath network than the ES assessment indicates. The ES tourism and recreation chapter (12.8.55) (**APP-045**) states that:

"In spite of the residual visual effects in places, it is considered that the operation of the solar PV facility would have little negative impact on the number of users of the PRoW and NCN"

- 24.10. It is not clear how this assessment has been arrived at there is relatively little evidence to quantify the likely effects on PROW users in the vicinity or on the site.
- 24.11. It might be that use of the PROW continues at a similar level post construction, but the change in the character of the area from an open landscape to one with in a solar farm is liable to have some negative impact, which should not be underestimated.
- 24.12. Consideration also needs to be given to the adverse impact on the experience of using PROWs as a result of the development (see **RR-037** paragraph 11.18). An overall level of effect (during the operational phase) (and including the National Cycle Network as high importance) is considered to represent at least **minor to moderate** effect (not negligible to minor as referred to in the ES); and therefore, a potentially **significant** adverse effect in EIA terms.
- 24.13. Overall, CWCC considers there is liable to be a residual negative impact on recreational users of the existing PROW due to the change in character of the SADA post development from a largely open agricultural expanse, into a solar farm environment on an industrial scale. Mitigation with additional landscaping to filter views of the solar arrays from the PROW is appropriate, and welcome, but the visual amenity and experience from within the SADA will be subject to significant change and likely residual adverse impact for recreational users of the PROW.
- 24.14. Frodsham Marsh is used by a variety of recreational users, from bird watchers to more casual walkers. Walks using the Frodsham Marsh are well documented. One good example of the association between a local business and the benefits of local walks in and around Frodsham is the Netherpool Hall leaflet (**Appendix 23**) where it can be seen that the walk around Frodsham Marshes is one of only three walks listed. A further example of the importance of the PROW across the site are provided at **Appendix 24** (Frodsham Festival of Walks 2025 – walk 20; note the end photo from Frodsham Hill too).
- 24.15. The impact of the solar development during the operational phase on the use of the PROW is difficult to quantify at this stage, but the qualitative change in the experience of walking on Frodsham Marsh is liable to be materially adversely affected. The Applicant's proposals for additional permissive paths etc. is positive mitigation for likely impacts, but it appears likely that there would still be a residual adverse impact
- 24.16. There will be some limitation in terms of access to the River Weaver, during the construction period although not significant.
- 24.17. During the operational phase, there may be a potential loss of access to River Weaver for those seeking new sustainable leisure activities. In policy terms FNP policy EDVE2 Tourism and recreation seeks to promote the River Weaver and riverside, and GSRL4 encourages development of "*sustainable leisure facilities/activities along the water courses of the River Weaver, Weaver Navigation, Frodsham Quayside/River Side, and the marshes*", and Frodsham Solar may serve to inhibit such further development.
- 24.18. Policy GSRL4 includes the proviso that development "will not result in adverse impacts on the ecological value and function of Frodsham Marshes", so it may be that the scope for such new sustainable leisure activity is limited in any event.

- 24.19. Frodsham Wildfowlers would be impacted and no longer able to shoot within or over the site during the lifetime of the development. It is understood that other locations will be used, although details are not provided.
- 24.20. **Appendices 2 and 10** provides further details relevant to the socio economic and tourism and recreation aspects (including impacts on PROW).

25. Cumulative and In-combination Effects (APP-046)

- 25.1. Under the IAoPI (**OD-006**) Planning Matters c) consideration needs to be given to:

c. Whether other projects have been appropriately identified for the cumulative impact assessment. Coordination with Liverpool Bay CCS Limited's proposed Runcorn Carbon Dioxide Spur Pipeline and with Cadent Gas Limited's proposed HyNet North West Hydrogen Pipeline.

- 25.2. The potential for adverse impacts arising from cumulative impacts of different projects has been highlighted in the Issue Specific Hearing 1 representations; with further comment in CWCC's Written Representations (and accompanying appendices).
- 25.3. As part of the current Hynet Carbon Dioxide Pipeline application (25/02108/FUL) an indicative programme has been provided (see the appendices to CWCC's Written Representations).
- 25.4. An update on Cadent Gas Limited's proposed HyNet North West Hydrogen Pipeline (PINS Ref: EN060006) has been issued in November 2025 ((see the appendices to CWCC's Written Representations).
- 25.5. Further information is expected from the Applicant in relation to the progress of discussions concerning the co-ordination of work programmes and means of control over sequential developments potentially resulting in adverse harm, especially to biodiversity interests.
- 25.6. CWCC expect to make further comment at Deadline 3 in response to the Applicant's updates.
- 25.7. As noted in CWCC's Written Representations it is considered that further assessment of the impacts against the various potential phasing proposals for these projects is needed, with appropriate controls over phasing being established to avoid/minimise adverse cumulative impacts.
- 25.8. CWCC welcome the suggestion of a working group of interested parties to the projects, but have concerns that a working group does not provide effective control over implementation of the individual projects, especially with the limited time periods in which to coordinate and complete the projects in terms of intra and inter project phasing and sensitive bird seasons, to avoid adverse impacts.

25.9. CWCC have suggested a possible multi-party agreement between Cubico/Frodsham Solar Ltd, Liverpool Bay CCS Ltd for the Runcorn CO2 spur pipeline and the CWCC (along with any relevant landowners) with a view to restricting the Hynet CO2 spur pipeline from being implemented post completion of the NBBMA, without assessment and appropriate design / mitigation (e.g. installation via directional drilling).

26. Summary and Conclusion

- 26.1. The Frodsham Solar development will result in a wider range of impacts. Many of the potentially adverse impacts will be mitigated leaving residual impacts to be weighed in the planning balance.
- 26.2. The Applicant's Environmental Statement and the associated application documents are generally considered to be thorough and robust in identifying the range of environmental impacts.
- 26.3. Inevitably, due to the wider range of environmental aspects considered, the LIR has identified multiple impacts, many of which are potentially adverse, whilst relatively few positive impacts have been specifically identified / addressed, at this stage.
- 26.4. The LIR is not intended to signify support or objection to the scheme per se, and it should be understood from CCWC's relevant representations (RR-037) and Written Representations that there is support for the principle of renewable energy schemes such as solar developments, and the associated infrastructure such as the BESS when negative impacts on other local factors are residual.
- 26.5. The LIR provides commentary on likely impacts and identifies various local policies. The report generally avoids detailing the relevant national policy (NPS) as this will be addressed by the ExA and SoS in any event.
- 26.6. Inevitably there will be other local impacts not identified in the LIR, and some of these will be covered in the Relevant Representations already submitted, or other Interested Parties Written Representations due at Deadline 1.
- 26.7. It also anticipated that the Applicant will provide a response to the LIR at Deadline 3, highlighting any specific or key local impacts that may not be covered in the LIR, or over which further comment is appropriate.
- 26.8. This report has identified adverse biodiversity impacts in particular that require further assessment and consideration.
- 26.9. Amongst the other key adverse impacts are the landscape and visual impacts and impacts on the Green Belt. It is not expected that these impacts would necessarily be addressed much further, rather they will need to be considered in the planning balance.
- 26.10. However, the biodiversity impacts require further work, and CWCC will engage with the Applicant to progress matters where possible.
- 26.11. CWCC requests that the Secretary of State has due regard to this Local Impact Report when making the decision.

APPENDICES

Appendix 1 – Example format

Appendix 2 – Socio economic impacts

Appendix 3 – Landscape and visual

Appendix 4 – Green Belt

Appendix 5 – Biodiversity

Appendix 6 – Ground conditions and contamination

Appendix 7 - Cultural Heritage

Appendix 8 – Health and residential amenity

Appendix 9 – Flood Risk and drainage

Appendix 10 – Transport and public rights of way

Appendix 11 – Traveller site location plan (southern side)

Appendix 12 – Traveller site location plan (northern side)

Appendix 13 – Figure 13.2 of the SEI from Frodsham Windfarm (FWF) consent

Appendix 14 – 25/03414/FUL Gowy Marsh Waste Disposal site Solar (location plan)

Appendix 15 – 25/01339/FUL North of Rake Lane (Hobbs Lane), Helsby Solar (location plan)

Appendix 16 – CWCC Climate Emergency Plan (Outcome 5)

Appendix 17 – Cheshire and Warrington Sustainable & Inclusive Economic Strategy

Appendix 18 – Vale Royal Local Plan Policy GS4 (Changes to North Cheshire Green Belt)

Appendix 19 – Thornton le Moors Air Quality Management Area (AQMA) location plan

Appendix 20 – Thornton le Moors Air Quality Management Area action plan

Appendix 21 – Enforcement Notice plan for traveller site (southern site) (Brook Furlong)

Appendix 22 – i) Enforcement Notice / ii) appeal decision for traveller site (southern site)

Appendix 23 – Netherton Hall Local Walks leaflet

Appendix 24 – Frodsham Festival of Walks 2025 brochure

Appendix 25 – DNS Welsh Government decision for Solar Farm near Llanwern, Newport

Appendix 1 Example Format

Following guidance in PINS Advice note one: Local Impact Reports (April 2012) (Version 2) the tables in the following appendices aim to assist the ExA by identifying relevant policies and a column is included to identify whether the impact is positive, neutral or negative (and unless otherwise stated) this is before consideration of mitigation (resulting in more negative assessments). CWCC has not set out to perform a balancing exercise, as advised in guidance, but it is understood from the advice note above, that it would assist the Examining Authority if the local authority is able to give its view on the relative importance of different social, environmental or economic issues and the impact of the scheme on them. An attempt to do this has been done by assigning a number to the positive/negative impacts. This has not been done consistently across every topic / item is intended to assist where practical. The table gives the impression of a long list of negative attributes, this is not intentional, and should not be regarded as implying the harm outweighs the benefits.

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			General to column:		Relative importance signified by no: 1: little 2: moderate 3: Substantial 4: Great	
X.001	APP	C,O,D	Cheshire West and Chester Local Plan (Part One) policies Cheshire West and Chester Local Plan (Part Two Policies) Frodsham Neighbourhood Plan Policies Ince Neighbourhood Plan Policies		(-ve)	

Appendix 2 Socio-economic impacts

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
Socio-economic						
					Relative importance signified by no: 1: little 2: moderate 3: Substantial 4: Great	
S-E.001	AP-038	O	STRAT 11 Infrastructure ENV7 Alternative energy supplies ECON1 Economic Growth etc. DM52 Renewable Energy	Energy – climate change benefits <i>Support the provision of appropriate new infrastructure, including schemes intended to mitigate and adapt to climate change and any cross-boundary schemes necessary to deliver the priorities of the Local Plan where this will have no significant adverse impact upon recognised environmental assets.</i> Applicant acknowledges impact on LWS during construction (APP-129)	(+ve) 4	
S-E.002		O	STRAT4 Ellesmere Port	Private wire connection – potential benefit to local business	(+ve) 2	
S-E.002		C,O,D	ECON1	skills, supply chain and local employment	(+ve)	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
					2	
S-E.002	APP-045 ES Chapter 12 Tourism and Recreation	C,O,D,	EOCN 3 Visitor Economy DM 38 - Waterways and mooring facilities	Impacts on local business and recreational uses (including Hover Force Ltd. Runcorn Model Flying Assoc, Frodsham Wildfowlers, PROW users, Birdwatchers, Weaver Sailing club, Frodsham Kayaking and Water Sports, Runcorn Rowing, The Danny, Frodsham Town businesses.	(-ve) -1	
S-E.002		O	STRAT 10, STRAT 11, CA1	New car park (Moorditch Lane) for recreational users	(+ve) 1	
S-E.002		C,O,D	DM34	Hazard pipelines and HSE. Subject to any representations from the HSE the proximity to hazardous installation does not appear to raise safety concerns (although pipeline operator comments need to be taken into account)	N	

Appendix 3 Landscape and Visual

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
Landscape and Visual						
Impacts on Landscape Character						
			General to column: ENV2	Please refer to Section 6 Landscape and Visual of CWCC's Relevant Representations (RR-037)	Relative importance signified by no: 1: little 2: moderate 3: Substantial 4: Great	
LV.001	APP-129 (Policy Compliance Statement) APP-070 (ES V2 App 6-7 Effects on Landscape Character)	C,O,D	STRAT9 Green Belt and countryside	<p><i>Note: STRAT 9 deals with countryside policy, it is not just Green Belt.</i></p> <p><i>The intrinsic character and beauty of the Cheshire countryside will be protected by restricting development to that which requires a countryside location and cannot be accommodated within identified settlements.</i></p> <p><i>Within the countryside the following types of development will be permitted; • Development that has an operational need for a countryside location such as for agricultural or forestry operations.</i></p> <p>CWCC agrees with the Applicant that the Proposed Development requires / has an operational need for a countryside location (even though solar development can take place in urban areas/rooftop the scale of development proposed is liable to require a countryside location.</p>	<p>(-ve)</p> <p>-3</p>	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p><i>Development must be of an appropriate scale and design to not harm the character of the countryside.</i></p> <p>CWCC acknowledge the acceptance in NSIP policy that:</p> <p><i>The scale of energy projects means that they will often be visible across a very wide area (EN-01 - 5.10.35).</i></p> <p>However, it should be recognised that it is particularly because of the scale of proposed development that there will be such a significant change and adverse impact on the character of the countryside and landscape.</p> <p>Policy STRAT9 'Green Belt and countryside' of LP2 states "Development must be of an appropriate scale and design to not harm the character of the countryside".</p> <p>The proposed development will inevitably impact on the essentially open character of the site</p> <p>The development conflicts with Policy STRAT 9 in relation to harm to the landscape character of the countryside. The development fails to protect the borough's countryside contrary to GBC2 which seeks to protect and, wherever possible, enhance landscape character and distinctiveness.</p> <p>Delivering on the acknowledged urgent need nationally for large-scale energy</p>		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p>infrastructure (EN-01) will result in significant residual adverse impacts at a local level which should be taken into account in the balancing exercise.</p> <p>CWCC acknowledge that the sort of reduction in scale of development envisaged in NPS EN-1 (5.10.26).would be insufficient to achieve effective mitigation of landscape harm. The scale of reduction necessary would result in a significant operational constraint and more than marginal reduction in function, which is not envisaged by the NPS.</p> <p>Mitigation in other forms (e.g. retention/planting of hedgerows, new planting to filter views, and effective restoration etc) is appropriate and needs to be delivered through the control documents and DCO requirements. However, the residual impacts of the development following mitigation are expected to be in significant in terms of landscape harm during the operational phases of the development.</p> <p>Additional planting is proposed as mitigation, which is welcome, but this cannot overcome the adverse impact of development on the distinctive open landscape character.</p> <p>The scale and nature of the proposed development impacts adversely on goes beyond that which could be</p>		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				appropriately mitigated or accepted as a change in the landscape without undermining the landscape character. The development would constitute a substantial negative feature in the landscape.		
LV.002	APP-129 (Policy Compliance Statement) APP-070 (ES V2 App 6-7 Effects on Landscape Character)	C,O,D	ENV2 Landscape and GBC2 Protection of Landscape DM52 Solar Energy	<p>Under ENV2 Landscape:</p> <p><i>The Local Plan will protect and, wherever possible, enhance landscape character and local distinctiveness. This will be achieved by: (inter alia)</i></p> <ul style="list-style-type: none"> • <i>Protecting the character of the borough's estuaries and undeveloped coast.</i> <p><i>Development should: Take full account of the characteristics of the development site, its relationship with its surroundings and where appropriate views into, over and out of the site. Recognise, retain and incorporate features of landscape quality into the design.</i></p> <p>The LVIA (APP-70 – 6.8.90) concludes that the development would remain prominent and the effects would remain moderate to major adverse and significant for users of the routes within/close to the SADA.</p> <p>There would be residual significant adverse effects for users of the existing public right of way network through the Site (Table 4 of Policy Compliance Document – ENV2/GBC2) (APP-129).</p>	(-ve) -3	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p>CWCC consider there would be other significant adverse impact.</p> <p>The site forms part of the setting to the Mersey Estuary; and the panoramic view from Frodsham Hill War Memorial, a distinctive landmark in its own right, deserve particular consideration.</p> <p>The capacity of the landscape to accept the proposed development without a substantial impact on the landscape character needs assessment.</p> <p>The project will add substantial additional built infrastructure over a wide expanse of the currently open green and naturally regenerated former deposit cells, and other fields that provide openness to the landscape. The Frodsham, Helsby and Lordship marshes area currently retain an open green character, notwithstanding the wind turbines of FWF.</p> <p>The scale of solar development covering such an extensive ground area is markedly different to the form of the FWF where openness is retained between the high structures.</p> <p>The view from Frodsham Hill offers a panoramic vista of the character area representing a landscape affected by change but offering a highly valued vista which is not completely dominated by change. The proposed development represents a change beyond a point</p>		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p>where there is capacity to accept change without harm to landscape character.</p> <p>The panoramic views are referred to at 6.6.20 of the LVIA (APP-070)</p> <p>The proposed development represents a consolidation of built form, to comprise a dominating element on a key part of the landscape which currently provides green open view and setting to the Mersey Estuary and gives contrast and relief to the surrounding elevated and more industrial / built up areas.</p> <p>Impacts on landscape during construction will be temporary and the temporary nature of the proposal provides a basis for reversibility, although with a 40 year operational period there would be a significant duration of adverse impact.</p> <p>Mitigation of the impact on overall landscape character through the design approach and landscaping, is welcome but limited in terms of avoiding adverse impact.</p> <p>The scale of additional built form is considered of such magnitude that it alters / undermines the landscape character of a significant area of LCA 4a Frodsham, Helsby and Lordship Marshes (APP-109) (Fig 6-3b) and fails to safeguard the open character of the</p>		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p>landscape character. The qualities of landscape character and the importance of the views from the distinctive landmark at the War Memorial are supported by reference to the National Character Areas (NCA 60 and NCA 62 in particular.</p> <p>Helsby and Frodsham Hills are Areas of Special County Value; designated for their special landscape character and scenic value (GBC2).</p> <p>The key characteristics of the National Character Areas (NCA60; NCA:61 and NCA 62) are set out in Table 1 of APP-068 (ES Ch6 App -6-5).</p>		
LV.003	<p>APP-129 (Policy Compliance Statement)</p> <p>APP-070 (ES V2 App 6-7 Effects on Landscape Character)</p> <p>APP-0146</p>	C, D,	ENV3 Green Infrastructure	<p><i>The Local Plan will support the creation, enhancement, protection and management of a network of high quality multi-functional Green Infrastructure. This will be achieved by: Development incorporating new and/or enhanced Green Infrastructure of an appropriate type, standard and size or contributing to alternative provision elsewhere. Increased planting of trees and woodlands, particularly in urban areas and the urban fringe.</i></p> <p>CWCC's Senior Tree Officer has raised some concerns over the arboricultural assessment: (See RR-6.39 to 6.46).leading to concerns over the</p>	(-ve) -1	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	(7.15 Arboricultural Assessment)			<p>development's potential adverse impact on trees.</p> <p>Replacement and new planting is proposed as part of the mitigation for the proposed development, which is welcome.</p> <p>CWCC acknowledge the project provides some positive mitigation with enhanced green spaces and habitat areas..</p> <p>There is an apparent shortcoming with the mitigation, as the temporary nature of the development is associated with a lack of control post decommissioning, with regard to establishing a long-term future for the Green Infrastructure planting mitigation, and for it to survive to maturity beyond decommissioning.</p>		
LV.004	APP-070 (ES V2 App 6-7 Effects on Landscape Character)	C,O,D	<p>STRAT9 Green Belt and countryside ENV2 Landscape and DM52 Solar Energy</p>	<p>The effects on Landscape Character Area LCA4a are covered below, and the effects in terms of National Character Areas and NCAs: 60 and 62 are covered in the Appendix A to the WR relating to matters not covered in the oral representations at ISH1.</p> <p>The Applicants submission APP-070 identifies LCA4a as a large-scale open and exposed landscape with a medium to high level of overall sensitivity. The Applicant's assessment of the magnitude of resulting change is medium, with a moderate to major</p>	<p>(-ve) -3</p>	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			GBC2 Protection of Landscape	change in the character of the area, and a significant adverse effect, but also noting some beneficial enhancements proposed. CWCC consider that the assessment underplays the significance of the adverse effect. APP-070 also deals with the other Local Character Areas.		
LV.005	APP-069 ES App 6-6 Construction Phase Effects APP-070 (ES V2 App 6-7 Effects on Landscape Character)	C,O,D	STRAT9 Green Belt and countryside ENV2 Landscape and GBC2 Protection of Landscape DM52 Solar Energy	Effects on LCA 4a: Frodsham, Helsby and Lordship Marshes and LCA 5f Helsby to Frodsham. APP-70 refers to the value of LCA 4a: •No landscape designations. • National Cycle Route 5. • Network of public rights of way. • A distinctive landscape, and which is familiar to large numbers of people • The LCA is strongly influenced by industrial/infrastructure development Impacts on LCA 4a associated with construction are moderate to major adverse and consider significant in APP-069. In terms of the operational phase CWCC agree with the description of the sensitivity of the LCA 4a: and the conclusion that the value / overall sensitivity is medium to high (page 9 of APP-70). The magnitude and the Level and Significance of Effect are described as moderate to major and the effects would	(-ve) -3	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p>be significant and generally adverse (with some beneficial effect following enhancements).</p> <p>The ES also identifies that there would be adverse effect on LCA 5f Helsby to Frodsham,</p> <p>Whilst the site does not have a national landscape designation. It has local value, which will be adversely impacted.</p> <p>In assessing the local value the ExA is requested to consider:</p> <ul style="list-style-type: none"> • Proximity to Frodsham and the local population • Association with ecological interests (Frodsham Marshes referred to in the FNP) • Frodsham, Helsby and Lordship Marshes provide the setting to Helsby & Frodsham Hills LLD (ASCV) under Policy GBC2 <p>However, the physical attributes of the Frodsham Marshes landscape retain an inherent openness and quality that warrants recognition in terms of local value.</p> <p>The features include a backdrop of the Mersey Estuary to the north, contrasting with the impressive Frodsham and Helsby sandstone ridge to the south.</p>		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				The network of public rights of way, including national cycle route, provide accessibility for the local community, and the proximity to Frodsham town provides the local community with an important open space, recognised for its ecological value (see reference to Frodsham Marshes in FNP).		
LV.006	APP-070 (ES V2 App 6-7 Effects on Landscape Character)	C,O,D	STRAT9 Green Belt and countryside ENV2 Landscape and GBC2 Protection of Landscape	The ES identifies that the effects on other LCA's would be negligible, neutral or no effect on the character areas.	neutral	
LV.007	AS-013 (DCO Rev 2) APP-147 (Arb Assess)	C,O,D	ENV3 Green Infrastructure DM45 Trees woodland and hedgerows DM52 Solar Energy	Regarding existing landscape features, such as trees, hedges, ditches and ponds, it is understood that these features will be largely retained. However, the draft DCO (AS-013) does include provision for removal of hedgerow (Schedule 9). In terms of the removal of the removal of trees, Policy DM45 includes provision for replacement on a 2 for 1 basis: “...2. include replacement planting at a ratio of at least two new trees for each	(-ve) -1	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p><i>tree lost. Replacement trees should be of heavy or extra heavy standard, and where prominent trees are to be removed, large specimen trees may be required;...."</i></p> <p>This should be reflected in Requirement 9 (3) of Schedule 2 of the DCO.</p>		
LV.008	APP-069 (ES V2 App 6-6 Construction Phase effects)	C	<p>STRAT9 Green Belt and countryside</p> <p>ENV2 Landscape and</p> <p>GBC2 Protection of Landscape</p>	<p>For the construction phase a moderate to major adverse effect on landscape character in LCA4a, with significant effect (albeit of a temporary nature) is identified in the ES. Expected to be maximum of 30 months duration.</p> <p>The period for restoration of those areas outside the footprint of operational development should be confirmed (see 1.1.5 of APP-069).</p> <p>The ES appendix (APP-069) also identified moderate to major adverse effect in terms of viewpoints during construction (especially viewpoints 17,18, 20, 21, 23, 25) where the temporary effects would be significant</p>	<p>(-ve)</p> <p>-1</p>	
LV.009	PD2-020 oDEMP PD2-006 Draft DCO	D	<p>ENV7 Alternative energy supplies</p>	<p>In terms of landscape impact during decommissioning there would be similar temporary adverse impacts to those experienced during construction.</p> <p>The oDEMP / draft DCO provides little information on landscape restoration or aftercare as part of the decommissioning. This is a significant shortcoming.</p>	<p>(-ve)</p> <p>-2</p>	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
LV.010	APP-039 (ES Vol 1 Ch 6 – LVA)	C,O,D	STRAT9 ENV2 ENV3 GBC2 DM52 Solar Energy	<p>The Applicant describes the solar array structures as low level (e.g. 6.8.70 of Chapter 6 to the ES (APP-039). The panel structures are up to 4m high in Flood Zone 3a areas, and up to 3.5m elsewhere³. (Fig 2-5a) ES Volume 3 Chapter 2 Figures (APP-106). The use of the term low-level in this context is considered to be underplay the adverse visual impact of the arrays, particularly at close proximity when experienced using the PROW etc. A similar point was endorsed in relation to 3m high arrays in the October 2025 decision DNS 3279787 (Appendix 25) relating to a Solar Farm near Llanwern, Newport.</p> <p>Paragraph 172:</p> <p><i>172. Furthermore, the largely undeveloped and open nature of the fields which provide a backdrop to this traditional village would be harmed. Whilst I accept that there would be gaps between the rows of solar panels together with buffers around the boundaries where additional hedgerow and tree planting is proposed partly to enhance the landscaping and screen the development, there is no doubt in my mind that the surface of the affected</i></p>	(-ve) -1	

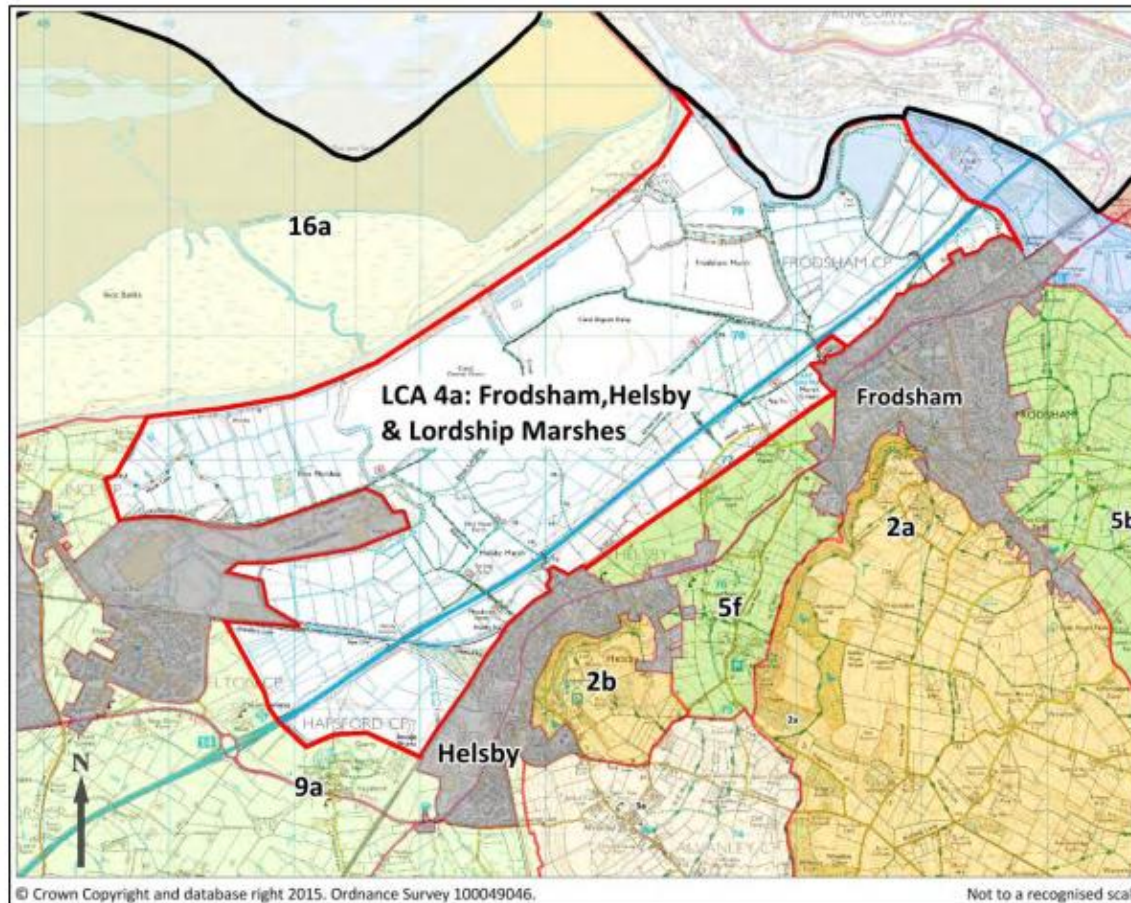
³ In **APP-132** Design Parameters Statement Table 1 it states: “The maximum height of the highest part of the solar PV modules would be 4m **Above Existing Ground Level (AEGL) (bold added)** within Solar PV Array Areas B01 – B018, and C01 – C06 and 3.5m AEGL within Solar PV Array Areas A01 – A06” Unlike AOD, the term AEGL is not defined in the Glossary (**APP-033**); further clarification is provided in Table 1: “The minimum height of the lowest part of the PV modules would be 0.8m AEGL. Within Solar PV Array Areas B01 – B018, and C01 – C06 the **minimum height** of the **lowest part** of the PV modules would be set at **6.52m Above Ordnance Datum (AOD) (bold added)**”

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p><i>fields would be densely packed with solar arrays for the most part. I do not consider that the panels could be properly described as low-lying with an assessed maximum height in the order of 3m. In this context, the solar arrays would not be absorbed as seamlessly into the landform as may have been suggested. It therefore follows that the vast and continuous rows of such modern precision-engineered structures, arranged in a regimented form, would result in the loss of open fields (bold highlighting adds) and would represent an uncharacteristic element in the predominantly rural setting to the village for a period of 40 years.</i></p>		
LV.011	APP-106 Chapter 2 Figures Proposed Development		SOC5 Health and well-being DM52 Solar Energy	<p>Mitigating the impacts of security fencing, lighting, and cameras.</p> <p>It is considered that the sense of enclosure associated with the fencing proposed in and around the SADA will have a negative impact on the current sense of openness of the site, even though the majority of fencing will be open mesh design.</p> <p>There will some adverse impact from the height of the security lighting and CCTV structures, but less significant than the fencing, and use of sensors to limit duration of lighting is a positive mitigating factor.</p>	(-ve) -2	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				DM52 criterion 6: <i>associated development such as access roads, security fencing, lighting and any buildings must be designed so as to minimise its visual impact, whilst ensuring that the development causes no risk to public safety;</i>		
LV.012	APP-071 (ES V2 App 6-9 Effects on viewpoints)		ENV2 GBC2 DM52 Solar Energy	<p>The Applicant's effects on viewpoints document identifies the following viewpoints out of 30 representative viewpoints where the impact will be adverse (A) and /or moderate (M) or significant (S)</p> <p>VP 1 Mersey Way (A)</p> <p>VP3 Ship Street (A)</p> <p>VP5 Langdale Way (A)</p> <p>VP6 St Laurance's Church (A)</p> <p>VP7 Castle Park (A)</p> <p>VP 8 A56 Chester Road (A)</p> <p>VP 9 Frodsham Hill (A) *see below</p> <p>VP10 North of Foxhill House (A)</p> <p>VP11 Plovers Lane (A)</p> <p>VP12 Bates Lane (A)</p> <p>VP13 Helsby Hill (A)</p> <p>VP14 M56 Weaver Lane (A)</p> <p>VP15 M56 Brook Furlong (A)</p> <p>VP16 M56 Straight Length (A)</p> <p>VP17 Footpath within Order Limits (A)</p>	(-ve) -2	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				VP18 RB leading to Frodsham Marsh Farm (A) and (S) VP20 RB Cross Lane (A) VP21 RB Straight Length (A) VP23 adj to River Weaver (A) VP24 The Willows (A) VP25 footpath adj River Weaver (A) VP26 St Laurence's Church (2 nd) (A) VP 28 March Lock (A) VP29 Weaver Navigation Access (A_ VP 30 Weston Road Runcorn (A) It is noted that the magnitude of effect is small or medium in many of the above and reducing over time)		
LV.013	APP-113 (Viewpoint 9)		ENV2 GBC2	CWCC consider there would be a moderate to significant adverse impact on the view from Frodsham Hill War Memorial (Viewpoint 9) (APP-113), a highly sensitive viewpoint locally.	(-ve) -3	
LV.014	APP-072 (ES V2 App 6-9 Effects on M56 users)			In addition to the representative viewpoints referred to above there would be effects on M56 users, although transient.	(-ve) -1	

LCA 4a: Frodsham, Helsby and Lordship Marshes



Location and Boundaries

The northern boundary of this landscape character area is formed by an artificial bank which separates it from the Manchester Ship Canal and open *Estuary* of the Mersey Estuary beyond. The southern boundary is marked by the railway and urban edges of Frodsham and Helsby. The River Weaver lies to the east and industrial development to the west.

Appendix 4 Green Belt

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
Green Belt						
			General to column: STRAT9 Green Belt and countryside		Relative importance signified by no: 1: little 2: moderate 3: Substantial 4: Great	
GB.001	APP-128 Planning Statement	C, O	STRAT9 Green Belt and countryside	The site lies within the North Cheshire Green Belt. The SADA covers some 246ha, over 25% of the Green Belt area to the north of the M56 motorway. (RR-037 – paragraph 5.5). The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence (NPPF – Para 142 and (EN-1 p para. 5.11.2). Development would in particular impact on the key purposes of the Green Belt: a) to check unrestricted sprawl of large built up areas; and b] to prevent neighbouring towns from mering into one another. It would also be transformative in terms of encroachment on the countryside.	(-ve) -3	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
GB.002		C, O	STRAT9 Green Belt and countryside	CWCC consider that the site is Green Belt and not grey belt as set out in RR-037. By definition inappropriate development is harmful to the Green Belt from.	(-ve) -3	
GB.003		C, O	STRAT9 Green Belt and countryside	(RR 5.5) The extent of Green Belt area up to the Manchester Ship Canal is nearly 970ha. The Planning Statement (7.5.20) (APP-128) refers to the Proposed Development transforming some 212ha of farmland into solar array (i.e. 22% of the Green Belt north of the M56 Motorway). The Solar Array Development Area (SADA) is even larger 246ha (paragraph 1.3.8 of Chapter 1 of the ES (APP-034) over 25% of the above Green Belt area.	(-ve) -3	
GB.004		C, O	STRAT9 Green Belt and countryside	The majority of the Site is currently open agricultural land and the canal deposit ground grounds have blended into the landscape. The proposed development would represent a substantial change in openness across an expansive area.	(-ve) -3	
GB.005		C, O	STRAT9 Green Belt and countryside	The site currently functions to provide a break between neighbouring settlements (Runcorn, Ellesmere Port, Frodsham) and the proposed development would substantially reduce the perceived separation.	(-ve) -3	
GB.006		C, O	STRAT9 Green Belt	The solar development would significantly adversely impact on the contribution the Site makes to the	(-ve)	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			and countryside	Green Belt purposes of the Green Belt, particularly of (a) to check the unrestricted sprawl of large built-up areas; (see RR 5.19 to 5.29) and (b) to prevent neighbouring towns merging into one another (see RR 5.31 to 5.39), but also in terms of encroachment of the countryside (see RR 5.50)	-3	
GB.007		C, O	STRAT9 Green Belt and countryside	CWCC considers that the Proposed Development has substantial impact on the essential characterises of openness, and in terms of permanence, whilst time limited, and theoretically reversible, the Proposed Development would be operational for such a long period that permanence in the sense of being a permanent state is severely compromised. (RR 5.53)	(-ve) -2	

Appendix 5 Biodiversity

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
Ecology						
Non-breeding birds and Designated Sites - Functionally Linked Land						
E.001	<p>Habitat Regulations Assessment (Section 8 of the Planning Statement) (APP-128)</p> <p>Information to Inform Habitats Regulations Assessment (APP-125)</p> <p>Environmental Statement: Volume 2 Appendix 8-1: Ornithological Survey Report (APP-082)</p> <p>Chapter 8: Ornithology (APP-041)</p>	C, O, D	<p>LPP1 ENV4:</p> <p>Sites will be protected from loss or damage taking account of:</p> <p>The hierarchy of designations of international, national and local importance</p> <p>The irreplaceability of habitats, sites and/or features and contribution to the borough's ecological network of sites and features</p> <p>Impact on priority habitats and protected/priority species</p> <p>LPP2 DM 44:</p> <p>Development likely to have an impact on protected sites (statutory and non-statutory), protected/priority species, priority habitats or geological sites must be accompanied by an Ecological Assessment that complies with industry best practice and guidance, and:</p>	<p>(As per 7.7 of the CWCC RR, the proposal is contrary to Local Plan Policy Part One and Two, in terms of protection of sites from loss or damage, non-compliance with the mitigation hierarchy and lack of sufficient information to inform a Habitats Regulation Assessment).</p> <p>A substantial part of the Order Limits, serves as Functionally Linked Land to the Mersey Estuary SPA and Ramsar site. Functionally linked land' (FLL) is a term often used to describe areas of land or sea occurring outside a designated site which is considered to be critical to, or necessary for, the ecological or behavioural functions in a relevant season of a qualifying feature for which a Special Areas of Conservation (SAC)/ Special Protection Area (SPA)/ Ramsar site has been designated. These habitats are frequently used by SPA species and supports the functionality and integrity of the designated sites for these features. The FLL as shown on Page 18 of the "Identification of Functionally Linked Land supporting SPA waterbirds in the North West of England, Identification of Functionally Linked Land supporting SPA waterbirds in</p>	(-ve)	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			<p>identifies the assets of biodiversity/geodiversity value on and within the vicinity of the site;</p> <p>evaluates the value and extent of the assets;</p> <p>assesses the likely expected impact of the development on assets of biodiversity/geodiversity value taking into account the mitigation hierarchy;</p> <p>identifies the options to enhance the value of the assets and contribute towards the borough's ecological network; and</p> <p>provides sufficient information to inform a Habitats Regulations Assessment (HRA), where development could have an individual or in combination significant effect on a European Site or its supporting habitat.</p> <p>Commensurate with the size and scale of potential impact, proposals must be designed in line with the mitigation hierarchy, with compensatory measures only considered as a last resort;</p>	<p><i>the North-West of England – Phase 2 Appendix 5 – Functionally Linked Land Maps for the Dee Estuary, Mersey Estuary and North Wirral Foreshore BOWLAND ECOLOGY. 2022. December 2022</i>, shows that the only areas of High potential functionally linked land in the CWCC Borough are within and adjacent to, the Site. The term “high” means the sites are regularly visited by significant numbers of birds on a regular basis. In this case, significant means 0.5% of the GB population or 1000 individuals, rather than the qualifying population for the SPA itself, to account for movement of species between SPA. The larger area classed as High potential includes all of Cells 1, 2, 3, 4, 5, and 6 of the Frodsham Windfarm cells, of which Cells 1, 2, 3 and 5 comprise the western array and NBBMA of the development site (approx. 200 hectares). The smaller area of High Potential Functionally Linked Land is known as the “Inovyn Cell”, which sits adjacent to the Eastern array. Between these two high potential areas, an area of Moderate potential (visited by at least 0.5% of the GB population of SPA qualifying species but less frequently than High potential areas) is located near to “The Lum” adjacent to the Eastern boundary of Cell 1.</p> <p>There is approx. 200 hectares of High potential FLL within the Order Limits (of a total area of 460 hectares of FLL across the whole of the Marsh), of which, Cells 1, the majority of Cell 2 and Cell 5 is proposed for development, rendering approx. 130 hectares of the High potential FLL no longer</p>		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p>functional. The area of Moderate FLL has development proposed on approx. 5 hectares of the 7-hectare area.</p> <p>The significant loss of the area of FLL, even with the enhancement of existing mitigation areas, means that there will be a substantial impact on the designated sites and the non-breeding birds associated with them, in terms of likely displacement and reduction in population, as well as future resilience of the remaining population.</p>		
Non-breeding birds and Designated Sites - survey data						
E.002	<p>Environmental Statement: Volume 2 Appendix 8-1: Ornithological Survey Report (APP-082)</p> <p>Information to Inform Habitats Regulations Assessment (APP-125)</p> <p>Environmental Statement: Volume 1 Chapter 8: Ornithology (APP-041)</p>	C, O, D	See above (particularly LPP2 DM44)	<p>(7.12, 7.13 7.15, 7.16 CWCC RR) There is concern that assessment of bird data collected from surveys has not considered all likely impacts, such as flight path disruption both within the site and to other areas of bird usage. It is noted that the Glint and Glare Assessment did not include impacts on ecological receptors in terms of flight disruption. This means that the full level of mitigation required has not been identified.</p> <p>(7.36 - 7.41 RR) No single year of the three years of non-breeding bird surveys included all areas of the site, and only one year had surveys of the NBBMA, meaning that the baseline data is not considered to be robust.</p> <p>(7.52-7.56 RR) The applicant has based the methodology on which to assess the area of mitigation land required for the development on the Cleeve Hill Solar Park Mitigation example. However, this example does not</p>	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	Appendix B - Outline Non-Breeding Bird Mitigation Strategy (oNBBMS)(APP-144),			account for the fact that the majority of the proposed NBBMA is already acting as a NBBMA, casting doubt on its application to this development and robustness of the mitigation strategy.		
Non-breeding birds - General Construction impacts						
E.003	Appendix 2-2 Construction Phasing (APP-051) Environmental Statement: Volume 1 Chapter 8: Ornithology (APP-041)	C, D		(7.43-7.45 RR) In Appendix 2-2 Construction Phasing (APP-051), the Western array construction begins immediately after the NBBMA construction is complete. In paragraph 8.7.28 of the Environmental Statement: Volume 1 Chapter 8: Ornithology (APP-041), it is stated that the habitats in the NBBMA would become attractive to SPA species immediately on completion of earthworks, and therefore mitigation would be functional at that time. However, although some habitats will be ready for occupation by birds, such as the muddy areas, the wet grassland required by the Frodsham Windfarm Mitigation Plan will not be in place immediately and so the area will not achieve the existing functional mitigation level required prior to works and certainly not that required for mitigation of the impacts of construction on Cells 2 and 5. The Eastern Array recorded some non-breeding bird species and so no works should take place on this area until the NBBMA is functional. This will impact negatively on the non-breeding bird population.	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				The Skylark Mitigation Area (SMA) is not included in the Construction Phasing programme. The SMA should be in place prior to works on areas with breeding Skylarks, otherwise the Skylark population will be negatively impacted.		
Non-breeding birds - Construction Noise and Visual Impacts						
E.004	Information to Inform Habitats Regulations Assessment (APP-125) Environmental Statement: Volume 1 Chapter 8: Ornithology (APP-041) Outline Landscape and Ecology Management Plan; Appendix B - Outline Non-Breeding Bird Mitigation Strategy (APP-144)	C, D	See above	(7.12 RR) The information on elevational differences between the Cells and whether this lessens or increases impacts on the NBBMA in terms of noise and visual disturbance conflicts between the documents and does not seem to have been fully assessed to conclude whether the elevational differences are positive or negative. Therefore, a full assessment has not been made. (7.14 RR) Noise and vibration assessments as detailed in ES Vol 2 Appendix 4-1: Noise Impact Assessment (APP-054) identify that, without mitigation, predicted noise levels (LAeq) from construction works—particularly within Cell 3 of the NBBMA and areas within 180 m of Cell 3's eastern boundary could exceed disturbance thresholds for qualifying bird species of the Mersey Estuary SPA and Ramsar site. It is not clear why, in line with the "avoid" step of the mitigation hierarchy, the SADA in these areas was not reduced in extent to ensure noise was not at a level of significant impact within range of the NBBMA.	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	Noise Assessment (APP-054)					
Cumulative Impacts on Non-breeding birds						
E.005	Information to Inform Habitats Regulations Assessment (APP-125)	C, O, D	See above	(7.33 RR) The Runcorn Carbon Dioxide Spur Pipeline project is proposed to run through Cell 1, Cell 2 and Cell 3 (NBBMA) of the site and so introduces further additional impacts to the mitigation Cells included in the NBBMA, as well as cells used by qualifying SPA bird species elsewhere in the Order Limits. This could have significant adverse cumulative effects on the NBBMA and further assessment and detail is required, including assessment of the various phasing scenarios between the two projects and all sensitive areas within the site and how significant impacts will be avoided.		
E.006	Appendix B - Outline Non-Breeding Bird Mitigation Strategy (oNBBMS) (APP-144) Figure 4 (Information to inform HRA (PD2-010)) Figure 1-4 (Ch1 ES)	C, O, D	See above	(7.34, 7.49-7.51) Frodsham Windfarm (FWF) Mitigation areas comprise Cells 2, 3 and half of Cell 5. These are areas dedicated to compensate for the impacts of the FWF development (displacement of non-breeding birds, access to and loss of functionally linked land). This should be added in as a project for assessment of cumulative/in-combination effects, rather than form the baseline of the project, as the NBBMS is based on cumulative impacts. The oNBBMS proposes development on existing mitigation Cells 2 and 5 and slightly expanding and enhancing Cell 3 to		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	Figures (APP-105)			<p>compensate for this. Qualifying bird species have also been also recorded on Cell 1 and in some areas of the wider SADA (Eastern array), with a high concentration in an area known as "The Lum" and the new NBBMA is proposed to compensate for loss and disturbance of these areas.</p> <p>Paragraph 2.6.5 states that a key focus of the NBBMS is in relation foraging habitats for curlew, lapwing and golden plover, i.e., those SPA species which regularly utilise grassland habitats and for which FWF provides some specific mitigation. However, other SPA species impacted by the Proposed Development, such as Teal, Shelduck, Dunlin, Redshank and Black-tailed godwit also require mitigation and these have not been taken into account.</p> <p>The proposed reduction in mitigation areas means that the bird population is dependent on one smaller area of mitigation land, reducing the ability to use different areas nearby if temporary or permanent disturbances occur on that land. The range of the bird population will be reduced and it will become more vulnerable to disease, competition for food resources and overcrowding.</p> <p>This will have significant negative impacts on the local/national/international non-breeding bird population and designated site.</p>		
Non-breeding birds - Public Rights of Way						

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
E.007	Outline Landscape and Ecology Management Plan (APP-144) Environmental Statement: Volume 3 Chapter 2 Figures	O	See above	<p>(7.8 and 7.18 RR) There are existing footpaths on Site, most of which are of low quality and in varying condition and status. The development proposes to introduce new footpaths, some of which are in close proximity to the non-breeding bird mitigation area, and upgrade existing footpaths and bridleways, some of which will accommodate new cycle use. These elements have not been fully assessed in terms of operational impacts and are likely to have negative impacts on the non-breeding bird species recorded on Site, in terms of human disturbance (visual and noise), with more intense use and disturbance across a wider area than currently occurs. The elevated position of some of the paths will also increase levels of disturbance. This is not comparable to current farming-related and limited recreational activities, as asserted by the applicant (7.23 RR).</p> <p>(7.21. RR) Bird screens are proposed for mitigation in some locations, as shown in Figure 2-3a and 2-3b Illustrative Environmental Masterplan of the Environmental Statement: Volume 3 Chapter 2 Figures. However, if these are deemed to be required along significant lengths of boundaries, it suggests that the impact is significant and that the design should be altered to achieve a wider buffer along those areas to avoid disturbance, in line with mitigation hierarchy.</p> <p>(7.25. RR) Recreational disturbance is an identified pressure on the Mersey Estuary RAMSAR/SPA/SSSI, with additional Habitat</p>	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				Regulations Assessment requirements on residential developments within the Zone of Influence (DEFRA Magic mapping) and a Recreational Mitigation Strategy formed by neighbouring local planning authorities (Merseyside Environmental Advisory Service).		
Recreation and Impacts on Frodsham marshes in Frodsham Neighbourhood Plan						
E.008	Policy Compliance Document (APP-129)	O	<p>Frodsham Neighbourhood Plan Policy EDVE2: Tourism and the Visitor Economy of the Frodsham Neighbourhood Plan states that "Proposals that enhance and improve existing tourist attractions and facilities or that create new sustainable tourism opportunities will be supported where they are in accordance with Local Plan policies ECON3 and STRAT9. Subject to their accordance with other relevant policies in the Neighbourhood Plan, developments will be supported, where they:</p> <ul style="list-style-type: none"> • Demonstrate that potential effects on biodiversity, noise and environmental impacts have been explored and avoidance and mitigation measures employed" 	(7.26 RR) The Frodsham Neighbourhood Plan (see Policy Compliance Document (APP-129) has policies specifically in relation to recreation, aiming to support recreation for developments only where there is no impact on biodiversity. This is not considered to be the case at present.	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			<ul style="list-style-type: none"> • Will not result in adverse impacts on the ecological value and function of Frodsham Marshes <p>Policy GSRL4: Creating New Green/Open Spaces of the Frodsham Neighbourhood Plan states: To encourage developments that create or develop additional green community/recreational spaces. In accordance with other relevant policies in the Neighbourhood Plan, development will be supported where they:</p> <ul style="list-style-type: none"> • Will not result in adverse impacts on the ecological value and function of Frodsham Marshes. 			
Post-development Impacts						
E.009	Proposed Development (Table 2-13 Indicative Operational Lifespan of Proposed Development Components (Chapter 2 Proposed Development (APP-035) Appendix A of the Transport	D	<p>LPP1 ENV4:</p> <p>Sites will be protected from loss or damage taking account of:</p> <p>The hierarchy of designations of international, national and local importance</p> <p>The irreplaceability of habitats, sites and/or features and contribution to the borough's ecological network of sites and features</p> <p>Impact on priority habitats and protected/priority species</p>	<p>(7.30 RR) Throughout the relevant documents it is stated that as the land would be handed back to the landowners on completion of decommissioning, the long-term retention of the landscaping improvement works cannot be assumed. This is concerning when considering the likely future dependency of qualifying bird species on the NBBMA.</p> <p>(7.31 RR) Part-decommissioning will occur when the solar panels require replacement approximately halfway through the Proposed Development (Table 2-13 Indicative Operational Lifespan of Proposed Development Components (Chapter 2</p>	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	Assessment (APP 134)			Proposed Development (APP-035). The NBBMA will be more vulnerable to disturbance than currently, where the birds are spread across a wider area. With the construction traffic routed along the southern boundary of Cell 3 (Appendix A of the Transport Assessment (APP 134), this means that the qualifying bird species are vulnerable. This impact has not been taken into consideration. This will also coincide with the Frodsham Windfarm decommissioning (2042) and this has not been considered as a cumulative impact..		
Breeding birds						
E.010	Environmental Statement: Volume 2 Appendix 8-1: Ornithological Survey Report (APP-082) Chapter 8 of the Environmental Statement Volume 1 Chapter 8: Ornithology (APP-041)	C, O, D	In line with Local Plan (Part One) policy ENV 4, development will be supported where there is no net loss of natural assets and, wherever possible, it delivers net gains within the borough. Development likely to have an impact on protected sites (statutory and non-statutory), protected/priority species, priority habitats or geological sites must be accompanied by an Ecological Assessment that complies with industry best practice and guidance, and: identifies the assets of biodiversity/geodiversity value on and within the vicinity of the site;	(7.58 RR) The introduction of footpaths along some of the green buffers between the development and areas retained for breeding bird mitigation in the Western and Eastern Arrays has not been assessed in terms of impacts on these areas. This means that impacts on the local breeding bird populations could be higher than have been mitigated for. (7.60, 7.77-7.80 RR) There is no clear explanation of the Skylark population baseline currently on Site in terms of area, quality of habitat and distribution, and how the proposed mitigation (NBBMA and Skylark Mitigation Area (SMA)) is adequate to compensate for the habitat loss proposed. The SMA location is not near to any areas where Skylark were recorded during the surveys. The Proposed Development will	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			<p>evaluates the value and extent of the assets;</p> <p>assesses the likely expected impact of the development on assets of biodiversity/geodiversity value taking into account the mitigation hierarchy;</p> <p>identifies the net losses and gains for biodiversity/geodiversity, using a biodiversity metric calculation;</p> <p>identifies the options to enhance the value of the assets and contribute towards the borough's ecological network; and</p> <p>Commensurate with the size and scale of potential impact, proposals must:</p> <p>be designed in line with the mitigation hierarchy, with compensatory measures only considered as a last resort;</p> <p>include a long term habitat and species management plan, if applicable;</p>	<p>significantly restrict their current range, due to lack of open areas and disturbance from new and upgraded footpaths. The SMA has been reduced from approx. 30ha at the PEIR stage, to 5.5ha. This could mean that the Skylark Mitigation Area is not adequate and the proposals could reduce the Skylark population in the local area.</p>		
Proposed Layout						
E.011	Outline Landscape and Ecology Management	C, O, D	<p>LPP1 ENV4:</p> <p>Sites will be protected from loss or damage taking account of:</p>	<p>Eastern Array: (7.68-7.69 RR) An area adjacent to this referred to as "The Lum", is a piece of land protruding into the River Weaver where a high concentration of relevant birds have been recorded. A large proportion of this looks to be retained,</p>	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	Plan (APP 144). Environmental Statement: Volume 3 Chapter 2 Figures		<p>The hierarchy of designations of international, national and local importance</p> <p>The irreplaceability of habitats, sites and/or features and contribution to the borough's ecological network of sites and features</p> <p>Impact on priority habitats and protected/priority species</p> <p>LPP2 DM 44:</p> <p>Development likely to have an impact on protected sites (statutory and non-statutory), protected/priority species, priority habitats or geological sites must be accompanied by an Ecological Assessment that complies with industry best practice and guidance, and:</p> <ul style="list-style-type: none"> identifies the assets of biodiversity/geodiversity value on and within the vicinity of the site; evaluates the value and extent of the assets; assesses the likely expected impact of the development on assets of biodiversity/geodiversity value taking into account the mitigation hierarchy; identifies the options to enhance the value of the assets and contribute towards the borough's ecological network; and 	<p>however, there is limited buffer area to protect against disturbance of these birds and so the area should be expanded to ensure no impact.</p> <p>Further east, the "Redwall Reedbed" in the Information to Inform Habitats Regulations Assessment report (EN010153/DR/5.3)(APP-125), is field parcel 11 in Figure 4 "the Proposed Development Areas - With Cells" of the same document and an area of priority habitat reedbed in Natural England's Magic mapping tool. There is habitat loss proposed in this area. Although there were lower numbers of non-breeding birds recorded here and there is a buffer from the River in this field parcel, the expansion of the area of land retained would help to provide mitigation habitat for birds if managed and also assists with issues with reedbed habitat loss in BNG calculations.</p>		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			<p>provides sufficient information to inform a Habitats Regulations Assessment (HRA), where development could have an individual or in combination significant effect on a European Site or its supporting habitat.</p> <p>Commensurate with the size and scale of potential impact, proposals must be designed in line with the mitigation hierarchy, with compensatory measures only considered as a last resort;</p>			
E.012	Environmental Statement: Volume 1 Chapter 8: Ornithology (APP-041	C, O, D	See above	<p>(7.69-7.76) Western Array:</p> <p>The integrity of the remaining functionally linked land is at risk due to the reduced area available to qualifying bird species, increasing isolation and vulnerability;</p> <ul style="list-style-type: none"> The connectivity across the remaining functionally linked land, both on and adjacent to the Site, is disrupted; Reduction in mitigation areas means that the bird population is dependent on one smaller area of mitigation land, reducing the ability to use different areas nearby if temporary or permanent disturbances occur on that land. The range of the bird population will be reduced and it will become more vulnerable to disease, competition 	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p>for food resources and overcrowding;</p> <ul style="list-style-type: none"> The solar panels are proposed very close to areas of ecological sensitivity. <p>(7.70 RR) Cell 2 and the eastern and northern areas of Cell 1 also support qualifying bird species. There is minimal buffer from the solar panels along the northern and eastern boundaries of Cell 1, raising concern regarding the impacts on non-breeding birds.</p>		
E.013	Environmental Statement: Volume 1 Chapter 8: Ornithology (APP-041),	C, O, D	See above	(7.71-7.72 RR) In paragraph 8.8.6 of the Environmental Statement: Volume 1 Chapter 8: Ornithology (APP-041), it states that buffer zones documented in Goodship and Furness (202225) suggest that (depending on the nature of the disturbance) effects out to 100 m and up to 650 m (curlew) may be detectable by some species during the non-breeding season. Therefore, the solar panels should be drawn back by 100m minimum from areas of qualifying non-breeding bird use, i.e. Cells, 1, 2 and 3. There is only 20-50m separation between the river Weaver and panels on Cell 1. This means that the mitigation proposed is inadequate and will negatively impact the non-breeding bird population on site.	-ve	
Bats						

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
E.014	<p>Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040)</p> <p>Frodsham Solar Arboricultural Assessment (APP-146)</p>	C, O, D	<p>In line with Local Plan (Part One) policy ENV 4, development will be supported where there is no net loss of natural assets and, wherever possible, it delivers net gains within the borough.</p> <p>Development likely to have an impact on protected sites (statutory and non-statutory), protected/priority species, priority habitats or geological sites must be accompanied by an Ecological Assessment that complies with industry best practice and guidance, and:</p> <p>identifies the assets of biodiversity/geodiversity value on and within the vicinity of the site;</p> <p>evaluates the value and extent of the assets;</p> <p>assesses the likely expected impact of the development on assets of biodiversity/geodiversity value taking into account the mitigation hierarchy;</p> <p>identifies the net losses and gains for biodiversity/geodiversity, using a biodiversity metric calculation;</p> <p>identifies the options to enhance the value of the assets and contribute towards the borough's ecological network; and</p>	<p>(7.83 - 7.84 RR) There is conflicting information between the Paragraph 7.7.16 of the Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040), which states trees will be retained and the Frodsham Solar Arboricultural Assessment (APP-146) which details removal of G034 to enhance the NBBMA, and G067, G069, a section of G099 and A106 to facilitate the development.</p> <p>It should be confirmed that the trees listed for removal in the Arboricultural report were surveyed for bat roosting potential and none were present. If not, Bat roosting surveys should be carried out on these trees by a suitably qualified ecologist to best practice guidelines.</p> <p>Further tree surveys could be required, to ascertain the status of the bat population on site and any mitigation required. It is likely this could be mitigated for in terms of roosting provision with retaining tree roosts and attaching limbs to other trees and bat boxes on retained trees.</p>	N	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			<p>Commensurate with the size and scale of potential impact, proposals must:</p> <p>be designed in line with the mitigation hierarchy, with compensatory measures only considered as a last resort;</p> <p>include a long term habitat and species management plan, if applicable;</p>			
E.015	<p>Environmental Statement: Volume 2 Appendix 7-3: Bat Activity Survey Report (APP-079)</p> <p>Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040)</p>	C,O, D	See above.	(7.85-7.88 RR) Bat activity surveys were carried out July-November 2023, which missed the Spring survey season and did not include the NBBMA. Paragraph 7.8.32 of the Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040) states that any individual length of hedgerow removal would likely be no greater than 6m. This would be unlikely to significantly disrupt any bat foraging/commuting lines and proposed planting (proposed no closer than 50m to any existing wind turbines) would compensate for these losses. Although the activity surveys were limited, due to the lack of likely significant impacts on foraging and commuting habitats and likely benefits to such habitats from the proposals, there are no significant concerns regarding impacts on the local population of foraging and commuting bats.	N	
Otters						

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
E.016	<p>Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040)</p> <p>Environmental Statement: Volume 2 Appendix 7-2: Protected Ecological Species Baseline Report (APP-076)</p>	C, O, D	See above	<p>(7.89-7.91 RR) 7.6.27 and 7.6.27 of Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040) and 7.6.26 of Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040) concluded that the mustelid scats and mammal holes found in the NBBMA were likely to be Otter. It is likely that the larger ditches located along the southeastern boundary of the SADA, together with the series of ponds and ditches located within the NBBMA, may be suitable for resting, foraging or commuting otter and provide a likely route for Otters from the River Weaver up to Cell 6 and through to the NBBMA. Therefore, presence on site is assumed as in 7.6.28 of Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040).</p> <p>(7.92-7.94 RR). Otters are likely travelling to the NBBMA to use a food resource, likely due to the fish within the fishing pools. The fishing pools will be removed and the area will be fenced off as part of the NBBMS so that Otters will no longer be able to access the area. This is likely to remove an important food source, causing displacement and restricting the local range of the species. In terms of range, it is assumed that the solar panels fences will not restrict access through the ditch network in the SADA. If this is not the case, further assessment is required.</p> <p>It is not clear whether Otters are using the Manchester Ship Canal or travelling through the SADA to get to the NBBMA. Mitigation measures have been considered if they are travelling through the SADA, such as</p>	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				standard buffers from watercourses, any new crossings being open-span and some existing culverts being upgraded to open-span crossings, which will enhance some ditch connectivity. This however, does not mitigate for the loss of food resource and loss of access to the NBBMA that the development proposes, where Otters are likely to be present currently. This restriction is likely to have a negative impact on the local Otter population and restrict their range.		
Great crested newts						
E.017	Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040) Environmental Statement: Volume 2 Appendix 7-2: Protected Ecological Species Baseline Report (APP-076) Environmental Statement: Volume 1	C, O, D	See above	(7.96-7.98 RR) Recent survey data from 2022, historical survey data and desktop records have established GCN are unlikely to be present on or within range of the site. The Proposed Development is likely to increase the diversity of habitats on site for Great crested newts, if present in the future, with the proposed woodland, scrub, hedgerow, grassland, reedbed, ditches and pond creation and enhancement, tied into a long-term management plan (as detailed in Work No. 6a - works to create, enhance and maintain green infrastructure, paragraph 2.4.125 Environmental Statement: Volume 1 Chapter 2: The Proposed Development (APP-035).	N	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	Chapter 2: The Proposed Development (APP-035)					
Water voles						
E.018	Environmental Statement: Volume 2 Appendix 7-2: Protected Ecological Species Baseline Report (APP-076) Figure 2: Water Vole Crossing Point Preliminary Habitat Suitability Assessment Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040) Environmental Statement: Volume 2 Appendix 7-2:	C, O, D	See above	(7.99-7.103 RR) Surveys carried out from September 2023 to March 2025 over most of the site found evidence of Water voles and concluded that there is a Water vole population using the ditch network across the site. Although a population density survey could not be undertaken, the distribution found and good ditch suitability across site suggests a substantial population is present. Records from planning applications outside of the site, on the westernmost area of the Marsh, around Ince and Protos, also show significant numbers of water vole, indicating an extensive, contiguous population across the Frodsham, Helsby and Ince Marshes. The Outline Construction Environmental Management Plan contains standard measures during construction. Paragraph 7.7.29 of the Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040) states that a Mitigation Licence will be obtained from Natural England if necessary, i.e. if the ditch crossing works are predicted to disturb a Water vole burrow. When ditch crossings are in place they will not impede water vole movement during operation.	N	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	Protected Ecological Species Baseline Report (APP-076) Outline Landscape and Ecology Management Plan (APP 144).			Cessation of agricultural practices are likely to enhance water quality and scrub management and ditch-top habitats for Water vole will be enhanced. New wetlands proposed in the NBBMA and Cell 2 will expand the range of habitats currently available. These measures are set out within the Outline Landscape and Ecology Management Plan (APP 144).		
Badgers						
E.019	Environmental Statement: Volume 2 Appendix 7-2: Protected Ecological Species Baseline Report (Confidential Badger Annex) (APP-078) Annex 2 Frodsham Renewable Energy Development Preliminary Ecological	C, O, D	See above.	[REDACTED]	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	<p>Appraisal Report (RSK Biocensus, 2023) (Redacted) of Environmental Statement: Volume 2 Appendix 7-1) (APP-075)</p> <p>Outline Landscape and Ecology Management Plan (APP-144)</p>			<p>[Redacted Comments]</p>		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
Invertebrates						
E.020	Environmental Statement: Volume 1 Chapter 2: The Proposed Development (APP-035). Environmental Statement: Volume 2 Appendix 7-2: Protected Ecological Species Baseline Report (APP-076)	C, O, D	See above.	(7.111-7.112 RR) The Proposed Development is likely to increase the diversity of habitats on Site for invertebrates, with the proposed woodland, scrub, hedgerow, grassland, reedbed, ditches and pond creation and enhancement, secured in a long-term management plan. (as detailed in Work No. 6a -works to create, enhance and maintain green infrastructure, paragraph 2.4.125 Environmental Statement: Volume 1 Chapter 2: The Proposed Development (APP-035).	+ve	
Reptiles						
E.021	Environmental Statement: Volume 2 Appendix 7-2: Protected Ecological Species Baseline Report (APP-076)	C, O, D	See above.	(7.113 RR) The Site provides suitable Reptile habitat in the form of marshy and rough grassland with hedgerows and a ditch network. Reptile surveys in 2022 did not include the NBBMA, which comprises ditches and larger open water areas, so there are concerns regarding the baseline data and therefore any mitigation proposals that are required may not be known. Further justification is required as to why omission of	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				this area in the survey does not affect the results and mitigation proposals.		
Fish						
E.022	Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-40) Outline Construction Environmental Management Plan (APP-136)	C, O, D	See above	(7.114-7.115 RR) Ditches and watercourses are likely to support a typical assemblage of fish species, and eels are assumed to be present within any permanently wet water bodies, that are hydrologically connected to any main watercourse (paragraph 7.6.52 of the Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-40). Incorporated mitigation includes buffers of at least 10m from all ditches and watercourses, with the exception of 17 new permanent crossings and upgrading of eight existing crossings. Works within the NBBMA would include engineering works within the existing ditch. A fish rescue plan is recommended to be secured, as well as integrated pollution prevention measures within the Outline Construction Environmental Management Plan (APP-136). Paragraph 7.8.64 of the Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-40) specifies working measures for European eel. The new ditch crossings will be open span and so not impeded fish movement during operation of the solar farm.	Neutral	
Local Wildlife Sites						

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
E.023	Statutory and non-statutory sites or Features of Nature Conservation Plans (APP-012).	C, O	<p>The Local Plan will safeguard and enhance biodiversity and geodiversity through the identification and protection of sites and/or features of international, national and local importance. Sites will be protected from loss or damage taking account of:</p> <p>The hierarchy of designations of international, national and local importance</p> <p>The irreplaceability of habitats, sites and/or features and contribution to the borough's ecological network of sites and features</p> <p>Impact on priority habitats and protected/priority species</p> <p>Development should not result in any net loss of natural assets and should seek to provide net gains. Where there is unavoidable loss or damage to habitats, sites or features because of exceptional overriding circumstances, mitigation and compensation will be required to ensure there is no net loss of environmental value.</p> <p>Development likely to have an impact on protected sites (statutory and non-statutory), protected/priority species, priority habitats or geological sites must be accompanied by an Ecological Assessment that complies</p>	<p>(7.117 RR) In the East Clifton Tip LWS, there is a cable proposed along an existing access track, and within the Frodsham Field Studies Centre LWS there are two pylons and a compound proposed. Therefore, there is minimal habitat loss in these LWS's.</p> <p>(7.117 RR) Frodsham, Helsby and Ince Marshes is the largest Local Wildlife Site in CWCC, at 1154.48 hectares in size. This is almost twice as large as the next largest LWS in the Borough, denoting an extensive area of valuable habitats which support species at county, national and international level. The site is also of botanical significance at county and national levels. The main development area will cover approximately 20% (approx. 247ha of 1154ha) of this LWS (Statutory and non-statutory sites or Features of Nature Conservation Plans (APP-012). As one of the qualifying features of the LWS is non-breeding birds, this will potentially require the removal of the LWS designation in the development area and reduce the connectivity and resilience of the remaining LWS.</p> <p>Functionally linked land' (FLL) is a term used to describe areas of land or sea occurring outside a designated site which is considered to be critical to, or necessary for, the ecological or behavioural functions in a relevant season of a qualifying feature for which a Special Areas of Conservation (SAC)/ Special Protection Area (SPA)/ Ramsar site has been designated. These habitats are frequently used by SPA species</p>		Neutral

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			<p>with industry best practice and guidance, and:</p> <ul style="list-style-type: none"> identifies the assets of biodiversity/geodiversity value on and within the vicinity of the site; evaluates the value and extent of the assets; assesses the likely expected impact of the development on assets of biodiversity/geodiversity value taking into account the mitigation hierarchy; identifies the options to enhance the value of the assets and contribute towards the borough's ecological network; and <p>Commensurate with the size and scale of potential impact, proposals must:</p> <ul style="list-style-type: none"> be designed in line with the mitigation hierarchy, with compensatory measures only considered as a last resort; include a long term habitat and species management plan, if applicable; include a management plan for invasive species, if applicable; and utilise native species in landscaping schemes, where appropriate. 	<p>and support the functionality and integrity of the designated sites for these features.</p> <p>In Natural England's report "<i>Identification of Functionally Linked Land supporting Special Protection Areas (SPAs) waterbirds in the North West of England – Phase 2 October 2023 Natural England Commissioned Report NECR483</i>" and the associated Appendix 5 – <i>Functionally Linked Land Maps for the Dee Estuary, Mersey Estuary and North Wirral Foreshore</i>", the Marsh contains the only two areas of High Potential Functionally Linked Land in CWCC. One of these areas is within the site and the other is adjacent. No other LWS in CWCC contain areas such as these. The term "high" in this case means the sites are regularly visited by significant numbers of birds on a regular basis. In this case, significant means 0.5% of the GB population or 1000 individuals, rather than the qualifying population for the SPA itself, to account for movement of species between SPA. The larger area classed as High potential, includes all of Cells 1, 2, 3, 4, 5, and 6 of the Frodsham Windfarm cells, of which Cells 1, 2, 3 and 5 comprise the western array and NBBMA of the development site (approx. 200 hectares). The smaller area of High Potential Functionally Linked Land is known as the "Inovyn Cell", which was originally proposed to be within the DCO order limits but was removed and now sits adjacent to the Eastern array. Between these two areas, an area of Moderate potential (visited less frequently than High potential areas) is</p>		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p>located near to "The Lum" adjacent to the Eastern boundary of Cell 1.</p> <p>The LWS provides a large, contiguous area of valuable habitat for species associated with the Mersey Estuary SPA/SAC/RAMSAR. The results of the non-breeding bird surveys also support the mapped areas identified for significant use by non-breeding birds.</p> <p>(7.119 RR) Paragraph 7.8.8 of the Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040) Table 7.9 does not list birds or mammals as qualifying features of the LWS, so there is doubt that a full assessment of impact on the LWS has taken place.</p> <p>Wildlife Corridors/buffers qualifying feature: At a smaller scale, although there will be wildlife corridors left between areas of panels, the accessibility of these to wildlife is reduced, in terms of Otters and Badgers restricted by fencing, raising concerns with food sources being restricted and badger clan interactions being disrupted, both of which are likely to lead to displacement. At a larger scale, birds are restricted in landing and utilising existing FWF mitigation cells 2 and 5 and cell 1 in the wider Order Limits. The LWS currently provides buffering/corridor habitat to the Mersey Estuary RAMSAR/SPA/SSSI and the reduction in area that can function as such is a significant concern and may lead to the loss of this qualifying feature in this area and</p>		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
				<p>therefore reduction in this locally unique LWS designation.</p> <p>7.124. Mammals: There are concerns regarding Otters and Badgers, regarding connectivity through the landscape, loss and restriction of access to food resource and displacement. Please see Otter section in RR 7.91 – 7.97 and Badger sections RR 7.106-7.112.</p>		
Biodiversity Net Gain						
E.024	<p>Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040)</p> <p>Frodsham Solar Ltd BNG Metric Spreadsheets AS-036 (as provided by applicant as Excel spreadsheets to enable assessment)</p>	C, O	<p>Development should not result in any net loss of natural assets and should seek to provide net gains. Where there is unavoidable loss or damage to habitats, sites or features because of exceptional overriding circumstances, mitigation and compensation will be required to ensure there is no net loss of environmental value.</p> <p>In line with Local Plan (Part One) policy ENV 4, development will be supported where there is no net loss of natural assets and, wherever possible, it delivers net gains within the borough. Development likely to have an impact on protected sites (statutory and non-statutory), protected/priority species, priority habitats or geological sites must be accompanied by an Ecological Assessment that complies with</p>	<p>(7.130-7.131 RR) The development is reported to achieve a net gain in habitat units of 11.52% (194.86 units), net gain in hedgerow habitats of 88.92% (48.25 units) and a net gain in watercourse units of 13.35% (14.65 units). However, this includes 65.61 units of reedbed that have not been satisfactorily compensated for, due to metric trading rules. This means that these Headline results are irrelevant, in accordance with Statutory User Guidelines. This is a significant proportion of the unit provision on Site.</p> <p>Paragraph 7.7.73 of the Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040) states that even though the reedbed should not be classed as such, due to some areas being isolated and dry. However, the area of reedbed is 64ha, which is not insignificant. The reedbed meets UK Habs definitions and so should be classed as such. In addition, to have a wetland habitat</p>	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			<p>industry best practice and guidance, and:</p> <ul style="list-style-type: none"> identifies the assets of biodiversity/geodiversity value on and within the vicinity of the site; evaluates the value and extent of the assets; assesses the likely expected impact of the development on assets of biodiversity/geodiversity value taking into account the mitigation hierarchy; identifies the net losses and gains for biodiversity/geodiversity, using a biodiversity metric calculation; identifies the options to enhance the value of the assets and contribute towards the borough's ecological network; and <p>Commensurate with the size and scale of potential impact, proposals must:</p> <ul style="list-style-type: none"> be designed in line with the mitigation hierarchy, with compensatory measures only considered as a last resort; include a long term habitat and species management plan, if applicable; include a management plan for invasive species, if applicable; and 	<p>not properly compensated for adjacent to a RAMSAR/SPA/SSSI site designated for its wetland habitats, further adds to the unacceptability of this approach. The applicant's approach would significantly undervalue the habitats on site, on a strategic scale and a net loss would not be achieved.</p> <p>(7.133 RR). Reedbed is a high distinctiveness habitat and should be retained in the first instance. No justification has been given for the loss of this habitat, nor for the lack of compensation proposed. The loss of some of the other high distinctiveness habitat on Site, wet woodland, has also not been justified. In line with the approach taken under the statutory biodiversity gain hierarchy, used as a guide, medium high and very high distinctiveness habitats are highlighted in terms of retention and avoidance of impacts. The general mitigation hierarchy should be demonstrated, as detailed in Local Plan Policy Part Two Policy DM44; "16.8 The mitigation hierarchy (avoid, minimise, mitigate, compensate) shall be followed when considering development proposals. Avoidance of damage will always be CWCC's preferred option, with compensation only acceptable as a last resort. Compensation for habitat loss should aim for like for like replacement and either be delivered on-site or off-site, secured by planning conditions, planning obligations and/or biodiversity offsetting mechanisms within the borough."</p>		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			utilise native species in landscaping schemes, where appropriate.			
E.025	Frodsham Solar Ltd BNG Metric Spreadsheets AS-036? (as provided by applicant as Excel spreadsheets to enable assessment)	C, O	See above	<p>(7.134-7.137 RR) An amended layout should be provided, to avoid the loss of higher distinctiveness habitats of reedbed and woodland as much as possible, with any residual losses justified. Further reedbed and woodland habitats should be created on Site to resolve this issue. The same should be carried out with medium distinctiveness habitats.</p> <p>A Biodiversity Net Gain Strategy document should be provided, to understand the approach taken on Site and provide justifications for decisions made on retention and loss of habitats.</p> <p>Currently the Proposed Development is considered to generate a significant net loss in biodiversity that also impacts on the Local Wildlife Site and adjacent national and international designations.</p> <p>See 7.137 RR for technical issues with the metric that are likely to significantly alter the metric results.</p>	-ve	
Peat:						
E.026	Environmental Statement: Volume 1 Chapter 7:	C, O, D	Development should not result in any net loss of natural assets and should seek to provide net gains. Where there is unavoidable loss or damage	(7.138-7.141 RR) 7.138. Table 7-3: Scoping of Ecological Features of the Environmental Statement: Volume 1 Chapter 7: Terrestrial Ecology (APP-040) states that "There are no	-ve	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	Terrestrial Ecology (APP-040)		to habitats, sites or features because of exceptional overriding circumstances, mitigation and compensation will be required to ensure there is no net loss of environmental value.	<p>peat dependent ecological habitats or species within the Main Development Area. Furthermore, ground investigation surveys undertaken of the SADA identified no peat to a depth of 5.0 m. As such, the Proposed Development would not impact any peat that may be present". However, this does not account for compaction and hydrological impacts and this should be assessed.</p> <p>Table 10-3: Scoping Responses with respect to Ground Conditions states "The impact of disturbance and/or removal of peat on climate change and removal of peat resource has also been considered within ES Vol 1 Chapters 7: Terrestrial Ecology (APP-040)", however, it is not clear where this assessment is.</p> <p>A clearer assessment of the peat depths across the Site and assessment of compaction and hydrological impacts is required.</p>		
Ecological Network						
E.026	n/a	C, O, D	Development that makes a positive contribution towards the borough's ecological network will be supported. Within the components of the ecological network, as identified on the policies map, proposals should: increase the size, quality or quantity of priority habitat within core areas, corridors or stepping stones;	The site is in a Core Area of the Ecological Network, which requires any development to increase the size, quality or quantity of priority habitat. Priority habitats on site likely include wet woodland, reedbeds and lowland mixed deciduous woodland. It would be appropriate to enhance wet woodland and reedbed habitats on site, due to the species present. Currently this is not demonstrated,		

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			<p>within corridors and stepping stones, improve the connectivity of habitats for the movement of mobile species;</p> <p>in restoration areas, improve the structural connectivity, resilience and function of the network;</p>	and in fact there is a loss of priority habitat, as shown in the BNG metric.		

Appendix 6 Ground conditions, contamination

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
Ground conditions, peat and contamination						
			General to column: SOC5 and ENV4 DM32 Land contamination instability		Relative importance signified by no: 1: little 2: moderate 3: Substantial 4: Great	
G.001		C & D	SOC5 and ENV4 DM32 Land contamination instability	There is potential for localised contamination associated with piling and ground disturbance. Chapter 10 Ground conditions (APP-043) identifies asbestos fibres near the surface on Cell 5, and following the Applicant's risk assessment this is noted as of low risk. An elevated level of polychlorinated biphenyls (PCBs) was also found in the dredging cells. In terms of leachate some elevated contaminants were identified.	(-ve) -1	
G.002		C	SOC5 and ENV4	CWCC's Contaminated Land Officer notes that the design of the proposed buildings on site need to consider potential gas risk.	(-ve)	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			DM32 Land contamination instability		-1	
G.003		C & D	SOC5 and ENV4 DM32 Land contamination instability	There is a risk of encountering unexploded ordnance (UXO). Within the NBBMA, western part of the SADA in particular the risk of encountering UXO is high (including the dredging deposit Cell 1 and most northerly section of Cell 5 is high with the remainder of the assessed areas within Cell 5 as medium to high risk. Some of the other areas are described as medium risk (10.6.31 of Chapter 10 Ground conditions (APP-043))	(-ve) -2	
G.004		C	DM43 Water quality, supply and treatment	The Environment Agency (EA) has the remit in terms of water pollution, and the potential impacts referred to in the EA's RR should be considered. Concern over potential lack of control in relation to permitted preliminary works being outside the definition of commence should be addressed.	(-ve)	
G.005		C	ENV4 Biodiversity and geodiversity	Further investigation of peat is recommended as part of the archaeological work, and the wider environmental implications associated with peat need consideration depending on the finding.	(-ve)	

Appendix 7 Cultural Heritage

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
Cultural Heritage						
			General to column: ENV5 Historic Environment DM52 Solar Energy		Relative importance signified by no: 1: little 2: moderate 3: Substantial 4: Great	
H.001	APP-044 Cultural Heritage chapter of ES	O	ENV5 Historic Environment DM 46 Development in Conservation Areas DM49 Registered Park and Gardens DM52 Solar Energy	There would be Minor adverse effects upon the settings of the following heritage assets, which include a scheduled ancient monument, a registered park and garden, and conservation areas and a Grade II listed war memorial: Frodsham Conservation Area (Asset 154); Castle Park (Frodsham) Conservation Area (Asset 155) and the Castle Park Grade II Listed Registered Park and Garden (Asset 153);	(-ve) -1	
H.002	APP-044 Cultural Heritage	O	ENV5 Historic Environment	The ES chapter indicates a Minor adverse effect upon the settings of the Grade II listed war memorial On Frodsham Hill.	(-ve)	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	chapter of ES		DM 47 Listed buildings DM52 Solar Energy	Given the relationship of this asset to Frodsham town and the importance of the setting a higher local impact is attributed.	-2	
H.003	APP-044 Cultural Heritage chapter of ES	O	ENV5 Historic Environment DM50 Archaeology DM52 Solar Energy	The ES chapter indicates a Minor adverse effect upon The Promontory Fort On Helsby Hill 250 m North West Of Harmers Lake Farm Scheduled Monument (Asset 1); Given the relationship of this asset to Frodsham town and the importance of the setting a higher local impact is attributed.	(-ve) -2	
H.004	APP-044 Cultural Heritage chapter of ES	O	ENV5 Historic Environment DM 46 Development in Conservation Areas DM52 Solar Energy	The ES chapter indicates a Minor adverse effect upon Overton St Lawrence's (Frodsham) Conservation Area Given the relationship of this asset to Frodsham town and the importance of the setting a higher local impact is attributed.	(-ve) -2	
H.005	APP-044 Cultural Heritage	C	DM48 Non-designated	Minor adverse direct effects predicted for the possible non-designated ventilation shafts (Asset 16) as the shafts are	(-ve)	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	chapter of ES		heritage assets DM50 Archaeology	assumed to be destroyed by the Proposed Development.	-1	
H.006	APP-044 Cultural Heritage chapter of ES	C	DM48 Non-designated heritage assets DM50 Archaeology	Another direct effect would be negligible adverse effect on ridge and furrow deposits (Asset 257).	(-ve) -1	
H.007	APP-044 Cultural Heritage chapter of ES	C,	DM48 Non-designated heritage assets DM50 Archaeology	Section of probable post medieval flood defence, east of Frodsham Marsh Farm (Asset 258)	N	
H.008	APP-044 Cultural Heritage chapter of ES	C	DM48 Non-designated heritage assets DM50 Archaeology	Other non-designated assets possible directly effected (table 11-10 of APP-044) – low or no effect predicted.	N	

Appendix 8 Health, residential amenity and safety

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
Health and residential amenity						
			General to column: SOC5 Health and well-being	Please refer to Section 12 Health and Amenity of CWCC's Relevant Representations (RR-037)	Relative importance signified by no: 1: little 2: moderate 3: Substantial 4: Great	
RA.001	APP-128 Planning Statement APP-054 noise assessment App-055 dust assessment APP-056 - Glint and Glare	C,O,D	SOC5 Health and well-being DM2 Impact on residential amenity DM30 Noise DM31 Air quality DM29 Health impacts of new developments	Impact on residential amenity of nearby dwellings (except Traveller sites – see below)	N	
RA.002	APP-128 Planning Statement APP-054 noise assessment App-055 dust assessment	C.O,D	SOC4 Gypsy and Traveller and Travelling Showpersons accommodation	Whilst the noise, dust, glint and glare assessment raised no significant impacts, it is considered cumulatively, and in such close proximity, there would be some residual adverse impact on the Traveller sites	(-ve) -1	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	APP-056 - Glint and Glare					
RA.004	APP-056 - Glint and Glare		DM11 Safeguarded areas around Aerodromes	Impact on airports (glint and glare and other aspects)	N	

Appendix 9 Flood Risk and Drainage

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
Flood Risk and Drainage						
			General to column: ENV1 Flood risk and water management		Relative importance signified by no: 1: little 2: moderate 3: Substantial 4: Great	
F.001	ES Chapter 9 Flood Risk and Surface Water (APP-042)	C,O, D,	ENV1 Flood risk and water management	Ground compaction from compounds or heavy machinery operations may result in increased surface water runoff.	(-ve) -1	
F.002	ES Chapter 9 Flood Risk and Surface Water (APP-042) Water Framework Directive Assessment (APP-089)	O	ENV1 Flood risk and water management DM40 Development and flood risk	The Environment Agency refer to the addition of receptors in the area drained by Frodsham pumping station, and that this may lead to the residual life of the pumping station needing to be extended (RR EA016).	(-ve) -1	
F.003	6.2 ES Vol 2 Appendix 9-1 Flood Risk Assessment	C,O,D	DM41 Sustainable Drainage Systems	The Flood Risk and Drainage Strategy sets out the surface water strategy in Section 11.	N	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	and Drainage Strategy 1 of 5 (AS-020)			<p>The FRA considered that the solar arrays will not result in an increase in the surface water runoff rates and volumes and will not alter the existing greenfield drainage regime.</p> <p>The proposed BESS compound and Frodsham Solar Substation compound will be formally drained. Given the impermeability of the underlying strata, it is proposed to discharge surface water from these compounds to an adjacent ordinary watercourse</p>		
F.004	RR-024 Environment Agency Relevant Rep	C,O,D	DM 43 Water quality, supply and treatment	Deterioration of water quality is a risk to water bodies in the event of leaks and spillages of fuel, chemicals, or hazardous materials occurring.	(-ve) -2	
F.005	PD2-029 oFWEP RR-024 Environment Agency Relevant Rep	O	ENV1 Flood risk and water management	The Environment Agency (EA) in their RR (EA009) identify there is a risk that Flood events may cut off workers unaware of rising water or compromise emergency services' access. Therefore, the site may not be operational in the event of a flood event.	(-ve) -1	
F.006	RR-024 Environment Agency Relevant Rep	C,O	ENV1 Flood risk and water management	The Environment Agency (EA) in their RR (EA015) have identified potential risk to flood assets from proposed water storage on a flood asset (the flood defence/bund).	(-ve) -2	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
			DM40 Development and flood risk			
F.007	ES Chapter 9 Flood Risk and Surface Water (APP-042)	C,O, D,	ENV1 Flood risk and water management	The Applicant's ES Flood risk chapter identifies some minor beneficial impacts associated with reduced farming activities e.g. less chemical pesticides etc	(=ve) +1	
F.008	6.2 ES Vol 2 Appendix 9-1 Flood Risk Assessment and Drainage Strategy 1 of 5 (AS-020) 7.8 Outline Battery Safety Management Plan(APP-139)	O	DM 43 Water quality, supply and treatment	The implementation of the BESS introduces the potential risk of contaminated fire water runoff. Fire water management measures are proposed to mitigate the risk.	(-ve) -1	

Appendix 10 Transport and public rights of way (PROW)

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
Transport						
			General to column STRAT10 Transport		Relative importance signified by no: 1: little 2: moderate 3: Substantial 4: Great	
T.001	Transport Assessment APP-134 oCTMP PD2-014	C,O,D	STRAT10 Transport T5 Parking and access	Overall, Highway Officer raises no major objection to Transport Assessment. However, note awaiting NH input on cumulative assessment work	N	
T.002	oCTMP PD2-014 oPRoWMP PD2-022		DM37 Recreational routeways	Temporary closure of PROW	(-ve) -1	
T.003	oCTMP PD2-014 oPRoWMP PD2-022	O	STRAT10 Transport	Establishment of Permissive paths (to south of deposit grounds)	(+ve) 2	
T.004	oCTMP PD2-014	O	STRAT10 Transport	Establishment of Permissive paths (near habitat features – e.g. Cells 1, 2, 5)	(-ve)	

Ref LIR:	Related Document Reference	Impact during construction C), operation O), decommission D)	Policy LP1 LP2 FNP INP	Comments	Positive (+ve), Neutral (N), Negative (-ve)	Applicant's Response
	oPRoWMP PD2-022			<i>(negative attributed due to biodiversity impact concerns)</i>	-2	
T.005	oCTMP PD2-014 oPRoWMP PD2-022	C,O,D	STRAT10 Transport	Temporary closure and operational impact on reasonable enjoyment /experience of PROW (including National cycleway network)	(-ve) -2	
T.006		C, D	STRAT10 Transport DM38 Waterways and mooring facilities	Temporary loss of access to River Weaver during construction	N	
T.007	oPRoWMP PD2-022	C, O, D	STRAT10 Transport	There will be a temporary impact during construction in relation to equestrian use of the PROW network where closure is proposed. British Horse Society advise is that <i>"Routes for constructions traffic should avoid passing along or across equestrian routes, including byways and bridleways. Where such use is unavoidable, provision of safe alternatives for the duration of the development, or protection of the equestrian access, should be in place"</i> . ⁴	(-ve) (-1)	

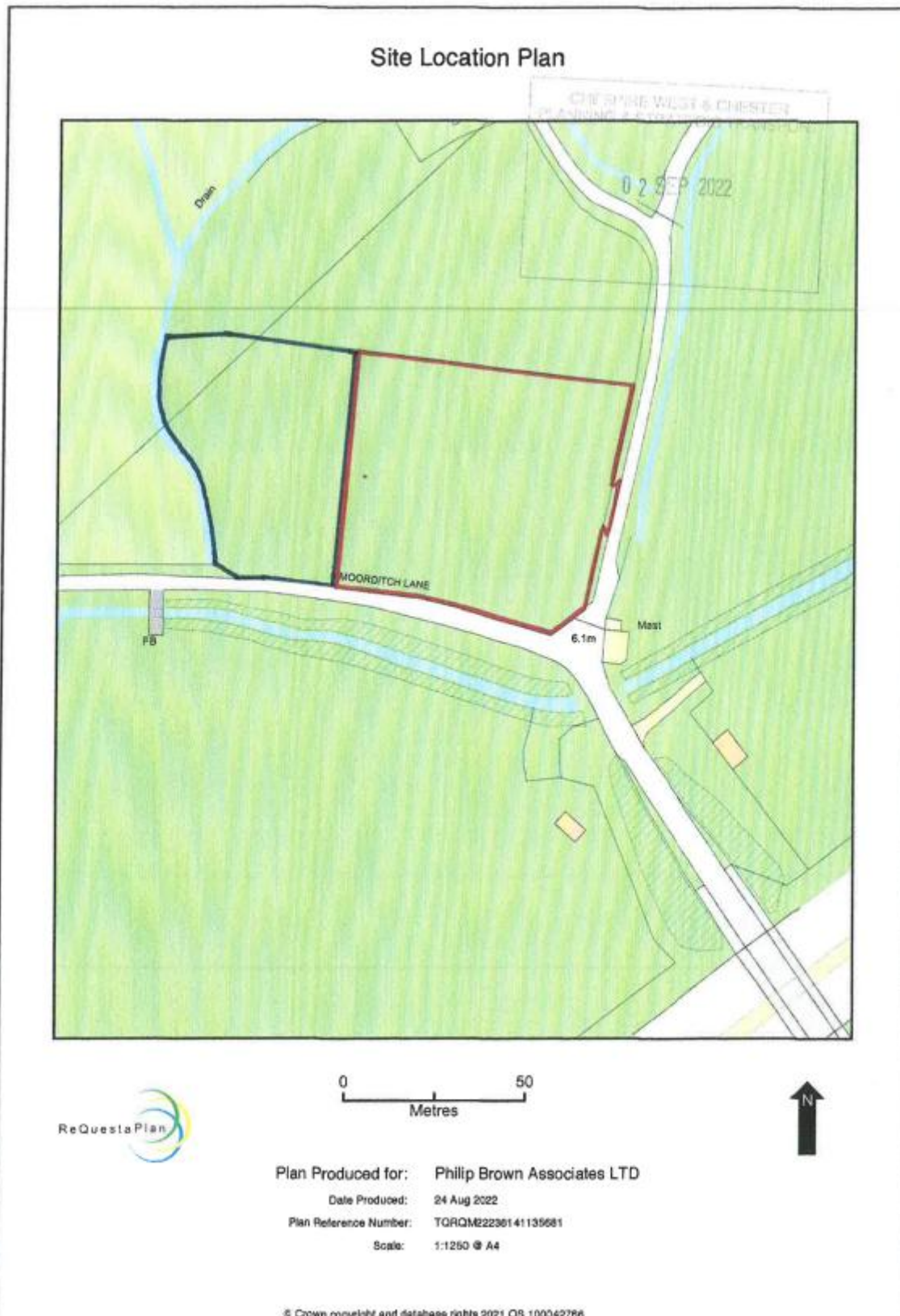
⁴ Advice on Solar farms routes used by equestrians (August 2025) www.bhs.org.uk/go-riding-and-learn/access-and-bridleways-advice/ (last accessed 12 December 2025)

Appendix 11 A Traveller Site (southern site)

i) Enforcement Notice Plan for 22/00395/EMCOU



ii) Planning application site plan 22/03308/FUL



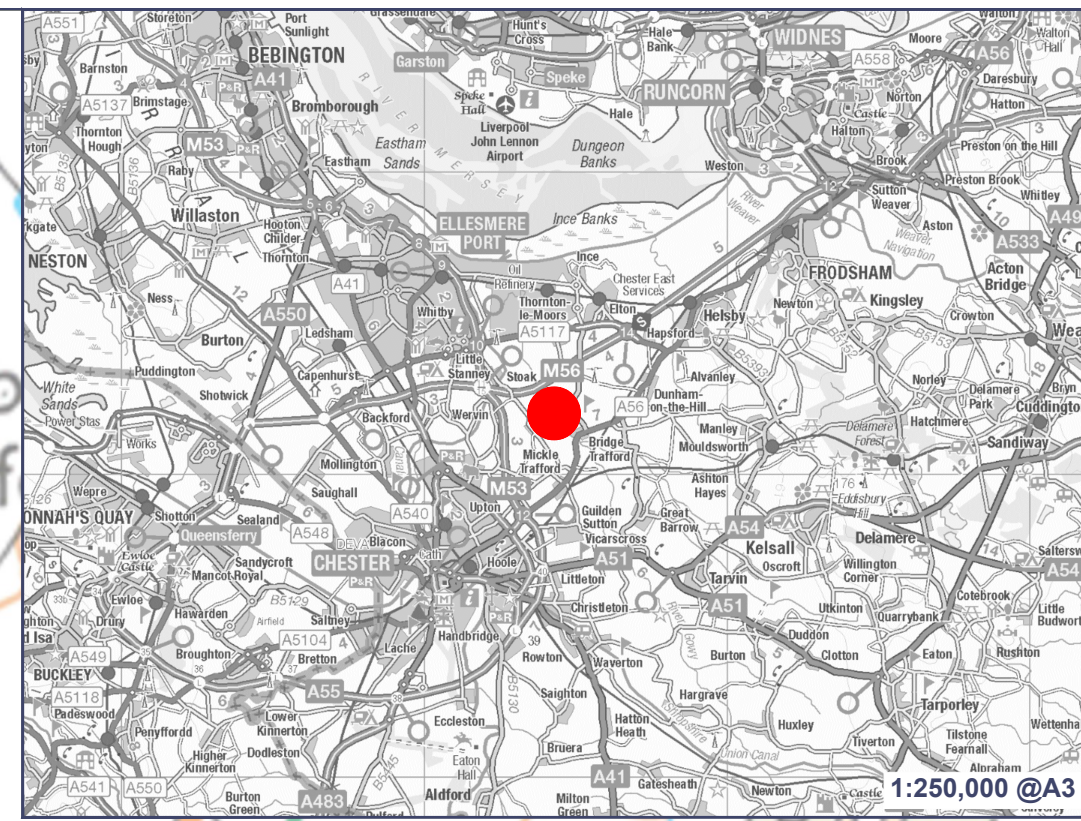
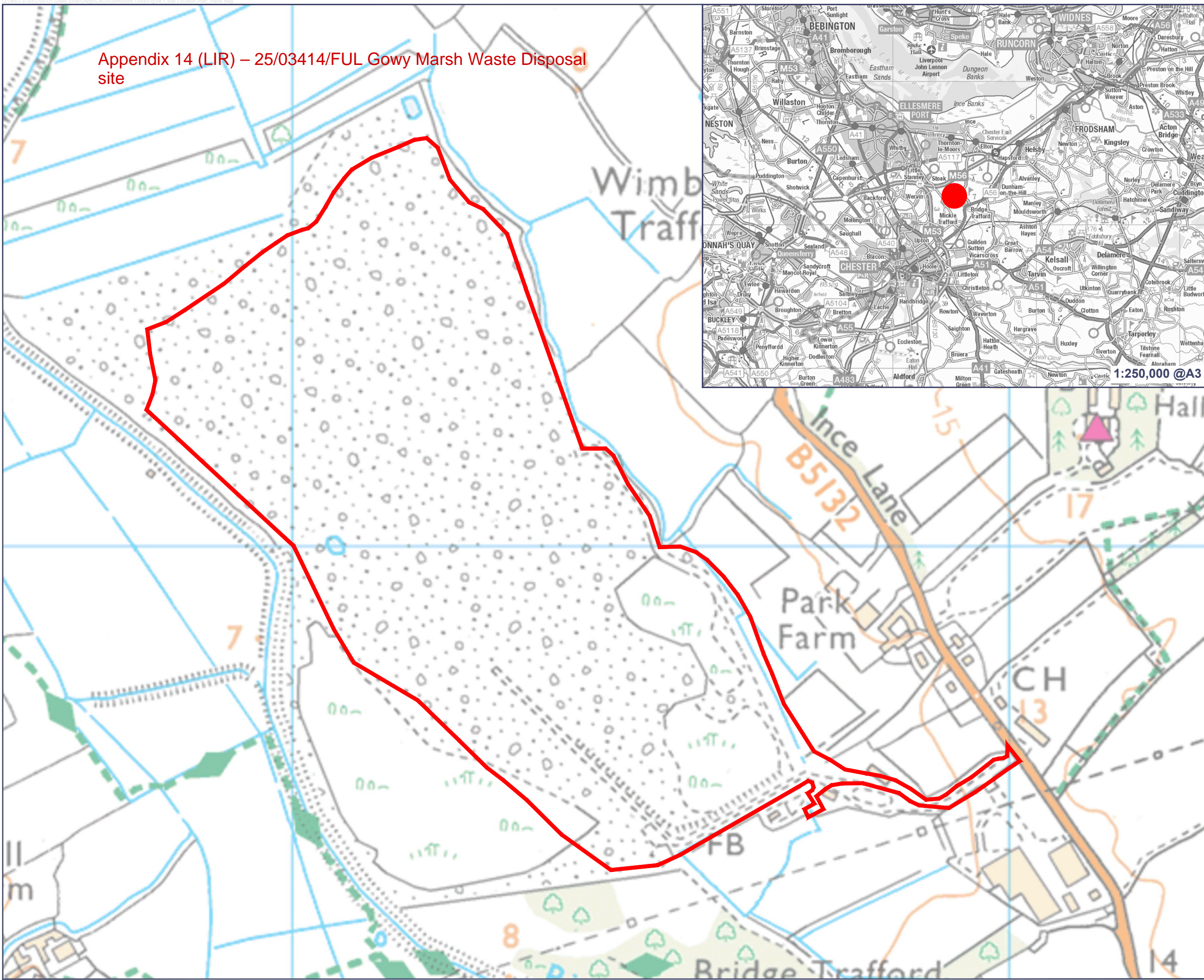
Appendix 12 Traveller Site (northern site) Planning application 22/02292/FUL



Photo of both travellers' sites (In the middle ground) from Frodsham Hill



Appendix 14 (LIR) – 25/03414/FUL Gowy Marsh Waste Disposal site



- Site Location
- Application Boundary

0344 8700 007
axis.co.uk



Project

Gowy Solar

Figure Number

Figure 1 (RevB)

Figure Title

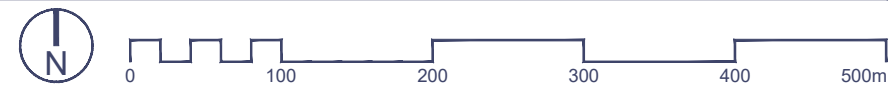
Site Location

Scale

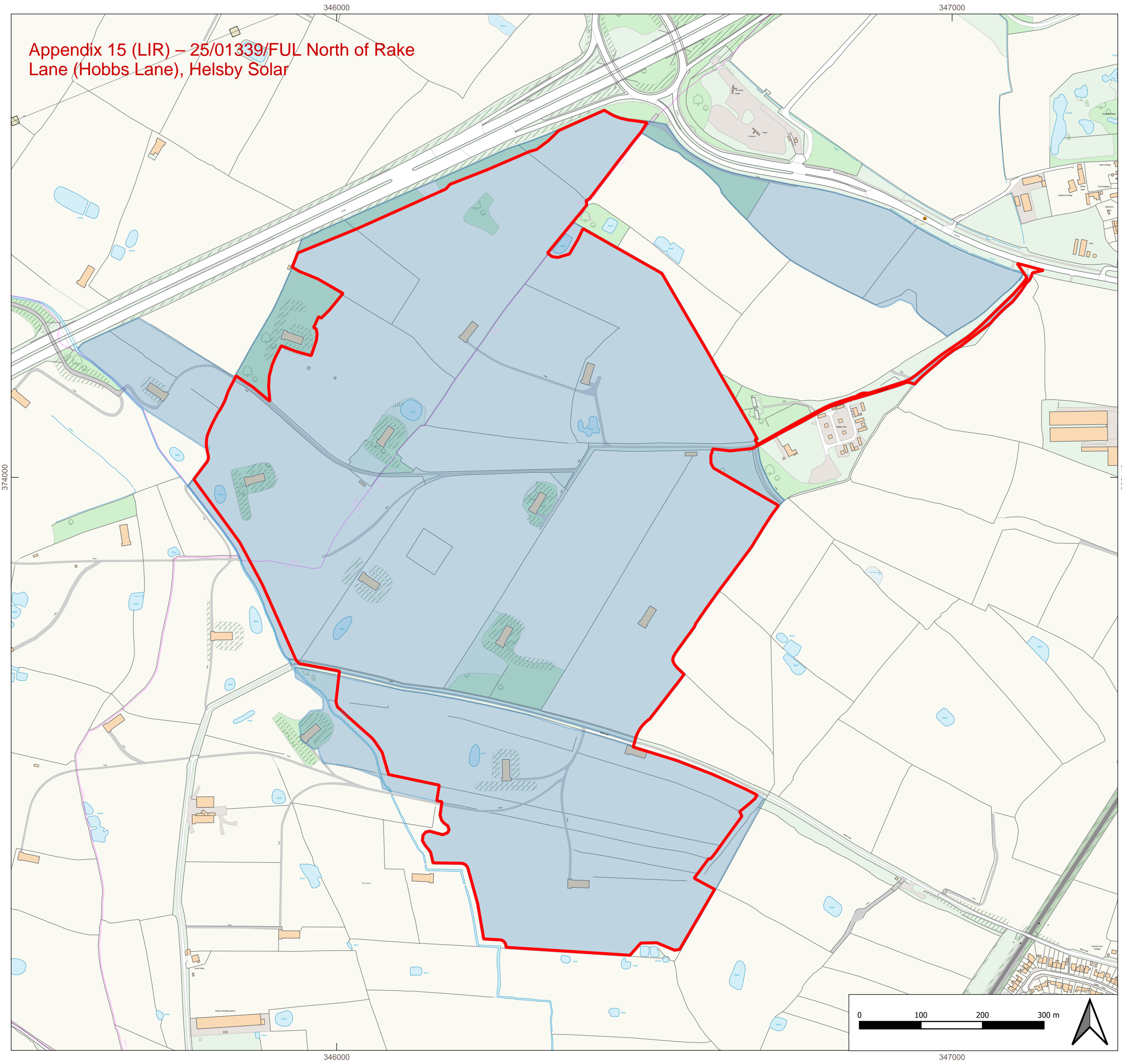
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Date

November 2025



Appendix 15 (LIR) – 25/01339/FUL North of Rake Lane (Hobbs Lane), Helsby Solar

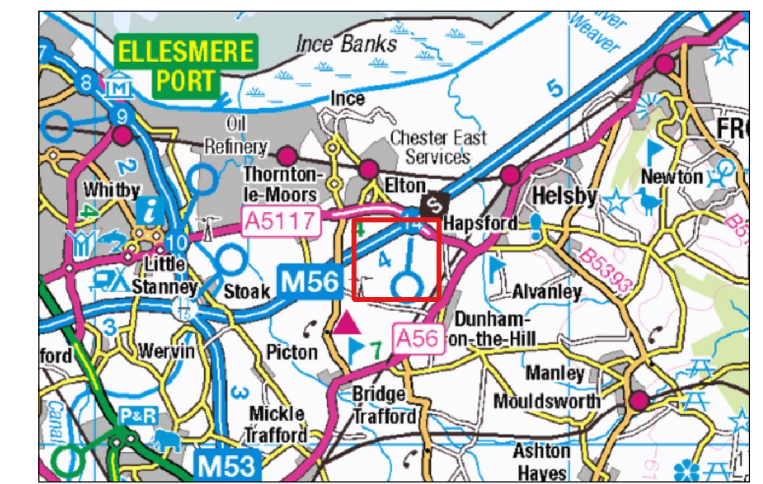


BELLTOWNPOWER

Hob Lane Solar Farm

Figure 1.1
Site Location Plan

- KEY
- Application Site Boundary
 - Landowner's Property in Option



Projected Coordinate System: British National Grid
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DATE	BY	PAPER	SCALE	QA	REV
APR 2025	BT	A3	1:6,000	FS	2

Cheshire West & Chester Council

Climate Emergency

Response Plan

2025-2030



Visit: cheshirewestandchester.gov.uk



Cheshire West
and Chester

5.3 Outcomes for the Borough by 2030, Informed By Engagement:

Ref.	ENERGY SECTOR Outcome	OUTCOME Delivered by	TIMESCALE Short, Medium or Long Term	CO-BENEFITS
O1	Development of a Local Area Energy Plan for Cheshire West and Chester – as part of wider subregional roadmap to decarbonising the energy system in west Cheshire. Adopting a whole systems approach (buildings, heat, transport, power generation and storage) including future state where known.	Local Authorities, Delivery Partners, Businesses, Industry, Agriculture, SPEN and Partner Authorities	Short, Medium & Long Term	Stimulate the market, green economy, growth and prosperity, energy security, influence energy infrastructure developments
O2	Local Authority Energy Performance is smarter, more efficient and minimises and offsets the remaining use of fossil fuels for heating and transport by 2030 (Estate and Operations)	Local Authorities	Short, Medium & Long Term	Minimised running costs, stimulate market and supply chain, demonstrate real world examples, leading by example
O3	Local Authority energy demand is met through renewable energy by 2030. (Estate & Operations) Locally owned and operated energy is maximised where possible.	Local Authorities	Short, Medium & Long Term	Stimulate the market, green economy, growth and prosperity, energy security



O4	Low carbon and renewable energy generation, storage, heat recovery and schemes supporting smarter grid flexibility are delivered and maximised across Local Authority land and assets.	Local Authorities, Distribution System Operator (DSO)	Short, Medium & Long Term	Stimulate the market, green economy, growth and prosperity, energy security, leading by example
O5	A significant proportion of electricity demand across Cheshire West and Chester is met by locally generated and locally owned low carbon and renewable energy by 2030, moving towards 100% and then becoming a net exporter by 2050.	UK Government, Local Enterprise Partnership (LEP), DSOs, partners, Energy Hub, community energy groups, individuals, businesses	Medium & Long Term	Energy security, affordable energy for all, money spent on electricity stays within the Borough, community investment, green economy, growth and prosperity
O6	The local electricity grid is smarter, more flexible and peak demand is met through low carbon and renewable energy, energy storage and improved demand side response.	UK Government, Ofgem, LEP, National Energy Systems Operator (NESO), DSOs, Local Authorities, Energy Generators, Businesses, Individuals	Medium & Long Term	Unlocks huge economic potential. Local energy markets, affordable energy for all
O7	Heat demand within west Cheshire is reduced and decarbonised as far as possible.	UK Government, Local Authorities, Community Energy, Businesses, Individuals	Medium & Long Term	Stimulate the market, green economy, growth and prosperity, energy security



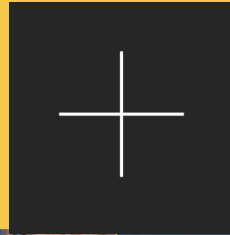
O8	Energy infrastructure in west Cheshire is adapted and resilient to the projected impacts of Climate Change.	UK Government, LEP, Mersey Dee Alliance (MDA), National Grid, DSOs, Local Authorities.	Short, Medium & Long Term	Energy security/Reliability
O9	Where energy is generated from combustion processes, emissions are captured and stored	UK Government, Business, regulators	Short, Medium & Long Term	Green economy, Health and improved air quality

5.4 The Council's Commitments:

Ref	Action	Influence	Outcomes	Cost	Carbon
A1	Contribute to the development of a Local Area Energy Plan for Cheshire West in partnership with the network operators, neighbouring authorities and key stakeholders.	Influence	1,3,4,5,6,7,8,9	Medium	Low
A2	Support mapping and analysis of low carbon and renewable energy demand and resources and identify opportunities across the borough to an appropriate level of detail, to support allocation of sites and identification of suitable areas through Local Plans.	Influence	1,3,4,5,6,7,8,9	Low	Low
A3	Support the enactment of planning policies and strategies to create a positive and proactive environment to enable renewable energy generation which supports the transition to a smart, flexible energy system.	Influence	1,2,3,4,5,6,7,8,9	Low	High
A4	Support and develop partnerships with community energy initiatives and explore how to support these organisations to succeed.	Influence	1,3,4,5,8	Low	Low



CONSULTATION DRAFT



Cheshire and Warrington:

Sustainable and Inclusive Economic Strategy

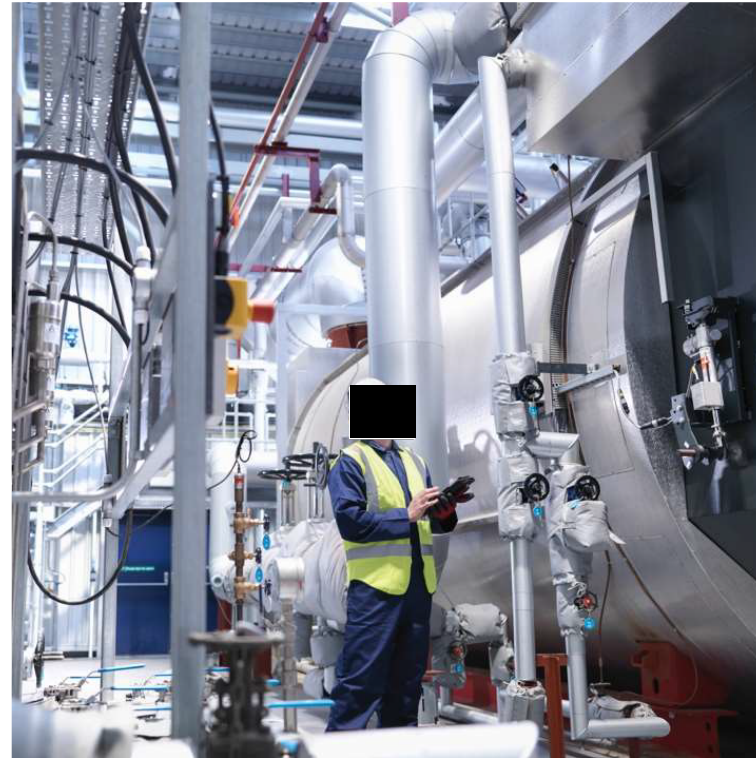
May 2025

Delivering our vision: Sustainable

Our ambition is to achieve net zero emissions, whilst seizing the resulting economic opportunities. We will enable public, private and community sectors to reduce carbon emissions, change to cleaner sources of energy, and invest in nature - improving quality of life and creating social and economic benefits and resilience.

That means:

- supporting Hynet to reduce carbon emissions by 4.5 million tonnes a year by 2030, 10 million



tonnes a year after 2030, and our industrial cluster to reach net zero emissions by 2040 alongside supporting dispersed industry

- supporting our rural areas to decarbonise by focussing on the importance of our natural landscape in making C&W an attractive, healthy and climate adapted place to live and work
- supporting our agricultural sector and our world class dairy industry to become a world leader in net zero farming
- supporting all businesses in C&W to decarbonise their operations, ensuring that our workforce has the skills they need to do this
- making sure that new homes in C&W are built to modern efficient low carbon standards and that we encourage, support and enable the transition of existing homes to low carbon standards. In so doing we will also tackle fuel poverty in C&W by ensuring that everyone in rural and urban areas has access to well insulated, warm homes that are cheaper to heat

- building a genuinely circular economy making the best use of our resources
- facing up to the challenges of removing carbon from all forms of transport

As the wider transition to 'net zero' accelerates, it will also create new opportunities and bring about changes across a wide range of sectors, including industry, transport, agriculture, utilities, manufacturing, construction, and finance. By being proactive about decarbonisation, and building on our existing strengths, Cheshire and Warrington will aim to capitalise on the opportunities that the forthcoming large energy transitions represent for businesses, workers, and residents, and ensure resilience in the face of climate change and biodiversity loss.

Aligned with the Climate Change Act which sets out the goal for the UK to be 'net zero' by 2050, at COP29, in 2024, the Prime Minister called for 81% carbon emissions reduction vs 1990 levels by 2035 and set out a goal of transitioning the national energy system to Clean Power by 2030. Cheshire and Warrington has the ambition to achieve net zero emissions by no later than 2045, and the Local Nature Recovery Strategy has set out an ambition that at least 30% of our land and sea should be connected and protected for nature's recovery by 2030, a goal also promoted by the Wildlife Trusts and civil society.

To achieve this we will decarbonise energy, heat and transport and introduce specific sector solutions, creating new opportunities for our residents. Cheshire and Warrington will strive to be a demonstrator for how the Government's net zero approach can deliver economic growth through investment and resilience through adaptation.

Decarbonising our industrial cluster, generating clean power, and spreading the benefits to our dispersed industry

The work on industrial decarbonisation which was outlined in our Growing Chapter will take out 17MTonnes of carbon dioxide by 2045. The HyNet programme is a major contributor to this by producing 30TWh of hydrogen by 2030, and reducing emissions by 4.5 million tonnes each year. Whilst this will be huge progress, other parts of industry will also need to set out credible transition and clean power plans. In order to reach

the government's target of Clean Power 2030, there will need to be rapidly increasing deployment

Case study

of solar, wind and battery storage technologies. There are also unique opportunities for energy storage and geothermal because of our special geography and geology, including the salt caverns. In Cheshire and Warrington we are ambitious on clean power and keen to seize the opportunities it will unlock, with a goal to deliver 1GW of new installations across our subregion by 2030 to play our part in achieving this national goal. Many Cheshire and Warrington projects and businesses will contribute to this and will have roles in designing and deploying new and clean energy technologies such as renewables, nuclear, hydrogen, energy efficiency and biofuels.

Our rural and agricultural economy and nature's recovery

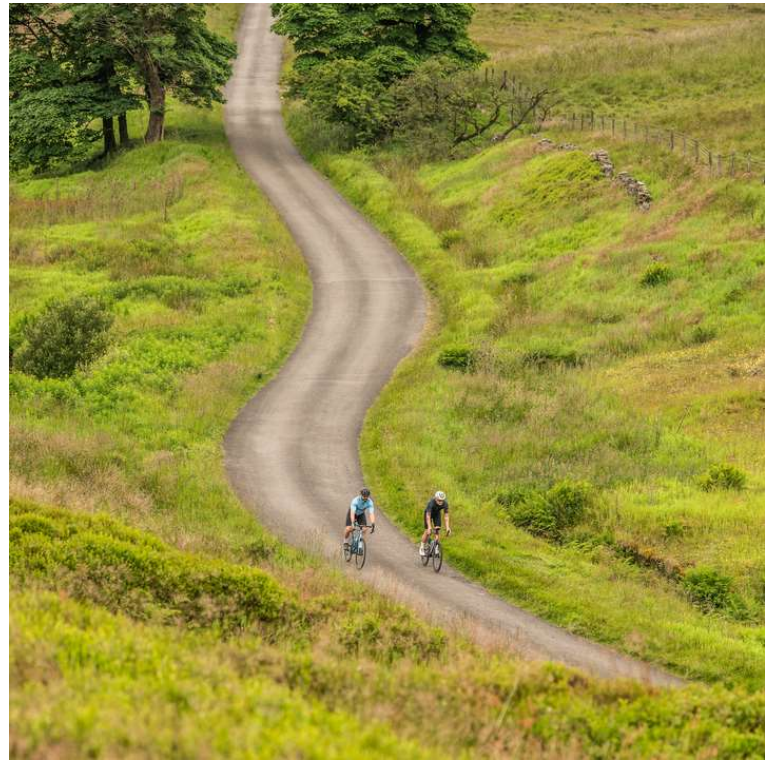
There will also be changes in our rural economy, requiring innovative approaches to balance economic growth and resilience with

environmental stewardship. Natural capital, farming and the rural economy play a key role in making Cheshire and Warrington an attractive place to live, visit and invest. It is also critical in building our resilience to climate change and as part of long-term sustainable growth. As a largely rural area, Cheshire and Warrington can take a national lead in this field, exporting new processes and ways of working to the world. For example, we are already leading the way on exploring the use of large scale anaerobic digestors to create bioenergy, to help reduce the carbon emissions of farms whilst providing locally produced fertilisers to support nature.

Our agricultural sector will need to incorporate different approaches to farming in response to the changing environment, and the transition to the UK's new Environmental Land Management (ELM) payment system, which is intended to reduce the environmental impact of agriculture while increasing biodiversity and helping to provide the food security that the country requires. We are already working together with partner organisations such as Councils, Estates and Agricultural Banks on a future farming network to bring together expertise and support for farmers on the changes taking place in the agriculture / agri-tech sector in one place, building on recommendations from the Sustainable and Inclusive Growth Commission.

Ensuring the delivery of our Local Nature Recovery Strategy will bring benefits for our environment, so that nature, people and businesses thrive, with the goal to halt and reverse the loss of nature, addressing 'green deserts' and improving biodiversity, achieving full recovery by 2050. Benefits provided by nature include preserving vital 'ecosystem services' such as pollination, which are crucial for effective food production, water and air quality, and for water security, climate adaptation (reducing flood risk and helping with cooling in urban areas) and health across our population. The Local Nature Recovery Strategy aims to put nature's recovery into all decisions and activities and this strategy will support that in an integrated way, ensuring we address this alongside meeting the other aspects of our integrated vision.

Additionally, our area leads the delivery of the



national Trees for Climate programme which engages tens of thousands of people in tree planting, connecting more people with nature, with a large number taking place in deprived areas, and providing a wealth of health and wellbeing impacts.

Decarbonising Businesses across Cheshire and Warrington

We recognise that net zero goes beyond the focus on the decarbonisation of our main industrial cluster to impact all parts of the business base and other organisations including dispersed industrial, commercial, and rural sites. Businesses are likely to face increasingly high energy costs and potentially pressures from customers, investors and other stakeholders to adhere to responsible business standards, across environment, society and governance. Some businesses already invest and innovate to deliver less carbon impact, especially larger enterprises which own their own premises. Our smaller and geographically dispersed industry, and our wider business base, will need to be supported to transition to low carbon energy.

Warm Low Carbon Homes for All

Decarbonising domestic heating systems means that residential properties must incorporate higher insulation standards and move to different

approaches to heating with a greater emphasis on electrification, as well as heat networks which are expected to make up 20% of the heating mix by 2050. C&W's existing housing stock is made up of 440,000 houses, almost all of which will need to improve their energy efficiency and transition to low carbon heating to reduce energy insecurity and enable our net zero goals to be achieved. We also need to work with national government and regional partners to change regulations and incentives so that fewer of the new homes built in C&W over the next few years will need to have their heating systems replaced with clean-energy, secure alternatives. And as part of this change we will also encourage community programmes that will focus on greater micro-generation of renewable energy, local storage and smart systems, for example using solar panels and batteries, to balance demand and supply of power.

Reusing and recycling and sustainable supply chains

If economic growth is to be sustainable, it will be important to ensure that scarce resources are used efficiently within sustainable supply chains and throughout society. For example government will shortly be introducing a deposit return scheme (DPS) in 2025 for plastic and aluminium/steel bottles to support this. Whether re-using different components, recycling different raw materials, extracting rare earth metals or even using waste heat, an aspect of the work undertaken in the subregion will embrace the importance of reuse and recycling, known as the 'circular economy' as one aspect of sustainability.

Decarbonising Transport

Our transport system is currently responsible for nearly a quarter of all our emissions, given the high dependence on petrol and diesel driven private cars, and the area's weak public transport. To make progress here, we will need to both introduce better and more accessible forms of public transport, such as the new fleet of electric buses in Warrington, and to encourage people to shift from using private cars to public transport, walking and cycling, alongside providing better infrastructure to enable more car owners and transport operators to transition to low carbon vehicles, including electric vehicles (EVs). Care will need to be taken to ensure that these changes are

affordable and accessible to all, including promoting second hand-EV schemes, shared car-pools, and consideration of on-demand transport such as new forms of taxis. We will also need to facilitate the decarbonisation of transport infrastructure, including the shift to alternative fuels such as electric, hydrogen or biofuels e.g. for buses, HGVs etc. This will require a strengthening of the electricity grid to enable the shift from fossil fuels to electrification. Our action areas for transport are laid out within the **Enabling Infrastructure** and **Inclusive and Healthy** chapters.

ACTION AREAS

- **Decarbonising our industrial cluster, generating clean power, and spreading the benefits to our dispersed industry:** working with industry to support their decarbonisation plans, with Origin Ellesmere Port, Net Zero North West, and our industrial estates and business improvement districts, for example. We will explore the local industrial decarbonisation planning approach led by UKRI, and deployment of shared energy infrastructure, which could be introduced on industrial or business parks, for example building on the work led by Groundwork at Winsford Industrial Estate and drawing from the experience of the Deeside Decarbonisation Forum.
- **Support nature's recovery and decarbonise the rural economy:** We will ensure the delivery of local nature recovery strategy targets and develop a broader natural capital investment plan with benefits for residents and nature. Building on our Local Nature Recovery Strategy and Sustainable and Inclusive Growth Commission work we will build a future farming network to promote the benefits of new methods within agriculture that reduce emissions, generate clean and secure energy, strengthen food security adapted to the changing climate, and improve biodiversity. This will include supportive initiatives such as Anaerobic Digestion facilities that recycle waste to create clean energy and natural fertiliser.

We will look to take a world lead by removing carbon emissions from the dairy industry and agriculture more broadly, and focus on the importance of natural capital in creating an attractive, healthy and climate adapted sub-region to live, work and visit.
- **Support the decarbonisation of all businesses and organisations across Cheshire and Warrington:** This work will focus on those needing additional advice and support to switch to clean energy technologies. We will initially focus on raising awareness about energy efficiency and

measures to reach net zero and promoting opportunities to businesses who can participate in new and emerging supplier opportunities building on work piloted by the Shared Prosperity Fund and Growth Hub..

- **Decarbonising our existing and new housing stock and addressing fuel poverty:** We understand the need to address energy-inefficient housing in the subregion, which is important for health and the cost of living. This is likely to be a long-term and costly endeavour, but one that brings with it significant benefits and a £10bn market opportunity to 2050. Our role initially will be to build a pipeline of retrofit, heat networks, and energy efficiency requirements, with consideration of financing options and longer-term proposals around distributed energy production, as well as a programme of awareness raising across urban and rural areas.
- **Building sustainable supply chains** (including reusing and recycling): we will build a new part of the economy, focused on reuse and recycling (a 'circular economy'), for example, building on the work at Protos Resource Recovery Park. We will start by exploring the potential for manufacturing to adapt to the circular economy, creating a programme of awareness raising and advice. This work will be particularly important in those areas of resource scarcity including the re-use of rare earth metals.
- **Decarbonise the way people and business goods get around:** introduce better and more accessible forms of public transport, active travel routes especially last mile to destinations, EV infrastructure, and facilitating on demand transport including e.g. car pools and shared taxis, as well as sustainable freight, and ensure sufficient electricity grid availability to support the shift away from fossil fuels towards increased electricity use; this is described in more detail later in this strategy.

Tracking progress, delivery and next steps

In this section we set out the outcomes and milestones we will use to hold ourselves to account and monitor our progress towards delivering our vision and objectives for each theme. We also set out what our next steps are in ensuring that this document meets the expectations of our stakeholders, and gives confidence in the adoption of our shared plans and priorities.

By undertaking the actions set out in this document, by 2045 Cheshire and Warrington will have achieved the following:

Outcome	Progress measure
Growing Economy:	
Cheshire and Warrington will be the fastest growing economy in the north of England by 2045.	GVA & GVA by hour worked
CandW to have highest rate of productivity growth in the north of England by 2045	Productivity – GVA per hour worked National Skills Levels (NVQ equivalent) 3 & 4+ R&D expenditure
Productivity to be growing and at least as fast as Northern average by 2035	Productivity – GVA per hour worked National Skills Levels (NVQ equivalent) 3 & 4+ R&D expenditure
Share of GVA and number of jobs in manufacturing to be growing by 2045	GVA by industry Employment by industry Clean energy jobs
First investments in net zero manufacturing by companies new to CandW by 2030	FDI & inward investment Clean energy jobs
Establish Cheshire and Warrington as a leader in responsible AI and digital adoption by 2035	% of businesses using AI or advanced digital tools (from business surveys/ ONS data)
Sustainable:	
Cheshire and Warrington will reduce carbon emissions by 81% by 2035 and 100% by 2045 (compared to 1990 levels), meeting net zero emissions and seizing the resulting economic opportunities	CO2 emissions GVA by industry Clean energy jobs Investments into low carbon technology projects

Deliver 1GW of Clean Power by 2030	GW of clean energy generated in C&W
30% of our land and sea to be connected and protected for nature's recovery by 2030	Biodiversity Extent, quality and location of natural habitats
Achieve EPC rating of C for all housing stock by 2035	EPC Rating/SAP Rating MCS Certified workforce
Inclusive and Healthy:	
Connect everyone with opportunities and ensure economy helps deliver better health outcomes Life and healthy life expectancies improving and above national average by 2045 in all parts of CandW	Healthy life expectancy by area Life expectancy by area Workplace wages by area Average incomes / Real Living Wage by area KS2 & KS4 attainment by Free School Meals by area
No communities in CandW in bottom 20% of total IMD measures by 2045	Index of Multiple Deprivation by area
No child in Cheshire and Warrington living in poverty	Household income by area Child poverty statistics
No young person not in education, training or employment (NEET)	Employment, unemployment and economic activity/inactivity by reason and age group Apprenticeships
No household in fuel poverty	Fuel poverty levels by area
Better economic conditions leading to reduction in crime	Crime rates by area
All workplaces to offer fair employment	Uptake of fair employment standards by area (as defined in Fair Employment Charter)
Enabling Infrastructure:	
Improving public transport and fibre connectivity to all communities by 2045	Transport connectivity by area Full fibre and 5G coverage by area
Electricity grid upgrade results in no projects being restricted by capacity of grid access by 2045	Grid capacity UK Power Networks Open Data
All trunk roads provide access to fast EV charging points every 10 miles by 2045	EV charging infrastructure statistics

We recognise that these proposed outcomes are ambitious and will require a long-term focus. We

will track changes at least annually, in line with the headline indicators which are drawn mainly from data which is published annually (the exception being employment rates which are updated quarterly), to allow us to take stock of what has changed and where we need to target resource.

Delivery and next steps

This Strategy sets out a bold, ambitious vision for our sub-region which has the potential to transform our economy for the better, promoting fast growth, reducing inequalities, and improving the lives of our residents, and the fortunes of our businesses.

This plan has set out a number of action areas for the next 20 years. These are not exhaustive, and we expect that, as we work together these will also evolve. Many of our proposals can be delivered locally however, others will need a partnership with Government, supported with powers, funding or other flexibilities. We are in the process of developing a delivery plan which will set out our deliverables over the next 5-10 years.

This document represents the culmination of extensive engagement and evidence gathering. We welcome comments and suggestions for where we can collectively focus. With the right partnerships in place we can tackle the challenges facing our places, residents and businesses, and build on the exciting opportunities we have identified. We hope that you will join us on the next 20 years of the Cheshire and Warrington economic journey to create the healthiest, most sustainable, inclusive, and growing economy in the UK by 2045.

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- To prevent neighbouring towns from merging into one another;
 - To preserve the setting and special character of historic towns;
 - To assist in safeguarding the countryside from encroachment;
 - To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- (iii) Openness in terms of this policy generally means freedom from built development. Any development which reduces the openness of the Green Belt as a whole will not be acceptable under the terms of the policy.
- (iv) The boundaries have been drawn to enable a long term Green Belt boundary to be established so as to avoid short term amendments.
- (v) The Borough Council is not identifying any areas of safeguarded land between the urban areas and the Green Belt since it is confident that there is sufficient land outside the Green Belt to accommodate foreseeable future development needs.
- (vi) To conform with PPG2 "Green Belts"

Policy Derivation

PPG2 – "Green Belts"

Cheshire Structure Plan Alteration (2016) Policy GEN2

**CHANGES TO THE NORTH CHESHIRE GREEN BELT
GS4**

**THE FOLLOWING CHANGES TO THE NORTH CHESHIRE GREEN BELT
BOUNDARY ARE PROPOSED AND SHOWN ON THE PROPOSALS MAP.**

- (a) LAND AT ANDERTON CONCRETE WORKS, NEW ROAD, HOUGH LANE,
ANDERTON IS EXCLUDED FROM THE GREEN BELT.**

Reasons and Explanations

- (i) The Borough Council considers that in view of the developed nature of the site, this land should be excluded from the Green Belt. It is therefore unnecessary to keep this land permanently open.
- (ii) The realigned Green Belt boundary is well defined, follows an existing hedge line which essentially defines the edge of the built up area.
- (iii) This amendment to the Green Belt boundary will not lead to the encroachment of development into the surrounding countryside.
- (iv) The site received planning consent for housing development in April 1996 as a Departure to the development Plan justified on the basis of exceptional

circumstances, i.e. the removal of a non-conforming noisy industrial use. The site has now been developed fully.

(b) LAND COMPRISING THE FRODSHAM, HELSBY AND LORDSHIP MARSHES AS SHOWN ON THE PROPOSALS MAP IS INCLUDED WITHIN THE NORTH CHESHIRE GREEN BELT.

Reasons and Explanations

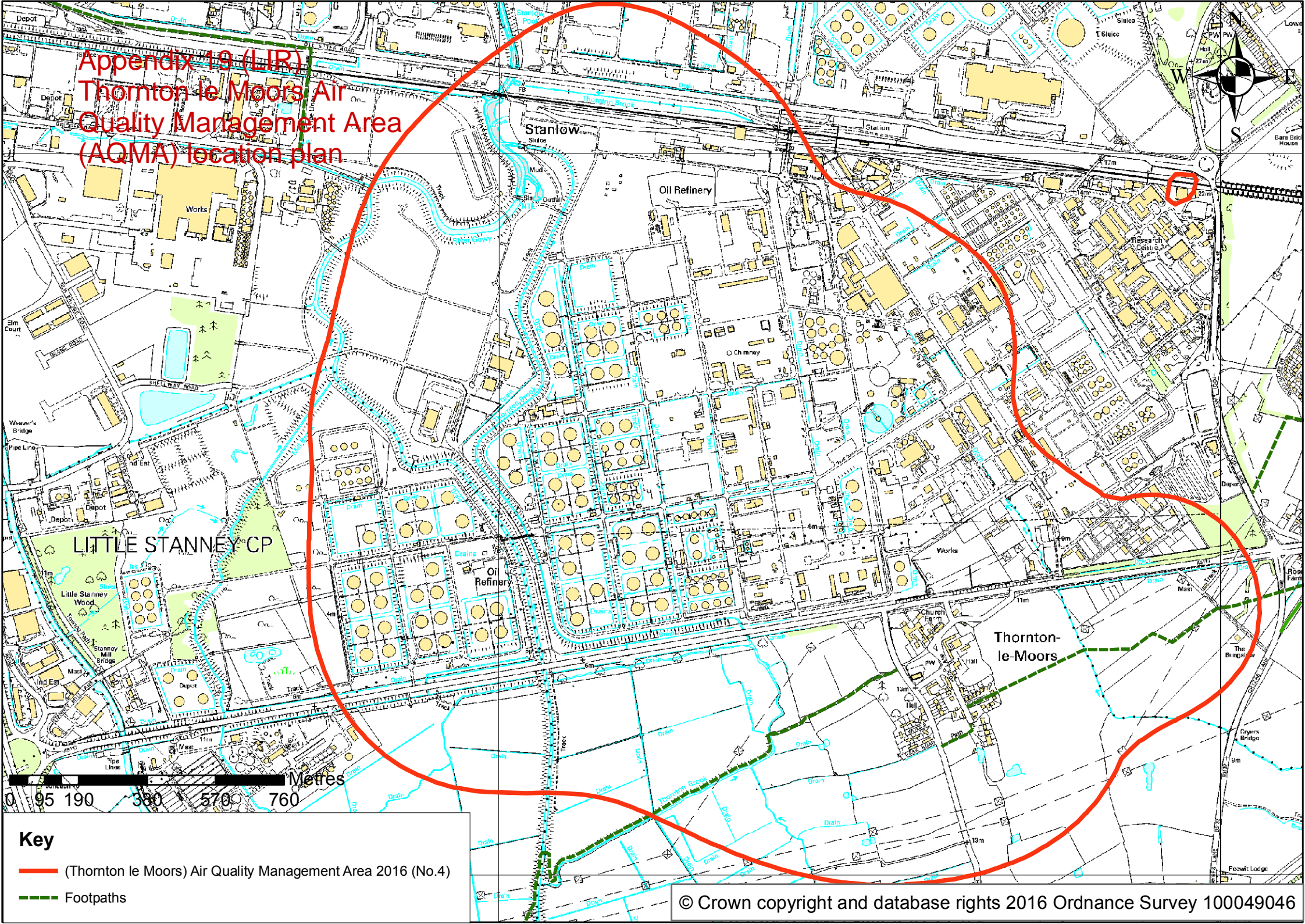
- (i) This land has been safeguarded as a possible future site for large scale industry of national importance since 1979 when the Secretary of State confirmed the area's potential in approving the Cheshire County Structure Plan. His view was that development should only be permitted in exceptional circumstances. The Cheshire Replacement Structure Plan (1992) retained a presumption against development except for agricultural purposes (EMP4). In addition all planning applications on the marshes were to be referred to the Secretary of State instead of being dealt with by the Borough Council.
- (ii) There is now increasing international recognition of the value of estuaries in nature conservation terms and the Mersey Estuary in particular which now has the status of a Ramsar site and special protection area. The Marshes lying within the Estuary zone and the Ramsar designation should not now be considered for large scale industry.
- (iii) In addition the Marshes represents a major open area between the heavy industrial sites at Ellesmere Port and Runcorn and therefore perform the function of separating large built up areas. Their openness is essential to this function.
- (iv) The Manchester Ship Canal is an important strategic waterway that needs to be maintained by regular dredging to ensure that it remains navigable and for drainage purposes. The Borough Council recognises the importance of the canal deposit grounds located in the Frodsham, Helsby and Lordship Marshes to the continued maintenance works required to the Canal.

(c) LAND AT DALGETY, WINCHAM LANE, LOWER WINCHAM BE EXCLUDED FROM THE GREEN BELT.

Reasons and Explanations

- (i) A very substantial part of this site is occupied by a large and prominent industrial building. Physically, visually and functionally it now forms part of the large industrial complex to the south.
- (ii) The site no longer contributes to the openness of the Green Belt and no longer performs a Green Belt function.
- (iii) The form and bulk of the existing development on this site creates the exceptional circumstances necessary to change the Green Belt boundary.

Appendix 19 (LIR) Thornton le Moors Air Quality Management Area (AQMA) location plan



- Key**
- (Thornton le Moors) Air Quality Management Area 2016 (No.4)
 - - - Footpaths

Appendix 20 (LIR) – Thornton le Moors
Air Quality Management Area action

Cheshire West and Chester Council Thornton le Moors Air Quality Action Plan (Draft)

In fulfilment of Part IV of the
Environment Act 1995
Local Air Quality Management

Revised 2023



Cheshire West
and Chester

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Report Reference number	AQAP Thornton
Published	October 2017
Revised	December 2023

Executive Summary

This Air Quality Action Plan (AQAP) has been produced as part of our statutory duties required by the Local Air Quality Management framework. It comprises a review of the measures detailed within the Thornton le Moors AQAP up to and including 2022, assesses the relative success of the measures to improve air quality within the Thornton le Moors Air Quality Management Area (AQMA) and sets out our priorities up to 2027. In setting out our priorities we take into account progress made on the implementation and delivery of the Action Plan up to 2022 in order to ensure compliance with the national air quality objectives.

Air pollution is associated with a number of adverse health impacts and affects the most vulnerable in society: children and older people, and those with heart and lung conditions. Sulphur dioxide (SO₂), which is the pollutant of concern in the Thornton le Moors AQMA, is a respiratory irritant that can cause constriction of the airways. People with asthma are considered to be particularly sensitive and health effects can occur very rapidly, making short-term exposure to peak concentrations important.

The annual health cost to society of the impacts of air pollution in the UK is significant¹. Cheshire West and Chester Council is committed to reducing the exposure of people in the borough to poor air quality in order to improve health.

The Thornton le Moors AQMA was declared in 2016 in response to measured and modelled exceedances of the 15-minute objective for SO₂ in residential areas and public open spaces. The cause of the exceedances is industrial, predominantly related to refinery emissions, although it is recognised that Essar Oil (UK) Ltd. is compliant with its permit conditions set by the Environment Agency (EA).

We have developed actions that can be considered under two broad topics:

- Environmental permits
- Public information

The aim of this AQAP is to address the exceedances of the short-term objective for SO₂. Our secondary priority is to provide accurate and timely information on local air quality to local residents and industry.

¹ Defra. Abatement cost guidance for valuing changes in air quality, May 2013

In this AQAP we outline how we, the Environment Agency and Essar Oil (UK) Ltd. plan to effectively tackle air quality issues within our control in Thornton le Moors. However, as a local authority, we recognise that there are a large number of air quality policy areas that are outside of our influence (such as industrial emissions standards set in permitting regulations), but for which we may have useful evidence, and so we will continue to work with regional and central government on policies and issues beyond Cheshire West and Chester's direct influence.

Responsibilities and Commitment

This AQAP was prepared by the Regulatory Services department of Cheshire West and Chester Council with the support and agreement of the Environment Agency and Essar Oil (UK) Ltd.

This AQAP has been approved by:

Maria Byrne
Director of Environment and Communities
Cheshire West and Chester Council

This AQAP will be subject to an annual review, appraisal of progress and reporting to the Council's air quality steering group. Progress each year will be reported in the Annual Status Reports (ASRs) produced by Cheshire West and Chester Council, as part of our statutory Local Air Quality Management duties.

If you have any comments on this AQAP please send them to:

Environmental Protection
Public Protection
Wyvern House
The Drummer
Winsford
CW7 1AH
Telephone – 0300 123 7038

Email – environmentalprotection@cheshirewestandchester.gov.uk

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1. Introduction

This report reviews the actions that Cheshire West and Chester Council, Essar Oil (UK) Ltd. and the Environment Agency took between 2017 and 2022 in the delivery of the action plan to reduce SO₂ concentrations and exposure to SO₂; thereby positively impacting on the health and quality of life of residents and visitors to the Thornton le Moors Air Quality Management Area (AQMA). It also sets out the priorities for the period up to and including 2027 based on the progress and relative success of the measures implemented to date.

It has been developed in recognition of the legal requirement on the local authority to work towards national Air Quality Strategy (AQS) objectives under Part IV of the Environment Act 1995 and relevant regulations made under that part and to meet the requirements of the Local Air Quality Management (LAQM) statutory process.

Local authorities are obliged to regularly review and assess the AQS pollutants at locations at which members of the public may be present for the prescribed averaging period. Notwithstanding the regulatory role of the authority, air pollution from a broad range of sources including industry, commerce, transport and housing should be assessed.

Where, as an outcome of the LAQM process, it is anticipated that a statutory objective may not be met at a particular location the local authority must declare an AQMA and then prepare an Air Quality Action Plan (AQAP) setting out how the authority intends to improve air quality within the AQMA.

The Thornton le Moors AQMA was declared in September 2016 because of measured exceedances of the 15-minute objective for sulphur dioxide primarily arising from an industrial source.

This AQAP will be reviewed every five years at the latest and progress on measures set out within this plan will be reported on annually in Cheshire West and Chester Council's air quality Annual Status Report (ASR).

2. Summary of current air quality in Cheshire West and Chester

2.1 Air quality management area

Nationally, three air quality objectives for SO₂ have been set for the protection of public health (Table 1). The Thornton le Moors AQMA (Figure 1) was declared on 29th September 2016 due to monitored and modelled exceedances of the 15-minute mean sulphur dioxide (SO₂) objective of 266 micrograms per cubic metre (µg/m³). This objective permits no more than 35 exceedances per year.

Table 1 – Air quality objectives for SO₂ in England.

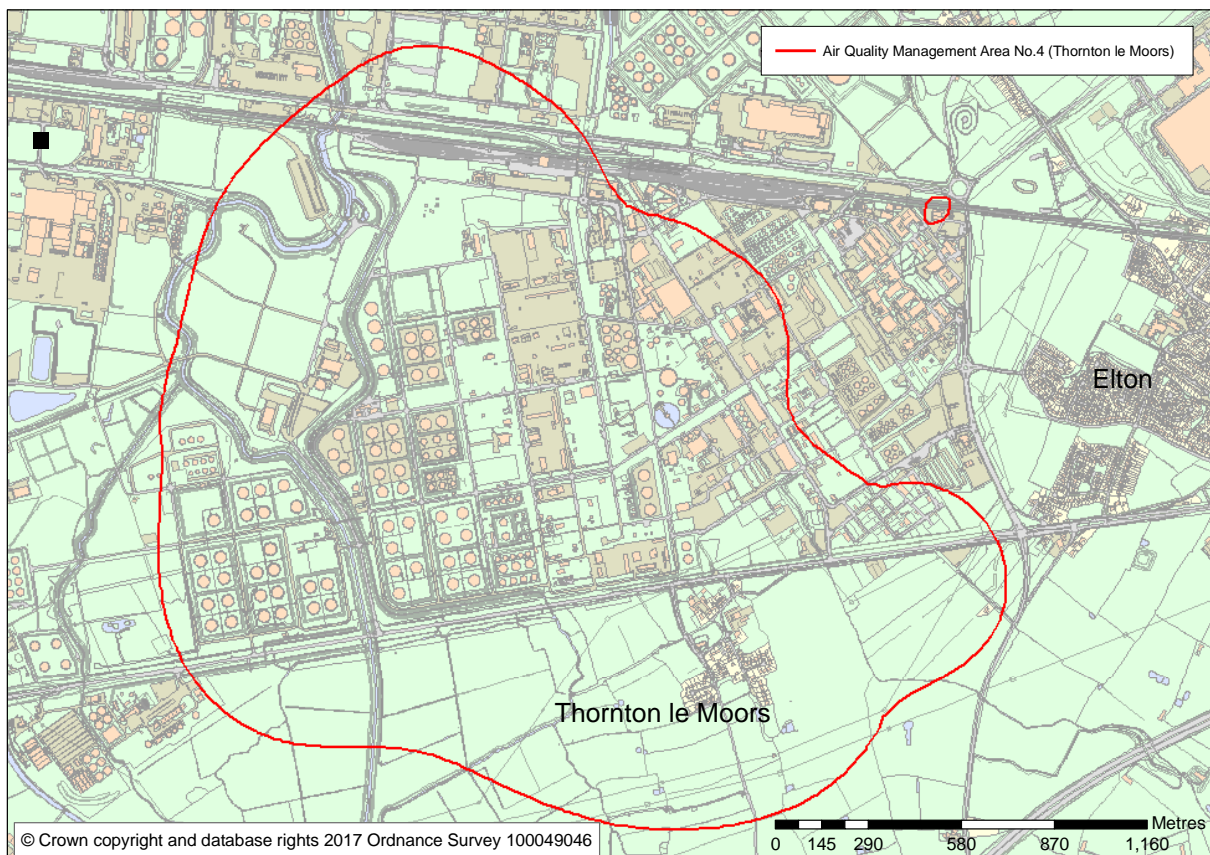
Pollutant	Air quality objective	
	Concentration	Measured as
Sulphur dioxide (SO ₂)	266 µg/m ³ , not to be exceeded more than 35 times a year	15-minute mean
	350 µg/m ³ , not to be exceeded more than 24 times a year	1-hour mean
	125 µg/m ³ , not to be exceeded more than three times a year	24-hour mean

The AQMA encompasses all residential properties in the village of Thornton le Moors, along with two travellers' sites and a single, isolated house. The population living within the AQMA is estimated to be around 220. As the objective applies at locations where members of the public might reasonably be exposed to SO₂ in excess of 266µg/m³ for a period of 15 minutes, the AQMA also includes a number of public open spaces such as footpaths, roads and the rectory playing fields.

The AQMA was declared on the basis of modelling undertaken as part of a detailed assessment in 2016², which was undertaken following measured exceedances of the 15-minute mean objective at real-time monitoring stations in Thornton le Moors. The detailed assessment confirmed that the cause of short-term exceedances in Thornton le Moors is industrial stack emissions on the oil refinery complex to the north of the village. Figure 6 (appendix D) shows a SO₂ contour plot predicted by the dispersion modelling study.

² Cambridge Environmental Research Consultants. Dispersion modelling of SO₂ emissions from Stanlow Refinery, Cheshire, 2016.

Figure 1 – Location and extent of the Thornton le Moors AQMA

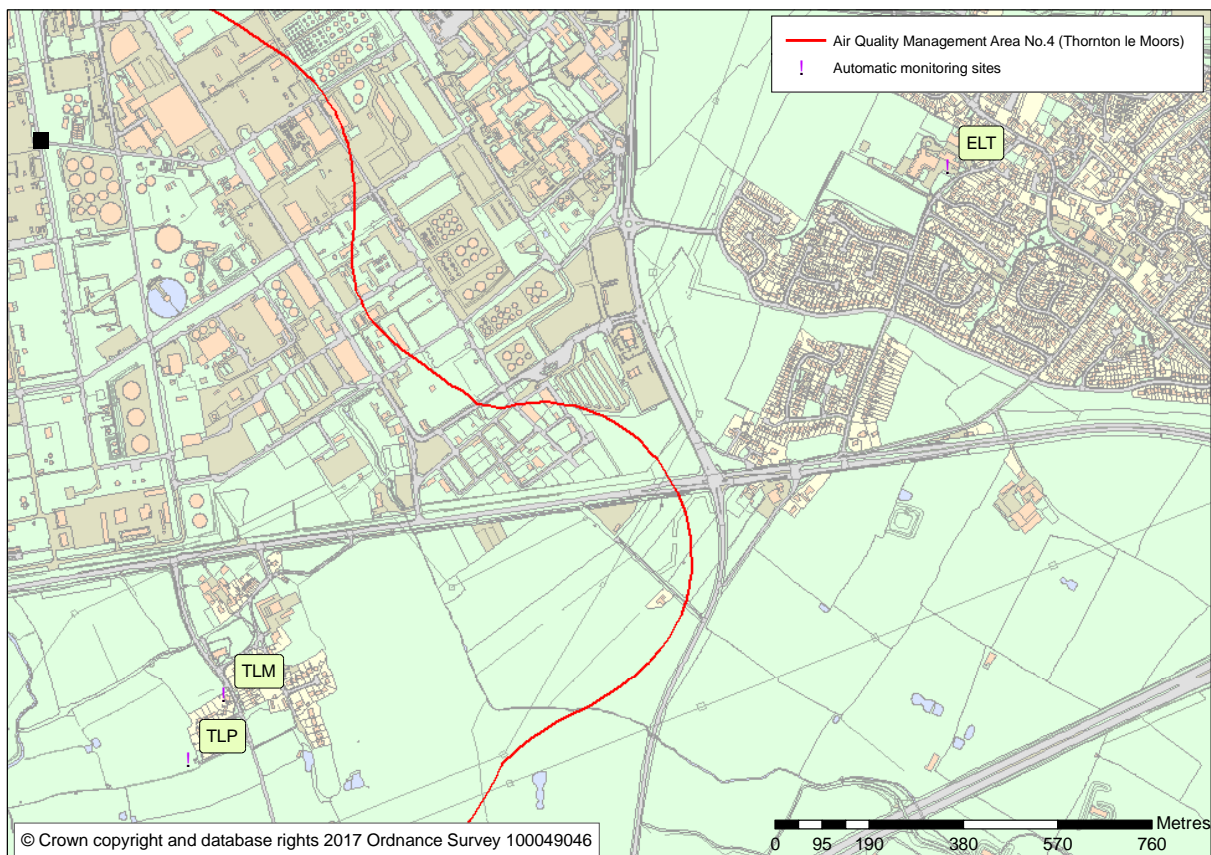


Map showing the extent of the air quality management area in Thornton le Moors encapsulating the entire village of Thornton le Moors, the caravan sites located between Cryers Lane and Pool Lane on the A5117, almost the whole of the Essar Refinery and a small area of the Chester University Campus.

2.2 Air quality monitoring

Cheshire West and Chester Council has been monitoring SO₂ in Thornton le Moors in real-time since the summer of 2013. Figure 2 below shows the locations of automatic monitoring stations in the vicinity of the AQMA. Monitoring at station TLM ceased in February 2015 because of extensive refurbishment works at the village hall, and the analyser relocated to newly-established monitoring station, TLP, some 150m away on Park Road. The monitoring network was expanded in June 2015 with the addition of station ELT (approximately 800m east of the AQMA) on School Lane in Elton. Both SO₂ analysers at TLP and ELT remain in continual operation. In addition to SO₂, TLP is equipped to monitor nitrogen dioxide, particulates and meteorological parameters. Details of real-time monitoring stations are shown in Table 7 ([Appendix C](#)).

Figure 2 – Location of automatic monitoring sites close to AQMA



Map showing the location of monitoring points TLM and TLP in the village of Thornton le Moors, and ELT in the village of Elton in relation to the AQMA

A summary of local monitoring results for the period 2013 to 2022 is presented in Table 8 (Appendix C). The results show that:

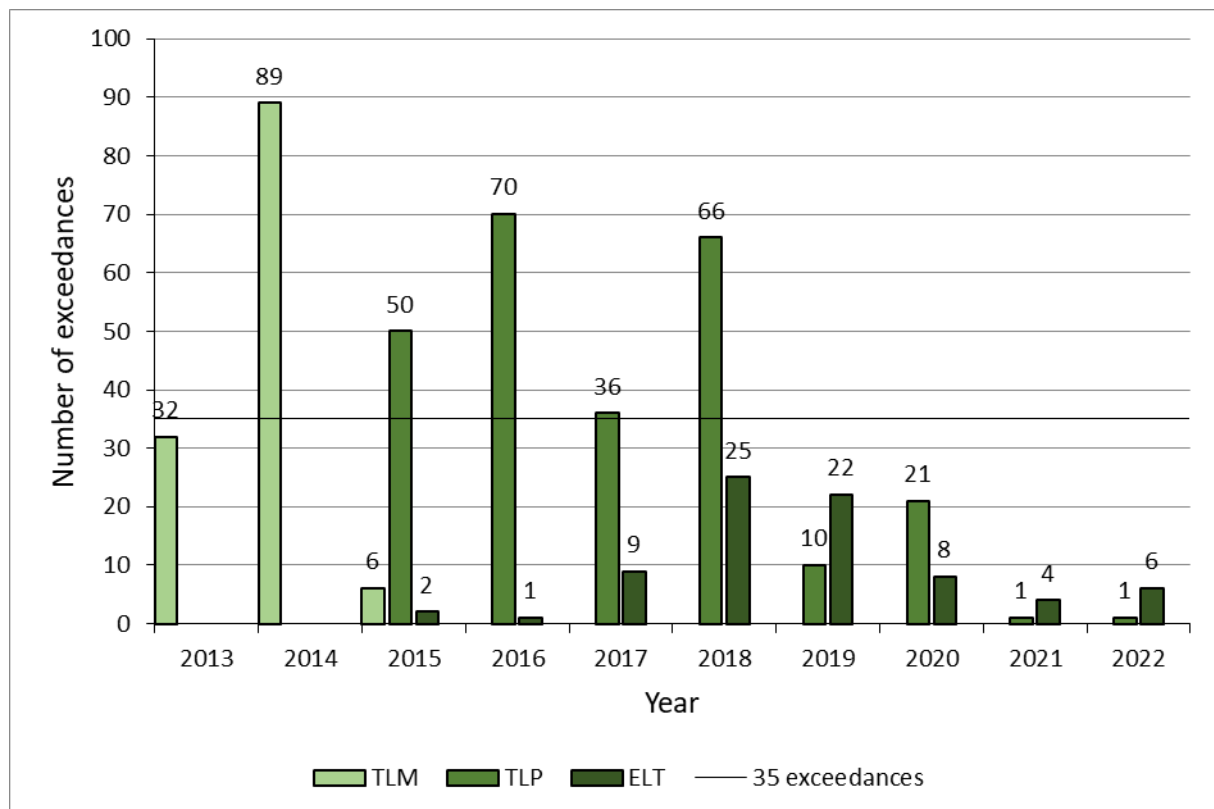
- The 15-minute mean objective was exceeded in Thornton le Moors during each full calendar year of monitoring between 2014 and 2018 (note: for 2013, monitoring did not commence until the end of June). In 2014 there were 89 exceedances (Figure 3), which is 54 more than the 35 permitted, spread across 24 days of the year (Table 9).
- The 15-minute mean objective has not been exceeded at Elton.
- The 15-minute mean objective has not been exceeded since 2018.
- The annual objective has not been exceeded at any location.
- The 24-hour mean objective ($125\mu\text{g}/\text{m}^3$) objective has not been exceeded at any location.

- The AQMA is therefore based on the 15-minute average and it has not been necessary for the declaration to apply to other averaging periods.

Further details of the monitoring and assessment of local SO₂ are presented in the Council’s annual LAQM reports which are available here:

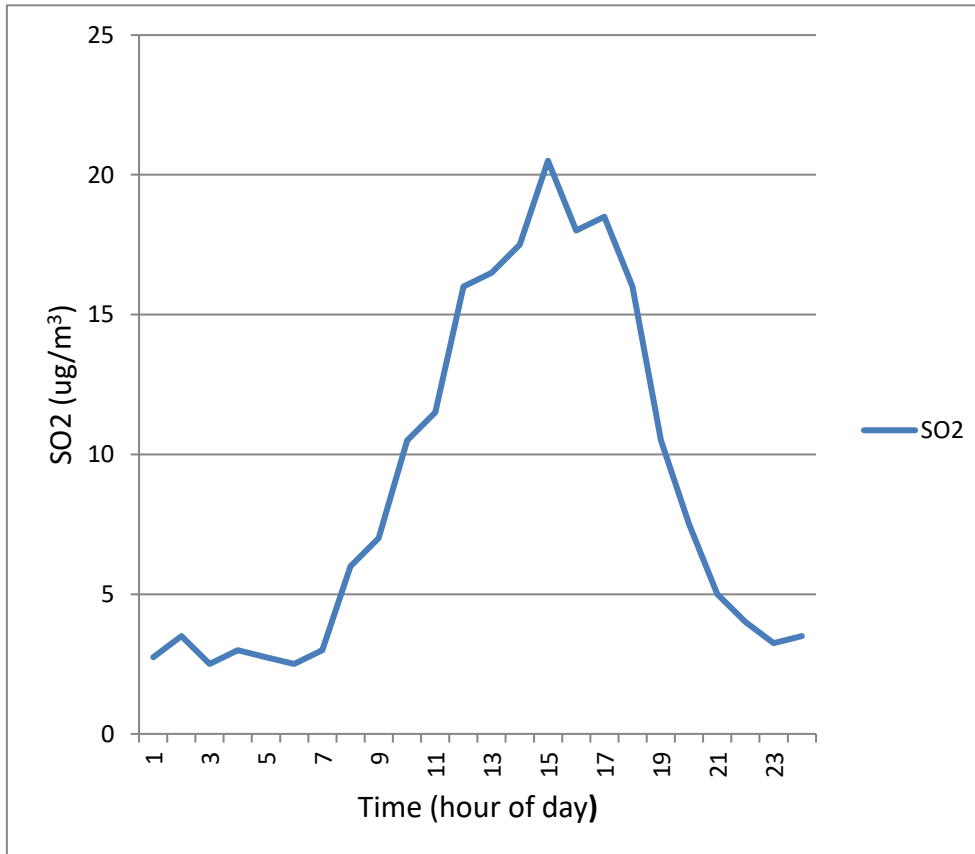
www.cheshirewestandchester.gov.uk/aqmanagement

Figure 3 – Annual numbers of exceedances of the 15-minute objective



As the emissions causing SO₂ exceedances come from tall point sources, grounding of the stack plumes is strongly dependent on local weather conditions. Monitoring results show that exceedances of the 15-min objective are more likely during the daytime in the summer months and that most exceedances have tended to occur between 9am and 5pm (Figure 4). There is a greater probability of exceedances occurring during north-westerly winds with wind speeds of between 5 and 10 metres per second and where the air temperature is greater than 10°C (with increased probability of exceedance at temperatures of 15 to 20°C); these conditions tend to be convective.

Figure 4 – Temporal variations in monitored SO₂ in Thornton le Moors



3. Cheshire West and Chester Council's air quality priorities

3.1 Public health context

Sulphur dioxide (SO₂) is a gas that is formed by the combustion of fossil fuels that contain sulphur. The main sources in the UK are heavy oils and coal used in industrial plant, oil refining processes, coal fired power stations, domestic coal fires and oil fired central heating.

SO₂ is a respiratory irritant and may cause breathing difficulties in asthma sufferers at high concentrations. Health effects can occur very rapidly, making short-term exposure to peak concentrations important. Three objectives (with averaging periods of 15-minutes, 1-hour and 24 hours) have been set to minimise the health effects on vulnerable groups.

The local Director of Public Health and Public Health England have issued the following advice pertinent to SO₂: People in good health are unlikely to experience any short-term health effects related to the current levels of air pollution in the borough. However people with pre-existing lung or heart conditions, asthma or other bronchial conditions are more likely to be affected by elevated levels of outdoor air pollution. Sulphur dioxide may irritate the nose, throat and airways and can cause coughing, wheezing, shortness of breath, or a tight feeling around the chest. The effects of sulphur dioxide are felt very quickly and people at risk of developing symptoms would feel the worst effects in 10 or 15 minutes after breathing it in. The effects do not last once the pollution event has moved away in the wind. People with long-term health conditions should follow their doctor's usual advice about exercising and managing their conditions.

With regards to the exceedances of the air quality standards at Thornton le Moors, the air quality standards have been set with health effects in mind. They have been specified at levels below which there are believed to be no measurable health effects in the main population. The 15-minute air quality objective of 266µg/m³ has been exceeded more times than the permitted allowances (35 allowed per year) and Cheshire West and Chester Council has recommended measures to reduce this. Most of the sulphur dioxide exceedances of the 15-minute average have occurred at

levels that reflect the ‘moderate’ air pollution banding of the Defra (Department for Environment, Food and Rural Affairs) Daily Air Quality Index (DAQI) (Table 2). At these concentrations, people with asthma and other lung problems in particular may experience symptoms. Fewer exceedances have occurred at the ‘high’ DAQI banding or the ‘very high’ banding. At these concentrations people with asthma may need to use their reliever inhaler more often. Older people may also be affected and the general population may experience discomfort such as irritation and cough.

Table 2 – Daily air quality index – recommended actions and advice

Air Pollution Banding	Value	Accompanying health messages for at-risk individuals*	Accompanying health messages for the general population
Low	1-3	Enjoy your usual outdoor activities.	Enjoy your usual outdoor activities.
Moderate	4-6	Adults and children with lung problems, and adults with heart problems, who experience symptoms, should consider reducing strenuous physical activity, particularly outdoors.	Enjoy your usual outdoor activities.
High	7-9	Adults and children with lung problems, and adults with heart problems, should reduce strenuous physical exertion, particularly outdoors, and particularly if they experience symptoms. People with asthma may find they need to use their reliever inhaler more often. Older people should also reduce physical exertion	Enjoy your usual outdoor activities.
Very High	10	Adults and children with lung problems, and adults with heart problems, should reduce strenuous physical exertion, particularly outdoors, and particularly if they experience symptoms. People with asthma may find they need to use their reliever inhaler more often. Older people should also reduce	Reduce physical exertion, particularly outdoors, especially if you experience symptoms such as cough or sore throat.

*Adults and children with heart or lung problems are at greater risk of symptoms. Follow your doctor's usual advice about exercising and managing your condition. It is possible that very sensitive individuals may experience health effects even on Low air pollution days. Anyone experiencing symptoms should follow the guidance provided in the table.

3.2 Planning and policy context

The Cheshire West and Chester Local Plan Strategic Policies document provides the overall vision, strategic objectives, spatial strategy and strategic planning policies for the borough to 2030.

STRAT 1 Sustainable development states that proposals should:

- Provide for mixed-use developments which seek to provide access to homes, employment, retail, leisure, sport and other facilities, promoting healthy and inclusive communities whilst reducing the need to travel;
- Locate new housing, with good accessibility to existing or proposed local shops, community facilities and primary schools and with good connections to public transport; and
- Support regeneration in the most deprived areas of the borough and ensure those reliant on non-car modes of transport can access jobs and services.

STRAT 10 Transport and accessibility states that:

- In order to minimise the need for travel, proposals for new development should be located so as they are accessible to local services and facilities by a range of transport modes;
- New development will be required to demonstrate that appropriate provision is made for access to public transport and other alternative means of transport to the car;
- Proposals should seek to maximise use of sustainable (low carbon) modes of transport, by incorporating high quality facilities for pedestrians, cyclists and public transport and where appropriate charging points for electric vehicles; and
- Proposals for new industrial and warehousing development should maximise opportunities to transport products by non-road modes of transport. Sites alongside the Manchester Ship Canal, Weaver Navigation and rail network may be particularly suitable for freight use and these opportunities should be integrated into development proposals where feasible. Existing or potential freight movement opportunities will be safeguarded from development which could preclude continued or future freight use.

SOC 5 Health and well-being states that proposals will be supported that:

- promote safe and accessible environments and developments with good access by walking, cycling and public transport; and
- Development that gives rise to significant adverse impacts on health and quality of life (e.g. soil, noise, water, air or light pollution, and land instability, etc.) including residential amenity, will not be allowed.

The Local Plan (part two) will set out the non-strategic allocations and detailed policies, following on from the strategic framework set out in the Local Plan (part one). When adopted both documents will constitute the statutory development plan for Cheshire West and Chester and will replace all former Local Plans. It is proposed that Local Plan (part two) is submitted to Secretary of State for examination in 2017. Local Plan (part two) offers an opportunity to include policies specifically related to air quality in planning considerations.

Low Emission Strategy

In addition to the above the council is also working on a Low Emission Strategy that will be published early in 2018. The strategy takes a long-term integrated approach to air quality allowing us to identify priority areas in order to reduce emissions throughout the borough including Thornton le Moors. The strategy will identify key actions which can be developed in more detail and may be incorporated into this AQAP.

Climate Emergency Response Plan

The Council has worked with and engaged a range of partners, climate experts, community groups and businesses to understand the challenges and opportunities the Climate Emergency presents for our area. The Climate Emergency Response Plan which focuses on the borough wide response to the climate crisis. The Climate Emergency response plan sets out the scale of the challenge that we face, as a borough, to achieve carbon neutrality by 2045. The plan is guided by scientific evidence on the current state of emissions in west Cheshire and the engagement and intervention planning undertaken since the Climate Emergency was declared in May 2019. It outlines the action required to achieve carbon neutrality, and how the delivery of these actions will be tracked.

Electric vehicle charging infrastructure strategy.

Transport is the second highest carbon emitting sector in the borough, and the highest nationally. Decarbonising transport is essential to achieving net zero. Nationally, road emissions account for over 90% of transport emissions and the majority of these road-based emissions are from private cars.

The Council's aim for the Cheshire West and Chester Electric Vehicle Charging Infrastructure Strategy is to provide a sustainable electric vehicle charging infrastructure network that supports journeys across the borough, is easy to use, is inclusive and accessible for all, and offers good value for money to both for the Council and network users. Additionally it will contribute to a broader 'net zero' transport network which delivers healthier communities while supporting inclusive economic growth.

3.2.1 Environmental permitting

The Environment Agency (EA) has responsibility for regulating emissions from large industrial installations through environmental permits. As such, Cheshire West and Chester Council has no regulatory control over the operation of Essar's Stanlow refinery.

Essar operate the refinery under an environmental permit issued and regulated by the Environment Agency. The permit places emission limits on Essar for a range of pollutants including SO₂. These legally defined emission limits have not been breached by Essar.

The EA has provided the following explanatory information regarding their role in air quality:

The EA has a number of duties related to air quality. They ensure that the industrial facilities they regulate comply with the Environmental Permitting Regulations (EPR), thus contributing to compliance with:

- UK requirements such as the UK Air Quality Strategy, the Countryside and Rights of Way Act and the Natural Environment and Rural Communities Act

- EU requirements on the UK such as Air Quality Directives, Habitats Directive, the National Emissions Ceiling Directive and the Industrial Emissions Directive.

EU Ambient Air Quality Directive and 4th Air Quality Daughter Directive (AQDD)

If the emissions from an installation alone could lead to a breach of an EU air quality (AQ) limit value then the EA must include permit conditions to prevent this. However, it has been found that the more common circumstance is that where an EU AQ limit value is breached, it is mainly a result of emissions from non-Agency regulated sources e.g. traffic. Under these circumstances the EA have to take a view on what level of reduction should be borne by the installation.

The EA will investigate what improvements can be made if it is found that a regulated installation is projected to contribute significantly to the breach of an EU AQ limit value. In simple terms, limit values now only apply at locations where there is relevant public exposure. The Environment Agency must set more stringent emission limits or other controls than would be the case under Best Available Techniques (BAT), or appropriate measures for waste operations, if they are needed to achieve compliance with an EU limit value where the installation is making a significant contribution.

Similarly, if the EA finds that an installation is contributing significantly to the breach of an EU AQ target value, they will investigate what improvements can be made within BAT or appropriate measures and require the operator to implement these. But this may not completely remove the exceedence of the target value or in the timescale required by the 4th AQDD.

The Environmental Permitting Regulations require that the EA sets emission limit values or such other conditions in permits for industrial installations as may be required to ensure compliance with EU AQ limit values³, even if these are more stringent than would be associated with the application of best available techniques (BAT) for installations specified under the Industrial Emissions Directive (IED). The 4th AQDD does not require permit conditions to go beyond BAT to achieve its target values.

³ EU limit values for SO₂ are a 1-hour mean of 350µg/m³ and a 24-hour mean of 125µg/m³. These are identical to the hourly and daily UK standards for SO₂. The UK 15-minute standard, however, has no equivalent EU limit value.

The UK Air Quality Strategy (AQS)

The EA will investigate what improvements can be made if an installation they regulate is contributing significantly to the breach of a national objective or is projected to do so. The AQS indicates that it does not expect the EA will generally set permit conditions going beyond the application of BAT in order to achieve a national objective. This is reflected in the EPR Guidance. But if a national objective is likely to be breached then permit conditions may need to be more demanding than those normally associated with BAT.

The Environment Act 1995 requires that the EA “has to have regard to the AQS in discharging its pollution control functions” and is particularly relevant to the EPR permits under which they regulate installations and waste facilities. Broadly, the AQS requires that for installations subject to the IED, the Environment Agency should base EPR permit conditions on the application of BAT in order to meet national air quality objectives.

Local Air Quality Management

The EA is committed to working with local authorities and to plays its part fully in LAQM. The EA have found that several regulated sectors have a potential to affect air quality significantly. Some individual installations in these sectors have already been found to contribute significantly. The EA have been working with local authorities for some time to implement the necessary improvements. EA-regulated installations may be covered by freestanding AQAPs or ones which are transport-related and incorporated into Local Transport Plans. The EA provides information which relates to:

- the current releases from the installation(s);
- any assessments on the effect of the releases from the installation(s) on local air quality;
- any plans already in place which will deliver future improvements for local air quality;
- any equipment or operational changes which could deliver improvements for local air quality.

The EA agrees improvements with local authorities for installations that contribute significantly to breaches of an AQS objective. These improvements will be incorporated into the permit or action plan for the installation.

The 1995 Environment Act requires the EA to have regard to the Government's AQS and so there is a need to ensure that the installations and waste facilities regulated under the Environmental Permitting Regulations do not cause air quality problems or make existing ones worse.

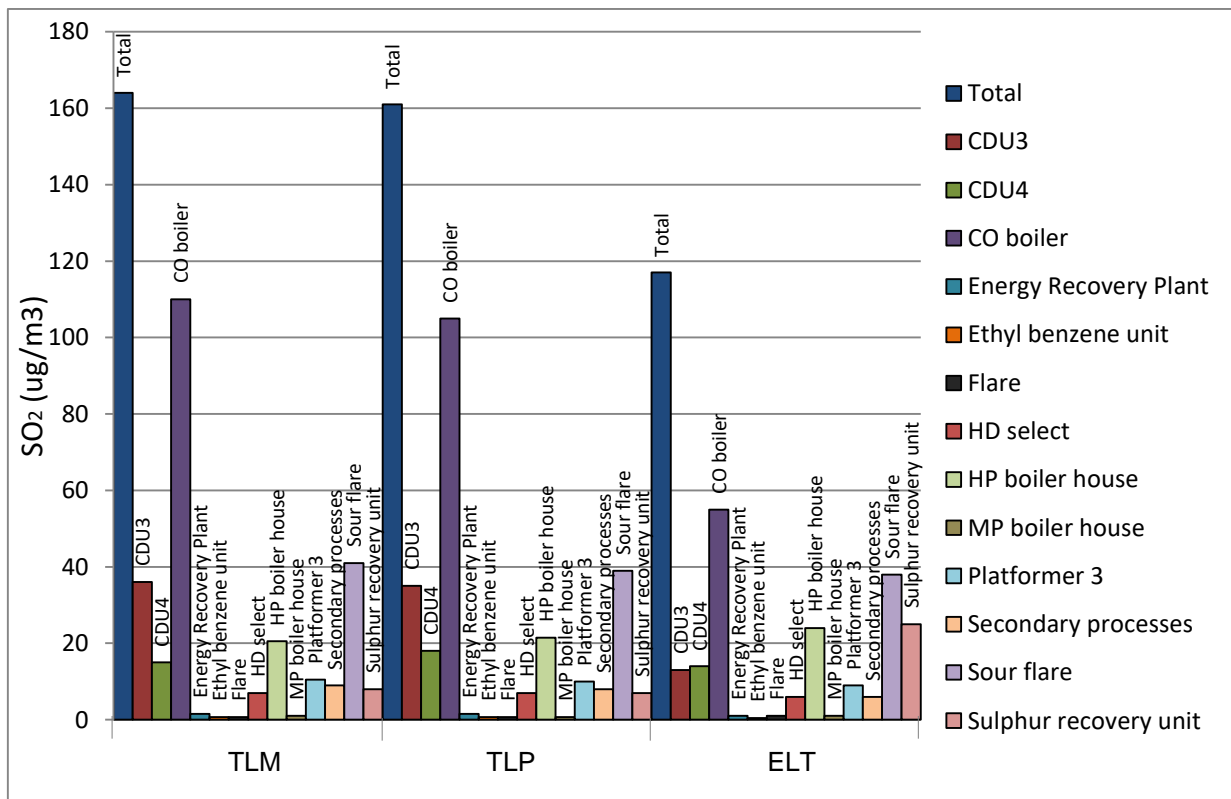
3.3 Source apportionment

The AQAP measures presented in this report are intended to be targeted towards the predominant sources of emissions within the Thornton le Moors area.

Away from industrial sources, concentrations of SO₂ in the region are typically very low: in Frodsham, for example, the urban background annual average is 2-3µg/m³.

Modelling of refinery emissions was carried out by Cambridge Environmental Research Consultants (CERC) in 2016 on behalf of Cheshire West and Chester Council using data provided by Essar. This included a source apportionment exercise. A range of 12 potential sources of SO₂ on the refinery site were modelled, the relative contributions of which are shown in Figure 5 below. Exceedances of the 15-minute mean objective are inherently episodic, with a strong directional component, so the relative contributions of different sources will vary dependent on the meteorological conditions prevailing at the time. Therefore, the 99.9th percentile value for all sources will not be the sum of contributions from each individual source. It is clear, however, that the percentage source contributions to ambient SO₂ in the AQMA are dominated by emissions from the CO boiler stack serving the catalytic cracker unit. This was confirmed in a subsequent modelling study commissioned by Essar, again undertaken by CERC. Measures with an emphasis on reducing emissions from the CO boiler are therefore likely to deliver the greatest benefits. Of the remainder, the sour flare and CD3 stack are the most significant sources of SO₂ in the local area.

Figure 5 – 99.9th percentiles of modelled 15-minute mean SO₂ concentrations by source



3.4 Required reduction in emissions

With reference to section 2.2 above, the combined effects of refinery emissions and particular meteorological conditions can result in short-term episodes of elevated SO₂ in Thornton le Moors.

Monitoring shows that the number of exceedances recorded varies from year to year. In 2014 89 exceedances of the 15-minute mean were recorded at the TLM site, which is 54 greater than the 35 permitted by the national objective. During 2015 there were six exceedances at TLM prior to relocation of the analyser to the TLP site, at which there were 50 exceedances. In 2016 there were 70 15-minute mean exceedances at the TLP monitoring station.

Taking the result at TLP for 2014 as a worst case (both in terms of the number of exceedances recorded and the former site’s proximity to the predicted area of maximum impact), a 61% reduction in the number of exceedances would be required to achieve the national objective.

Sensitivity tests carried out as part of CERC's supplementary detailed modelling study showed that a reduction in SO₂ emissions from the CO boiler of the order of 40%, in conjunction with reduction of fugitive emissions, would be likely to reduce the number of exceedances to below the 35 permitted.

3.5 Key priorities

As shown in 3.3 above the main cause of SO₂ exceedances in the AQMA is the stack which serves the catalytic cracker unit. Reducing the impact of SO₂ emissions from this source, therefore, will be key to achieving the national objective within the village of Thornton le Moors of no more than 35 exceedances of 266 µg/m³. Other stacks, on the refinery site contribute to the measured exceedances so it would be beneficial to achieve reductions of emissions for the permitted process as a whole. The key priorities have been identified:

- Priority 1 – Reduce emissions of SO₂ from the catalytic cracking unit
- Priority 2 – Reduce overall emissions of SO₂ from the refinery
- Priority 3 – Provide real-time ambient monitoring data to site operator in a timely manner

4. Review on progress of Key Priorities to 2022.

Three key priorities were identified for implementation to 2022:

- Priority 1 – Reduce emissions of SO₂ from the catalytic cracking unit
- Priority 2 – Reduce overall emissions of SO₂ from the refinery
- Priority 3 – Provide real-time ambient monitoring data to site operator in a timely manner

This section reviews progress made on delivering these priorities.

4.1 Reduction of SO₂ emissions from catalytic cracker stack.

In June 2017 Essar commenced the trial of injecting of DeSOx additive into the catalytic cracker unit, served by the CO Boiler stack. It is important to note that the catalytic cracker is at the heart of any refinery operation and the cost of a cracker unit is priced in billions of pounds. Consequently in order to protect the asset, maintain product quality and achieve the desired result of the effective reduction of SOx emissions, it was necessary to introduce the additive slowly, only increasing the dosage over time following analysis of data. At a number of stages the trial was paused to allow technical improvements to be made or else to facilitate learning. It was not until October 2020 that consistent SOx reductions were achieved.

It is noted in Figure 3 that the number of exceedances were lower in 2019 and 2020 than the previous 5 years of monitoring, and whilst there were fewer than 35 exceedances required to breach the objective nonetheless there were still 22 and 21 exceedances of the objective value respectively. Since October 2020 and consistent dosing with the additive, there has been a marked reduction in the number of exceedances of the 15-minute objective value with just one recorded at TLP in 2021, 2022 and 2023 (as of December).

Dosing now forms part of standard operational procedures for the catalytic cracker unit.

4.2 Reduction of overall emissions of SO₂ from the refinery.

Reducing overall sulphur emissions from the refinery is an important secondary measure. Essar targeted the key areas as follows

1. Scheduling maintenance/repair on sulphur critical plant to suit the weather:

Maintenance and planned plant downtime have been scheduled as much as possible to be undertaken when weather conditions are unlikely to result in an exceedance of the 15-minute objective. Essar uses meteorological data to plan maintenance activities of this type to minimise impact on neighbouring populations. Data from local air quality monitors forms part of the site daily monitoring, prompting response if elevated readings are detected.

2. Isolation of the sulphur recovery units to allow independent operations:

Essar operate two high efficiency sulphur recovery units (SRU). The original design and configuration did not allow each SRU to be isolated individually. Essar implemented a project to install isolation for each unit to further increase reliability. This project was completed on target in Q1 of 2018 and prior to completion both desulphurisation units had to be taken offline together for maintenance. The units now operate independently significantly reducing the time that the plant operates without at least one being operational and consequently reducing the number and duration of flaring events.

3. Fuel gas desulphurisation:

The refinery uses refinery fuel gas (RFG) as a fuel for combustion plants. Essar are invested in additional treatment (fuel gas desulphurisation) for the RFG system. This project, which was implemented in Q1 2018, complements the introduction of a natural gas supply to the refinery, which supplies the boilers. The expected impact of these improvements is to reduce background levels of SO₂.

4. Reduce fugitive emissions:

Fugitive emissions from plant contribute a negligible amount to emissions from the site. However Essar continues to maintain, replace and re-life critical pieces of equipment to maintain the integrity of the plant and minimise leaks and seeps.

4.3 Provide real-time ambient monitoring data to site operator in a timely manner.

An automated notification system was setup in 2021 to provide email notifications when real-time monitoring results at TLP and ELT exceeded $200\mu\text{g}/\text{m}^3$. This system was superseded in January 2023 when the Council's new air quality monitoring website went live allowing free access to all to real-time monitoring data. Essar can view live data and consider appropriate courses of action available should SO_2 levels at TLP approach the objective limit.

5. Revision of the Thornton le Moors AQAP

According to the Detailed Assessment, as illustrated in Figure 5 above, only the significant reduction of SO₂ emissions from the CO Boiler serving the catalytic cracker unit was likely to deliver more than a negligible effect at TLP. Since consistent dosing with the DeSOx additive commenced in October 2020 to achieve this aim, exceedances of the 15-minute objective value at TLP have only been recorded on one occasion in 2021, 2022 and 2023 (as of December). Exceedances at ELT have also reduced compared to 2018 when there were 25 exceedances and 2019 when there were 22 exceedances but overall monitoring results at ELT confirm the Detailed Assessment conclusion that this receptor is less directly influenced by CO Boiler and flaring and other refinery sources play a greater role in exceedances recorded here.

It is recognised by both Essar and the Environment Agency that dosing with DeSOx additive represents Best Available Techniques for the refinery process and as such Essar are obliged to continue indefinitely under the Environmental Permitting Regulations.

As of the end of December 2023, assuming there are no exceedances recorded during December, a 5 years period will have elapsed since the objective was last exceeded in 2018. Technical Guidance (TG22) paragraph 3.57 states:

“there should not be any declared AQMAs for which compliance with the relevant objective has been achieved for a consecutive five-year period”.

The Council acknowledge this requirement and will undertake detailed modelling in early 2024 to update the original 2016 detailed modelling and confirm whether the objective is likely to be exceeded anywhere within the AQMA taking into account reduced SOx emissions from the CO Boiler stack.

The Council is conscious that the 2014 model identifies areas in and around the former monitoring site of TLM as the area most likely to experience exceedances. Where as the current monitoring location, TLP, is predicted to experience fewer such exceedances. Accordingly it is necessary to rerun the model to confirm whether exceedances remain likely or not and whether the AQMA should be revoked or the boundaries varied.

The key priorities for 2023 to 2027 therefore remain unchanged with the added commitment to undertake detailed monitoring in early 2024 to determine whether the AQMA can be revoked or the boundaries varied.

Table 3 below shows the updated Thornton le Moors AQAP measures. It contains:

- a list of the actions that form part of the plan
- the responsible organisations which will deliver this action
- estimated cost of implementing each action
- expected benefit in terms of pollutant emission and/or concentration reduction
- the timescale for implementation
- how progress will be monitored

An additional measure has been included to undertake further detailed modelling in 2024.

Regular annual updates on implementation of these measures are documented in the Council's ASRs. Copies can be accessed on the Cheshire West and Chester Council (CWAC) website at: www.cheshirewestandchester.gov.uk/aqmanagement

Table 3 – Air quality action plan measures

Measure	Measure title	EU category	EU classification	Lead authority	Planning phase	Implementation phase	Key performance indicator	Target pollution reduction in the AQMA	Progress to date	Estimated completion date	Comments
1	Remove sulphur compounds in process	Environmental permits	Measures to reduce pollution through IPPC permits going beyond BAT	Essar	2017	2017 onwards	SO ₂ measured at catalytic cracker stack	Reduction in 15-min exceedances to less than 35 per year. Potential air quality benefit is thought to be medium (in the range of 25-40%)	Trial in progress	Completed 2020	Essar routinely dose to minimise SOx emissions.
2	Schedule maintenance / repair on sulphur critical plant to suit the weather	Environmental permits	Other	Essar	Ongoing	Ongoing	SO ₂ measured at local AQ monitoring stations	Negligible	Measure in use	Ongoing	Essar uses weather data to plan activities. Essar uses real time AQ monitoring data to respond rapidly to spikes.
3	Isolation of sulphur recovery units to allow independent operation	Environmental permits	Other	Essar	2017	Q1 2018	Sour gas flaring	Negligible	To be installed in 2018 turnaround (TA)	Completed Q1 2018	This allows one SRU to be shut down for maintenance while keeping the other online.
4	Fuel gas scrubbing and fuel substitution	Environmental permits	Other	Essar	2017	Q1 2018	Sulphur content in refinery fuel gas	Negligible	To be installed in 2018 TA	Completed Q1 2018	Essar are investing in additional fuel gas desulphurisation. Nat gas supply to boilers has already been introduced.
5	Address fugitive emissions	Environmental permits	Other	Essar	Ongoing	Ongoing	SO ₂ measured at local AQ monitoring stations	Negligible	Medium pressure (MP) superheater to be replaced in 2018 TA	Completed / Ongoing	Fugitive emissions are addressed as they are identified, e.g. MP superheater will be replaced as it is approaching end of life.
6	Air quality monitoring	Public information	Via the internet	CWAC	Ongoing	Ongoing	Real-time data published on website	Nil	Ongoing	Completed Q1 2023 / Ongoing	Results published on CWAC website, updated hourly

Measure	Measure title	EU category	EU classification	Lead authority	Planning phase	Implementation phase	Key performance indicator	Target pollution reduction in the AQMA	Progress to date	Estimated completion date	Comments
7	Real-time data provision to operator (with trigger capability)	Public information	Via the internet / other	CWAC / Essar	Q3 2017	October – December 2017	Establishment of data sharing	Negligible	Trial from June to August 2017	Completed 2021 /Ongoing	Trial completed. Supports measure 2 above
8	Air quality monitoring expansion	Public information	Other	CWAC	Q1 2018	To be confirmed (TBC)		Nil	Nil	Completed 2018 – no additional suitable sites identified.	Suitable site(s) to be explored
9	Development of dispersion calendar	Environmental Permits	Other	EA	2017	2018	Pollution calendar published	Negligible	Fine resolution meteorology data purchased	Not implemented on cost benefit basis.	Additional modelling to characterise meteorological conditions during pollution episodes. Supports measure 2 above.
10	Undertake further detailed modelling	Public information	Other	CWAC	Q1 2024	Q1 / Q2 2024	Publishment of report.	Nil	Nil	Q2 2024	Results will confirm whether AQMA can be revoked.

6. Development and implementation of the Thornton le Moors AQAP

6.1 Consultation and stakeholder engagement

In developing / updating this AQAP, we intend to work with other local authorities, agencies, businesses and the local community to improve local air quality. Schedule 11 of the Environment Act 1995 requires local authorities to consult the bodies listed in **Error! Reference source not found.** In addition, we have undertaken the following stakeholder engagement:

- Council website
- Email
- Press releases
- Letters to residents within the AQMA
- Communication with local councillors and member of parliament
- Attendance at Parish Council meetings
- Letters to local GP surgeries
- Meetings with Essar and the Environment Agency

Table 4 – Consultation to be undertaken

Yes / No	Consultee
Yes	the Secretary of State
Yes	the Environment Agency
No	the highways authority
Yes	other public authorities as appropriate, such as public health officials
Yes	local residents
Yes	local business bodies and other organisations as appropriate
Yes	local councillors
Yes	local Member of Parliament
Yes	Parish Council

To date, no formal consultation has been undertaken as the action plan is currently being finalised. When this is complete, however, consultation on the draft will be undertaken and the responses to our consultation stakeholder engagement will be provided in Appendix A.

Appendix A: Response to consultation

Table 5 – Summary of responses to consultation and engagement on the AQAP

Consultee	Category	Response
To be completed	To be completed	To be completed

Appendix B: Reasons for not pursuing action plan measures

Table 6 – Action plan measures not pursued and the reasons for that decision

Action category	Action description	Reason action is not being pursued (including stakeholder views)
Environmental Permits	Raise stack heights	Extension of the existing stack is not technically feasible. Construction of a replacement stack in a different location would have a significant impact on the operation of the unit. This option is therefore considered to be unfeasible.
Environmental Permits	Improve sulphur recovery rates and efficiencies	Efficiency is already high. The sulphur recovery units perform better than the applicable BAT requirements.
Environmental Permits	Alter fuel burning profiles in response to real-time ambient monitoring	The principal source of SO ₂ exceedances is the CO boiler which does not burn fuels from the refinery mains. The quantity of sulphur reaching the CO Boiler is dependent on the sulphur content of the crude oil being processed at the time. This cannot be altered in a timescale short enough to respond to real-time ambient monitoring.
Environmental Permits	Alter fuel burning profiles in response to weather data	The principal source of SO ₂ exceedances is the CO boiler which does not burn fuels from the refinery mains. The quantity of sulphur reaching the CO boiler is dependent on the sulphur content of the crude oil being processed at the time. This cannot be altered in a timescale short enough to respond to changes in the weather.

Appendix C: Monitoring results

Table 7 – Details of SO₂ monitoring sites

Location / ID	Site type	Grid reference		Monitoring technique	In AQMA?	Relevant exposure? distance (m)	Worst-case location?	Start date	End date
		Easting	Northing						
Thornton le Moors (TLM)	Industrial	344174	374461	UV-fluorescence	Yes	Yes (20)	Yes	Jun-13	Feb-15
Thornton le Moors (TLP)	Industrial	344103	374330	UV-fluorescence	Yes	Yes (38)	No	Feb-15	Current
Elton (ELT)	Industrial	345642	375522	UV-fluorescence	No	Yes (0)	Yes	Jun-15	Current

Table 8 – SO₂ monitoring results

Location / ID	Site type	In AQMA?	Air quality criteria	Number of exceedances of the objectives.				
				2013	2014	2015	2016	2017
Thornton le Moors (TLM)	Industrial	Yes	15-minute standard (266µg/m ³)	32	89	6	n/m	n/m
			1-hour standard (350µg/m ³)	1	4	0	n/m	n/m
			24-hour standard (125µg/m ³)	0	0	0	n/m	n/m
Thornton le Moors (TLP)	Industrial	Yes	15-minute standard (266µg/m ³)	n/m	n/m	50	70	36
			1-hour standard (350µg/m ³)	n/m	n/m	4	4	1
			24-hour standard (125µg/m ³)	n/m	n/m	0	1	0
Elton (ELT)	Industrial	No	15-minute standard (266µg/m ³)	n/m	n/m	2	1	9
			1-hour standard (350µg/m ³)	n/m	n/m	0	0	0
			24-hour standard (125µg/m ³)	n/m	n/m	0	0	0

Location / ID	Site type	In AQMA?	Air quality criteria	Number of exceedances of the objectives.				
				2018	2019	2020	2021	2022
Thornton le Moors (TLM)	Industrial	Yes	15-minute standard (266µg/m ³)	n/m	n/m	n/m	n/m	n/m
			1-hour standard (350µg/m ³)	n/m	n/m	n/m	n/m	n/m
			24-hour standard (125µg/m ³)	n/m	n/m	n/m	n/m	n/m
Thornton le Moors (TLP)	Industrial	Yes	15-minute standard (266µg/m ³)	66	10	21	1	1
			1-hour standard (350µg/m ³)	0	0	0	0	0
			24-hour standard (125µg/m ³)	0	0	0	0	0
Elton (ELT)	Industrial	No	15-minute standard (266µg/m ³)	25	22	8	4	6
			1-hour standard (350µg/m ³)	4	1	0	0	0
			24-hour standard (125µg/m ³)	0	0	0	0	0

Notes: exceedances of the SO₂ objectives shown in **bold** (15-minute mean = 35 allowed per year, hourly mean = 24/year, 24-hour mean = three/year)

(1) Where the period of valid data capture was less than 85%, the relevant percentiles (µg/m³) are provided in brackets. Percentiles are: 15-minutes = 99.9th; 1-hour = 99.7th; 24-hour = 99.2nd.

(2) n/m = no monitoring conducted

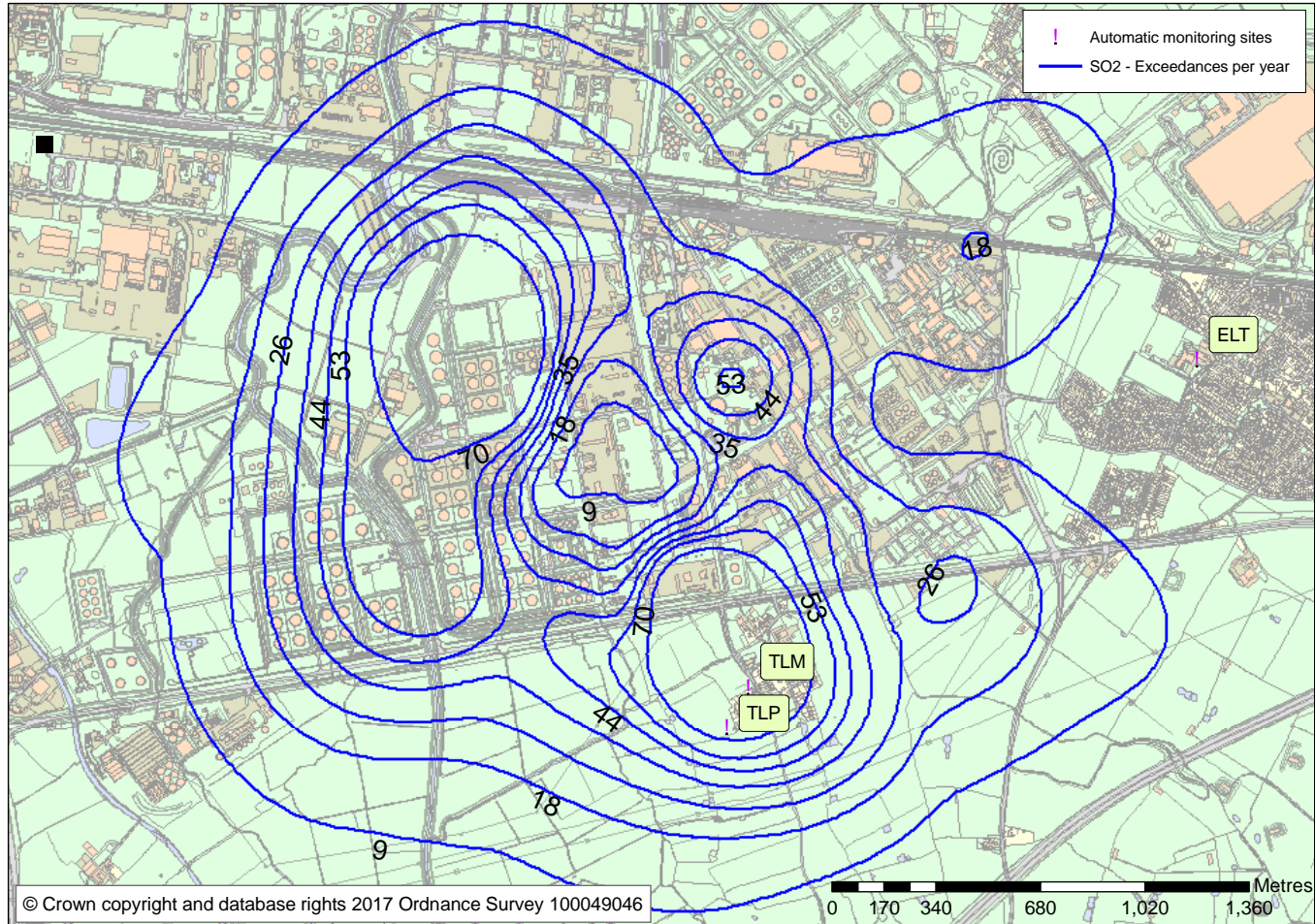
Table 9 – Annual counts of days on which SO₂ exceedances occurred

Site	SO ₂ objective	Number of days per year on which exceedances were recorded									
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
TLM	15-minute	11	24	3	n/m	n/m	n/m	n/m	n/m	n/m	n/m
	1-hour	1	4	0							
	24-hour	0	0	0							
TLP	15-minute	n/m	n/m	15	17	14	14	6	6	1	1
	1-hour			3	4	1	0	0	0	0	0
	24-hour			0	1	0	0	0	0	0	0
ELT	15-minute	n/m	n/m	2	1	3	1	4	3	2	3
	1-hour			0	0	0	1	1	0	0	0
	24-hour			0	0	0	0	0	0	0	0

(1) n/m = no monitoring conducted

Appendix D: Detailed dispersion modelling

Figure 6 – Modelled maximum SO₂ exceedances per year, 2013 - 2015



Map showing modelled contours of likely number of exceedances of the sulphur dioxide 15 minute air quality objective

Glossary of Terms

Abbreviation	Description
AQAP	Air Quality Action Plan - A detailed description of measures, outcomes, achievement dates and implementation methods, showing how the local authority intends to achieve air quality limit values'
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
AQS	Air Quality Strategy
ASR	Air quality Annual Status Report
BAT	Best available techniques
CCU	Catalytic cracker unit
CERC	Cambridge Environmental Research Consultants
CWAC	Cheshire West and Chester Council
Defra	Department for Environment, Food and Rural Affairs
EA	Environment Agency
EPR	Environmental Permitting Regulations
EU	European Union
IED	Industrial Emissions Directive
LAQM	Local Air Quality Management
SO ₂	Sulphur dioxide
SO _x	Oxides of sulphur
TA	Turnaround – periodic large scale essential maintenance

References

Cambridge Environmental Research Consultants (CERC). Dispersion modelling of SO₂ emissions from Stanlow Refinery, Cheshire, 2016

Cheshire West and Chester Council. Annual Status Report, 2016

Accessing Cheshire West and Chester Council information and services

Council information is also available in Audio, Braille, Large Print or other formats. If you would like a copy in a different format, in another language or require a BSL interpreter, please email us at: equalities@cheshirewestandchester.gov.uk

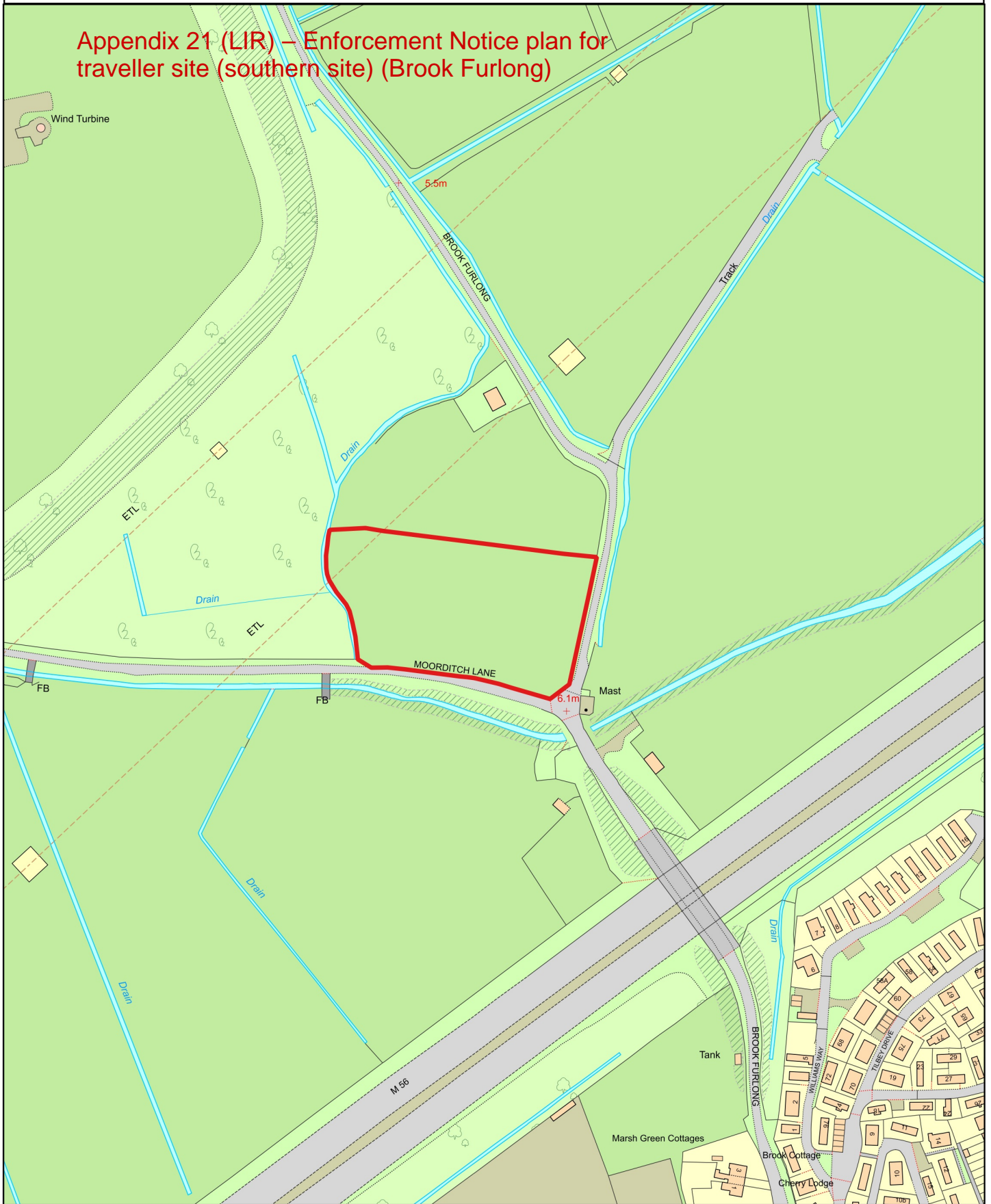
Telephone: 0300 123 8 123

Textphone: 18001 01606 275757

Email: equalities@cheshirewestandchester.gov.uk

Web: www.cheshirewestandchester.gov.uk

Appendix 21 (LIR) – Enforcement Notice plan for traveller site (southern site) (Brook Furlong)



1:1



IMPORTANT – THIS COMMUNICATION AFFECTS YOUR PROPERTY

ENFORCEMENT NOTICE

**TOWN AND COUNTRY PLANNING ACT 1990
(As amended by the Planning and Compensation Act 1991)**

ISSUED BY: Cheshire West and Chester Borough Council

1. THIS NOTICE is issued by Cheshire West and Chester Borough Council ("the Council") because it appears to them that there has been a breach of planning control, within paragraph (a) of section 171A(1) of the above Act, at the land described below. They consider that it is expedient to issue this notice, having regard to the provisions of the development plan and to other material planning considerations. The Annex at the end of the notice and the enclosures to which it refers contain important additional information.

2. THE LAND TO WHICH THE NOTICE RELATES

Land off Brook Furlong, Frodsham, WA6 7BZ shown edged in red on the attached plan ["the land"]

3. THE MATTERS WHICH APPEAR TO CONSTITUTE THE BREACH OF PLANNING CONTROL

Without planning permission the formation of hardstanding, associated engineering operations and siting of caravans to facilitate a residential use relating to an area of land in the Green Belt ["the unauthorised development"] shown outlined in red on the attached plan.

4. REASONS FOR ISSUING THIS NOTICE

The Unauthorised Development is contrary to the following planning policies and the National Planning Policy Framework:

Policies STRAT 9 and ENV 6 of the Cheshire West and Chester Local Plan (Part 1) (LP1).
Policies GBC 2 and DM 3 of the Cheshire West and Chester Local Plan (Part 2) (LP2).

The National Planning Policy Framework (The Framework) indicates that in order to achieve the objectives of the Green Belt, planning permission will not be given, except for some types of appropriate development and in very special circumstances, for inappropriate development.

Certain other forms of development are also not inappropriate in the Green Belt provided they preserve its openness and do not conflict with the purposes of including land within it. Such other form of development includes engineering operations.

In line with national planning policy, Policy STRAT 9 of the Cheshire West and Chester Local Plan (Part 1) (LP1) states that inappropriate development is by definition, harmful to the Green Belt and should not be allowed except in very special circumstances.

Policy ENV 6 of the Cheshire West and Chester Local Plan (Part 1) (LP1) amongst other criteria, requires development to respect local character and achieve a sense of place through appropriate layout and design and be sympathetic to heritage, environmental and landscape assets.

Policy GBC 2 of the Cheshire West and Chester Local Plan (Part 2) (LP2) seeks the protection of landscape and states that development should:

1. protect and, wherever possible, enhance landscape character and distinctiveness
2. integrate into the landscape character of the area; and
3. be designed to take account of guidance in the Landscape Strategy

Policy DM 3 of the LP2 states that development in the countryside will only be permitted where it would respect the key features of the landscape in line with LP2 Policy GBC 2 and is not detrimental to its character.

The unauthorised development, by virtue of its isolated location, would cause detrimental harm on the character and appearance of the countryside. There is no evidence to demonstrate need and justify the development of land in the countryside and there are no other material considerations which outweigh the identified harm.

Notwithstanding that engineering operations could constitute appropriate development in the Green Belt (provided they preserve its openness and do not conflict with the purposes of including land within it), it is considered in this case, the scale and appearance of the unauthorised development would substantially harm the character and openness of the Green Belt.

As such, the hardstanding, associated operational development and the siting of caravans is considered to represent inappropriate development within the Green Belt, for the purposes of the Framework and development plan policy STRAT 9 of the LP1, including the effect of the development on the openness of the Green Belt and the purposes for including land within it.

One of the functions of the Green Belt is to safeguard the countryside from encroachment. By reason of the location of the site within the open countryside and the extent of the hardstanding and siting of the caravans, the unauthorised development conflicts with this purpose of the Green Belt

The physical extent of the hardstanding and siting of caravans on the land has a detrimental effect on the spatial and visual openness of the Green Belt. In addition, the effect of the unauthorised development results in harm to visual amenity and the character and appearance of the verdant surrounding countryside.

There are no other considerations that clearly outweigh the harm by reason of inappropriateness, harm to the openness of the Green Belt, harm to the purpose of the Green Belt, harm to the visual amenity of the Green Belt and the conflict with national and local policy. Accordingly, it is concluded that the very special circumstances required to justify the development do not exist.

The Council consider that these objections to the development could not be overcome with planning conditions.

5. WHAT YOU ARE REQUIRED TO DO

- i. Cease the residential use of the site and remove all caravans including static caravans and touring caravans.
- ii. Remove associated domestic structures, and hardstanding from the Land comprising the Unauthorised Development and restore to a grassed area.

6. TIME FOR COMPLIANCE

- I. Within three calendar months after this notice takes effect comply with i) above
- II. Within six calendar months after this notice takes effect comply with ii) above


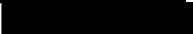
7. WHEN THIS NOTICE TAKES EFFECT

This notice takes effect on 29 September 2022 unless an appeal is made against it beforehand.

Dated: 01.09.2022

Signed: .. Council's authorised officer

On behalf of:
Cheshire West and Chester Borough Council
Development Management
4 Civic Way
Ellesmere Port
Cheshire
CH65 0BE

Nominated Officer: 
Telephone Number: 

ANNEX

YOUR RIGHT OF APPEAL

You can appeal against this notice, but any appeal must be received, or posted in time to be **received**, by the Planning Inspectorate acting on behalf of the Secretary of State **before** the date specified in paragraph 7 of the notice.

The enclosed information sheet published by the Planning Inspectorate gives details of how to make an appeal <http://www.planningportal.gov.uk/uploads/pins/eninfosheet.pdf>

WHAT HAPPENS IF YOU DO NOT APPEAL

If you do not appeal against this enforcement notice, it will take effect on the date specified in paragraph 7 of the notice and you must then ensure that the required steps for complying with it, for which you may be held responsible, are taken within the period[s] specified in paragraph 6 of the notice. Failure to comply with an enforcement notice which has taken effect can result in prosecution and/or remedial action by the Council.

Appeal Decision

Site visit made on 16 April 2024

by Zoë Franks, Solicitor

an Inspector appointed by the Secretary of State

Decision date: 26TH JULY 2024

Appeal Ref: APP/A0665/C/22/3307792

Land off Brook Furlong, Frodsham, Cheshire, WA6 7BZ

- The appeal is made under section 174 of the Town and Country Planning Act 1990 (as amended). The appeal is made by Mr Peter Lee against an enforcement notice issued by Cheshire West and Chester Council.
 - The notice was issued on 1 September 2022.
 - The breach of planning control as alleged in the notice is without planning permission, the formation of hardstanding, associated engineering operations and siting of caravans to facilitate a residential use relating to an area of land in the green belt.
 - The requirements of the notice are to: i. Cease the residential use of the site and remove all caravans including static caravans and touring caravans. ii. Remove associated domestic structures, and hardstanding from the Land comprising the Unauthorised Development and restore to a grassed area.
 - The periods for compliance with the requirements are: Requirement i) 3 months and Requirement ii) 6 months.
 - The appeal is proceeding on the grounds set out in section 174(2)(a) and (g) of the Town and Country Planning Act 1990 (as amended). Since an appeal has been brought on ground (a), an application for planning permission is deemed to have been made under section 177(5) of the Act.
-

Decision

1. It is directed that the enforcement notice is corrected and varied by:
 - the deletion of paragraph 3 in its entirety and substitution with the words:

“Without planning permission the material change of use of the land to use for the stationing of caravans for the purpose of human habitation and the construction of hardstanding and associated engineering operations to facilitate that change of use.”;
 - the deletion of the requirements in paragraph 5 and substitution with:

“i. Cease the use of the land for the stationing of caravans for the purposes of human habitation and remove all of the caravans, including static caravans and touring caravans from the land;

ii. Remove associated domestic structures, and hardstanding and restore the land to its condition prior to the breach of planning control.”; and
 - the deletion of three and six calendar months and substitution with 12 months as the time for compliance.
2. Subject to the correction and variations, the appeal is dismissed, the enforcement notice is upheld and planning permission is refused on the

application deemed to have been made under section 177(5) of the 1990 Act as amended.

Preliminary Matter

3. The site visit (which had been arranged as an accompanied site visit) took place on 16 April but there was no-one present to represent the appellant. I spoke to an occupant on the site who allowed me and the Council Officer access and proceeded on that basis. A letter was subsequently sent to the appellant's agent to inform them what had happened and to give them the opportunity to make representations regarding whether an accompanied site visit was essential but nothing further has been received. I am satisfied that I saw all that I required to determine the matter and therefore proceed on that basis.

The Notice

4. The notice alleges operational development to facilitate the residential use of the land. It requires the residential use of the site to cease and for the removal of all caravans. The parties were asked whether amending the allegation to refer to the material change of use would cause any injustice. The parties have both put their cases based on the use of the land for the siting of caravans for residential use, and have clearly understood this to be the purpose of the notice, and the notice requires that use to cease. I am therefore satisfied that this correction can be made without causing injustice as it provides clarity to the notice, but does not make it more onerous, and that the description of the use in the requirements can likewise be varied.
5. In addition, I am satisfied references to "Green Belt" and "unauthorised development" can be removed from the allegation and requirements in the notice, in order to provide consistency and without causing injustice.

Ground (a) and the deemed planning application

6. The appeal site is located in the countryside in an area which is designated as Green Belt. It is common ground that the development, as a Gypsy and Traveller site to which the Planning Policy for Traveller Sites ('the PPTS') applies, is inappropriate development in the terms set out in the National Planning Policy Framework 2023 ("the Framework").
7. The main issues are therefore:
 - The effect of the development on the openness of the Green Belt
 - The effect of the development on the landscape, and character and appearance of the area;
 - Whether the development is in accordance with Policy SOC including flood risk;
 - The existing level of local provision and availability of alternative accommodation;
 - The personal circumstances of the occupants including the best interests of children

- Whether any harm by reason of inappropriateness, and any other harm, would be clearly outweighed by other considerations, so as to amount to the very special circumstances required to justify the development.

Green Belt

8. Policies DM19 and STRAT9 of the Cheshire West and Chester Local Plan ('the CWCLP'), which forms part of the development plan for the area, advises that any development of land in the Green Belt must accord with Green Belt Policy as set out in the Framework. It therefore complies with national policy.
9. The appellant accepts that the development leads to a loss of openness and also encroaches onto the countryside. It is a fairly large site with up to 10 caravans and associated structures and domestic paraphernalia on previously undeveloped rural land. This harms openness notwithstanding that the site is bounded by hedgerows. I agree that the development harms openness both visually and spatially, and undoubtably encroaches into the countryside as it is not part of, or even adjoining, an existing settlement, and is therefore in conflict with one of aims of Green Belt as set out in the Framework, and which are reflected also in the CWCLP.

Landscape

10. The appeal site is in the countryside outside of Frodsham, close to the M56. Whilst it is located fairly close to Frodsham, it is surrounded by fields. The boundary hedgerows do not fully prevent views into the site and the development and its difference in terms of the nature of the use to the surrounding rural area is evident from outside of the site. This causes material harm to the character and appearance of the area.
11. The PPTS implicitly accepts that traveller sites may be located in rural areas but the scale and visual impact of the development in this case causes material harm to the character of the countryside.
12. The site has not been well-planned including in terms of soft-landscaping and, in any event, there appears to be limited scope for it to any significant extent. There are no plans before me to consider regarding this, although the appellant does argue that a condition could secure landscaping as required. However, without any information before me regarding the proposed layout or landscaping of the site, it is not possible to assess whether the harm could be adequately mitigated.
13. The development is therefore in conflict with Policy ENV6 and GBC2. of the CWCLP which, amongst other things, seek to require development to respect and protect local landscape character. In addition, Policy DM3 advises that development in the countryside will only be permitted where it is not detrimental to its character.

Policy SOC 4 Gypsy and Traveller and Travelling Showpersons Accommodation

14. Policy SOC4 of the CWCLP states that development for such accommodation will be permitted where all of its criteria are met. These criteria relate to the living conditions of the site occupants, environmental effects, location in relation to highway network, access to local services and facilities, supply of essential services, relationship with existing settlements, scale, and location outside of the Green Belt except in very special circumstances.

15. Whilst the appellant argues that most of these criteria are met, the site is located in Flood Zone 3 but a site specific flood risk assessment has not been provided as is required by the Framework. It has therefore not been shown that the development would not be affected by flooding which could result in unacceptable living conditions, and it has not been demonstrated that the development would be safe for its lifetime taking account of the vulnerability of its users. The development has therefore not been shown to be in accordance with Policy SO4 in this respect.
16. In addition, the site is close to the M56 and the Mersey Estuary (which has designation as an SPA, Ramsar site and SSSI). An assessment regarding noise from the motorway and its effect on the living conditions of the occupiers of the site has not been provided. Likewise, there is not an ecological assessment relating to the effect of the development on the Mersey Estuary. It is therefore not possible to assess whether the development provides acceptable living conditions or is acceptable in terms of its effect on the environment. As the site is located in the Green Belt it is also necessary to show that very special circumstances exist in order to meet that criterion, and I deal with this in detail below.
17. Overall, the development has not been shown to be in accordance with Policy SO4.

Need for and availability of pitches

18. It is accepted that the appellant and his family meet the PPTS definition of gypsy and traveller.
19. The most recent Gypsy and Traveller Accommodation Assessment ("the GTAA") was undertaken in 2018. It identified a need for an additional 21 permanent pitches for households who meet the PPTS definition by the end of the Local Plan Period (2030). 20 pitches have been granted permission subsequently.
20. The Council argues that they have substantially met their unmet need. However, these figures do not include households who do not meet the PPTS definition, or more pertinently, unknown households which may meet the definition (and which the appellant says includes him and the other occupants).
21. Overall, the Council has granted permission to meet a large part of their identified need, and the criteria-based Policy SO4 as previously discussed also allows for windfall sites to be granted permission for appropriate development for all Gypsy and Traveller households, irrespective of whether they meet the PPTS definition. I do not therefore find that there is a failure of policy.
22. Nevertheless, the appellant and other occupiers are living on the site which indicates an unmet need. The Council did not provide information regarding any other available pitches and as such there is clearly a need for these pitches with no alternative identified. I have not been provided with any information regarding where the occupants would go if they could not remain on the appeal site.
23. I therefore accept that occupants of the site have a personal need for pitches but, given the lack of specific details before me, attribute this moderate weight.

Personal circumstances

24. Very little information has been provided regarding the occupants of the site. It appeared from the site visit that there were young children living there (as was stated in the grounds of appeal). However, I do not have details regarding the number of children, their ages or their circumstances such as whether they are attending local schools, are permanent occupants or have any other specific reasons to need to live on the site.
25. As the appellant has provided no further details I can only consider the personal circumstances in the broadest of terms i.e. that a settled base provides the best opportunity for a stable and secure family life with access to regular schooling and healthcare, and afford it moderate weight.
26. Whilst the best interests of children are a primary consideration I have little detailed information before me to assess what that might be, other than in the general terms set out above. I therefore also attribute it moderate weight. This is based on the limited understanding that I have regarding the occupiers or their circumstances but accepting that there are generally personal benefits to having a settled base, especially for school-age children in education.

Green Belt Balance

27. Inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. 'Very special circumstances' will not exist unless the harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. In addition, the development is in conflict with the CWCLP as set out above.
28. The definitional harm to the Green Belt along with the harm to openness caused by the development is significant, as is the harm to the character and appearance of the surrounding area and countryside. Whilst not a specific reason for the issue of the notice, the lack of a site specific flood risk assessment is also in conflict with the Framework and therefore a material consideration to which I attribute significant weight given the location of the development within Flood Zone 3 and the vulnerable nature of the use as caravan site in terms of flood risk (as defined in Planning Practice Guidance).
29. Policy E of the PPTS advises that subject to the best interests of the child, personal circumstances and unmet need are unlikely to clearly outweigh harm to the Green Belt and any other harm so as to establish very special circumstances. Whilst the best interests of children are the primary consideration I afford it moderate weight in this instance as I have little in the way of specific information.
30. The harm to Green Belt by reason of inappropriateness attracts substantial weight. This taken together with the other significant harm that I have set out above, is not clearly outweighed by other considerations; even taking into account the primacy of the best interests of the children on the site, the personal circumstances of the other occupiers and the personal need for pitches due to the lack of identified alternatives which all attract moderate weight. The very special circumstances needed to approve the inappropriate development in the Green Belt do not therefore exist.

31. Dismissing the appeal would interfere with the appellant's and the other occupiers' rights to peaceful enjoyment of their possessions, and to a private and family life and home, under Article 1 of the First Protocol and Article 8 as set out under the Human Rights Act 1998. However, as those are qualified rights, interference with them in this instance would accord with the law and be in pursuance of well-established and legitimate planning aims including the protection of the Green Belt and local landscape character, and the reduction of flood risk
32. I have also had due regard to the Public Sector Equality Duty set out under the Equality Act 2010. The harm caused by the appeal development outweighs its benefits in terms of eliminating discrimination against persons with the protected characteristics of age and race, advancing equality of opportunity for those persons and fostering good relations between them and others. I therefore conclude that it is proportionate and necessary to dismiss the appeal.
33. In view of my findings there is no need for me to undertake an assessment under the Conservation of Habitats and Species Regulations 2017 to determine whether a likely significant effect would be caused to the integrity of the Mersey Estuary SPA and Ramsar site as it would not alter the outcome of the appeal.

Conclusion on Ground (a)

34. The appeal on Ground (a) does not succeed and the deemed planning application is dismissed.

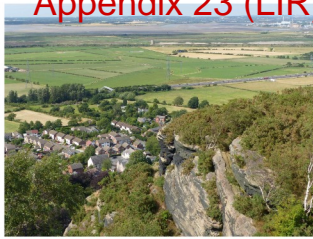
Ground (g)

35. The appellant seeks an extension of the period for compliance to 12 months to enable the extended family to obtain alternative accommodation and avoid homelessness. No further details are provided but as the family comprises 5 households with a range of ages a fairly large site or number of pitches will be required to accommodate them all. In addition, the fact that some of the children are attending local schools means that a longer period than 3 months is reasonable and proportionate in order to allow the appellant and other occupiers some time to make alternative arrangements.
36. The period for compliance should therefore be extended to 12 months in relation to both requirements.

Zoë Frank

INSPECTOR

Appendix 23 (LIR) Netherton Hall Local Walks

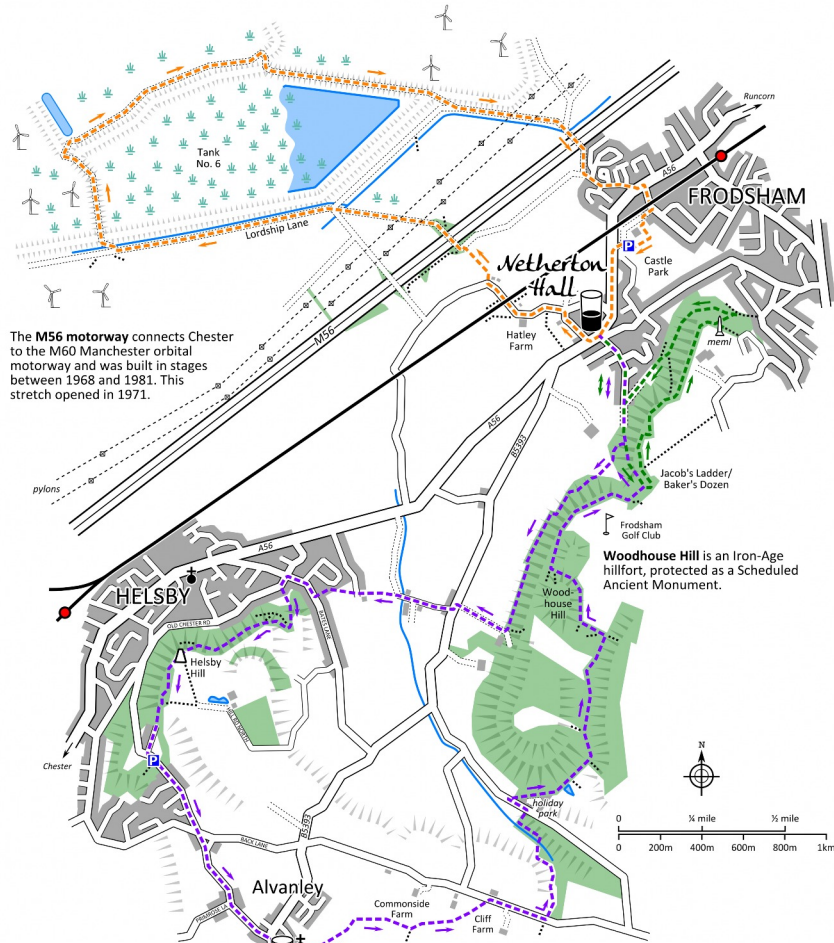


The views from the hill above Netherton Hall and the Mersey Estuary are spectacular and extensive, extending to the cathedrals of Liverpool in the north and to the Clwydian mountains (highest point Moel Famau 562m) in the west. A trig point marks the highest point (141m) of the grassy summit within the faint traces of an Iron Age hillfort.

The war memorial on **Overton Hill** (right) offers similar views over the low-lying surrounds of the Manchester Ship Canal and the confluence of the rivers Weaver and Mersey. Recent additions to the many visible landmarks include the turbines of Frodsham Wind Farm and the pylons of the new Mersey Gateway bridge, both opened in 2017.



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Frodsham Marsh is a large area of low-lying marshland and farmland between the M56 motorway and the Mersey Estuary. Much of the land is occupied by large embanked lagoons used to store silt and sludge dredged from the Manchester Ship Canal, and by a wind farm comprising 19 turbines, each 125 metres tall, split into a cluster of 13 to the west and 6 to the east. Despite these industrial intrusions, the Marsh retains an air of isolation and is home to a number of uncommon birds, including Cheshire's only pair of breeding Marsh Harriers. Wintering waterfowl congregate on the flooded lagoons, particularly Tank No. 6, circumnavigated by the orange route described here.



The steep wooded slopes above Helsby and Frodsham represent the northern terminus of the **Mid-Cheshire Ridge**, a range of red Triassic sandstone hills that separate the Weaver and Dee river basins. Many of the most scenic sections of the ridge are visited by the **Sandstone Trail**, which runs for 34 miles from Frodsham to Whitchurch.

Three circular walks from the Netherton Hall

Frodsham, Cheshire



Overton Hill 2 miles: Moderate

A pleasant woodland stroll to a nearby war memorial with fine views over the Mersey Estuary to Liverpool.

Frodsham Marsh 4.6 miles: Fairly easy

An interesting, level walk around the bird-rich lagoons and reed-beds of Frodsham Marsh – take your binoculars!

Helsby Hill and Alvanley 6.6 miles: Moderate

Two hillforts, mixed walking in farmland and woodland, and rocky outcrops with wide views.

NETHERTON HALL
Chester Road, Frodsham, Cheshire WA6 6UL
tel 01928 732342
website www.nethertonhallpub.co.uk
email info@nethertonhallpub.co.uk

OPEN: Mon to Sat 12 noon–11pm
SUN 12 noon–10.30pm
FOOD SERVED: Mon to Sun 12 noon–9pm
White Lion: tel 01928 722949

Overton Hill

2 miles: Moderate

Allow 1½ hours. One significant ascent and descent; rocky ground, occasional steps, and short stretches that may be muddy at times.

1 From the front door of the Netherton Hall, cross the A56 and follow Carriage Drive, opposite. **2** Ignore turnings to right and left to reach a gate at the end of the metalled road. **3** Follow the track beyond the gate, which ascends gradually through the trees (ignore a path down stone steps at the end of the wall on your right). **4** Pass below a red sandstone cliff on your left as you approach the Sandstone Trail. **5** On meeting the Trail, bear left. Nimble walkers with a head for heights can climb a rocky scramble over worn sandstone on the left at the end of the cliff (Jacob's Ladder), but for a more straightforward continuation, continue to the foot of a flight of metal steps (Baker's Dozen). **6** At the top of the steps, bear left (past the top of the Jacob's Ladder scramble) and continue along the obvious path, ignoring a path heading out across the golf course on your right. **7** Pass a bench and continue below some low cliffs with names and initials carved into them. **8** Ignore wooden steps above and below the path by a second, wooden, bench, continuing along the contour as before. **9** At a fork with a short Sandstone Trail waymark post, follow the upper (right-hand) path past a taller waymark post to reach the war memorial obelisk. **10** Retrace your steps (keeping right at the taller post) to the junction with the short post, where you double-back right onto the lower path. **11** Follow this path to a fork, turning left as the path descends more steeply, with occasional earth-covered steps. **12** When you eventually reach a wider track within sight of houses, turn left. **13** Follow this obvious path for 500 yards, then bear right at the foot of a flight of wooden steps to meet a track. **14** Turn left and follow the track until it meets the road at Carriage Drive. **15** Turn right and retrace your steps back to Netherton Hall.

Frodsham Marsh

4.6 miles: Fairly easy

Allow 2½ hours. Mostly level on metalled roads and potholed tracks, but with occasional puddles or muddy stretches.

1 From the front door of the Netherton Hall, turn right and right again into Matty's Lane. **2** Follow the road to a junction opposite Fern Meadows and turn left. **3** Pass Hatley Farm, then pass under the railway. **4** Continue along the road to reach two bungalows on the right; beyond the second, take a footpath over a stile by a gate on the right. **5** Follow the path alongside the garden then bear left along an overgrown ditch. **6** Go through a gate at the end of the field and turn left to cross the motorway bridge. **7** Descend from the motorway and follow the straight track ahead of you. **8** At the skewed crossroads below the embankment of No. 6 Tank, take the "second exit", Lordship Lane (slightly left), which runs parallel to the embankment,

separated from it by a broad drainage ditch. **9** After a little over half a mile, turn right over a bridge (with a "Single track road" sign), bear left and climb the embankment. **10** Follow the track to the right at the top, between Tanks No. 6 (right) and 5 (left), the latter housing most of the western cluster of wind turbines. **11** At the end of the two lagoons, bear right down the embankment, passing the end of a narrow flooded pit on your left. **12** Follow the track with the No. 6 embankment now on your right, and wet fields stretching away towards the Ship Canal on your left. **13** After a little over half a mile, follow the track as it climbs the embankment and swings right. **14** Continue your circuit of the reed-filled Tank No. 6 (on your right), with the eastern cluster of turbines away to your left. The eastern end of the lagoon is flooded and worth scanning for waterbirds. **15** Pass close to a turbine then descend to meet another track. **16** Follow it to the left, with a drainage ditch on your right, passing under two sets of power lines. **17** Turn right at the next junction by a mobile mast, heading towards the M56. **18** Once over the motorway bridge, walk past a trailer park on your left and keep straight on at the junction with Maori Drive, following Marsh Lane out to the A56 near the centre of Frodsham. **19** Cross and take a few steps to the left, then turn right into Fountain Lane (signposted "Leisure Centre" and "Castle Park Arts Centre"). **20** Pass under the railway and turn immediately right, into Castle Park. **21** Pass the Arts Centre on your left, then turn left and right, up steps through the wall into the formal garden. **22** Turn left at the fountain and then right to pass in front of Castle Park House and reach the car park. **23** Leave the park here, and turn left along the A56 to return to the Netherton Hall.

Helsby Hill and Alvanley

6.6 miles: Moderate

Allow 3–4 hours. Some moderate ascents and descents with short rocky or uneven sections, and some steep drops. Muddy or overgrown in places in season. Some road walking near Alvanley.

1 From the front door of the Netherton Hall, cross the A56 and follow Carriage Drive, opposite. **2** Ignore turnings to right and left to reach a gate at the end of the metalled road. **3** Follow the track beyond the gate, which ascends gradually. **4** At the end of the wall on your right, turn right down stone steps that descend steeply down the hillside. **5** Bear left within the wood across the bottom of a valley then climb a wooded spur beyond. **6** Follow the path as it twists and turns along the bottom of the wood until you meet a metalled drive. **7** Turn right and follow the drive down to Tarvin Road. **8** Take a few steps to the left then turn right down Chestnut Lane. **9** Beyond the last of the houses, cross a footbridge and go through the gate in front of you. **10** Follow the path ahead along a field edge and then between gardens to a road. **11** Cross and go through a kissing gate opposite, bearing right across the field to enter another narrow path between gardens. **12** When you emerge in Bates Lane, turn right and walk down to the junction with Old Chester Road. **13** Turn left for a short

distance, then turn left up a narrow path (signposted Helsby Hill) before a white-painted cottage. **14** Climb the wooded hill to a path junction, where you turn right over a stile. **15** Take the higher path (signposted to "Hill Top"). **16** Climb up through the trees until you emerge in an open area above the crags of Helsby Hill. **17** Having admired the view, pass the trig point and follow the path above the cliff edge which passes below a field then drops down into the trees and starts to descend. **18** When you reach the top of a road, go through the gate and descend to the road junction. **19** Turn left past the car park for Helsby Quarry and follow the road past Alvanley House. **20** Keep on along past The Paddock, Alvanley Drive and Nemos Close. **21** Keep straight on along Helsby Road at the junction with Back Lane. **22** After a stretch with no footway, pass the end of Primrose Lane as you approach Alvanley. **23** When you meet the B5393, turn right and pass the Primary School to reach the White Lion. **24** Cross the road at the pub and turn right, past the church lych gate. **25** Before the first house on the left, turn left and follow the field edge to a kissing gate on your right. **26** Pass briefly between hedge and fence, then turn right across the field on your right. **27** Go through a gap and follow the right-hand edge of the next field. **28** On reaching a kissing gate (on your right) at a junction of paths, turn half-left and walk diagonally to a stile by a gate. **29** Cross and continue in a similar direction to a kissing gate. **30** Cross a paddock behind the farm to a kissing gate in the far left-hand corner. **31** Follow the right-hand side of the next field to a kissing gate into a lane. **32** Turn right and follow the road for 300 yards, passing a series of entrances. **33** Beyond a layby, cross and turn left at a Sandstone Trail fingerpost signposted to Woodhouse Hill and Frodsham. **34** Walk down the right-hand side of a series of fields until you reach a footbridge into a wood. **35** Swing left past a bench, then turn right up the wooded bank (steps) before dropping to meet the road opposite a holiday park. **36** Turn left for a short distance then leave the road, turning hard right into a track behind the mobile homes (still following the Sandstone Trail). **37** Pass a pond and continue along the Trail as it slowly ascends, ignoring Woodland Trust paths to right and left. **38** After a sunken section with rocky outcrops, you reach a T-junction with a bench at the woodland edge; turn left. **39** Follow the path just inside the wood with open fields to your right, then bear left alongside the mossy remains of a wall as you skirt Woodhouse hillfort on your left. **40** Guided by Sandstone Trail waymarks, descend steps to a contouring path; turn right past a bench and viewpoint. **41** Wind past a golf course on your right and descend a rocky section then bear left over a footbridge below more rocks. **42** At a junction turn left, signposted "Carriage Drive". **43** Descend below a red sandstone cliff and pass the top of the steps you descended on your outward route. **44** Continue straight on to the end of the Carriage Drive, which you follow back to the Netherton Hall.



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Appendix 24 (LIR) – Frodsham Festival of Walks 2025 brochure



FRIDAY 25 APRIL - MONDAY 5 MAY 2025



BOOKING, WHICH OPENS IN EARLY APRIL, IS HIGHLY RECOMMENDED TO SECURE YOUR PLACE



WHAT YOU NEED TO KNOW

Frodsham Festival of Walks thanks you for your interest in our programme. Before you join us and register for one of our walks there are a few things that we need to tell you, to ensure that you are safe, well-equipped, and have all the information you will need.

Frodsham Festival of Walks does not accept any responsibility for personal injury or loss of property when attending any of our walks. Individuals must take out their own insurance if they consider it necessary.

The time given in the brochure is the start time, and to assist you each walk has the postcode, grid reference and what3words descriptors. Postcodes are only approximate and if parking is not suggested, then please allow time to park and arrive promptly. Walks will start punctually so please arrive at the meeting point in good time to enable the register to be checked or completed and a safety briefing given. All sections of the registration sheet must be completed.

This year we have made improvements to our on-line booking system and would encourage everyone, where possible, to make an online booking via our website:

[REDACTED]

This is the only way to be guaranteed a place on the walks.

On all walks places are limited, so booking really is desirable. Please visit your local libraries if you need any help registering for the walks. Library staff will help you if, and when, they can.

All of our walks are circular unless otherwise stated.

Distance and duration of walks are approximate and allow for break / lunch stops, where relevant.

Please wear suitable clothing and footwear and be prepared for unpredictable weather. On sunny days please bring water, consider using a wide brimmed hat and sun protection. An inadequately dressed person could affect the safety and enjoyment of the whole group. We reserve the right not to take a person who is not appropriately equipped, or who is thought by the leader unlikely to be able to cope with the pace or length of the walk.

Please ensure you have sufficient food and especially drink, for the duration of the walk. If accompanying vulnerable others, please ensure that they also have adequate supplies.

Remember to bring any medication you may need during the walk and a mobile phone or easily accessible information to contact your next of kin.

Whether dogs are allowed is clearly indicated in the walk summary. Where dogs are welcome, we ask that it is one dog per walker and on a short lead, in most instances. Owners must carry both water for their pet and 'poop' bags to use when required, and only dispose of in a designated bin.

Walkers under 16 years of age or those who are deemed vulnerable are welcome and must be accompanied by an adult who accepts responsibility for them.

We ask that walkers refrain from smoking and vaping during the walk. You must notify the leader if you wish to leave the walk.

If travelling by car do consider car sharing.

We also ask car owners to please show consideration for local residents and businesses when parking.

You may be able to use the 'On Demand' Rural Minibus Service. For details please visit: www.cheshirewestandchester.gov.uk/itravel.

In the event of adverse weather or unpredictable obstacles, the leader may change the route or distance of the walk in the interests of health and safety.

Once you have left, the leader will no longer be responsible for you.

If the walk/event is cancelled (e.g. leader's illness, adverse weather) FFOW will endeavour to contact you. However, please look at our website - [REDACTED] for information updates. Also check the Frodsham Festival of Walks Facebook page. In the event of a walk being cancelled, the leader or other organisers will make every effort to be at the meeting point to advise anyone who does turn up.

All walks are led by experienced leaders, volunteers, or representatives from our sponsoring organisations. As always, we are very grateful to the organisations who have sponsored or supported our walks.

We all look forward to welcoming you to one or more of the many walks and events on offer this year!

WELCOME TO FRODISHAM FESTIVAL OF WALKS

Please join us and be part of this year's Festival of Walks running from Friday 25 April - Monday 5 May, inclusive.

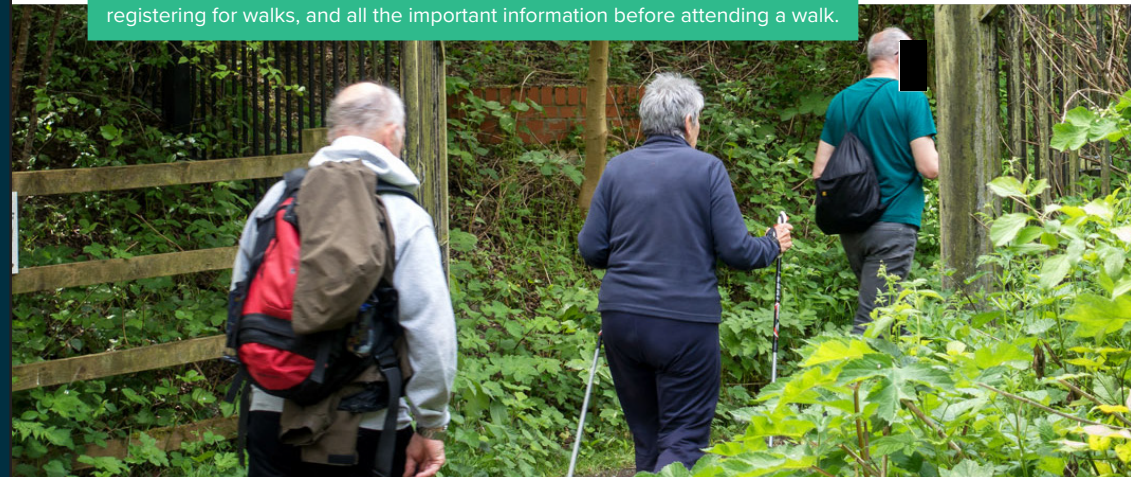
We have planned almost 30 wide-ranging walks - some especially for children and families, dog walks, pram walks, pub walks, visiting a war-torn local church and even a bat walk.

As we celebrate the National Railway's bicentennial in 2025, the annual Frodsham Festival of Walks will this year also feature two railway related walks, suitable for individuals or small groups. Old favourites including a family treasure hunt around four sites in Frodsham. Forest Schools and nature walks make a welcome return.

You could, if you want to enjoy a new experience, join Kerley for her excellent Nordic walking or after a long day in the open air, you can even enjoy an evening of mindfulness and meditation in a beautiful forest setting.

Most of our walks explore the countryside around our local towns and villages, and many have an interesting theme about the local townscape, history, geology or wildlife.

Visit our website [REDACTED] and Facebook page (www.facebook.com/FrodshamFestivalOfWalks) to see further details about registering for walks, and all the important information before attending a walk.



1 Friday 25th April - 10:00

Silver Jubilee Bridge and Spike Island

Meet at Crosville car park, Runcorn, adjacent to Ten Lock Flight pub, Runcorn

Grid Ref: SJ 5144 8280 Postcode: WA7 1BG
belt.wool.chairs

Supported by the Probus Walking Group

Booking is preferred:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

A 4-mile wheelchair friendly walk of approximately 2.5 hours, with walking mostly on paved or tarmacked paths. It starts at the free Crosville car park adjacent to the 10 Lock Flight, with extensive views across the Mersey towards Lancashire. The walk crosses the Silver Jubilee bridge towards Widnes. From the bridge, the walk proceeds towards the Catalyst Museum and onto Spike Island and along a short section of the Sankey Canal. After crossing the canal, the walk continues on to Widnes Promenade, with open vistas of the Mersey and both road bridges, before crossing back over the canal and onto Victoria Gardens.

From there the walk returns over The Silver Jubilee Bridge to Runcorn and makes a left turn to visit The Bronzed Chedi and Peace Garden before returning to the start via the Bridgewater Canal. On completing the walk, those who wish to may join the walk leader for lunch at the 10 Lock Flight. Dogs are welcome on this walk: a maximum of 1 dog on a short lead per walker.

2 Friday 25th April - 14.30

A Pram walk at Delamere

Meet at the Information Office, Visitor Centre, Delamere

Grid Ref: SJ 5488 7036 Postcode: CW8 2JD
stared.preheated.dinner

Booking preferred:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30 prams

Join us for a 1.5-mile circular pram and child friendly walk around the Gruffalo Trail at Delamere Forest. It will take approximately 45 minutes - 1½ hours depending on any little legs who may be joining the walk. The paths can be a little bumpy but are still pram friendly with the occasional short hill. The walk will include a short stop when we find the Gruffalo, approximately half way round, for a rest or any required refreshments you would like to bring. There will also be the option of staying for further refreshments at the Visitors Centre Café afterwards. Dogs are welcome on this walk: A maximum of 1 dog on a lead per walker.



4 Saturday 26th April - 13:30

Frodsham Methodist Church Walk

Meet at Frodsham Methodist Church car Park

Grid Ref: SJ 5249 7688 Postcode: WA6 6BA
[redacted] nickname.slam.unfit

Supported by - Frodsham Methodist Church

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 25

This 4-5 mile walk of approximately 2.5 hours will take in the sites of Bradley, parts of Hob Hey Wood, the Weaver Valley and Belleair. Dogs are welcome on this walk; a maximum of 1 dog on a short lead per walker.

5 Sunday 27th April - 10:00

Quarries of the Northern Sandstone Ridge

Meet at the far end of Frodsham station main car park. (CWAC, South Side)

Grid Ref: SJ 5194 7792 Postcode: WA6 6PT
[redacted] silly.noise.galaxy

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 25

Supported by the Probus Walking Group

A 9 mile walk from Frodsham to Helsby (returning by train), which will take approximately 6 hours. Climbing the northern sandstone ridge, taking in some of the interesting quarries and workings. This walk will climb both Frodsham and Helsby Hills, and use woodland and field paths as well as quiet lanes. Stout footwear is required. There are no toilets or refreshments available on the route. No dogs please.

3 Saturday 26th April - 10:00

Family Walk with Treasure Hunt

Meet at Castle Park main car park, Frodsham

Grid Ref: SJ 5137 7747 Postcode: WA6 6SB
[redacted] intervals.timing.bunch

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

A gentle 4 mile walk suitable for families of all ages taking approximately 4 hours. The walk involves visits to four locations within Frodsham. We will pause at each one for approximately 15 minutes in order for family members to track down some clues that will ultimately enable a mystery to be solved. There will be some small prizes for younger family members who successfully piece together the clues and find the correct answer. The walk will end back at the Castle Park Cafe for optional refreshments to be purchased and celebration of achievement! Dogs are welcome on this walk: A maximum of 1 dog on a short lead per walker.

For more information, please visit our website:

frodshamfestivalofwalks.uk
or email: frodshamfow@gmail.com



6 Sunday 27th April - 10:00

Forest School

Meet at Frodsham Woods car park, off Simons Lane, Frodsham

Grid Ref: SJ 5182 7609 Postcode: WA6 6HE
[redacted]marathons.commented.embraced

Supported by Rotary in Frodsham and Helsby

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). This session can accommodate up to 15 children aged 5 and above, accompanied by one or two adults. Max - 15

We will have a 10-minute walk onto the site to the area that we will be working in. We will build a fire, cook bread and make mini shelters in the woods, for approximately 2 hrs in total. Children should wear comfortable outdoor clothing and sturdy footwear. No dogs please.



7 Sunday 27th April - 10.00

Dog Walk

Meet at the Cheeky Ice Cream, Pavilion Cafe, Castle Park, Frodsham

Grid Ref: SJ 5150 7751 Postcode: WA6 6SE
[redacted]feel.agreed.worry

Booking is preferred:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

This dog-friendly walk is approximately 3-4 miles. Leaving Castle Park and walking up Howey Lane and onto Bottom Walk via the small passageway. The walk will take us to the top of the old golf course, along the top of Woodhouse Hill and on to Joe's Path. From there we will go down onto Snidley Moor and walk back through the woods and return to Woodhouse Hill. We will then do a circuit of the old golf course, on to top walk, and finally down to Middle Walk, over Churchfields and back into Castle Park for coffee at Cheeky Ice Cream. We will have a small refreshment stop if you wish to bring coffee etc. Dogs off lead at owner's discretion in the appropriate areas.

8 Sunday 27th April - 14:00

Little Barrow/Great Barrow Circular

Meet at Bluebell Cafe car park, Barrowmore, at 13.45. Car parking at owner's risk. Use Barnhouse Lane entrance to the estate. N.B.: The café is closed on Sundays.

Grid Ref: SJ 4751 6904 Postcode: CH3 7JA
[redacted]deployed.emporium.airfields

Booking is preferred:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

A circular walk of 4½ miles taking about 2.5 hours, along the paths, tracks and lanes of Great and Little Barrow. Whilst the walk is mostly flat there are some inclines. There are no stiles but there are a few gates. We will be stopping for refreshments part way round but you will need to bring your own. No toilets. Stout shoes required and not suitable for buggies. Dogs are welcome: 1 dog per walker on a short lead.

9 Sunday 27th April - 14.00

Forest School for Families

Meet at Frodsham Woods car park, off Simons Lane, Frodsham

Grid Ref: SJ 5182 7609 Postcode: WA6 6HE
[redacted]marathons.commented.embraced

Supported by Rotary in Frodsham and Helsby

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). This session can accommodate up to 15 children aged 5 and above, accompanied by one or two adults. Max - 15

We will have a 10-minute walk onto the site to the area that we will be working in. We will build a fire, cook bread and make mini shelters in the woods, for approximately 2 hrs in total. Children should wear comfortable outdoor clothing and sturdy footwear. No dogs please.

For more information, please visit our website: frodshamfestivalofwalks.uk or email: frodshamfow@gmail.com

10 Monday 28th April - 10:00

Pub Walk

Meet at the Carriers Inn, Hatchmere

Grid Ref: SJ 5542 7210 Postcode: WA6 6NL
[redacted]kilt.almost.notices

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

This 5-mile walk will start from the Carriers Inn, we will head past the Beaver Sanctuary, and on through Delamere Forest, before walking up to Pale Heights, hopefully providing wonderful views. Walking back down to the forest, we will pass the visitor centre, and onward to return to the starting point. Please join us for lunch in the Carriers, and please make your own booking arrangements with the Carriers (01928 371109), where we should return by 12.30. Dogs are welcome on this walk: A maximum of 1 dog per walker and may walk off lead at the owner's discretion.

11 Monday 28th April - 10:30

Alvanley and Helsby Hill

Meet outside Frodsham Post Office on Main Street

Grid Ref: SJ 5161 7780 Postcode: WA6 7AR
[redacted]divisions.knots.sticky

Supported by North and Mid Cheshire Ramblers

Booking is preferred:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

A 10-mile walk taking most of the day, walking through undulating countryside and ascending Helsby Hill. 1800 feet of ascent taken at a moderate pace. The route contours Woodhouse Hill, joins the Sandstone Trail and crosses fields to Alvanley. After Helsby Hill there is some road walking towards Dunsdale Hollow to return via Castle Park. Route may be muddy so stout boots recommended. Possibility of horses in fields. Bring lunch and drinks. Dogs are welcome: 1 dog per walker on a short lead.



12 Tuesday 29th April - 11:00

Total body walking

Meet in Castle Park main car park, Frodsham

Grid Ref: SJ 5137 7747 Postcode: WA6 6SB
intervals.timing.bunch

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 10

Come along and join this 90-minute total body walking discovery session. It will give you the opportunity to connect with nature and see for yourself how powerful walking-based exercise can be when it is at the right level for you. Learn how to walk WELL getting the most out of every step you take harnessing the power of good posture, your core muscles and the perfect stride. There will be a 60-minute session on how to get the best out of your walking technique and an optional 20-30-minute discovery walk, with or without poles, at the end of the hour session. Experience how pace and hills can be empowering and how working on balance, flexibility and strength can make walking twice as effective whatever you are trying to achieve. Try out some total body walking poles, try other ways to boost strength, help with weight management and make walking work for you. In short, come along and feel how you can work your whole body with or without poles; and that a total body walk is more than just a walk in the park. Please wear footwear with a flexible sole if possible. No dogs please.

13 Tuesday 29th April - 09.45

Hills, Rivers and Bridges

Meet on Platform 2 Frodsham Station for the 09.57 train to Runcorn

Grid Ref: SJ 5186 7790 Postcode: WA6 6PT
swing.first.pump

Or 10.10 am at the front entrance of Runcorn Station for those meeting at Runcorn.

Grid Ref: SJ 5088 8268 Postcode: WA7 5UB
http://[redacted]swing.fist.pump

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

This 6.5-mile walk from Runcorn railway station to Frodsham railway station will take approximately 4 hours starting with a short railway journey from Frodsham over the Weaver Viaduct on its route to Runcorn. From Runcorn railway station the walk takes us past the statue of 'Todger' Jones, Runcorn's First World War Victoria Cross hero, and the magnificent "Cross of Sacrifice" war memorial. From there, the walk leads onto Runcorn Hill with extensive views across the Mersey estuary and even as far as Blackpool on a clear day. The walk then progresses through the historic sandstone quarries, with their sheer rock faces onto the lowland Heath which passes through Weston village. Shortly, we join a public footpath which leads to Clifton village and the River Weaver which it follows for a short distance before emerging back on to the road prior to crossing the "swing" bridge and across country to Frodsham railway station. Walkers who joined at Runcorn station may return either by train from Frodsham station or by taking the X30 or 2/2A bus from outside the Bear's Paw, on Main Street Frodsham. Dogs are welcome: 1 dog per walker on a short lead.

14 Tuesday 29th April - 09.30

Aston World War II walk

Meet at St Peter's Church, Aston Lane, Aston

Grid Ref: SJ 5560 7847 Postcode: WA7 3DB
concerts.dreamers.walls

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

A 5-mile walk from Aston Church to the River Weaver and back across meadows past bluebell woods. After the walk we will visit Aston Church, to see the war damage inflicted on this lovely old building. The walk will take approximately 3 hours to complete. The route may be muddy so stout walking boots are recommended, and poles may help on the descent. N.B. Please bring a small donation to the church for their trouble. Dogs are welcome on this walk: A maximum of 1 dog on a short lead per walker. No dogs are allowed inside the church.

15 Wednesday 30th April - 10:00

Walton and Appleton Reservoir

Meet at Underbridge Lane, Walton; 60m NE of Bennet's Farm Shop

Grid Ref: SJ 5925 8462 Postcode: WA4 5QR.
(Post code of adjacent Farm Shop)
price.dawn.these

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

We meet at Underbridge Lane, walk a short distance along the Bridgewater Canal and then by the side of the busy A56. We skirt Walton Hall gardens and head up towards Hillcliffe. We return by the side of Appleton reservoir. It is a leisurely walk of 4 miles and should take approximately 2 hours. Dogs are welcome and off the lead at their owner's discretion.

16 Wednesday 30th April - 9.30

Railways, Canals, Viaducts and Bridges across the Weaver Valley

Meet at the payment machine in the station car park at 09:30 for a short talk, by a member of Frodsham & District History Society, about Frodsham station /Sutton Tunnel Accident, and to allow time to purchase rail ticket.

Grid Ref: SJ 5187 7786 Postcode: WA6 6PT
http://w3w.co/always.video.skill

Alternatively meet at Runcorn East railway station car park at 10:00, to await arrival of train from Frodsham.

Grid Ref: SJ 5577 8134 Postcode: WA7 6EU
http://w3w.co/thinks.punctual.racked

Supported by Probus Walking Group / Frodsham & District History Society

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

Prior to boarding the train at Frodsham station, members of Frodsham & District History Society will give a short presentation about Frodsham Station. The train will then take us across the Weaver Viaduct and through Sutton Tunnel to Runcorn East railway station. On alighting from the train, a further presentation will be made about the Sutton Tunnel Disaster. This 10.2-mile walk proceeds to the Bridgewater Canal through Preston Brook to join the Trent and Mersey Canal and follows a path to Dutton Locks, where it crosses the River Weaver. From there, the path takes us under an arch of the railway viaduct, along the River Weaver, past Pickering's Lock, skirting Warburton's Wood towards Catton Hall Farm and Bradley Lane. After following Bradley Lane for a short distance, the path enters open fields to re-join Bradley Lane on the outskirts of Frodsham and then proceeds to Frodsham station via Overton. It is anticipated that the walk will take about 6 hours in total. Walkers, joining the walk at Runcorn East, may wish to return to Runcorn by train from Frodsham station or the X30 and 2/2 A bus from outside The Bear's Paw on Frodsham Main Street. No dogs please.

For more information, please visit our website:
frodshamfestivalofwalks.uk
or email: **frodshamfow@gmail.com**



17 Thursday 1st May - 10:00

Whitegate Wander

Meet at Whitegate station car park, Clay Lane, Winsford

Grid Ref: SJ 6154 6797 Postcode: CW7 2QE
oxidation.revives.astounded

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 20

An all-day, 8-mile moderate circular walk along part of the Whitegate Way, a disused railway line, and through woodlands, along watercourses and past lakes with plenty of wildlife interest. Some slight gradients and several stiles. Toilets and cafe in car park. Dogs are welcome on this walk: A maximum of 1 dog on a short lead per walker.

18 Thursday 1st May - 18:00

Power of Poles

Meet in Castle Park main car park, Frodsham

Grid Ref: SJ 5137 7747 Postcode: WA6 6SB
intervals.timing.bunch

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 10

We are excited to welcome newcomers to this 90-minute use of poles to exercise the whole body while walking. Using poles will engage your core, improve posture and take the weight off lower body joints. It enables you to exercise outdoors, which is great for your mental health as well. The POWER of POLES Induction is totally unique in that it explores the use of the new strapless total body walking poles (with ergonomically designed moulded handle), and the strapped Nordic walking poles to aid the user gain the best technique and results. This enables you to gain greater core engagement and master the upper elements that provide propulsion, support and increased exercise benefits. Once you have mastered these essential basics you get to explore the traditional Nordic walking strapped poles and movements. Footwear should have a flexible sole if possible. No dogs please.

19 Thursday 1st May - 18:30

Mindfulness Walk with Sitting Meditation

Meet next to Station House Café, Station House, Station Road. Delamere

Grid Ref: SJ 5561 7039 Postcode: CW8 2HZ
diary.goose.weekday

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 20

A gentle meditative 2-hour walk of approximately 4 miles. There will be ample time to be still and appreciate the energy of the forest. Using the 5 senses (or maybe 6!) we will explore what it means to go deeper into nature and how we are all connected with it. It is a joy to be fully present with the wonders of nature whether it be trees, plants, animals, birds, or insects. There will be a 15-minute guided meditation on the top of Old Pale Hill where there is a beautiful 360-degree view. Bring a plastic bag, picnic mat or something to sit on. No prior experience necessary. The paths are widely used and easy to navigate. No dogs please.



20 Friday 2nd May - 09:30

Frodsham Marsh / Helsby and Woodhouse Hills

Meet at Frodsham Station car park by the payment machines (CWAC, South Side)

Grid Ref: SJ 5187 7786 Postcode:WA6 6PT
always.video.skill

Booking is preferred:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

Starting and finishing at Frodsham station car park, this 4.5-hour walk will take you along the Marshes, before ascending Helsby Hill for great views from the "trig point". The walk will gently progress down over Woodhouse Hill, returning to Frodsham via Bottom Walk. Total distance approximately 8 miles with 1,000 ft of ascent. Walkers may wish to bring a packed lunch. Dogs are welcome on this walk: A maximum of 1 dog on a short lead per walker.

For more information, please visit our website: frodshamfestivalofwalks.uk or email: frodshamfow@gmail.com

21 Friday 2nd May - 10:00

A dog friendly discovery trail of Lymm

Meet at Spud Wood (Woodland Trust) car park, Stage Lane, Lymm

Grid Ref: SJ 7024 8746 Postcode: WA13 9JP
avid.agreement.trams

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 15

A dog friendly 5-mile discovery trail around Lymm, taking approximately 3 hours. The walk starts at Spud Wood, where dogs can be off lead for a run before heading into Lymm on paths and quiet roads. We will do a circuit of Lymm Dam, then through Lymm village, heading via Slitten Gorge to the Trans Pennine trail, returning to Spud Wood via the Bridgewater Canal. Dogs will have the opportunity to be off lead, where safe, at the leader's discretion but will be the responsibility of the owner at all times. The walk is flat with no stiles but two busy roads to cross. Depending on the weather, Spud Wood and Lymm Dam could be muddy so stout shoes are advised. A maximum of 1 dog on a short lead per walker.



22 Friday 2nd May - 14:00

The Edge of Frodsham

Meet at Lady Heyes Antiques and Craft Centre

Grid Ref: SJ 5356 7564 Postcode: WA6 6SU
glossed.albatross.dockers

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 20

Join us for a 5-mile walk on the edge of Frodsham, taking approximately 2.5 hours. We will be walking along mainly quiet back roads and paths on the edges of fields. There is one challenging path and stile to overcome. The route takes us around the back of Lady Heyes Touring Park and down to Hunters Wood. From there we cross the border into Kingsley and back into Frodsham via Peel Hall returning to our start point. Parking, refreshments and toilet facilities are all available at Lady Heyes. Dogs are welcome on this walk: A maximum of 1 dog on a short lead per walker.

23 Saturday 3rd May - 11:00

Hob Hey Wood walk and bat talk

Meet outside Frodsham Townfield Allotments: junction between Langdale Way and Townfield Lane, Frodsham

Grid Ref: SJ 5266 7783 Postcode: WA6 7LY
tunnel.apples.counts

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

Supported by Hob Hey Wood Friends Group

Join us for a 2-mile walk around Hob Hey, Frodsham's ancient woodland, lasting approximately 2 hours. We will be exploring the wood, discovering its history, learning about this incredibly biodiverse place, and enjoying the wildflower spectacle unique to ancient woodlands. We'll have a talk on bats with local expert Tom Kenwright and might just see a bat in one of our bat boxes! No dogs please.



24 Saturday 3rd May - 13:45

Sustainable Frodsham?

Meet at Frodsham Station car park by the payment machines (CWAC, South Side)

Grid Ref: SJ 5187 7786 Postcode: WA6 6PT
always.video.skill

Supported by Climate Action Frodsham

Booking is preferred:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

We will be looking at signs of sustainable living in our area, with a walk starting and ending at Frodsham station. The walk is about 3 miles long and will last approximately two hours with stops at points of interest. We will mostly be walking on pavements/paved paths, but there will be some rough ground and some steps. Our highest point will be the churchyard of St Laurence's, Overton. We also plan to mention some changes that need to happen and are interested in ideas that walkers may have about future possibilities. "When we make changes, other people see what we've done and are interested and inspired to follow suit. This adds up to substantial progress." (Quote from Nick Parsons, who has worked for over 35 years in energy-efficient and sustainable building and taught at the Centre for Alternative Technology). Dogs are welcome on this walk: A maximum of 1 dog on a short lead per walker.

For more information, please visit our website: frodshamfestivalofwalks.uk or email: frodshamfow@gmail.com

25 Sunday 4th May - 10:00

Foraging

Meet outside Frodsham Townfield Allotments: junction between Langdale Way and Townfield Lane, Frodsham.

Grid Ref: SJ 5266 7783 Postcode: WA6 7LY
tunnel.apples.counts

Supported by Rotary in Frodsham and Helsby

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

A real opportunity for people to try some seasonal foraging with [redacted] will help you to safely find and identify the plants and fungi on your "doorstep". He will help you to ascertain whether they are edible, medicinal or poisonous, and how they fit into the larger eco-system. He likes you to get hands-on with the items you find, so expect to be nibbling on the tastier wild food you collect as we walk around. David is one of the most respected foragers and naturalists in the North of England and North Wales. and will guide you into the world of wild food and natural history. The walk will last for two hours and cover approximately one mile. Dogs are welcome on this walk; a maximum of 1 dog on a short lead per walker.

26 Sunday 4th May - 14.00

Trees - identification, mythology and folklore

Meet at Frodsham Wood car park

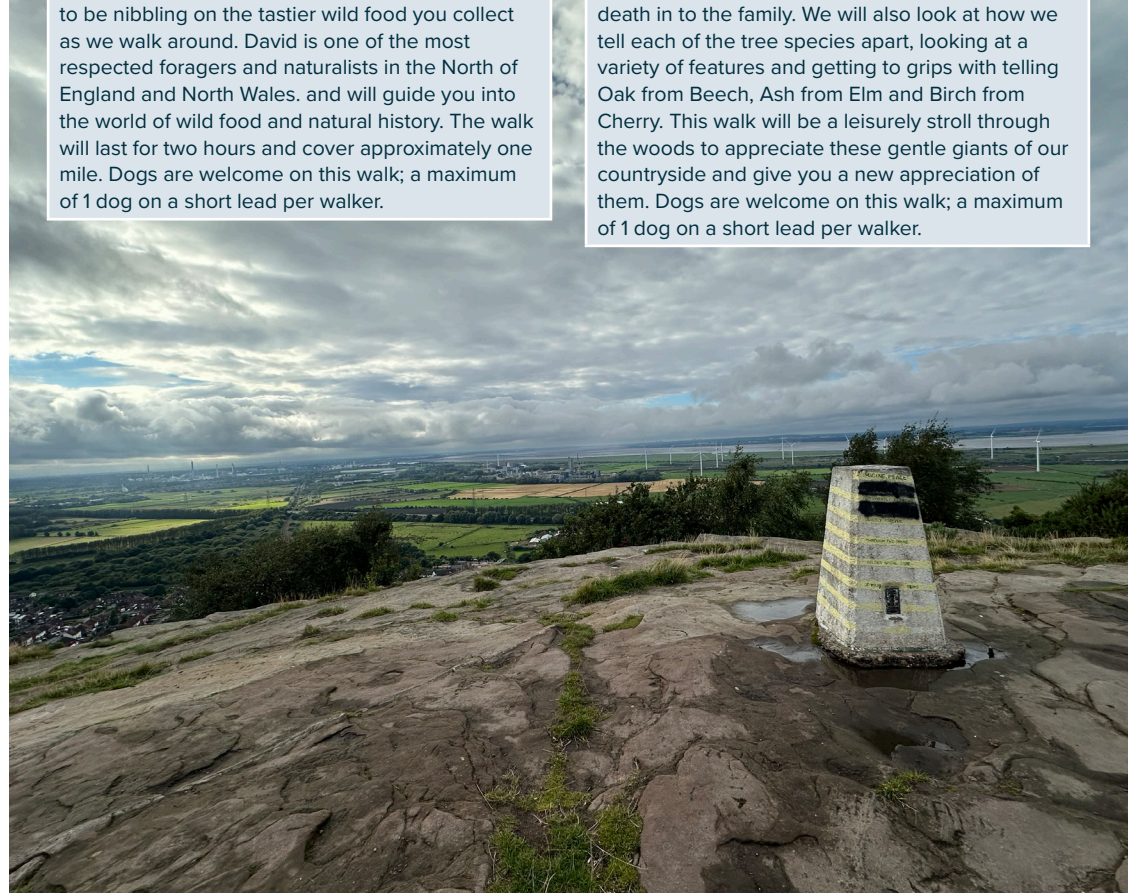
Grid Ref: SJ 5182 7609 Postcode: WA6 6HE
marathons.commented.embraced

Supported by Rotary in Frodsham and Helsby

Booking is essential:

Visit our website [redacted] for booking instructions, and to book your place(s). Max - 30

A 2-mile walk through the woods to discover more about some of the more obvious plants in our countryside, trees, taking approximately 2 hours. We will walk and discuss some of the mythology and folklore that go along with them, explaining why, according to Celtic mythology, Hawthorn bakes the sweetest bread, why Sycamore is the lover's tree and why burning Elder wood may invite death in to the family. We will also look at how we tell each of the tree species apart, looking at a variety of features and getting to grips with telling Oak from Beech, Ash from Elm and Birch from Cherry. This walk will be a leisurely stroll through the woods to appreciate these gentle giants of our countryside and give you a new appreciation of them. Dogs are welcome on this walk; a maximum of 1 dog on a short lead per walker.



COMMEMORATING 200 YEARS OF RAIL

2025 marks the 200th anniversary of the modern railway. A British innovation that's continued its journey across the globe. Through a year-long series of activities and events, Railway 200 will explore how rail shaped Britain and the world. And, as today's railway modernises and gears up for growth, Railway 200 will also look to the future, encouraging more people to take the train and inviting the next generation of pioneering talent to join the railway and become the history-makers of tomorrow.

North Cheshire Community Rail Partnership is a volunteer-led association of partners who have a common vision to play a positive and proactive part in the communities we serve. Our vision is "Everyone Proud of our Railways". We will be

successful when our diverse communities are proactively engaged with, and proud of, their railways because they recognise the contributions that they make to this being a great place to live, study, or work in, and to sustainable economic and social development - enriching lives and allowing our part of Cheshire to thrive.

Frodsham is well connected by train - with frequent direct services to and from Warrington, Runcorn, Manchester, Liverpool, Chester and North Wales - so please think of travelling by train when visiting the Frodsham Festival of Walks.

www.northcheshirecrp.org
www.nationalrail.co.uk
www.railway200.co.uk



27 Sunday 4th May - 09.30

Christleton Walk

Meet at Christleton Pit (village pond) car park

Grid Ref: SJ 4439 6599 Postcode: CH3 7AH
sketch.admiral.skinny

Supported by Cestrian (Chester) Ramblers

Booking is essential:
Visit our website [\[redacted\]](#)
for booking instructions, and to book your place(s).
Max - 20

A 6-mile circular walk taking about 3.5 hours, from Christleton Pit (village pond) car park towards Littleton and on to the Shropshire Union canal. We then head to Waverton where we will have a refreshment stop, before joining the Baker Way, then across fields back to Christleton. Please wear sturdy boots and appropriate clothing as parts of the walk may be muddy. No dogs please.

28 Monday 5th - 09.30

Family introduction to Castle Park's bird life

John Davies

Meet in Castle Park main car park, Frodsham

Grid Ref: SJ 5137 7747 Postcode: WA6 6SB
intervals.timing.bunch

Booking is essential:
Visit our website [\[redacted\]](#)
for booking instructions, and to book your place(s).
Max - 20

An introduction to some of the common birds that can be seen and heard in Castle Park. We shall try to identify some of the bird songs and calls that we hear, as well as those birds we see. A gentle stroll of approximately 1 mile and lasting for 2 hours, that will involve some slopes. Binoculars would be useful but not essential. No dogs please.

29 Monday 5th May - 10.45

A walk right around Frodsham

Meet at Frodsham Station main car park by the payment machines (CWAC, South Side)

Grid Ref: SJ 5194 7792 Postcode: A6 6PT
silly.noise.galaxy

Supported by the Manchester Pedestrian Club

Booking is essential:
Visit our website [\[redacted\]](#)
for booking instructions, and to book your place(s).
Max - 20

A varied and interesting 12 mile walk taking most of the day. We will travel through different kinds of terrain and do a little road walking. During the walk we will visit the river where we will watch bird life, have views of industry and discuss bits of industrial archaeology, visit Frodsham marsh, the Ship Canal and Frodsham Edge (sandstone). We will walk through woods, dew ponds, and an orchard with good views in most directions, and possibly visit Frodsham caves. We aim to return to Frodsham by 17.30. You will need to bring refreshments for the day's trek. If afterwards, you would like to join us for a post-walk meal at the Queens Head, then please make your own booking in advance, either by phone (01928 730064) or on <https://www.heritagepubs.co.uk/queens-head-frodsham> mentioning FFOW, to ensure that the group is seated together. Dogs are welcome on this walk: A maximum of 1 dog on a short lead per walker.

For more information, please visit our website:
frodshamfestivalofwalks.uk
or email: frodshamfow@gmail.com



The Frodsham Festival of Walks Steering Group - [redacted] and [redacted], would like to thank all their walk leaders, back-markers, volunteers and supporters, without whose tireless efforts the Festival simply would not happen.

Special thanks should go to [redacted] for helping us again to manage our social media campaign.

Walks may be cancelled or changed in adverse weather. Please check our website [redacted] and Facebook page for any changes.



Please remember to save the dates in your calendar or diary for next year's exciting event:
Friday 24th April - Monday 4th May, 2026



Most of the images in this brochure were taken by walkers during previous Festivals of Walks. We would love to include your images next year. Please share them on Facebook and tag our page @frodshamfestivalofwalks. Please send them to our email address too at: frodshamfow@gmail.com



Rebecca Evans AS/MS
Cabinet Secretary for Economy, Energy and Planning
Ysgrifennydd y Cabinet dros yr Economi, Ynni a Chynllunio



Llywodraeth Cymru
Welsh Government

Ein Cyf/Our ref: DNS 3279787– qA2233203

Mr Steve Harding
Axis
1st Floor, Barfield House
Alderley Road
Wilmslow
SK9 1PL

E-mail: [REDACTED]@axis.co.uk

21 October 2025

Dear Steve Harding,

**TOWN AND COUNTRY PLANNING ACT 1990 - SECTION 62D THE DEVELOPMENTS
OF NATIONAL SIGNIFICANCE (WALES) REGULATIONS 2016
APPLICATION BY RWE RENEWABLES UK FOR A PROPOSED DEVELOPMENT
COMPRISING THE ERECTION OF A SOLAR FARM, BATTERY STORAGE UNITS,
ASSOCIATED INFRASTRUCTURE, ACCESS LANDSCAPING AND GRID CONNECTION
AT LAND BETWEEN THE M4 MOTORWAY AND THE SOUTH WALES MAIN LINE
RAILWAY, NEAR LLANWERN, UNDERWOOD AND BISHTON.**

APPLICATION REF: DNS 3279787

1. Consideration has been given to the report of the Inspectors who examined the Development of National Significance (DNS) application.
2. In accordance with section 62D of the Town and Country Planning Act 1990 and regulation 3 of the Developments of National Significance (Specified Criteria and Prescribed Secondary Consents) (Wales) Regulations 2016, the application was made to the Welsh Ministers for determination.
3. A copy of the Inspector's report (IR) is enclosed. All references to paragraph numbers, unless otherwise stated, relate to the IR.

Main Considerations

4. The Inspectors sets out the main considerations in IR 77:
 - the effect on ecology;
 - the effect on the landscape character and visual amenity of the area;

Canolfan Cyswilt Cyntaf / First Point of Contact Centre:
0300 0604400

Bae Caerdydd • Cardiff Bay
Caerdydd • Cardiff
CF99 1SN

[REDACTED]@gov.wales
[REDACTED]@llyw.cymru

Rydym yn croesawu derbyn gohebiaeth yn Gymraeg. Byddwn yn ateb gohebiaeth a dderbynnir yn Gymraeg yn Gymraeg ac ni fydd gohebu yn Gymraeg yn arwain at oedi.

We welcome receiving correspondence in Welsh. Any correspondence received in Welsh will be answered in Welsh and corresponding in Welsh will not lead to a delay in responding.

- the effect on the setting of historic assets in the locality; and
- whether any harm identified in relation to the foregoing considerations is outweighed by the benefits of the scheme, particularly its contribution to renewable energy generation and combating the effects of climate change.

Ecology

Designated Sites

5. The Inspector notes that the proposed scheme is not located within any internationally designated ecological site, but it lies in close proximity to the Severn Estuary SPA, SAC, and Ramsar site, as well as the River Usk SAC. In correspondence dated September 2024, Natural Resources Wales (NRW) confirmed that, subject to the implementation of appropriate mitigation measures, the development is not likely to have an adverse effect on the integrity of these international sites. This has been treated as NRW's formal advice under Regulation 63(3) for the purposes of an Appropriate Assessment. However, part of the site—specifically the south-eastern portion—falls within the Gwent Levels – Redwick and Llandeenny Site of Special Scientific Interest (SSSI), which is designated for its aquatic plants and invertebrates associated with the reens and ditches of the drainage system. NRW has advised that the special ecological interests of the SSSI depend on maintaining water quality and quantity, as well as the continued existence and management of the drainage system. Any development that negatively affects these factors could harm the wildlife for which the site was designated, including the Shril Carder Bee (SCB), one of the UK's rarest bees and a key feature of the SSSI. (IR 80-83)

Shril Carder Bee (SCB) and its Habitat

6. The SCB was not found during surveys, but parts of the site offer suitable habitat. While NRW and others questioned the survey's timing and coverage, the applicant focused on identifying food plants and proposed enhancing wildflower grassland to support SCB. Although SCB is a qualifying—not originally notified—feature of the SSSI, its habitat is considered important. The Inspector goes on to consider the effect on SCB and the related policy compliance of the development in later paragraphs, but for the purpose of considering SCB solely in the context of the SSSI designation is satisfied that a Landscape and Ecological Management Plan (LEMP) condition could secure habitat improvements and help prevent further decline of the species. (IR 84 – 89)

Aquatic Invertebrates

7. The Inspector is satisfied with the survey in respect of aquatic invertebrates. Incorporated mitigation includes a 7 metre buffer to ditches and a 12 metre buffer to reens to provide suitable mitigation for aquatic features (IR 90-94)

Water Quality

8. The Inspector's Report highlights that concerns were raised about potential water pollution from toxic metals in solar panels and chemicals used for cleaning. However, the applicant clarified that modern ground-mounted solar panels do not contain toxic metals, and the types of panels used in domestic settings with such risks are unsuitable for this development. To address any residual concerns, a condition is proposed requiring a Water Quality Monitoring Plan, including baseline data, regular reporting, and contingency measures. Overall, the Inspector concludes that there is no

substantive evidence that the solar farm would harm water quality or the SSSI. (IR 95-99)

Protected Species

9. Surveys confirmed the presence or potential presence of protected species on the site. For the SCB, the Inspector notes that concerns remain about survey timing and whether habitat mitigation is sufficient. In terms of SCB, the Inspector is not certain that the development would not result in the depletion of a rare bee population already under threat of extinction.
10. Several protected bird species use the site although most of the ornithological interests is of site or local value. However, there is particular concern for Lapwing, a red-listed species with a declining local population. While a 12-hectare mitigation area is proposed, NRW and others question whether it is large enough to fully compensate for habitat loss or support population recovery. Overall, the Inspector is not certain that the Lapwing mitigation area is a sufficient size to at least compensate for the loss of arable and open pasture habitat let alone reach the level of 'enhancement' needed to meet the section 6 duty in the Environment (Wales) Act (the Act).
11. Barn Owls are assumed to breed on-site, and mitigation will be included in the LEMP. Bats, dormice, and water voles are also considered, with NRW satisfied that proposed measures—such as habitat retention, new planting, and species-specific protocols—are adequate.
12. Nevertheless, the Inspector considers their concerns in respect of the potential harmful effects on Lapwing and SCB are such that they offend the duty in the Act to protect and enhance biodiversity. (IR 100-113)

National Planning Policy Concerning Development in a SSSI

13. Paragraph 6.4.25 of Planning Policy Wales (PPW) is clear that development in a SSSI which is not necessary for the management of the site must be avoided. The Inspector concludes that while the proposed solar farm would contribute to renewable energy targets and offer ecological benefits, it does not meet the policy requirement of being necessary for the management of the SSSI. The benefits are considered secondary to the development's primary purpose. (IR 114 – 120)
14. The Inspector has considered, with reference to paragraph 6.4.27 of PPW, whether "wholly exceptional circumstances" apply. Having taken account of the particular set of circumstances in this case, the Inspector does not consider the proposed development comprises wholly exceptional circumstances. (IR 120- 124)

Step-wise Approach

15. The Inspector explains that the stepwise approach in PPW is to ensure biodiversity and ecosystem resilience are protected through a sequential process: avoiding harm first, then minimising, mitigating/restoring, and finally compensating for unavoidable impacts, with enhancement integrated at each stage. (IR 125)
16. PPW policy clearly prioritises avoiding harm to biodiversity and excludes designated sites from consideration unless development is justified as wholly exceptional. The Inspector finds that the applicant did not demonstrate avoidance of harm or that the development could be justified as wholly exceptional, meaning the stepwise approach was not properly followed. (IR 127–128)

17. Although the Inspector was satisfied with the consideration of alternative sites, they state that limited site availability does not justify breaching national policy protections for biodiversity. As such, the Inspector did not assess later steps of the stepwise approach (minimisation, mitigation, compensation, or enhancement via the DECCA framework). (IR 138-139)
18. Ultimately, while each proposal must be judged on its merits, decisions must align with the development plan unless material considerations suggest otherwise. FW Policy 9 requires a net benefit to biodiversity and ecosystem resilience, especially in areas such as the Gwent Levels, which are ecologically significant. (IR 142–144)
19. Despite proposed enhancement measures, the Inspector concludes that they do not outweigh the harm to designated sites and protected species. The scheme would fail to protect biodiversity in conflict with relevant development plan policies and PPW (IR 145–146)

Other Ecological Matters

20. The ecological concerns around the solar farm proposal focused on potential impacts to species such as Lapwing and SCB, and water quality in local habitats. Comparisons were made by interested parties to mitigation issues at another site (Llanwern Solar), but the Inspector notes that differences in land type and lack of full evidence made direct comparisons unreliable. (IR 147-148)
21. A Welsh Government report on post-construction monitoring in the Gwent Levels was considered by the Inspector. While it highlighted past mitigation failures, it was limited in scope. The Inspector concluded that the report offers useful lessons but does not prove that mitigation and biodiversity enhancement cannot succeed. (IR 149-150)
22. Additionally, new Tree Preservation Orders (TPOs) were noted by the Inspector on the site. The Inspector found that the proposed layout would largely avoid direct impacts on protected trees and hedgerows, with TPOs offering sufficient protection during construction and operation. (IR 151)

Habitat Regulations Assessment (HRA)

23. An Appropriate Assessment (AA) was prepared, drawing on the applicant's HRA report and advice from NRW. The assessment concluded that, with mitigation, the development would not adversely affect the integrity of the designated sites, either alone or in combination with other projects. (IR 152 -154)

Landscape and Visual Amenity

24. The Inspector notes that the Environmental Statement (ES) includes a Landscape and Visual Impact Assessment (LVIA) based on national and local landscape character frameworks, including NRW's LANDMAP and the Gwent Levels Landscape of Historic Interest (LOHI). The site itself is not within a nationally designated landscape, but it lies near sensitive areas, including the Wilcrick Moor aspect area and several Historic Landscape Character Areas (HLCAs). The LVIA identifies significant impacts on visual and sensory aspects, with the development perceived as a built element within a well-vegetated field pattern. While the ES concludes that the overall landscape character would not be dramatically altered, it identifies Moderate Adverse effects, which the Inspector states are acknowledged as significant. (IR 155–162).

25. The Inspector highlights that the historic landscape assessment identifies that part of the site lies within HLCA009 Green Moor, a well-preserved area of former back-fen contributing to the wider historic landscape. Cadw argues that the impact on HLCA009 Green Moor should be classified as Major, contrary to the ES's Moderate Adverse assessment. Although the part of this HCLA within the site lies outside the registered LOHI and is separated by existing developments, it still contributes meaningfully to the historic landscape due to its relatively well-preserved condition. The ASIDOHL assessment found the impact on HLC009 to be Severe. The Inspector questions the basis for the lower classification of impact in the ES but accepted that the impact is significant in EIA terms. Although mitigation measures such as vegetation reinforcement and planting are proposed, their effectiveness is uncertain. The Inspector shares concerns that without appropriate mitigation or compensation, the development would cause significant harm to the HLCA, albeit locally within the broader Gwent Levels context. (IR 163–166)
26. Finally, the Inspector notes that while interpretation boards were mentioned in submissions, they were not included in the ES's formal mitigation summary. The Inspector concludes that such measures would not sufficiently offset the scale of harm, especially given the 40-year duration of the development, which was considered a substantial period during which the landscape impacts would persist. (IR 167)

Visual Impact

27. The Inspector identifies key visual receptors as including the high-sensitivity settlement of Bishton, scattered farmsteads, transport corridors, and recreational routes such as the Wales Coast Path and National Cycle Route 4, as well as several public rights of way (PRoWs) crossing or bordering the site. (IR 168–169)
28. The Inspector notes that the Environmental Statement (ES) acknowledged that the development would be visible from open areas in and around Bishton, particularly on rising land to the north. Although the layout was designed to reduce visibility, the ES still assessed a Moderate Adverse effect at worst, reducing to Minor Adverse over time. (IR 170)
29. The Inspector, however, found that the solar array would visually surround Bishton to the north, east, and west, forming a dark, regimented, and conspicuous presence in the landscape. This would interrupt views from multiple directions and detract from the rural character, particularly for users approaching the village. (IR 171)
30. Despite proposed planting and buffers, the Inspector considered the solar panels—up to 3 metres high—would not integrate seamlessly into the landscape. Their scale and uniformity would result in the loss of open fields and introduce an uncharacteristic, engineered element into the rural setting for the full 40-year duration. (IR 172)
31. For users of nearby PRoWs, the Inspector considers that the experience would shift from open, verdant views to a more confined and visually oppressive environment, particularly along the route adjacent to the railway line. Views to the north would be dominated by solar panels on rising land. (IR 173)
32. Similarly, the Inspector notes that users of PRoWs east of Bishton would experience limited visual relief, with solar panels visible in both foreground and background. The Inspector notes concerns from the local authority's landscape officer about skyline intrusion and insufficient screening. (IR 174)

33. Overall, the Inspector considers that the development would introduce extensive man-made features—solar panels, fencing, and infrastructure—along PRowS, creating an imposing visual impact. This would significantly diminish the ability of users to enjoy the tranquillity and rural character of the area, potentially affecting well-being. (IR 176)
34. The Inspector notes that although the ES proposed mitigation through vegetation management and planting, concern remains that the development would still be visible, especially in winter. There was also a risk that maturing planting could block currently expansive views, which are a valued feature of the area. (IR 177)
35. While acknowledging the presence of large-scale infrastructure to the south (e.g. Llanwern Steelworks), the Inspector emphasises that these developments lie south of the railway line and do not intrude upon the more rural, traditional landscape north of it, where the proposed development would be located. (IR 178)
36. The Inspector accepts the ES's conclusion that there would be no significant cumulative visual effects beyond those already assessed. Despite some public concern about the concentration of renewable energy schemes, the cumulative assessment was considered robust. (IR 179)
37. Regarding the consideration of landscape and visual impact, the Inspector finds there would be unacceptable harm to landscape units directly impacted by the scheme. Together with the visual impact on residents and recreational users the Inspector considers these are significant adverse impacts that could not be satisfactorily mitigated. Therefore, the scheme conflicts with relevant development plan policies and PPW. (IR 180)

Heritage Impact

38. The Environmental Statement (ES) assessed cultural heritage impacts using a desk-based assessment, geophysical survey, and archaeological evaluation. While several historic assets lie within 3km of the site, none are located within it. For 8 out of 10 assets assessed, the Inspector agrees with the ES that impacts would be Minor Adverse, Negligible, or result in No Change due to limited intervisibility and existing screening. (IR 181–182)
39. However, the Inspector disagrees with the ES's assessment of the impact on the settings of two listed churches: the Grade II* Church of St Mary, Llanwern, and the Grade II Church of St Cadwaladr, Bishton. (IR 183)
40. For the Church of St Mary, the Inspector accepts that its wider setting includes surrounding open fields, despite nearby infrastructure such as the railway and steelworks. Although the development would be set back and screened with woodland planting, the Inspector finds this mitigation uncharacteristic of the open landscape and concludes that it would sever the church's connection to its historic setting. The Inspector considers the ES's assessment of a Negligible impact and Minor Adverse effect understates the harm. (IR 184–186)
41. Regarding the Church of St Cadwaladr, the Inspector noted that while vegetation limits views in some directions, the church is clearly visible from the west and south, particularly from the highway and adjacent PRow. The proposed wildflower meadow west of the church would not sufficiently screen the solar panels on rising ground to the north and northwest. These panels would dominate views and diminish the prominence of the church tower, especially when approaching from Llanwern. (IR 187–188)

42. The Inspector agrees with Newport City Council that the development would break the visual relationship between the church and its historic landscape setting. The Inspector does not consider the magnitude of impact assessed in the ES as Negligible, with the subsequent level of effect being Negligible Adverse or Minor Adverse, to be a true reflection of the harm that the development would have on the setting of the Grade II Listed Church. (IR 189–190)
43. In terms of archaeology, the southern part of the site lies within an Archaeologically Sensitive Area. The ES proposes non-intrusive construction methods and further investigations to protect potential remains. The Inspector is satisfied that these measures, along with conditions, would safeguard archaeological interests. (IR 191–192)
44. Nonetheless, the Inspector concludes that while archaeological impacts could be managed, the harm to the settings of the two listed churches would not be preserved, in conflict with relevant development plan policies and PPW

Benefits of the Scheme

45. The Inspector highlights that the proposed solar farm would deliver significant environmental and economic benefits. It is expected to offset around 79,500 tonnes of CO₂ annually and contribute meaningfully to Welsh Government targets for 100% renewable electricity by 2035. Additional climate benefits include reduced agricultural intensity, enhanced carbon sequestration, and improved soil health. The scheme also promises local economic gains through construction jobs, skills development, and use of local materials. A community benefit fund is proposed to support local initiatives, although this is not a material planning consideration. (IR 194- 198)

Other Considerations

Flooding

46. The Inspector notes that while construction may cause minor to moderate adverse effects—such as temporary pollution risks and changes to local water storage—these are manageable with mitigation measures. During operation, the shift away from intensive agriculture is expected to improve water quality and reduce runoff, with solar panels raised above predicted flood levels and no vulnerable infrastructure placed in flood-prone areas. NRW confirmed that flood risks are acceptable, and planning conditions will ensure protection of local drainage systems and control of pollution during construction. Overall, the Inspector concludes the scheme is considered acceptable in terms of flood risk. (IR 200-207)

Highway Safety

47. The Inspector concludes that with appropriate traffic management during construction, the development is considered acceptable in terms of highway safety. (IR 208-210)

Agricultural Land and Soils

48. The Inspector notes the site does not contain Best and Most Versatile Agricultural Land (BMVAL) and would not significantly harm agricultural land or soil quality. While some peat soils were identified in the southeast part of the site, they do not form part of a designated peatland habitat and would not be significantly affected due to the non-intrusive construction methods proposed. Overall, the Inspector considers the

development acceptable in terms of its impact on agricultural land and soils. (IR 211-215)

Glint and Glare

49. The Inspector notes that the solar panels are typically coated with anti-reflective materials, further reducing potential glare. The impacts on nearby residents and road users are therefore considered minor and not a reason to refuse planning permission. Additionally, the Inspector notes that there is no evidence that glint and glare would significantly affect visitor enjoyment or tourism in the area. (IR 216-217)

Inspectors' Planning Balance and Overall Conclusions

50. The Inspector gives significant weight to the economic benefits of the proposal and its contribution to renewable energy generation, supporting the transition to a low-carbon future in the context of climate change. (IR 218)
51. The Inspector deems the development's impacts on agricultural land, peatland, glint and glare, and hydrology and flood risk to be neutral, and any construction-related disruption is deemed minor and mitigable. These factors are seen as weighing in favour of the proposal, as they do not conflict with planning policy. (IR 219)
52. However, the Inspector finds that the scheme would cause adverse effects on landscape character and visual amenity, particularly for users of public rights of way (PRoWs), and would also result in a significant adverse impact on the setting of heritage assets. These harms are considered considerable and unmitigable, weighing heavily against the development. (IR 220)
53. The Inspector also concluded that the proposal fails to demonstrate compliance with biodiversity duties, particularly in relation to protected species and Sites of Special Scientific Interest (SSSIs). The lack of adherence to the step-wise approach to avoid ecological harm is given considerable weight. (IR 221)
54. In balancing the benefits against the harms, the Inspector finds the benefits of the proposal do not outweigh the harm to landscape character and visual amenity, heritage assets and ecology/biodiversity. These harms are found to breach Policies 17 and 18 of Future Wales, which aim to balance renewable energy development with environmental protection. (IR 222)
55. Given that Future Wales is the most recently adopted and most relevant part of the development plan, and considering the extent of policy conflict, the Inspector concludes that the proposal fails to comply with the development plan overall. (IR 223)
56. Although the applicant argues that the development would be temporary (40 years) and fully reversible in terms of its visual impact, its effect on the landscape or the setting of any heritage asset, the Inspector notes that this represents a generation, during which the identified harms would persist. (IR 224)

Inspectors' Recommendation

57. That planning permission be refused for the development proposed.

Welsh Ministers' Decision

58. I agree with the Inspector's appraisal of the main considerations, the conclusions of the IR and the reasoning behind them, and I accept the recommendation. Therefore, I hereby refuse planning permission for DNS application, reference DNS/3279787.

The Well-being and Future Generations (Wales) Act 2015

59. The Welsh Ministers must, in accordance with the Wellbeing and Future Generations Act 2015 ('the WFG Act'), carry out sustainable development. This includes taking all reasonable steps to meet their well-being objectives.

Well-being objectives

60. I have considered the extent to which refusing planning permission meets the Welsh Government's well-being objectives. The decision would support the objective of "making our cities, towns and villages even better places in which to live and work" by preventing the anticipated harm to landscape character and visual amenity. Similarly, it supports the objective to "Embed our response to the climate and nature emergency in everything we do". The effect of this decision on the other objectives is neutral.
61. In reaching my decision on the application, I have taken into account the ways of working set out at section 5(2) of the WFG Act and 'SPSF1: Core Guidance, Shared Purpose: Shared Future – Statutory Guidance on the WFG Act'.

Looking to the long-term

62. The decision takes account of the long-term objective to make our cities, towns and villages even better places in which to live and work by protecting the local landscape as well as designated heritage assets for future generations.

Taking an integrated approach

63. The decision has taken account of the development plan and its integration of economic, social and environmental strands across spatial scales. It has also taken account of the objectives of those public sector organisations involved in the consultation process which are pursuing their own well-being objectives under the WFG Act such as NRW.

Involving people/Collaborating with others

64. Within the framework of a statutory decision-making process, which is governed by prescribed procedures, the application was subject to publicity and consultation, providing the opportunity for public and stakeholder engagement. Representations received through these procedures have been considered and taken into account in making a determination on this application.

Prevention

65. The refusal of the proposal prevents harm to the local landscape and the setting of designated heritage assets and prevents the loss for future generations.

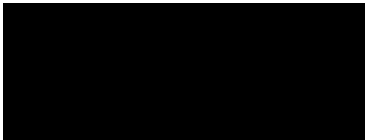
Reasonable steps

66. I have considered whether, having regard to the Welsh Ministers' wellbeing duty, it would be reasonable to take a different decision. I note the alternative decision would be to grant planning permission for the development. This would support the objective to "Build a stronger, greener economy as we make maximum progress towards decarbonisation". It would, however, have a negative impact on the objectives to "making our cities, towns and villages even better places in which to live and work" and to "Embed our response to the climate and nature emergency in everything we do". The effect of this alternative decision on the other objectives would be neutral. Consequently, I consider that the decision to refuse planning permission is a reasonable step in meeting the Welsh Ministers' well-being objectives.

Environmental Information

67. I have taken the Environmental Statement and all other environmental information provided into account in the consideration of this application, as required by the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2017.
68. A copy of this letter has been sent to Newport City Council.

Yours sincerely,



Rebecca Evans AS/MS

Cabinet Secretary for Economy, Energy and Planning
Ysgrifennydd y Cabinet dros yr Economi, Ynni a Chynllunio



Report

by Melissa Hall BA(Hons) BTP MSc MRTPI

an Inspector appointed by the Welsh Ministers

Report date: 23/07/2025

TOWN AND COUNTRY PLANNING ACT 1990, SECTION 62D

APPLICATION BY: RWE Renewables UK

LOCAL PLANNING AUTHORITY: Newport City Council

FOR: Erection of a solar farm, battery storage units, associated infrastructure, access, landscaping and grid connection.

AT: Land between the M4 motorway and the South Wales Main Line railway, near Llanwern, Underwood and Bishton

Ref: DNS/3279787

The Development of National Significance (DNS) Application:

- The application dated 11 April 2024, was made under section 62D of the Town and Country Planning Act 1990 (as amended by the Planning (Wales) Act 2015).
- The applicant is RWE Renewables UK.
- The application was confirmed as valid on 12 August 2024.
- Hearings were held on 26 and 27 March 2025.
- A site visit took place on 2 April 2025.
- The proposed development is the erection of a solar farm, battery storage units, associated infrastructure, access, landscaping and grid connection.

Summary of Recommendation:

That the DNS application be refused.

Preliminary and Procedural Matters

1. As a consequence of the potential impact on the National Sites Network, a Habitats Regulations Assessment (HRA) is included at Annex B to this Report.
2. Within the meaning of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017, the proposed development is EIA development. Accordingly, the application is accompanied by an Environmental Statement (ES).
3. The application was suspended in October 2024 to enable the applicant to provide Further Information which included material to supplement the submitted ES. This information was submitted in November 2024 and was the subject of further publicity and consultation.
4. At the Hearing sessions, the applicant confirmed that several of the 'typical' drawings would be re-issued, albeit with drawing reference numbers that were previously omitted. It was also agreed that further updates would be provided in respect of:
 - Lapwing population and mitigation owing to NRW raising concern regarding the size of the lapwing mitigation area despite its acceptance of the same in previous written representations.
 - The extent of peat on the site and whether it would be impacted by the proposed development.
 - The latest iteration of the conditions schedule following discussions at the hearing sessions.
5. The application was again suspended in April 2025 to allow the applicant to provide the Further Information outlined above, and for publicity and consultation to be carried out.
6. Following the Hearing sessions, I undertook an unaccompanied site visit in weather of sunshine with good visibility. On the same day, I visited extensive parts of the immediate and wider surroundings, including the garden of a residential property in Bishton at the request of its occupant.
7. I note that interested parties have raised concern regarding inaccuracies in the submissions. However, I am satisfied that any deficiencies in the submissions in this regard do not seriously undermine its robustness as a tool to assist the decision maker.

Site and Surroundings

8. The site lies adjacent to the South Wales Main Line railway, approximately 4 km to the east of the city of Newport. The railway line forms the southern boundary, with agricultural fields and areas of woodland within Llanwern Park bounding the site to the north and northwest and agricultural fields to the east. The site lies entirely within the Newport City Council (NCC) administrative area and extends to some 240ha in total.
9. The wider area is characterised, in part, by existing industrial development, including operations at the Tata Steel Llanwern site, the Magor Brewery site and the Gwent Europark Logistics Hub. The village of Bishton is located south of the central area of the proposed development.
10. The south-easternmost portion of the site lies within the Redwick and Llandeenny Site of Special Scientific Interest (SSSI).
11. The proposed cable route would connect the site to the Grid Supply Point at Uskmouth Power Station, which would consist of an approximate 10km grid connection within the highway boundary. Towards Uskmouth Power Station, the cable route would be located in the existing highway adjacent to and within the Gwent Levels Nash and Goldcliff SSSI and then adjacent to an approximate 200m section of the Newport Wetlands SSSI.

Proposal

12. The proposed development would consist of a solar photovoltaic electricity generating station with a maximum export capacity of approximately 99.9MW, with co-located battery storage. The proposed development would include the following components:
 - Photovoltaic solar panels and associated support frames;
 - Central Inverter Stations;
 - Containerised Battery Energy Storage Systems (BESS), including battery storage containers, DC-DC converters and associated hybrid inverters;
 - An onsite 132kv substation;
 - A switchgear building.
 - Approximately 4.9km of improved footpaths/green lanes and 3.3km of new permissive path walkways through the site;
 - Wooden post deer/stock fencing; and
 - Inward facing infrared CCTV cameras on 3m high poles.
13. The proposed ecological enhancements include bee hotels, reptile hibernacula, bird boxes, insect hotels, log piles, wildflower meadows enhanced for shrill carder bees and a dedicated enhanced habitat for lapwing. Over 11km of new native species hedgerow / tree planting would be planted with existing hedgerows filled in / improved together with areas of native species woodland planting and the creation of a community orchard.
14. The electricity generated would be enough to provide electricity for approximately 45,374 typical Welsh homes and result in an approximate saving of 3,180,368 tonnes of CO₂ over the life of the development, compared with generation from fossil fuels. The inclusion of batteries ensures the maximum efficiency of the site, working with the electricity distribution system to enable surplus energy to be stored and released as needed, and provide balancing services to the grid network.

Policy Framework

National Policy

15. Future Wales – The National Plan 2040 (FW) forms part of the statutory development plan. It acknowledges the impacts of a climate emergency and an ecological emergency and identifies key priorities, risks and opportunities to achieve the sustainable management of natural resources, including addressing the climate emergency and reversing biodiversity decline.
16. In relation to climate change, FW establishes support for the renewable sector to attract new investment and to reduce carbon emissions. It also recognises that the need to reverse biodiversity decline and assist nature recovery is of imperative importance in its own right. Environmental pressures are causing global biodiversity decline at rates not previously encountered in human history and the rate of species extinction is accelerating.
17. Policy 9 of FW expects development proposals to demonstrate action towards securing the maintenance and enhancement of biodiversity to provide a net benefit, the resilience of ecosystems and green infrastructure assets through innovative, nature-based approaches to site planning and the design of the built environment.
18. Page 15 of FW explains that ‘deciding where to locate renewable energy generation technology is a spatial issue of such significance that national ambitions are unlikely to be achieved without national planning policies’.
19. At page 96 it states ‘As set out in legislation, applications for Developments of National Significance must be determined in accordance with Future Wales, which is the national development plan for Wales’. In relation to renewable energy it explains that ‘*generating renewable energy is a key part of our commitment to decarbonisation and tackling the climate emergency*’ and refers to the ‘*following ambitious targets*’:
 - For 70% of electricity consumption to be generated from renewable energy by 2030.
 - For one gigawatt of renewable energy capacity to be locally owned by 2030.
 - For new renewable energy projects to have at least an element of local ownership from 2020.
20. Policy 17, ‘Renewable and Low Carbon Energy and Associated Infrastructure’, emphasises that Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs and states that decision makers must give significant weight to the need to meet Wales’ international commitments and Government’s 2030 target in order to combat the climate emergency.
21. Policy 18 permits Renewable and Low Carbon Energy Developments of National Significance subject to satisfying 11 criteria and the requirements of Policy 17. The criteria include giving rise to no unacceptable impacts on nearby communities, protected nature conservation sites and species, built heritage assets and the landscape. The cumulative impacts of existing and consented renewable energy schemes should also be considered.
22. Planning Policy Wales - Paragraph 6.4.5 refers to the duty under Section 6 of the Environment (Wales) Act 2016 and advises that planning authorities must seek to maintain and enhance biodiversity. This includes not causing significant loss of habitats or populations of species and must provide a net biodiversity benefit and enable the

improvement of the resilience of ecosystems by following the DECCA Framework ie taking into account the diversity, extent, condition, connections and adaptability of ecosystems.

23. Paragraph 6.4.15 details the step-wise approach. Using the DECCA framework this approach adopts a hierarchy which is to avoid, then minimise, mitigate/restore, compensate on site, compensate off-site and finally to refuse permission. Enhancement should feature in all steps. The first step, to avoid, has 2 parts. Step 1b) applies to proposals in statutory designated sites which 'are, as a matter of principle, unacceptable'. This principle is extended to sites 'containing protected species and habitats that are irreplaceable' and must be safeguarded. Such sites are described as forming the 'heart of resilient ecological networks and their role and the ecosystem services they provide must be protected, maintained and enhanced and safeguarded from development. It will be wholly exceptional for development to be justifiable in such instances.'
24. Development should take the opportunity to develop green infrastructure where this would improve ecosystems resilience. Paragraph 6.4.12 explains that where biodiversity enhancement proportionate to the scale and nature of the development is not proposed significant weight will be given to its absence, and unless other significant material considerations indicate otherwise, it will be necessary to refuse permission.
25. PPW recognises that Wales' topography lends itself to renewable energy generation and that overall power demand is expected to increase as a result of growing electrification of transport and heat. It describes the benefits of renewable and low carbon energy, as part of the overall commitment to tackle the climate emergency and increase energy security, as of paramount importance. The planning system should facilitate delivery of Welsh, UK and European renewable energy targets and the delivery of decarbonisation. It should also maximise the benefits to our economy and communities whilst minimising environmental and social impacts.
26. PPW is supplemented by Technical Advice Notes (TANs) which provide additional detail on a variety of topics. Of particular relevance to this case are: TAN5, Nature Conservation and Planning; TAN11, Noise; TAN12, Design; TAN15, Development, Flooding and Coastal Erosion; TAN18, Transport; and TAN24, The Historic Environment.
27. The Well-being of Future Generations (Wales) Act 2015 is concerned with improving the economic, social, environment and cultural well-being of Wales. It explains that action on climate change benefits both people and communities in Wales, whilst also contributing to the wider global effort to tackle the causes of climate change and reduce its effects.
28. The WG Energy Generation in Wales: 2021 recorded that renewables in Wales generated the equivalent of 55% of Wales' electricity use against a target of 70% by 2030 and note that deployment of renewables had slowed in Wales and the UK since 2015.
29. In early 2023 the WG consulted on new renewable energy targets. It followed a review which identified a potential pipeline of approximately 1.7GW of renewable energy from on shore wind and solar photovoltaics (PV) as part of an overall pipeline which was estimated as 4.2GW, described as healthy and, if deployed, would approximately double current generation. However, it confirmed that it would not be enough to match future Welsh electricity demand, which is growing.

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30. On 14 July 2023 the Minister for Climate Change adopted revised Welsh energy targets 'to meet the equivalent of 100% of our annual electricity consumption from renewable sources by 2035, and to continue to keep pace with consumption thereafter'.

Local Policy

31. The Newport Local Development Plan (LDP) covers the period 2011 to 2026. It was adopted in 2015. The Council's Local Impact Report (LIR) identifies all relevant policies of the LDP and an extract from the Proposals Map. Also identified are the relevant Supplementary Planning Guidance (SPG) documents.

The Case for the Applicant

32. The application, on submission, was supported by an ES with a Non-Technical Summary, and several other documents including a Planning Statement, Design and Access Statement, Transport Statement and a Technical Statement on BESS.
33. The ES describes the site and its designations, the proposal, the planning policy context, and the need for renewable energy. It explains the assessment process and methodology, including scoping and consultations. Site selection, including alternatives, and project evolution are described. It includes topic chapters that assess the scheme's effect on: landscape and visual impact; ecology; ornithology; cultural heritage; and hydrology and flood risk. The assessments include consideration of cumulative impacts and the effect of mitigation measures.
34. In November 2024, the applicant submitted Further Information which included Supplementary Environmental Information, which included consideration of: (i) whether the Future Energy Llanwern Solar Project should be assessed for potential in-combination effects; (ii) a response to the NCC Highway Authority's concerns regarding vegetation removal and glint and glare impacts; (iii) a response to various ecological matters; (iv) reference to post-construction monitoring of mitigation at the nearby Llanwern Solar Farm and the perceived failings in the performance of these measures; and v) a response to concerns regarding the efficiencies of solar energy conversion and the assessment of lifetime carbon savings.
35. In May 2025, the applicant's post-Hearing submissions included a revised Lapwing Mitigation Strategy and updated Landscape and Ecological Management Plan (LEMP) condition, together with consideration of the buried peat resources, uncovered during pre-determination archaeological trial trenching in the south-eastern part of the site. A final schedule of recommended conditions was also submitted, which takes account of discussions held at the Hearing sessions.

Local Impact Report

36. The LIR provides detail on local planning policies and supplementary guidance and summarises the planning history of the site. It recognises the importance of renewable energy generation, carbon reduction and grid balancing, which it rates as a positive impact. Noting the proposed planting of new trees and hedges together with improved public access, such impacts are identified as positive.
37. In terms of biodiversity the LIR specifically considers the special features of the Redwick and Llandevenny SSSI, birds associated with the Severn Estuary Special Protection Area (SPA) / Special Area of Conservation (SAC) / SSSI and other local SSSIs, other species likely to be present including European Protected Species (EPS) such as Great Crested Newt, bats and dormice. It assesses the overall impact as neutral if mitigation, compensation and enhancement are not secured or delivered but positive if net benefit is secured via appropriate planting and effective on-going management. However, the

impacts on Lapwing and overwintering birds would be negative if the compensation for habitat loss is inadequate in area and / or management.

38. It assesses the landscape and visual impacts as negative.
39. In respect of heritage interests it describes the impact on the setting of 2 listed buildings and 2 Scheduled Monuments (SM) as negative and not capable of being effectively mitigated. Impacts on Registered Parks and Gardens are described as neutral. Similarly, it identifies the impact on the historic landscape as significant and negative and not capable of mitigation. The impact on buried archaeology is assessed as neutral subject to suitable planning conditions.
40. In terms of flooding the impact of the scheme has been assessed as negative given that the recommended limits contained in TAN15 would be exceeded.
41. Furthermore, the impact in terms of agricultural potential over the lifetime of the development (40 years) has been assessed as negative given that the land would be lost to most agricultural forms other than low intensity grazing. Long-term impacts are considered to be neutral subject to effective site restoration secured by condition. In the event that removal of the piles and underground cabling cannot be achieved, its potential would be diminished, amounting to a permanent degradation of the land which would be highly negative.
42. Negative impacts can be expected during the construction and de-commissioning phases due to increased usage of a limited rural road network, albeit it is considered that these can be mitigated by the use of conditions. During the operational phase impacts on the highway system would be likely to be neutral / positive given the possible displacement of some agricultural vehicles from the network. There would be clear risk of harm to the physical fabric of the road network by concentrated HGV arrivals over a very limited time period. This could be negative but could be mitigated by condition.
43. Subject to controlling the internal details of the containerised units, the risk of uncontrolled battery fires is considered manageable and the potential impact is therefore assessed as slightly negative.
44. Noise impacts are identified as negative during construction and de-commissioning but controllable through a Construction Environmental Management Plan (CEMP) condition with operational noise minimal and of neutral impact subject to appropriate mitigation.
45. Glint and glare is not identified as a significant issue and the impact assessed as neutral subject to mitigatory planting.
46. The impact on Public Rights of Way (PRoW) within or immediately adjacent to the site are considered to be negative whereas impacts on recreational routes at distance are assessed as neutral pending the implementation and establishment of planting. Permissive routes must be secured but, overall, improved public access is assessed as positive.
47. The LIR provides suggested conditions (which have subsequently formed the basis of a schedule that has been refined during the course of the application, including at the hearing sessions). Whilst it also identifies the need for a s106 agreement to secure highways condition surveys pre and post development and required repairs, it has since been suggested that this matter could be dealt with by condition.
48. There are 4 appendices to the LIR which address the following in more detail: Historic Environment, Listed Buildings and Registered Parks and Gardens; Contaminated Land; Noise; and Landscape.

Consultation Replies

Responses were received from interested parties, including WG, Dŵr Cymru / Welsh Water (DCWW), Cadw, National Resources Wales (NRW) and the Coal Authority in respect of the initial DNS public consultation exercise. However, following the submission of Further Information, interested parties were re-consulted. The main points raised in relation to the scheme in light of the Further Information are summarised below.

The case for consultees who appeared at the Hearing sessions

Natural Resources Wales

49. It was agreed with the applicant that:

- Further dialogue on any future revisions to the draft, LEMP, CEMP and decommissioning plan would be welcomed.
- Barn Owl mitigation would be addressed within an updated LEMP.
- Ideally, a larger area for Lapwing mitigation would be desirable, however, NRW is satisfied there is a commitment to enhancing the existing mitigation site for increased breeding productivity.

50. However, a number of concerns are still outstanding, which are detailed below:

- Whilst the proposed improvements and enhancements to the SSSI's features are welcomed, the proposed development does not constitute development necessary for the management of the SSSI.
- It is not considered that the step-wise approach has been followed as the application site is partially within the Gwent Levels and therefore impacts would not be avoided.
- The step-wise approach must be followed to maintain and enhance biodiversity.
- It remains unclear why Shriill Carder Bee (SCB) habitat is proposed to be developed on. Given the limited survey effort, NRW is unable to advise whether the impact on the notified feature has been minimised in terms of the siting of the development.

Gwent Wildlife Trust (GWT)

51. GWT's main concerns can be summarised as follows:

- National Planning Policy, FW and the Energy Framework have been inadequately considered.
- The developer has failed to provide evidence that metal pollution would not have significant adverse impacts on biodiversity given the interconnected nature of the rean network both within the proposed site and crucially out into the wider SSSI designated landscape
- The developer has carried out an inadequate survey effort in terms of baseline surveys, specifically relating to the absence of field surveys relating to bats, and also timings, extent, and survey effort in relation to a number of other protected species.

- Mitigation cannot work within the fragile and complicated ecosystem that is the suite of SSSI that cover the Gwent Levels.
- The developer's deficient approach to the precautionary principle and to prevention.
- The developer's documentation contains weakening qualifiers, which undermine the argument that he can successfully mitigate for damaging impacts.
- The developer has carried out an inadequate survey effort, in terms of a commitment to post-construction monitoring.
- Long-term surety of compensation, particularly in relation to the important Lapwing compensation area.
- The development proposal would sterilise part of the site from the point of view of the Sustainable Management of Natural Resources (SMNR), in the context of the delineation of the Gwent Levels as one of nine National Natural Resource Management Areas (NNRMAs) in Future Wales.

Friends of Gwent Levels (FoGL)

52. The main concerns can be summarised as follows:

- Impact on ecosystem resilience on – but not limited to – the Redwick and Llandeenny SSSI.
- The developer has misunderstood (or misinterpreted) the most recent Welsh Government planning policy on SSSI protection.
- The developer fails to acknowledge a) the significance of adverse impacts and b) the existence of evidence that their mitigation approach is profoundly flawed.
- The development would have a harmful impact on key species, including bats and Lapwing by reason of loss of habitat.
- The development would have a prominent visual impact and would result in a loss of rural view for the residents of Bishton thereby affecting wellbeing and mental health.
- Several of the PRow offer long range views across fields, toward the Bristol Channel and the English coastline. However, the panels, associated stock fencing and hedgerow planting to minimise impacts would remove all opportunity to enjoy this vista.

STOP Craig Y Perthi

53. The main objections can be summarised as follows:

- Solar is less efficient than wind and is a grossly inefficient use of land. Hardly any electricity would be generated during the winter months and none at night, with the average energy produced by a solar farm representing only 11% of the installed capacity.
- The development is not temporary - the proposed lease of the site would be for a period of 40 years which is half a lifetime or two generations.
- Fire risks arising from lithium batteries, and toxin risk to residents from smoke plumes. There would be a lack of water supply for firefighting. Hazardous toxic contamination would damage the reens and put residents at high risk.

- 20% of the proposed site is a SSSI. PPW makes clear that development on SSSI is not acceptable. It also states that such sites can be damaged by development adjacent to the boundary and some distance away.
- Adverse effect on highway safety.
- The panel posts would compact the ground causing increased water run-off and flooding.
- Impact on mental health and well-being.
- Construction noise would be a public nuisance. During operation, the constant humming noise from the BESS would be audible and distressing since this is a quiet peaceful area.
- Harm to visual amenity and loss of enjoyment of PRoW.
- Oppressive and disproportionate scale of development for residents of Bishton and Wilcrick.
- Significant harm to biodiversity and ecology.
- The negative visual impact of the solar farm would fundamentally change the tranquil character of the area for residents and visitors and future generations.
- The development would result in a loss of historic landscape and drainage system.
- The impact on peat soils in terms of compaction and loss of possible archaeology.
- Heavy construction traffic and groundworks in close proximity to listed buildings could undermine foundations and stability.
- Open green fields with far reaching views would turn into a semi-industrial, utility grade power complex, with fields of 3m high dark solar panels, together with shipping containers containing electrical equipment and security fencing.
- The loss of productive farmland would threaten food security.
- The main site access via Bishton Road is single track bordered by ancient trees and hedgerows which should not be torn out to accommodate site traffic.
- Glint and glare from the panels would affect homes and gardens, and whilst driving.
- Toxins from panels entering the soil and chemical runoff from damaged panels would contaminate the land.
- Cumulative impact with other proposed solar development.
- Tenant farmers would lose their livelihoods.
- The panels would attract crime and vandalism to a low crime area.
- NCC have previously refused applications due to poor access and proposals not in keeping with the village. The proposal is contrary to local planning policy.

NCC

54. The Council's position at the hearing sessions was consistent with that set out in its LIR. During the course of the application it has provided assistance over the wording of the suggested planning conditions.

Written Representations

55. Campaign for the Protection of Rural Wales objects to the proposal on the grounds of the following:
- Impact on the historic landscape of the Gwent Levels and the setting of Bishton village.
 - Removal of productive agricultural land, thereby damaging commercial farmland and reducing resilience in terms of food supply.
 - Harmful effect on the SSSI, and on biodiversity and wildlife resilience.
 - Impact on health as access to the open countryside is beneficial for everyone.
 - Numerous errors in the application documents, calling into question the accuracy of the submissions overall.
56. Glamorgan Gwent Archaeological Trust (GGAT) confirms that significant prehistoric and Roman / Early Medieval remains have been identified. As a result, it is proposed to utilise 'no-dig' construction methods in areas of high archaeological potential as well as additional archaeological investigations in advance of and during the construction phase. Accordingly, a condition requiring the submission and implementation of a detailed written scheme of investigation is recommended.
57. Cadw has confirmed that it has significant concerns due to the significantly harmful effect of the proposal on the historic landscape. It therefore has cause to object to the application unless the applicant is able to provide more appropriate compensatory measures.
58. RSPB Cymru objects due to potential impacts on designated nature conservation interests and ornithological interests within the application site, which have not been adequately addressed in the ES and Planning Statement. It also outlines an in-principle objection due to conflict with national planning policy.
59. NCC (Countryside & Conservation) raises objection given that there are various public rights of way in this area which, if needing to be diverted, would entail public consultation and identifying suitable diverted routes.
60. Bishton Community Council object to the proposed development on the grounds that the development would have an adverse impact on the rural character and appearance of the area, biodiversity and ecology including the SSSI and agricultural land. There is also concern that little information has been provided on the local community fund and the improvements to local footpaths, together with their long-term maintenance.
61. Llanwern Community Council acknowledges the need for green energy, but object to the proposed development given the effect on the character and appearance of the area, biodiversity and the SSSI, the proximity to residential properties, compacted and contaminated land, highway safety, noise nuisance, increased risk of flooding and the lack of local benefit.
62. John Griffiths MS for Newport East objects to the application on the grounds of its effect on the character and appearance of the village of Bishton, the health and wellbeing of its residents, the loss of access to green space, biodiversity, vulnerability to flooding, risks to highway safety, noise and air pollution.
63. WG Soil Policy & Agricultural Land Use Planning Unit, WG Transport and Network Rail raise no objection to the application. DCWW clarifies that a buffer should be retained between any structure and the main water line. NCC Highway Authority offer no objection subject to the imposition of a condition in respect of a Construction Traffic

Management Plan and clarification that the routine hedge maintenance would not affect glint and glare on the M4 motorway.

64. A number of letters of objection outline concerns including:

- Ecology and biodiversity;
- Noise nuisance;
- Harm to landscape and visual impact;
- Loss of agricultural land and the impact on food security;
- Traffic and highways;
- Loss of green space for health and wellbeing;
- Impacts of glint and glare;
- Health and safety concerns arising from fire risk, crime and emission of electromagnetic waves from the power storage equipment;
- Impact on PRow;
- Flood risk and soil degradation;
- Pollution and contamination of land and water;
- Carbon footprint greater than benefits;
- Harm to archaeological features and the historic environment;
- Alternatives and cumulative impact have not been properly considered;
- Lack of worthwhile community economic benefit;
- Impact on the tourist economy;
- Solar is much less efficient compared to wind turbines or hydroelectric power;
- Describing the project as “temporary” is misleading. 40 years is a considerable length of time;
- The cumulative impacts of existing and consented renewable energy schemes should be fully considered; and

65. Several letters of support confirming that:

- There are many advantages of not only having renewable energy but also the community benefits that would be gained from the construction of the solar farm.
- The benefits of the solar project would help the community which includes grants for local schools to support outdoor learning areas/energy efficiency or new playground facilities, which schools greatly need.

Statements of Common Ground (SoCG)

SoCG between the applicant and WG’s Department for Climate Change and Rural Affairs (DCCRA)

66. A SoCG with DCCRA was submitted in March 2025. The SoCG confirms that there is agreement regarding statutory matters and EIA scope, methodology, baseline, effects, mitigation and cumulative effects. In respect of technical matters, the following was also agreed:

- A Soil Management Plan would be a live document detailing how soils would be managed during construction and operation and reinstated during decommissioning, which would be secured through a suitably worded condition;
- Following a robust site selection process, Best and Most Versatile Agricultural Land (BMVAL) has been avoided.
- The spot use of land for arable purposes would be unviable for the landowner and the use of the land for arable purposes would be inefficient when considering a range of cost factors associated with this use.
- Paragraphs 3.58 and 3.59 of PPW do not apply as the site does not contain BMVAL.

67. There are no matters under discussion or areas of disagreement.

SoCG between the applicant and NRW

68. Whilst the SoCG with NRW is dated March 2025 (albeit not signed by NRW until April 2025), it was updated following the applicant's response to the post-hearing request for further information. The following matters are agreed:

- The LEMP condition should be amended to include a pre-commencement trigger to discharge the condition.
- Barn owl enhancement measures can be included in the LEMP and associated planning condition securing the same.
- There is broad agreement regarding the nature of the prescriptions for Lapwing in the draft LEMP in terms of management.
- The CEMP condition should be amended to include a pre-commencement trigger, amend wording to make reference to a CEMP, remove reference to decommissioning, reference to liaison with consultees.
- The LPA should consult NRW in the discharge of the condition in respect of decommissioning.
- The proposed development is not necessary for the management of the SSSI.

69. However, there remains disagreement regarding the following matters:

- Given the proposed development of the SSSI fields and in light of the sites' population significance in a Welsh context, whether there is insufficient mitigation area proposed for Lapwing.
- Whether the development in the SSSI would have a positive impact on the condition of the SSSI.
- The degree of certainty that the proposed mitigation measures would be successful given the interlinked and fragile nature of habitats and species on site.
- Whether the stepwise approach has been followed.
- Whether there are other mechanisms available for the management of the SSSI.
- Whether the proposed development would provide enhancement benefits to the SSSI.
- Whether the proposed development is likely to damage the SSSI.
- Whether the SCB surveys undertaken are sufficient and accurately reflect the likely impacts.

Conditions and Obligations

70. A draft list of suggested conditions agreed by the applicant and the Council was considered at Hearing session 2. The applicant subsequently submitted a revised list to reflect the Hearing discussion. The Council, NRW and interested parties engaged in that discussion and commented on the applicant's final version of the list. This list forms the basis of the schedule of recommended conditions set out in Annex A, which I have refined partly in light of consultee comments and in the interests of precision. I consider the recommended conditions satisfy the tests set out in Circular 016/2014: *The Use of Planning Conditions for Development Management*. They are necessary and seek to ensure that the development avoids, or where that is not possible, mitigates as far as is reasonable, the potentially harmful effects of the scheme. Those effects and the scope to mitigate are for the most part identified in the ES and other documentary evidence or were otherwise discussed at the hearings.
71. To ensure that the site is properly restored at the end of its 40-year lifetime the approval and implementation of decommissioning works is sought, with a requirement that such works are undertaken earlier should the solar farm permanently cease to operate prematurely.
72. In the interests of visual amenity, conditions requiring the details of the height and exact location of the main components are necessary.
73. The approval and implementation of a Construction Environment Management Plan (CEMP) is required to control the construction work and thereafter the site's management. A Construction Traffic Management Plan (CTMP) and other highway requirements are also to be agreed before development commences, including highway condition surveys to ensure that any damage to the local highway network attributed to construction traffic associated with the development can be identified and remedied.
74. As there may be contaminated land present suitable controls requiring investigation and if required remediation works are recommended. Measures to safeguard drainage features and their ecological value and groundwater quality are recommended.
75. A series of conditions are recommended for ecological interest and include the submission and implementation of a LEMP to cover habitats, protected species, SCB and Lapwing.
76. A programme of archaeological work and safeguarding measures are secured by condition to protect identified buried archaeological resources.

Appraisal

77. The main considerations are:
 - (a) the effect on ecology;
 - (b) the effect on the landscape character and visual amenity of the area;
 - (c) the effect on the setting of historic assets in the locality; and
 - (d) whether any harm identified in relation to the foregoing considerations is outweighed by the benefits of the scheme, particularly its contribution to renewable energy generation and combating the effects of climate change.

Ecology

78. PPW identifies the planning system's key role in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms would be in place to both protect against loss and to secure

enhancement. Addressing the consequences of climate change should be a central part of any measures to conserve biodiversity and the resilience of ecosystems. It identifies the importance of supporting biodiversity, ensuring the protection of statutorily designated sites and protected and priority species, and to secure the enhancement of, and improvements to, ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.

79. Policy 9 of Future Wales identifies the importance of enhancing biodiversity and the resilience of ecosystems.

Designated Sites

80. The site does not lie within an internationally designated ecological site, albeit it is in close proximity to the Severn Estuary SPA, SAC and RAMSAR site and the River Usk SAC. In its correspondence of September 2024, NRW confirms that, subject to the implementation of mitigation measures, the development is not likely to have an adverse effect on the integrity of the Severn Estuary SAC/SPA/RAMSAR and River Usk SAC. I have therefore treated its representations as its formal response to the opportunity to advise me on an Appropriate Assessment (AA) under regulation 63(3).
81. Part of the site, the south-eastern portion, lies within the Gwent Levels - Redwick and Llandeenny SSSI. The SSSI is notified for its range of aquatic plants and invertebrates associated with the reens and ditches of the drainage system.
82. In its representations, NRW advises that the special interests of the SSSI are dependent on water quality and quantity, together with the existence of the drainage system and its continued management. It further clarifies that any development that would have an adverse impact on any of these factors would have an adverse impact on the wildlife for which the area was notified. In particular, it notes that the rotational reen and ditch management suits the habitat requirements of the UK's rarest bee, the SCB, which is a special feature of the SSSI.
83. However, before assessing the scheme against the SSSI specific policy and the step-wise approach that was introduced in October 2023 as part of the changes to Chapter 6 of PPW, I will first consider the main areas of disagreement between the parties regarding the likely effects of the development on the notified and special features of the SSSI.

SCB & its habitat

84. Dealing first with SCB. The ES confirms that no SCB were encountered within the survey area, although three fields in the south-east of the assessment area provide suitable foraging and nesting habitat. These fields comprise 4.7 ha of suitable grassland habitat, of which 1.8 ha lies outside the Gwent Levels SSSI.
85. Interested parties have raised concern regarding the survey effort, both in terms of the number of days over which the surveys were taken and the timing of the second survey (only Queens would be flying in May thus making detection of a population more difficult). NRW adds that the SCB surveys taken were insufficient; the timing of the surveys in May is sub-optimal and, in any event, should have been undertaken across the whole of the site.
86. However, the applicant contends that the timing of these surveys was chosen as it would provide the best opportunity to determine where the preferred food plants of SCB was present. Accordingly, enhancement of the wildflower grassland across the site is proposed specifically with SCB food plants species, including favourite forage plants such as white dead-nettle, hedge woundwort, black horehound and legumes such as

red clover, birds-foot trefoil and meadow vetchling. I heard that later flowering plants are also important and include red bartsia, common knapweed and scabious.

87. On this basis, I have no reason to take issue with the applicant's approach which is based on a qualitative assessment and takes into consideration the rarity of this bee and the likely distribution of their food plants at field margins in this managed agricultural landscape. That is, identifying individual flying SCB is not as important as identifying and quantifying suitable habitat, given my understanding that the loss of habitat has been one of the main drivers of SCB decline.
88. Notwithstanding the above, I note NRW's outstanding concern that it is unclear why SCB habitat is proposed to be developed on and is therefore unable to advise on the impact of the development on, what it refers to as, the 'notified' feature. I heard from the applicant that there is no mention of SCB habitat in the original Gwent Levels - Redwick and Llandeenny SSSI citation. It was subsequently clarified in the SoCG between the applicant and NRW that SCB was not included in the original SSSI notification and was added as a 'qualifying' feature. It further confirms that the semi-improved grassland provides important habitat which is under threat. I heard nothing in oral submissions as to why, in practical terms, the protection afforded to a qualifying feature should not be subject to the same stringent policy tests as those for which the SSSI has been notified.
89. In my opinion, the question of whether the development's siting would avoid, minimise, mitigate or enhance SCB habitat is a policy consideration, which I will deal with later in this report. However, in terms of identifying suitable SCB habitat and securing a SCB management plan dealing with wildflower grassland and habitat connectivity across the site, together with a requirement for the submission of details of seed mix to be used, I am satisfied that the suggested LEMP condition could secure not only the practical delivery of important SCB habitat to prevent further species decline, but also realise improvements.

Aquatic invertebrates

90. Turning to the survey efforts in respect of aquatic invertebrates. I acknowledge the concerns of interested parties that survey work was undertaken on 7 July, whereas the BUGLIFE approved survey method states that such a survey should ideally be completed by early June. I have also given consideration to whether a single survey date in one year is sufficient to adequately record potential seasonal and yearly variations in invertebrates.
91. However, my attention has been drawn to the BUGLIFE guidance, which states "*Invertebrate fieldwork should start in the last week in April and ideally be completed by early June, although useful results can be obtained up to mid October.*"
92. The applicant clarifies that the survey effort undertaken was to sample aquatic invertebrates in reens in the northernmost extent of the Gwent Levels – Redwick and Llandeenny SSSI, given that insects and invertebrates are a special feature of the SSSI as stated in its citation. The survey extent was informed by the SSSI boundary, and targeted open, unshaded watercourses, given that such habitat areas were more likely to support a diverse aquatic invertebrate fauna.
93. Consequently, incorporated mitigation includes a 7 m buffer to ditches and a 12 m buffer to reens, recognizing the need to provide suitable mitigation for aquatic features both for maintenance purposes and to protect the interest features of the SSSI.
94. In this context, and taking into account avoidance of impacts, buffers and favourable changes in land management associated with the proposed development when

compared to modern agriculture, I consider that the survey effort is sufficient and proportionate and, overall, is in accordance with best practice.

Water quality

95. Another area of concern for interested parties relates to the potential effects of toxic metals pollution arising from the solar panels in situ and the run-off from chemicals needed to clean the panels and/or broken panels.
96. The applicant asserts that this matter has been assessed, particularly in relation to potential likely significant effects on the qualifying features of the SSSI, but that there is no evidence to suggest that pollution from toxic metals is a tangible impact from installing ground-mounted solar. It is clarified that no toxic metals would be found within the panels used on modern large-scale ground mounted solar schemes and whilst there may be evidence of trace levels of certain metals being found in some forms of thinner, film panels used in limited domestic applications, they would be wholly unsuitable for ground mounted schemes such as that proposed here.
97. Furthermore, several parties have referenced WG's 2020/21 Soil Policy Evidence Programme assessment '*The impact of solar photovoltaic (PV) sites on agricultural soils and land quality*' (dated March 2023). For interested parties objecting to the scheme, it has been suggested that the findings give serious cause for concern when it comes to constructing solar farms on sensitive sites insofar as run-off from panels can result in rivulets, potentially leading to soil loss by erosion and the presence of metals in the panels and their pilings may lead to soil contamination which cannot be reversed. Meanwhile, in support of the scheme the applicant contends that the assessment makes no reference to in-situ pollution resulting from panel degradation, nor does it highlight any risks of pollution from standard maintenance, such as cleaning.
98. Setting aside my understanding that the Soil Policy Evidence Programme was suspended in January 2022 and not accepted due to the declaration of a conflict of interest by the author, I am not persuaded that there is any substantive evidence that would lead me to the conclusion that there is a risk of pollution likely to lead to damage to the SSSI in association with the use of toxic metals in the solar panels in situ or the run off from cleaning products and maintenance methods. Whilst I acknowledge that the assessment uses language such as '*The impact on soil and land from the zinc coating is unknown*' or '*There is no known reported experience of pile pull out within the solar industry in the UK*', that neither indicates harm nor a lack thereof.
99. In any event, a condition is suggested requiring the submission of a Water Quality Monitoring Plan, which establishes a pre-development baseline and requires a reporting schedule and monitoring regime to identify significant reductions in water quality together with a contingency plan to address any issues.

Protected Species

100. Surveys undertaken on and around the site have identified the presence of protected and priority species. In some instances, where presence has not been confirmed but the potential for presence has been identified, such presence has been assumed.
101. Although I have not found that the effect on SCB and its habitat would be so significant that it would undermine the SSSI, it is also listed as a Species of Principal Importance in Wales under Section 7 of the Environment (Wales) Act 2016. Given this greater level of protection, any impact on this species has the potential to equate to serious harm not least due to its significant population decline, threatened mainly due to a loss of flower-rich grasslands, such that it is now restricted to a few fragmented areas in south Wales and southern England. To my mind, the absence of site wide surveys

taken during optimum time(s) of the year calls into question the extent to which the population number can be relied upon and, in turn, whether adequate replacement habitat and habitat connectivity would be achieved across the site, setting aside the requirement to secure enhancement. Whilst I accept that identifying individual flying SCB so as to provide an accurate indication of the size of the population is not the only means by which the approach to mitigation and enhancement should be based, it would nonetheless add to the confidence that the means of identifying and quantifying suitable habitat to reverse species decline is both robust and can be relied upon as sound. In this context, I cannot be certain that the development would not result in the depletion of a rare bee population already under threat of extinction.

102. In relation to ornithology, Section 7 species recorded using the site in the Ornithological Assessment include Linnet, Reed Bunting, Herring Gull, House Sparrow, Dunnock, Bullfinch, Starling, Skylark, Song Thrush, Bewick's Swan and Lapwing. The assessment shows that these bird species utilize the site throughout the year, both for breeding and winter foraging, shelter and roosting. This includes some species associated with statutory nature conservation sites and species of conservation concern. That being said, the assessment concludes that the application area does not form a core area for any SPA/Ramsar species, with no significant numbers of any individual species identified.
103. The majority of ornithological interest is of site or local value and the ES finds that the proposed development would not result in significant effects. It thus concludes that assuming all mitigation (embedded and secondary) is implemented as detailed in the LEMP, adverse residual impacts on the ornithological interest of the application area would be limited to the displacement of breeding and wintering Lapwing and wintering Snipe.
104. However, an area of considerable concern for interested parties relates to the loss of breeding Lapwing habitat and the efficacy of the mitigation area consisting of land within close proximity (~200m) to where Lapwing were recorded breeding during the surveys. I also note NCC's observations that it is questionable whether the Lapwing / overwintering area is of an adequate size to compensate for the loss of open pasture habitat, noting that Lapwing breeding success within 50m of field edges is half as successful as nests more than 50m from field edges.
105. Lapwing, which is listed under Section 7 of Environment (Wales) Act 2016 and are of Red conservation concern, have been recorded successfully breeding in this location. However, survey results between 2021 and 2024 show the estimated number of breeding pairs in decline, from 21 pairs in 2021, 18 pairs in 2023 and 13 pairs in 2024.
106. The ES confirms that although the distribution of breeding Lapwing has been shown to vary greatly over the three years of survey, the proposed mitigation land represents an area that has consistently supported breeding Lapwing. Breeding success and habitat suitability are dependent on the current farming operations but a variety of habitats are utilised for breeding (such as rushy pasture, tightly grazed pasture, cereal crops and bare stubbles). Additionally, bare ground or very short swards are very attractive to lapwing particularly in early breeding season (March to mid-May). It therefore concludes that a 12ha mitigation area would provide optimal habitat for this bird, immediately adjacent to current breeding areas, minimising displacement and ensuring the current population could continue to breed within the locality. It goes on to anticipate a long-term positive gain for this species by providing a consistent, secure breeding area where nesting success rates are likely to be higher compared to the existing agricultural land. Hence, taking the mitigation into account, no adverse effect is predicted for breeding Lapwing.

107. Despite NRW confirming in written representations in January 2025 that ideally it would have liked a larger area for Lapwing mitigation, it nonetheless confirmed that it was satisfied there was a commitment to enhancing the existing mitigation site for increased breeding productivity. At the Hearing session on Ecology and Biodiversity, however, it took issue with the size of the mitigation area, confirming that it would be of a sufficient size to accommodate only the estimated number of breeding pairs in 2024. In subsequent post-Hearing written submissions, it has clarified that whilst the additional mitigation measures would enhance the currently proposed Lapwing mitigation area, it does not consider there is sufficient land/area available based on the RSPB submissions which conclude that ‘...*the figure of 21 pairs equates to 2% of the Welsh breeding Lapwing population*’.
108. I do not dispute the applicant’s claim that studies have shown the two prime causes of nest loss are predation and agricultural operations, and that predator fences would be installed to minimise risk to nests towards the margin together with the removal of perching features for Corvids, so as to compensate for the loss of arable and open pasture habitat. Nevertheless, it seems to me that it could only do so in relation to the estimated 14 pairs recorded in 2024. In other words, it would be of an insufficient size to accommodate 21 pairs assuming breeding success and taking into account the proportion of the Welsh Lapwing breeding population that the site has accommodated. If the measures for reducing predation pressures were to be successful in minimising risks to nests and the impacts from agricultural practices were to be removed, there is little reason to doubt that the number of breeding lapwing has the potential to increase. In coming to this conclusion, I have also taken into account the observations of interested parties that an assumption that breeding pairs are in decline in line with national trends fails to take into account the natural variation in breeding pairs; although breeding Lapwing have high site fidelity, research shows that second year birds are less faithful and may find a new breeding site. I therefore agree that it cannot necessarily be assumed that the number of breeding pairs will remain static going forward.
109. In this context, I cannot be certain that the Lapwing mitigation area is of a sufficient size to at least compensate for the loss of arable and open pasture habitat, let alone reach the level of ‘enhancement’ needed to meet the Section 6 duty.
110. In terms of Barn Owl, it is acknowledged that the species has been recorded on site, breeding nearby and that the site holds suitable habitat to support the species. Nevertheless, no species specific surveys have been undertaken. Given NRW’s concern that impacts have not therefore been fully considered, the applicant has assumed that breeding Barn Owl use this site and has committed to considering appropriate mitigation and enhancement within the LEMP. Consequently, I find that including Barn Owl mitigation in the scope of the LEMP secured by condition would satisfy the initial concerns raised by NRW in relation to this species.
111. Serious concerns have also been expressed by interested parties in relation to the effect of the development on protected species including: the finding of recent research that solar panels negatively affect bat flight patterns and feeding behaviour; that the dormouse surveys undertaken targeted only the south-east area of this extensive 240ha site and comprised of only 50 tubes; and that water vole could be impacted during the construction phase by reduction in water quality, noise from the machinery and presence of people near their habitat.
112. NRW has confirmed that:
- In relation to bats and acknowledging the findings in the ES that many of the trees across the site may hold potential for roosting bats, it raises no concerns provided

that the hedgerows, watercourses and woodlands are to be retained and protected within the development and that the site would remain unlit.

- Regarding dormice, and given the limited extent of survey and the records for this species 400m from the site, it considers that there is insufficient evidence to support the conclusion of likely absence. However, all hedgerows and woodland would be retained and buffered with the potential for only limited impacts to dormouse habitats associated with access and habitat management in relation to reens and ditches, habitat improvement proposals include c.11km of new hedgerow and tree planting, and the management prescriptions for hedgerows are detailed in the draft LEMP. Additionally, a dormouse method statement is in Appendix 6 of the LEMP with measures to be followed to minimise impacts to dormice during vegetation clearance should they be present.
- It welcomes the additional mitigation measures detailed within the draft LEMP to avoid and/or minimise impacts to water vole during minor works necessary to ditches or reens and ongoing management, and advises that implementation of the same is secured via condition on any permission granted.

113. In relation to the species that have been assessed, the ES does not find that there would be any significant adverse impact. With the exception of Lapwing and SCB, I have taken into account that NRW is satisfied that any matters relating to protected species can be adequately dealt with by the suggested conditions, and I thus find the identified effects would not be unacceptably harmful. Nevertheless, the serious concerns that I have in respect of the potential harmful effects on Lapwing and SCB are such that they offend the duty in the Act to protect and enhance biodiversity.

National planning policy concerning development in an SSSI

114. Paragraph 6.4.25 of PPW states that *'Development in a SSSI which is not necessary for the management of the site must be avoided. This is a matter of principle to ensure that these sites can continue to fulfil their role at the heart of resilient ecological networks. What may be necessary for the management of a site will need to be considered on a case by case basis but it is likely to be limited to activities needed to meet its conservation objectives...'*

115. In written and oral submissions, NRW and other interested parties vociferously dispute that the proposed development constitutes development necessary for the management of the SSSI.

116. I have had regard to the applicant's position that the condition of the SSSI, including the features for which it is designated, is in a poor state and has been in historic decline. Without intervention there is a very clear and present threat to its ongoing viability and integrity. As such, an intervention to halt this decline is much needed and the development offers a secure, tangible and coherent approach to this. Whilst the benefits to the SSSI would be as a result of the solar farm, it is argued that they are necessary to ensure its improvement and management. The alternative 'do nothing' scenario would result in the continued and ongoing decline of the SSSI without any real alternative prospect of improvements coming forward due to the nature of the current land use and cost associated with such work and maintenance.

117. Although the applicant may have been unaware of any alternative proposal to secure these improvements and which have a realistic prospect of coming forward in the near to short term, interested parties and NRW pointed to other means of managing the SSSI, including Land Management Agreements (LMAs), which it considers more closely align with the intended interpretation of paragraph 6.4.25. I heard that such agreements may be entered into between a landowner and NRW for the management of, for

example, ditches or permanent pasture. However, I also understand that to do so is a voluntary arrangement on the part of the landowner and there is only limited funding across Wales for such agreements. Additionally, the applicant argues that it is not practical to rely on any future schemes, such as the Sustainable Farming Scheme, as they are not yet implemented.

118. Be that as it may, from a straightforward reading of the words in paragraph 6.4.25, it seems to me to refer to development that is necessary for the management of the site and not development that would be providing an element of management. In other words, the development's *raison d'être* should be to facilitate the management of the SSSI rather than that proposed here, which is that the management is the by-product of the development.
119. Even if I am wrong on this point, and there is ambiguity or scope for more than one meaning, it is appropriate to consider the purpose of the policy and Chapter 6 overall. In short, it is intended to protect and enhance biodiversity in line with the section 6 duty. Paragraph 6.4.25 explains that the purpose of avoiding development that is not necessary for the management of the SSSI is to ensure that these sites can continue to fulfil their role at the heart of resilient ecological networks while paragraph 6.4.26 goes on to make clear that '*There is a presumption against all other forms of development in a SSSI as a matter of principle.....*'.
120. There is no doubt in my mind that, when set in context, the policy is intended to be an absolute bar to development unless it constitutes that which is intrinsic in terms of its management function. If this were not the case, the implication would be that any development which has a 'bolt-on' element associated with some form of management would qualify. Neither am I convinced that any apparent limitations of other management measures, such as LMAs, means that the proposed development could then be considered 'necessary' management. I have read or heard nothing that persuades me this is the intended interpretation of paragraphs 6.4.25 – 6.4.26.
121. I note that paragraph 6.4.27 of PPW explains that '*In wholly exceptional circumstances and only where development is considered to be appropriate and is not likely to damage a SSSI and there is broad and clear agreement for mitigation and enhancement as part of a development plan should development be proposed.*' To this end, the applicant cites a recent DNS decision at Garn Fach (DNS/3244499), in which WMs accepted the Inspector's findings that a contribution to the Welsh Government's renewable energy targets, together with habitat improvements, is capable of meeting the wholly exceptional circumstances test (my emphasis).
122. In the interests of completeness, and having regard to the decision cited, I will consider the harms alongside the benefits before going on to assess whether the particular set of circumstances in this instance would constitute the '*wholly exceptional circumstances*' described in paragraph 6.4.27 (and in the paragraphs that follow relating to step 1b of the step-wise approach).
123. I recognise that the proposal is for the provision of renewable energy which represents a significant contribution towards the Welsh Government's renewable energy targets and that considerable ecological benefits for both species and habitats may be achieved through *inter alia* a reduction in agricultural processes, implementation of reed management and habitat mitigation / enhancement. Notwithstanding this, I can neither rule out significant adverse impacts on protected species nor justify the development against the in-principle objection to that which is not necessary for the management of the SSSI.

124. Despite the clear benefits to ecology and biodiversity and the contribution the development would make to dealing with the climate emergency, it would not align with the need to avoid development in a SSSI as a matter of principle unless exceptionally justified and the likely harm to protected species using the site. Hence, I do not consider that the proposal constitutes wholly exceptional circumstances in this particular case for the reasons I have already set out.

Step-wise approach

125. The step-wise approach is the mechanism outlined in PPW for ensuring decisions are taken in line with the section 6 duty to maintain and enhance biodiversity and the resilience of ecosystems. The approach is sequential; proposals must first demonstrate how damage to biodiversity and ecosystem functioning has been avoided, before minimising, mitigating/restoring and finally compensating for any unavoidable impacts. Enhancement using the DECCA framework should be secured at each step.
126. Interested parties allege that site selection has been driven by a commercial agreement to deliver 99.9MW of electricity to Western Power South Wales. Rather than avoid construction on a designated site, it is argued that the applicant appears to have selected a site which makes it extremely difficult to avoid protected sites given that almost the entire area between Uskmouth and Bishton is made up of protected sites; all of it part of the Gwent Levels National Natural Resource Area (NNRAA) and a very large part designated SSSIs.
127. Paragraph 6.4.15, step 1a) states that *'The first priority for planning authorities is to avoid damage to biodiversity in its widest sense (i.e. the variety of species and habitats and their abundance) and ecosystem functioning. Where there may be harmful environmental effects, planning authorities will need to be satisfied that any reasonable alternative sites (including alternative siting and design options) that would result in less harm, no harm or benefit have been fully considered'*. Step 1b) adds that proposals in statutory designated sites are, as a matter of principle, unacceptable and must be excluded from site searches undertaken by developers, qualified by *'It will be wholly exceptional for development to be justifiable in such instances'*.
128. I acknowledge the applicant's position that the policy, whilst restrictive, does not prohibit development in designated sites, else there would be no need to include the proviso that development is justifiable in instances that are wholly exceptional. That being said, the thrust of step 1b is to advocate that site searches must exclude designated sites. As I have found there to be policy harms in terms of the site's location within a SSSI and that actual harms to protected species cannot be ruled out, I do not consider that it has been demonstrated that the step-wise approach has been followed nor that the development could be justified as wholly exceptional. In other words, the shortcomings in following the step-wise approach have resulted in development being proposed, in part, on a nationally designated site without either demonstrating that damage to biodiversity and ecosystem functioning has been avoided or that the development represents wholly exceptional circumstances.
129. In coming to this conclusion, I have given consideration to whether the availability of sites is a factor that could contribute to the wholly exceptional test, notwithstanding that step 2 of the step-wise approach requires all locational, siting and design options for avoiding damage to biodiversity to have been exhausted before measures to minimise the impact on biodiversity and ecosystems can and must be explored. In this regard, I note the requirement for it to be demonstrated that *'reasonable alternative sites (including alternative siting and design options) that would result in less harm, no harm or benefit have been fully considered'* (my emphasis).

130. Apart from suggesting arbitrary means of defining a search area, including that it should be county, Wales or UK wide, no party is able to rely on any national guidance on the extent of the search area for the development of a solar farm or how potential sites should be selected. Hence, in the absence of robust national planning policy guidance explaining how search areas should be appropriately defined, the test of reasonableness and proportionality must surely apply, else it has a very real potential to become an insurmountable obstacle. It therefore seems to me that the approach to be taken is one for individual developers to determine based on the requirements of national planning policy and consideration of the relevant practical, social, economic and environmental issues.
131. Chapter 3 of the ES confirms that the key consideration in determining the search area was grid connection, since the cost of connection can make otherwise potentially suitable sites unviable given environmental issues and irradiance levels. The ES goes on to explain that the location of grid connection points are prioritised based upon the solar potential available within different geographic areas of the United Kingdom; Wales, particularly West and South Wales, have irradiation levels that are conducive for large scale investment in solar farms. A grid connection point was established at Severn Power Station, Uskmouth, as there is existing capacity to adequately accommodate the proposed amount of electricity to be generated on-site.
132. On this basis, an Alternative Sites Assessment (ASA) was carried out. The search area was defined as within 7.5km of potential grid connection points with access to the National Grid through a substation with sufficient capacity for the proposed scheme. Within this search area, an exercise excluding areas subject to key planning and environmental constraints, including SSSIs, revealed that there are very limited opportunities for the scale of land to viably accommodate a commercial solar farm of the scale proposed without impinging on certain environmental and planning designations. The next stage was to identify sequentially suitable land having regard to planning policy (reference is made to FW, in particular, Policy 17 and the positive policy framework that exists for large-scale solar developments outside National Parks or Areas of Outstanding Natural Beauty). Having concluded that there were no sequentially suitable sites which have either (i) been allocated / zoned for the type of development being proposed or (ii) constituted vacant Previously Development Land, a series of environmental, operational and land-use criteria relevant to solar development were identified. This included topography, deliverability / availability, remoteness from receptors, glint and glare, and flood risk.
133. The ASA concludes that the application site identified as positive against the majority of criteria prior to any mitigation being applied, with the exception of glint and glare impacts on a small number of residential receptors in Bishton and a small stretch of the M4 motorway, and flood risk associated with the southern portion of the site. However, following further assessments on these matters it was apparent this could be resolved through an iterative design process to modify panel location and orientation to avoid visual amenity impacts, and the siting of any buildings to avoid flooding issues.
134. I appreciate that, as a general rule, the further the point of connection from the development site, the less feasible providing the connection is. In my opinion, given that the viability of the proposal is dependent on the distance to a grid connection point, the cost of the connecting cable relative to the power generated is a significant constraint. I therefore find this matter to be a fundamental consideration.
135. I have already noted that the applicant has made reference to FW Policy 17 in identifying sequentially suitable land, albeit FW Policy 18 also makes clear that DNS will be permitted provided that *inter alia* there are no unacceptable adverse impacts on

national statutory designated sites for nature conservation, protected habitats and species. In this context, I consider the biodiversity matters against which consideration of the suitability of a site should be assessed to be no more or less important than other environmental, operation or land use criteria outlined in the applicants ASA.

136. Although the aforementioned policy requirements of FW Policy 18 were not specifically cited by the applicant, it is evident that the consideration of environmental designations, including SSSIs, formed part of the assessment overall. I thus consider that the search area was determined on a reasonably robust basis and the site selection process was logical, structured and broadly sound.
137. Furthermore, in terms of the question I put to the applicant of removing the panels from the SSSI in its entirety and developing a smaller site, I heard that the site represents the minimum land needed for a viable scheme owing to the cost of the grid connection, the area of land required for the solar arrays and the additional land take for ancillary equipment, landscaping and biodiversity measures. There is no compelling evidence before me that leads me to any other conclusions in this respect.
138. I am thus satisfied that the consideration of reasonable alternative sites is adequate. Returning to the step-wise approach, however, and whilst I do not dispute that there may be limited sites for renewable energy development, this matter does not justify breaching the overriding protective provisions of national planning policy outlined in PPW notwithstanding the significant contribution the development would make to the provision of renewable energy.
139. In light of the above, I have not gone on to consider whether the development would minimize, mitigate/restore or finally compensate for any unavoidable impacts, or whether enhancement would be secured using NRW's DECCA framework (having regard to Diversity, Extent, Condition, Connectivity and Aspects of ecosystem resilience) at all steps.
140. The applicant submits that PPW should be read as a whole and, even with a restrictive interpretation of 1(b), there is not a breach of Chapter 6 overall where ecological enhancements are proposed in tandem with the provision of renewable energy. It is further argued that the policy focus on avoiding damage, as well as maintaining and enhancing the features of designated sites, appears more relevant in the context of permanent development which is not reversible. The policies are silent on temporary development albeit there are obvious differentials between development which result in permanent and irreversible loss compared to temporary development which has a minimal development footprint and which is entirely reversible.
141. Firstly, I am not persuaded that the absence of specific reference to 'temporary' development in PPW means that there is an inherent difference in terms of the potential impact on biodiversity and ecosystems resilience compared with that of permanent development. Loss is loss regardless of the lifetime of the development, and it is particularly damaging where it cannot be reversed.
142. Be that as it may, I do not dispute that each development proposal must be treated on its own merits in assessing its acceptability against the guidance in PPW, but decisions must be taken in accordance with the Development Plan unless material planning considerations indicate otherwise.
143. In this context, FW requires a net benefit for biodiversity and the resilience of ecosystems to be demonstrated as part of development through Policy 9. Of relevance, the explanatory text states that '*There is a need to expand and make connections between designated sites to increase the ability of species and ecosystems to adapt to the pressures of climate change and pollution. In this context, the species and habitats*

of principal importance identified under Section 7 of the Environment (Wales) Act 2016 are a key driver of habitat restoration and creation’.

144. Interested parties have also drawn my attention to the nine National Natural Resource Areas that have been designated in Wales, with the Gwent Levels identified as an important area for biodiversity, recreation, flood alleviation, carbon storage and food production. Also referred to in the explanatory text to Policy 9, corresponding indicative maps produced by NRW provide the starting point for considering resilience of ecological networks for nature recovery and enhancement (net benefit).
145. I have taken into account the enhancement measures proposed as part of this application. However, on balance, I have come to the view that the enhancement does not offset or override the harm to a designated site or protected species that I cannot rule out on the basis of the evidence before me.
146. In conclusion on this main issue, therefore, I find that the scheme would fail to protect biodiversity in conflict with FW Policies 9, 17 and 18, LDP Policies SP9 and GP5 and the guidance in PPW.

Other Ecological Matters

147. Interested parties have made much of the alleged ‘failures’ in mitigation at Llanwern Solar, with particular reference to mitigation for Lapwing, SCB and the effect on the water quality of the reed and ditch habitat.
148. I am of the opinion that caution should be exercised in seeking to directly compare sites which are not the same in all respects. The applicant pointed me to distinct differences between the two sites, for example, the characterisation of the application site as arable land. Neither do I have the full details of the apparent failures of mitigation and clear reasons for the same or, indeed, whether any actual shortcomings are long-term and catastrophic or if the mitigation measures can yet be realised. That is, the full reports pertaining to those matters and the details submitted to the Local Planning Authority pursuant to conditions on the application are not before me. That being said there are nonetheless some useful lessons to be learned in considering the likelihood of success of the mitigation and enhancement measures proposed to be secured by condition. Here, those lessons relate to coverage, flexibility, monitoring duration and remedial action, amongst other things.
149. I also heard from interested parties regarding the WG commissioned report entitled ‘*Gwent Levels Post Construction Monitoring - part of the evidence base required for the Gwent Levels Future Wales: Policy 9 Pilot Project*’, dated July 2024, with NRW and NCC entering into discussions at the Hearing on the same. I acknowledge the concerns that the report catalogues the failures of mitigation across the Levels and that the applicant has failed to demonstrate how the mitigation measures on the application site would produce different results. However, I am aware that the purpose of this report was to (i) assess whether biodiversity impacts were successfully identified, and avoided and/or mitigated and (ii) consider whether action and measures taken at the time could potentially be compatible with present day in relation to the objectives and the principles of Policy 9, to deliver net benefits for biodiversity. The limitations of the report are recognised insofar as it was based on only five sites across the Levels, selected for their availability of sufficient data and documentation to allow for a valid assessment. It also recognises that the assessments of some sites carried out are retrospective as they would have predated many or all of the current policy requirements when originally granted planning permission.
150. Whilst I therefore agree that the report can be helpful in giving some insight into how sites would potentially fare if being determined and monitored in relation to current

policies, and inform learning for future development proposals, I do not believe it purports to convey that mitigation cannot be successful in protecting biodiversity or that enhancement and net benefits cannot be achieved.

151. It has been brought to my attention that new Tree Preservation Orders have been made on the application site. The Council has confirmed that in general terms the development's layout has been designed to avoid existing hedge lines and individual trees which, in most cases, would not be directly impacted by the proposal. In summary I am broadly satisfied that the protected trees can be accommodated within the proposed layout without significant adverse effect subject to suitable protections during construction and decommissioning. The TPOs themselves should be sufficient protection during the operational phase to prevent any unintended consequences associated with ongoing maintenance, such as unauthorised works or felling.

Habitat Regulations Assessment (HRA)

152. Regulation 63 of the Conservation of Habitats and Species Regulations 2017, as amended, imposes a requirement to consider the potential effects of a proposed development on the National Site Network, in this case the Severn Estuary SPA, SAC and RAMSAR site and the River Usk SAC.
153. The application was accompanied by a Report to Inform HRA. As the potential for LSE cannot be ruled out, but which can be avoided through mitigation measures, it is necessary for the decision maker to undertake an AA should they be inclined to grant planning permission.
154. Accordingly, at Annex B I have prepared an AA for the Welsh Ministers in the event that they are minded to approve the scheme. It is informed by the report to Inform HRA and the advice of NRW including in its role as the statutory nature conservation body. The AA concludes that the scheme, either alone or in combination with other projects, would not have an adverse effect on the integrity of the Severn Estuary SPA, SAC and RAMSAR site or the River Usk SAC.

Landscape and visual amenity

155. Chapter 5 of the ES sets out the Landscape and Visual Impact Assessment (LVIA), which follows the principles contained within the Landscape Institute's Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3) and has been prepared having regard to NRW's National Landscape Character Areas for Wales and LANDMAP Aspect Areas to define local landscape character.
156. A formal Assessment of the Significance of the Impact of Development on Historic Landscape areas on the Register of Landscapes of Historic Interest in Wales has also been undertaken. This is known as an ASIDOHL assessment and the results are presented in Appendix 8.2 of the ES.
157. Informed by a 5km Zone of Theoretical Visibility (ZTV), a total of 23 representative viewpoints have been selected to help determine and describe the magnitude of impact and level and significance of effect on landscape character and the views of visual amenity receptors. Sixteen of the viewpoints have been interpreted into photomontages on the basis that these views have the potential to perceive the proposed development.
158. The site itself does not lie within any nationally designated areas for landscape value and/or scenic quality. There are, however, relevant landscape designations within the wider area, including the Gwent Levels Landscape of Historic Interest (LOHI) which is described in the Register as a landscape of extraordinarily diverse environmental and archaeological potential.

159. In terms of understanding national landscape character, therefore, NRW's Landscape Character Map for Wales is relied upon with the site falling within the Gwent Levels national landscape character area with characteristics that include distinctive coastal levels landscape, with distinctive historic patterns of water drainage and coastal defence works; land crossed by a network of drainage ditches known as reens; a variety of field sizes and shapes reflect different phases of reclamation and enclosure with fields bounded by reens, ditches and / or hedgerows; away from the urban fringes, the area is sparsely settled, with small nucleated and ribbon settlements linked by narrow roads; and the Levels are under pressure from development around Newport.
160. An understanding of local landscape character is gained by reference to NRW's LANDMAP landscape character information. In this respect, the proposal is situated within a High and Moderate sensitivity visual and sensory aspect area, an Outstanding and High sensitivity historic landscape aspect area, a High and Moderate sensitivity cultural landscape aspect area, a High and Moderate sensitivity geological landscape aspect area and a High and Moderate sensitivity landscape habitat aspect area. Although the ES recognises that the proposed development would directly affect the selected aspect areas, it concludes that, overall, it would not dramatically change the characteristics of the wider landscape or affect the integrity or setting of landscape relevant designations. It notes that the development would be perceived in close proximity and from further afield to the north but would not appear out of scale with the surrounding landscape. Rather, it would be viewed as a contained built element within a well-vegetated landscape, integrating within the existing field pattern.
161. However, in relation to the Wilcrick Moor aspect area, judged Medium / High sensitivity in landscape terms, NCC considers that the LVIA has understated the development's effect given the conclusion in the ES that, Wilcrick Moor is '*...a rare, distinctive landscape of rectangular and sinuous fieldscapes with reens, hedges and field boundary trees and attractive settlements and farmhouses with a strong sense of place*'.
162. Even if this were to be the case, I consider that the panels would be read within the existing field pattern, distinctive pattern of reens and ditches, and retained / managed hedgerows, which are all distinctive landscape characteristics of this aspect area. Thus, in terms of the effect on the visual and sensory landscape the ES assesses the magnitude of impact to be High and the level of effect to be Moderate Adverse, not least due to the indirect influence of existing development in the surrounding area. Given that Major and Moderate effects, as identified in Table 5.3 of the ES, are generally considered significant in the context of the EIA Regulations, I do not find that that a difference in judgement in terms of magnitude of effect would, in this instance, be an important one. Simply put, it is acknowledged that the effect would be significant.
163. Staying with LANDMAP and the historic landscape, the site is divided between two aspect areas. The High sensitivity Bishton and Wilcrick aspect area (broadly to the north) is a landscape of large regular fields bounded to the north by the M4 motorway and to the west by the urban fringe of Newport. The Outstanding sensitivity Oxleaze and Wilcrick Moor aspect area extends to the south, west and east. Understood to be broadly medieval in date, this landscape was likely enclosed and drained by the 13th century. The ES recognises that there would be impacts on the historic landscape aspect areas but concludes that the magnitude of impact would be High with the level of effect Moderate Adverse, mainly due to the introduction of built elements to these extensive landscapes. Although I have some difficulty understanding the reasons for concluding Moderate Adverse rather than Major Adverse, it is nonetheless clear that the effects on the historic landscape would be substantial.

164. To this end, I also note that Chapter 4 of the ES deals with Heritage assets and includes a discreet element on historic landscape in addition to the LANDMAP assessment referred to above. Although the boundary of the LOHI lies to the south and outside the application site, land within the southern part of the site falls within one of the defined Historic Landscape Character Areas (HLCAs) which has been subject to detailed classification and description. HLCA009 Green Moor contributes to the registered historic landscape and corresponds with the drained former wetland area. It is described as '*...the lowest-lying area of back-fen*' and it is noted that '*...the block to the north of the railway retains its original fen-edge*'. The ES clarifies that this land to the north of the railway, including land within the application site, was drained from at least the 16th century and was enclosed in the 17th or possibly 18th century.
165. Cadw contends that the impact on HLCA Area 009 Green Moor would be Major, rather than the Moderate Adverse impact interpreted by the ES. Although the part of HLCA009 Green Moor within the site lies outside the registered LOHI and is separated from the same by the development at Llanwern Steelworks and Gwent Europark, it makes a contribution to the overall significance of the historic landscape as a reasonably well-preserved area of former back-fen. Given that the ASIDOHL found that the impact on HLCA009 Green Moor would be Severe, I am uncertain of the basis on which this has equated to a Medium magnitude of impact when applying the EIA methodology, with the importance of the HLCA identified as High and the assessed level of effect as Moderate Adverse. Nonetheless, I consider that while impacts are categorised for ease of understanding, the measure of effect is in reality on a continuum, such that the step from one category to another may be a fine distinction. Overall, the ES recognises that the impact is significant in EIA terms.
166. Although the effect has been justified as time-limited and fully reversible, the ES refers to enhanced management, maturing and reinforcement of the existing retained vegetation and selected infill planting together with extensive proposed hedgerow, tree, woodland and orchard planting to further integrate the proposed development into the landscape. However, the reinforcing of retained vegetation or additional planting may not be effective or appropriate in some instances. I therefore share Cadw's concerns that in the absence of appropriate mitigation or compensatory measures, the development would have a significantly harmful impact on the HLCA, albeit in relation to the Gwent Levels overall, the extent of that harm would be relatively localised.
167. It has been brought to my attention that interpretation boards are referred to in the submissions, but these measures are not included in Chapter 10 Summary of Effects and Mitigation of the ES. It is thus not clear whether or not such measures are proposed or the basis on which they have been identified. Even if included, I do not consider that such measures would, alone, be sufficient to compensate for the scale of impact of the proposed development on the historic landscape. There is little doubt that the effect would be a harmful one and, although temporary, 40 years is a significant period of time.

Visual Impact

168. In terms of visual amenity, the key receptors are High sensitivity settlements (principally Bishton), some scattered farmsteads, transport corridors and recreational routes, including the Medium-High sensitivity Wales Coast Path recreational route which follows the coastal fringes some 3.7km to the south of the proposed development at its closest point.
169. The Medium-High sensitivity National Cycle Route (NCR) 4: Celtic Trail crosses the study area from east to west, approximately 1.5 km to the south of the proposed development at its closest point. A number of Medium-High sensitivity PRoW cross and

border the proposed development, including those within the flat levels landscape broadly to the south of the site and within the rising landscape broadly to the north of the site.

170. The ES identifies that from open locations within and on the fringes of Bishton, the proposed development would have the potential to be perceived on the rising slopes above the village and within the expansive flat levels landscape. It recognises that although deliberately set back from the village boundary to minimise its presence, the proposed development would be a prominent built element from selected open locations within and on the fringes of the village. It concludes that at worst, the magnitude of impact would be Medium-High with a Moderate Adverse level of effect, but that over time the magnitude of impact would be Medium-Low, with a Minor Adverse level of effect.
171. It seems to me that there are a number of opportunities for residents and members of the public to use the surrounding predominantly rural area, relaxing and enjoying their leisure time. However, from the fringes of the village, the solar array would surround the village to the north, east and west with its dark coloured, regimented form. Whilst I do not dispute that this may not be appreciated in its entirety from any one vantage point, when travelling towards the village from Llanwern to the west, Underwood to the north or a minor road on the Gwent Levels to the east, a viewer's eye would be drawn to significant elements of this alien form along much of the respective routes, representing a distinctive visual interruption and occupying a large proportion of the overall vista. That is, the development would be conspicuous and highly visible from a number of Viewpoints of Medium and High sensitivity, detracting from the otherwise pleasant rural scene and adversely affecting the experience of the user.
172. Furthermore, the largely undeveloped and open nature of the fields which provide a backdrop to this traditional village would be harmed. Whilst I accept that there would be gaps between the rows of solar panels together with buffers around the boundaries where additional hedgerow and tree planting is proposed partly to enhance the landscaping and screen the development, there is no doubt in my mind that the surface of the affected fields would be densely packed with solar arrays for the most part. I do not consider that the panels could be properly described as low-lying with an assessed maximum height in the order of 3m. In this context, the solar arrays would not be absorbed as seamlessly into the landform as may have been suggested. It therefore follows that the vast and continuous rows of such modern precision-engineered structures, arranged in a regimented form, would result in the loss of open fields and would represent an uncharacteristic element in the predominantly rural setting to the village for a period of 40 years.
173. From the PRoW which runs adjacent to the railway line, the experience for users would go from one of open fields and verdant views to the north to a much narrower, confined and oppressive walk between a solar array to one side and the railway line to the other, described in the ES as a grassland corridor with a 10m offset to development. The views to the north would also be altered along this route, with the rising land covered by solar panels dominating the outlook.
174. Likewise, for users of the PRoW to the east of Bishton, there would be little visual relief in the landscape from the fields covered with solar panels in the foreground especially when viewed in the context of further solar arrays on the rising land to the west and rear of the dwellings in the village. In particular, NCC's Landscape Officer draws attention to views where panels will break skylines and notes a lack of screening to the east where the development will be visible from recreation routes, including PRoW, suggesting impacts may be greater than assessed.

175. Overall, I am concerned that users of the PRow would be faced with rows of solar panels and perimeter fencing and/or ancillary infrastructure / containers as they crossed the site, substantially increasing the apparent presence of man-made features to such an extent that the development would appear monolithic and imposing along a significant part of a journey.
176. In my opinion, this would represent a major adverse impact on visual amenity significantly affecting the receptors' ability to enjoy the tranquillity and rural character of the area and potentially affecting their well-being.
177. I note the claims in the ES that the management of existing vegetation, in combination with the growth of the extensive landscape mitigation measures would help to restrict the influence over time. However, the proposed development would still be perceived in views from within and on the fringes of the village, in particular during the winter months. I also share NCC's concern that there is a clear risk of currently expansive views, which are an attractive feature of this part of the Levels, being constrained by planting once matured.
178. Much has been made of the large-scale buildings and structures associated with the Llanwern Steelworks to the south, Gwent Europark to the south-east and the Magor Brewery to the east dominating the landscape and views. I further acknowledge that the Levels landscape to the south is scattered with lines of pylons, wind energy schemes and a large-scale solar scheme. However, these development lie to the south of the railway line and do not encroach on the otherwise predominantly rural quality of the site's surroundings north of the railway line, which is characterised by a modest, traditional linear village and agricultural fields providing a pleasant verdant setting.
179. In relation to the cumulative effect with developments in the study area, the ES finds that there would be no additional cumulative effects over and above those set out in the LVIA. Whilst I note some objectors concerns over the extent of renewable energy schemes in the general area, I am satisfied that the assessment is a robust one.
180. On this main consideration, and although the proposed scheme would have a localised adverse effect on landscape character, those landscape units directly impacted by the scheme would be unacceptably harmed. Together with the effects on residents, recreational users and users of the PRow, I find the significant adverse impacts to be compelling and there is nothing before me to convince me that such impacts could be satisfactorily mitigated. Consequently, the development conflicts with FW Policy 18, LDP Policies SP5, GP2 and CE4, and with PPW in this regard.

Heritage Assets

181. Chapter 8 of the ES considers the impact of the proposed development on Cultural Heritage, which is supported by an Historic Environment Desk-Based Assessment, a Geophysical Survey Report and an Archaeological Evaluation.
182. It identifies a number of historic assets within a 3km radius of the site, albeit there are no designated historic assets within the site itself. For 8 of the 10 assets assessed, I agree with the conclusions of the ES that owing to topography, the presence of existing development and / or vegetation together with the intervisibility and main views, the impacts would be Minor Adverse, Negligible or No Change.
183. However, I note the disagreement between the applicant and NCC in its LIR regarding the impact of the development on the settings of the Grade II* Listed Church of St Mary, Llanwern and the Grade II Listed Church of St Cadwaladr, Bishton. I will deal with each of these in turn.

184. The Church of St Mary, Llanwern is located to the west of the site. I do not dispute the findings of the ES that its principal setting comprises the churchyard, which is enclosed by a low wall over which views towards and from the Church are possible from the wider surroundings. From these wider views, the setting is characterised predominantly by fields and open land to the north, south and west and by the tree / hedge lined highway to the east with fields beyond. I therefore concur with the ES that the key elements within this wider setting of the Church are the fields that surround it on all sides.
185. In this context, and notwithstanding the presence of the South Wales Main Line railway with overhead electrification equipment and the Llanwern steelworks to the south, the Church retains its open, verdant setting overall. I acknowledge that the edge of the site has been set back to a position approximately 50 m from the churchyard and a linear block of woodland planting is proposed at the western edge along with the enhancement of existing hedged field boundaries to screen the proposed development in views to or from the Church. Nevertheless, in my opinion, a linear band of woodland would be uncharacteristic of the otherwise largely flat, open aspect and low field boundary hedgerows in the immediate surroundings. Whilst I also accept that the impact of the solar arrays on the setting of the Church would reduce over time as the proposed planting matures, in doing so, it would sever the connection between the Church and its landscape, which itself is of inherent value.
186. Hence, as a Grade II* Listed building of High importance, I consider that the assessment in the ES understates the magnitude of impact as negligible, with the subsequent level of effect being Minor Adverse.
187. Turning to the Church of St Cadwaladr, Bishton. This includes some elements of 14th and 15th century date with major restoration in the 19th century. The ES confirms that mature vegetation to the north-west, north and north-east of the Church results in a setting that is less extensive in those directions, albeit the tower of the Church is visible in views from the higher ground to the north and north-west. I saw that there are clearer views of the Church to and from the west and south along the highway and from the PRow which continues to run adjacent to the railway line. Given the topography I have described, the open fields form part of the Church's principal setting when viewed from the highway and PRow, with the tower representing an important and distinguishable feature within the Levels.
188. The ES states that the small field immediately west of the Church would be seeded as a wildflower meadow, not only to provide biodiversity enhancement but to protect the setting of the Church when viewed from the west and south. To my mind, and in the early years of the development, a significant area of land covered by panels would be readily seen in the fields on rising ground to the north and north-west of the modestly sized field containing the wildflower meadow. As one travels towards Bishton from Llanwern, the panels would be visible in the foreground before reaching the wildflower meadow which, of itself, would be unlikely to grow to a height greater than that of the solar panels. The effect of this would be that the Church would be partly obscured from view and that which would remain visible i.e. the tower, would be overwhelmed by rows of dark, regimented solar panels over a vast area on the approach.
189. I also note that Viewpoint 7 in the ES shows the view from the PRow adjacent to the railway line. NCC argues that the relationship between the Church and the land (dry point above the historic back fen) would be completely lost and the mitigatory planting (especially by Year 10) would simply break the visual link between the landscape and the Church tower. I agree.
190. It is for these reasons that I do not consider the magnitude of impact assessed in the ES as Negligible, with the subsequent level of effect being Negligible Adverse or Minor

Adverse, to be a true reflection of the harm that the development would have on the setting of this Grade II Listed Church. That is, views towards the Church from public vantage points would not remain 'unchanged' as is stated in the ES. Even if I were to take into account the visual disruption provided by the overhead electrification equipment of the railway line and the Steelworks which, in any event, do not form part of the immediate setting of the Church, my conclusions in this regard remain unaltered.

191. In terms of archaeology, the southern part of the site lies within an Archaeological Sensitive Area (ASA) as identified in NCC's SPG 'Archaeology and Archaeologically Sensitive Areas', dated August 2015. The submitted geophysical survey identifies areas where significant archaeological remains are likely to be present within the site, consisting of significant prehistoric and Roman / Early Medieval remains. Accordingly, the ES explains that in areas of high archaeological potential it is proposed to utilise 'no-dig' construction methods such that the topsoil (and subsoil if present) would not be removed and the panels would be placed on concrete 'shoes' or similar to avoid ground penetration. Similarly, cables would be hung in troughs rather than placed in trenches. Additional archaeological investigations would be undertaken in advance of, and during, the construction phase.
192. I note that GGAT has raised no objection to the proposal subject to a condition requiring the submission and implementation of a detailed written scheme of investigation. Notwithstanding the concerns of interested parties in respect of this matter, I am satisfied that conditions requiring additional archaeological investigations and preventing penetrative methods of construction in identified areas of high archaeological potential would ensure that buried architectural remains are protected.
193. Be that as it may, although there would be no significant effect on any SM or buried archaeological remains, this does not outweigh the harm to the settings of the Grade II* Church of St Mary and the Grade II Church of St Cadwaladr for the reasons I have already given. Hence, the scheme would fail to preserve the setting of the listed buildings, in conflict with FW Policy 6, LDP Policies SP9 and CE4, and with PPW which identifies the importance of protecting, conserving and enhancing the significance of historic assets, and seeks to ensure that any change should be managed in a sensitive and sustainable way.

Benefits of the Scheme

194. The operation of the development would generate renewable electricity with the potential to directly offset 79,509 tonnes of CO₂ per year, the equivalent of taking 18,275 cars off the road each year for 40 years. Other climate change benefits derived from the development include a reduction in the intensity of agricultural practices at the site. This has climate change benefits in terms of reduced use of fertilizer (which is a carbon intensive material), carbon sequestration through tree and hedgerow planting and reduced soil disturbance leading to increased soil organic matter.
195. Future Wales policy 17 confirms WG's strong support to the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs. It explains that in determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales' international commitments and Welsh Government's target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency. The subsequent July 2023 target is for 100% electricity from renewables sources by 2035.
196. It is clear that solar energy has an important role to play in meeting the Government's renewable energy targets. Whilst reliance on future works to upgrade the national grid

has the potential to delay the project's implementation, especially if other consented schemes come forward in advance of this development, thereby calling into question the timely contribution to meeting these targets, it is a scheme that would significantly add to the Country's renewable energy generation capacity.

197. The scheme would also result in local economic benefits, particularly during the construction phase. It is anticipated that locally-sourced materials would be used in the construction phase where available and construction jobs would also be sourced locally where opportunities to do so arise. The local workforce would gain beneficial skill-upgrades through working on the project, thus benefiting the local economy in the long term. If necessary to bring in workers from outside the area, revenue would be generated for local businesses and the local economy.
198. The Planning Statement suggests that a community benefit fund would be paid directly to Bishton Community Council upon commencement of construction. This would contribute to community projects and initiatives, including rooftop solar installations for residents, village improvements and energy saving measures. Whilst this would align with WG support for the delivery of such local benefits, it has also made it clear that this is not a material consideration in the assessment of planning applications.

Other Considerations

199. Many of the concerns raised in objection have already been addressed in the appraisal of main considerations. However, I consider that the following issues require clarification:

Flooding

200. Chapter 9 of the ES, together with the supporting figures and appendices, sets out an assessment of the likely significant effects of the proposed development on hydrology and flood risk.
201. Welsh Government Development Advice Map, which are read alongside TAN15: Development and Flood Risk (2004) classify low-lying parts of the site to be within Zone C1, which are areas of the floodplain that are developed and served by significant infrastructure, including flood defences. This classification includes the risk of tidal flooding and flooding from watercourses. However, WG published a new Technical Advice Note TAN15: Development, Flooding and Coastal Erosion (2025) during this Examination, which replaces the 2004 TAN15. The Ministerial Written Statement which accompanied the publication of the new TAN, confirms that there will be a transitional period for its implementation. Specifically, applications that were submitted and registered before the publication of the new TAN, as is the case here, shall continue to be assessed against the previous version. Since the Flood Map for Planning which informs the 2025 TAN15 shows that the site lies in Flood Zone 3, which is a TAN15 Defended Zone, there would be no material difference in the policy approach in this case. I shall therefore assess the acceptability of the proposed development against the previous version of TAN15.
202. The assessment was informed by a site specific Flood Consequences Assessment (FCA), which included specific hydraulic modelling of the local watercourses. The ES confirms that the site is currently agricultural land, comprising a mix of pasture and arable uses and current land practices are to leave fields bare after harvest which can negatively impact the local waterbodies. The topography of the site varies, which in turn determines its hydrological landscape. The northern and western parts slope steeply down to the lower lying and flatter southern and eastern areas. Furthermore, the geology beneath the site is varied but likely to be impermeable across the site.

Groundwater levels are likely to be close to the surface in the lower lying parts of the site.

203. The embedded mitigation includes measures to: (i) manage rainwater at source, allowing it to percolate into the ground as per the existing site; (ii) using permeable access tracks and directing runoff from containerised infrastructure to gravel beds; (iii) good construction and operational precautions would manage the risk of soil compaction, spills and pollution incidents (which are likely to be very low frequency given the site use and activities). I therefore have no reason to disagree with the findings of the ES that the significance of the effect of construction on pollution is considered to be Minor to Moderate Adverse.
204. Additionally, I understand that the site performs a flood risk function by storing water upstream of the railway line. The ES concludes that the significance of the effect of construction on local flood risk is considered to be Minor to Moderate Adverse.
205. However, during operation, the cessation of intensive agricultural activities would have beneficial effects in terms of run-off rates and water quality. The establishment of a healthy soil ecosystem is assessed as having a moderate to minor beneficial impact to both water quality and flood risk. The panels themselves would be raised above the predicted flood level inclusive of climate change, where relevant. No vulnerable infrastructure or construction compound would be located in areas of flood risk. The significant of change in relation to flood risk is there assessed as negligible.
206. NRW has confirmed that the FCA shows the risks and consequences of flooding are manageable to an acceptable level. Therefore, it has no objection to the proposal on the grounds of flood risk.
207. In the context of the above, conditions requiring details of a CEMP, reen crossings and any part of the development that could generate increased run-off, provides an opportunity to ensure that the integrity of the local drainage system is protected and any potential pollution instances during construction are controlled.

Highway safety

208. The application site is located in a predominately rural area, and is currently in agricultural use. The various parcels of land currently benefit from minor accesses, usually in the form of a gated field access, as would be expected in this location. Access to the site would be gained via two existing accesses, one to the east of Bishton Road, the other to the west. Both accesses are in the form of simple priority junctions, and serve existing businesses in the area; the first being the existing egg factory along the western side of Bishton Road, the second being Castle Farm which is a dairy farm and shop. Both accesses are frequently used by HGV's, and will be used primarily during the construction phase. Minor accesses will continue to be used to facilitate the site, when necessary. The site when operational is not anticipated to generate a significant amount of traffic and would only generate sporadic vehicle trips as and when maintenance is required. The application is accompanied by a CTMP which fully details the access arrangements for the site during the construction stages.
209. NCC's Highway Authority has confirmed that the CTMP is accepted in principle, subject to the details forming part of a further revision being secured by condition. The applicant has also clarified that as suitable passing places exist along preferred Route 5, mindful that HGVs are currently using the section of the public highway no trees or hedgerow were identified as being required to be removed and any works are likely to be limited to hedgerow trimming / tree pruning to clear vegetation overhanging land in the Highway Authority's ownership. Where any hedgerow or vegetation inhibiting visibility is located on third party land, traffic management arrangements will be implemented, with full

details included in the revised CTMP. On this basis, any works required to vegetation to accommodate vehicular access would not be likely to have any serious adverse effects on the ecological interests of the site.

210. I am satisfied that it has been demonstrated that the proposed development is unlikely to give rise to any significant impacts on the local road network subject to appropriate traffic management measures being implemented during construction and the imposition of conditions securing the same.

Agricultural land & soils

211. Interested parties assert that the land is currently farmed and produces home grown food, and that food security cannot be guaranteed if there is a heavy reliance on imported food. As such, it is argued that land should not be taken out of agricultural production if it is to support a thriving agricultural sector. The Soil Policy & Agricultural Land Use Planning Unit of DCCRA states that the majority of the application site has been subject to a detailed Agricultural Land Classification (ALC) field survey. The Unit has previously validated the ALC survey report and can confirm that the site does not contain BMVAL as defined in paragraph 3.58 of Planning Policy Wales (PPW). It therefore follows that the proposal would not conflict with the aims of PPW to conserve BMVAL as a finite resource for the future.
212. Paragraph 6.4.34 of PPW deals specifically with peatlands, and I note that considerable weight should be given to its protection because of its special importance in underpinning and supporting national natural resources such as soil carbon, biodiversity and flood management, and unless other significant material considerations indicate otherwise it will be necessary to refuse permission. In this case, the presence of peat soils has been identified in association with the trial trenching work and historic findings on site (including paleoenvironmental considerations) as part of the Archaeological Evaluation Report. The Report identifies that certain areas of the site contain a layer of blanket peat beneath a topsoil surface (predominantly alluvium sediment/clayey soils).
213. Paragraph 3.2 of the ALC report states '*Land to the far southeast of the application site is recorded as being in the Midelney association described as stoneless clayey soils mostly overlying peat*'. Meanwhile, paragraph 7.1 of the report summarises the soils identified as a result of on-site surveys and states that: "*Land to the far southeast of the application site recorded as being in the Midelney found to be organic clay topsoils over slowly permeable grey organic clay subsoils with peat found in a number of locations*".
214. In terms of the presence of buried peat within the site, it is important to understand how peat contributes to environmental benefits and thus recognise the impacts that may occur through development. Whilst there is documented evidence of peat resource within the far southeast part of the site, this presence has not translated to any on-site peatland habitat included on the list of Section 7 habitats, being identified. It is also considered that any peat resources within the site would not be significantly affected from a hydrogeological perspective. Given that no deep excavation is planned in this area of the site, there would be no impacts on carbon sequestration. The piling of the solar panel frames would have a negligible impact in terms of releasing stored carbon, as the overlying stoneless clay material would help seal any aluminium frames piled into the ground, preserving the environment in which the peat needs to be maintained and ideally formed.
215. I am also aware that DCCRA has not taken issue with this aspect of the development. Taking these factors into account, together with the lack of compelling evidence to the contrary, I am not convinced that any peat resources present on the site, whilst having some paleoenvironmental significance, are tantamount to '*...habitats which are*

irreplaceable and must be safeguarded referred to in paragraph 6.4.15 and Footnote 129 of PPW.

Glint and Glare

216. Concerns have been expressed over the effects on the living conditions of nearby residents and on the road network. The application is supported by a Glint and Glare assessment, which informs the ES. The ES confirms that a 400 m section of the M4 motorway, covering receptor points 6-9, would be geometrically susceptible to glint and glare impacts under optimal conditions. In relative terms, this represents a section of the M4 that would take 13 seconds to travel at the national speed limit. Although it was concluded that the presence of existing vegetation would mean that potential impacts would be avoided, enhancements including boundary planting were included within the landscape proposals for the relevant area of the site, as indicated on the Enhancements Plan. However, it is important to note that no element of the landscaping proposals was included to specifically mitigate glint and glare impacts on the M4 motorway. Furthermore, the assessment of glint and glare is a worst-case scenario given that it is standard practice for solar panels to be covered with an anti-reflective coating. Consequently, the impacts associated with glint and glare would be low and would not be a reason for withholding planning permission.
217. As with other receptors, visitors and tourists to the area would inevitably comprise individuals with a broad range of disposition towards solar farms. Whilst there may be those who would find such features harmful to their enjoyment of the landscape there is no evidence to suggest that this would have a significant impact on visitor behaviour, for example, in terms of destination choice.

Planning Balance and Overall Conclusion

218. I place meaningful and significant weight on the economic benefits of the scheme and its contribution to renewable energy production supporting the transition to a low carbon future in a changing climate.
219. I also acknowledge the neutral effects of the development in terms of the quality of agricultural land and the effect on peatland, glint and glare, and hydrology and flood risk. Whilst there may be some relatively minor disruption caused during the peak construction phase, including to the road network, all these are within acceptable levels particularly given the extent to which these can be mitigated by the recommended conditions. These factors weigh in favour of the development insofar as they are not in conflict with national planning policy or the Development Plan.
220. On the other hand, and for the reasons identified above, I have concluded that the development would have an adverse effect on landscape character and would cause material harm to visual amenity, including for users of the PRowS. Furthermore, it would have a significant adverse impact on the setting of heritage assets, in conflict with the thrust of national planning policy. I do not consider that the impacts could properly be mitigated and so, when taken in the round, the harms caused by the proposal would be considerable. I find such significant adverse impacts to be factors which weigh heavily against the development.
221. I further consider that it has not been demonstrated that the development would maintain and enhance biodiversity as required by the section 6 duty, the Development Plan and national planning policy guidance. In particular, it would have a harmful effect on protected species and would fail to comply with PPW in terms of justifying development in SSSIs and following the step-wise approach so as to avoid damage to

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biodiversity and the functioning of ecosystems. This is a factor to which I attach considerable weight.

222. When balancing the benefits of the scheme against the harm, and in the light of relevant planning policies, I do not find that the proposal, whilst providing supported renewable energy, would outweigh the harm to landscape character and visual amenity, heritage assets and ecology / biodiversity. Overall, I attach considerable weight to these harms insofar as they result in a breach of the most relevant policies, 17 and 18 of Future Wales.
223. Policies 17 and 18 of FW sets out WG's approach to promoting the increased production of renewable energy in a way that seeks to strike an appropriate balance with the protection of other relevant interests. As FW is the most recently adopted part of the development plan and contains the most directly relevant policy to renewable energy projects of national significance, and given that the conflicts that I have identified are considerable, I conclude that the proposal fails to comply with the Development Plan overall.
224. I note the applicant's contention that the development would be in place for a temporary period of 40 years only and would be fully reversible in terms of its visual impact, its effect on the landscape or the setting of any heritage asset. However, this time period represents a generation, during the lifetime of which, the harms that I have identified would subsist.

Recommendations

225. That planning permission be refused for the development proposed.

Melissa Hall

INSPECTOR

ANNEX A: Schedule of Recommended Planning Conditions

1. The development shall begin not later than five years from the date of this decision.

Reason: To prevent the unnecessary accumulation of unimplemented permissions and on expiry of the permission to permit a review of circumstances by the Local Planning Authority.

2. Subject to the conditions attached to this permission, the development shall be carried out in accordance with the following plans:

- Drawing 3312-01-01 – Location Plan
- Drawing 3312-01-02 Revision A – Planning Layout
- Drawing 3312 01 03 – Enhancements Plan
- Drawing 3312-01-04 Revision A – Typical Gate Details
- Drawing 3312-01-05 Revision A – Typical Access Road Sections
- Drawing 3312-01-06 Revision A – Typical Acoustic Fencing
- Drawing 3312-01-07 Revision A – Typical Fence, Track and CCTV Details
- Drawing 3312-01-08 Revision A – Indicative Cable Trench Section Details

Reason: To ensure that the development is carried out in accordance with the approved documents, plans and drawings submitted with the application.

3. The permission hereby granted shall endure for a period of 40 years from the date when electrical power is first exported ('first export date') from the solar arrays or battery store to the electricity grid network, excluding electricity exported during initial testing and commissioning. Written confirmation of the first export date shall be provided to the Local Planning Authority no later than one calendar month of the First Export Date.

Reason: To comply with the terms of the application.

4. Notwithstanding Condition 2, no part of the solar arrays, substation, fencing and associated infrastructure shall be erected on the site until details of the heights and location of each solar array, the details and material finishes of the substation, fencing and ancillary/associated infrastructure have been submitted to and approved in writing by the local planning authority. Development shall be carried out in accordance with the approved details.

Reason: In the interests of visual amenity and in compliance with Policy 18 of Future Wales: The National Plan 2040.

5. Notwithstanding Condition 2, no part of the battery energy storage structures shall be erected until details and material finishes of the battery energy storage system have been submitted to and approved in writing by the local planning authority. Development shall be carried out in accordance with the approved details.

Reason: In the interests of visual amenity and in compliance with Policy 18 of Future Wales: The National Plan 2040

6. Construction and decommissioning works shall not take place outside the hours of 08:00 hours to 18:00 hours Mondays to Fridays and 08:00 hours to 13:00 hours on Saturdays and at no time on Sundays, Public Holidays or Bank Holidays.

Reason: In the interests of residential amenity, and to accord with Policy 18 of Future Wales: The National Plan 2040 and the Environmental Statement.

7. Development shall not be begun until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall set out details of all on-site construction works; drainage; mitigation; and other restoration, together with details of their timetabling. It shall include details of, and measures to secure:
- (a) the phasing of construction works;
 - (b) the formation and position of the temporary construction compounds; unless entirely in accordance with the submitted details;
 - (c) dust management and suppression;
 - (d) cleaning of site entrance, facilities for wheel washing and cleaning the adjacent public highway;
 - (e) pollution control, including the protection of water courses and ground water; subsoil surface water drainage; bunding and siting of fuel storage areas; sewage and foul water drainage and disposal; and emergency procedures and pollution response plans;
 - (f) temporary site illumination during the construction period;
 - (g) the methods to be adopted to reduce the effects of noise occurring during the construction period to the lowest practicable levels and in accordance with BS 5228: Noise control on construction and open sites;
 - (h) storage of materials, waste materials and spoil, including the height of those stores;
 - (i) the construction of the accesses into the site, the erection of any entrance gates and the creation and maintenance of associated visibility splays;
 - (j) access tracks and other areas of hardstanding, including areas of temporary road matting;
 - (k) the carrying out of foundation works, including the foundation of the solar arrays and any other structures to be installed on the site;
 - (l) method of working cable trenches, including soil storage and back-filling; and details of cable boring methodologies below reens / ditches / other water courses and below hedges;
 - (m) general soil storage and handling;
 - (n) post-construction restoration/reinstatement of the working areas, including cable trenches and area covered by any matting or other areas where the soil has been disturbed or compressed;
 - (o) the sheeting of all heavy goods vehicles construction materials to, or spoil from, the site to prevent spillage or deposit of any materials on the highway;
 - (p) details of the vehicles to be used on the site during construction activities;
 - (q) details of control of surface water to prevent it entering the public highway or carrying sediment to the surface water drainage network in the vicinity of the site;
 - (r) identification of buffer strips adjacent to water courses or retained vegetation features such as hedges or trees and sites where birds are nesting;
 - (s) means to exclude small animals from excavations.

The works shall proceed and be implemented in full accordance with the agreed CEMP.

Reason: To protect the interests of the rural character of the area, the integrity and safety of the highway network and to protect the amenity of residents, ecological interests and to

ensure the site can be restored to agricultural use, and to accord with the Environmental Statement.

8. Development shall not be begun until a revised Landscape and Ecological Management Plan (LEMP) has been submitted to and approved in writing by the Local Planning Authority. The LEMP shall set out details of the existing and proposed habitats, landscape and ecological features at the site. It will include details pertaining to the creation, timing and management of these features for the duration of the scheme's lifetime and will include details relating to the following species and management plans:

a) Management of reen channels and management of ditch channels and banks including hedgerow removal and scrub management;

b) Management of buffer zones along the reens and ditches which shall include details of the implementation and maintenance of adequate buffers either side of watercourses (reens 12m and field ditches 7m);

c) Shrill Carder Bee management plan, covering wildflower grassland and habitat connectivity across the site, details of seed mix to be used;

d) Establishment and management of species-rich grassland and grassland in fields with solar panels;

e) The species to be used to plant up gaps in hedgerows and a specification of planting stock;

f) Biosecurity Risk Assessment and Management Plan to include measures to control, remove or manage Water fern, Japanese knotweed, Himalayan balsam both during construction and operation.

g) Protected species method statements for water vole and dormice to minimise impacts should they be present in areas where works are necessary.

h) Detailed proposals for the indicative habitat planting shown on Figure 4.1 'Indicative Landscape Masterplan'.

i) Detailed Lapwing & Overwintering Bird Management Plan for the Enhanced Bird Habitat identified in Drawing 3312-01-02 A – Planning Layout and implementation of creation prior to construction.

j) Other bio-diversity mitigation / compensation / enhancement features, that is insect / bee hotels, bird boxes, reptile hibernacula, bat boxes and nesting/roosting provisions for Barn Owls (to improve nesting/roosting provisions in accordance with Barn Owl Trust guidelines) shall be provided in accordance with an implementation and management plan for those features. The plan shall:

- Identify the feature in detail;
- Confirm the suitability of its location and how it is to be installed;
- Confirm its monitoring and management for the duration of the scheme's lifetime;
- Confirming the timing of its placement.

The information to include scaled maps and plans to show the feature's position; condition to achieve; planting specifications and schedules (where these will apply).

The LEMP shall include details of short and long-term management and monitoring of the site's ecological features to ensure that the plan(s) is effective in achieving its intended objectives which will be clearly stated in respect of each habitat/species as appropriate. An 'Ecological Monitoring & Contingency Plan' shall be included as part of the LEMP, which sets out the principle aims and objectives of the ecological work to be undertaken

as part of this approval and shall identify a monitoring and reporting schedule that shall have regard to the objectives of the plan. Monitoring Reports shall be submitted to the Local Planning Authority within 1 month of their completion. Objectives shall be short term (5 years and less), mid-term (6-10 years) and long term (11-40 years). The plan shall allow for contingency actions to be taken if monitoring shows stated objectives are not being achieved. Any change in the management of ecological works proposed for the site shall be submitted to and agreed in writing by the Local Planning Authority. Thereafter any contingency or varied management plan shall be carried out fully as agreed.

The development shall be carried out in accordance with the approved details, within the agreed timescales, set out in the LEMP or any other iterations approved by the Local Planning Authority in the event that the proposed monitoring data suggests that specific changes are required. The works shall proceed and be implemented in full accordance with the agreed LEMP.

Reason: To protect the special interests of the Gwent Levels Redwick & Llandevenny SSSI, other ecological features and the rural character of the area.

9. No development shall commence on any part of the development that could generate increased runoff until details have been provided to show how run-off generated from those structures and any associated areas of hardstanding shall be contained and prevented from running off those areas at above existing rates of discharge. Thereafter the agreed scheme shall be implemented fully as agreed prior to the first export date.

Reason: To maintain the current drainage regime in the interests of the SSSIs in the area.

10. No operations of any description (this includes all forms of development, tree felling, tree pruning, temporary access construction, soil moving, and operations involving the use of motorised vehicles or construction machinery), shall commence on site in connection with the development until Root Protection Barrier / Buffer Strip Protection fencing has been installed in accordance with details that have been submitted to and approved in writing by the Local Planning Authority. These details shall include information on the construction details of the fencing and its positioning clearly shown in plan form. No excavation for services, storage of materials or machinery, parking of vehicles, deposits or excavation of soil or rubble, lighting of fires or disposal of liquids shall take place within the areas defined by the fencing. The fencing shall be retained for the full duration of the construction phase of the development, or that part of the development as relevant and shall not be removed or repositioned without the prior written approval of the Local Planning Authority.

Reason: To protect important landscape and water features within the site.

11. No penetrative methods of construction are to be used in the following areas without written approval from the LPA: a) the areas identified in Unnumbered drawing - Proposed 'no-dig' areas Overlaid on Geophysical Survey (ES Volume 3, Figure 8.3) unless an alternative means of archaeological mitigation has been agreed under other conditional discharges approved under this permission; and b) Area 8, as identified by the Archaeological Evaluation Report (ES Volume 4, Appendix 8.4).

Reason: To protect identified buried archaeological resources within those areas.

12. No development within the area of HLCA009 Green Moor shall take place until the implementation of a programme of archaeological work, specific to this location, to assess the paleoenvironmental potential of deposits within those areas and an archaeological mitigation strategy to protect the archaeological potential of deposits within informed by that investigatory work to protect that potential, has been secured in accordance with a

written scheme of investigation that has been submitted by the applicant and approved in writing by the Local Planning Authority.

Reason: To protect the archaeological potential of deposits within the areas of the site that form part of the Gwent Levels landscape.

13. No development that involves ground disturbance shall be completed in the area of the proposed sub-station until such a time as a scheme for archaeological evaluation has been secured in accordance with a written scheme of investigation, which has been submitted to and agreed in writing by the Local Planning Authority. Thereafter the evaluation shall be completed in accordance with the agreed written scheme of investigation and the results provided to the Local Planning Authority before any development that requires ground disturbance proceeds.

Reason: To mitigate harm to buried archaeology in the area of the proposed substation which has been shown to contain archaeological remains.

14. No HGV shall access the site until a revised Construction Traffic Management Plan (CTMP) in broad accordance with the CTMP (29 November 2023) has been submitted to and approved in writing by the Local Planning Authority. The CTMP shall confirm details of:

- Routing;
- Timings of deliveries;
- Vehicle parking;
- Temporary signage;
- Details of temporary traffic management measures, such as traffic lights and temporary accesses;
- All other measures to be taken to ensure the site can be accessed safely and with minimum disruption to the public highway including the green lane.

The development shall thereafter proceed fully in accordance with the agreed CTMP.

Reason: To protect the integrity and safety of the highway network.

15. No development shall take place until highway condition surveys have been carried out on those parts of the local highway network identified in the approved CTMP as being required for construction traffic to access the site, and the results, presented in report format, have been submitted to and approved in writing by the Local Planning Authority. Further highway condition surveys shall be undertaken following completion of construction, and a further report shall be submitted to the Local Planning Authority within 1 month of completion of construction work. Any damage to the road surface, verges, kerbs, pavements or street furniture attributed to construction traffic associated with the development, shall be repaired by the applicant. Where damage is identified and agreed as being attributable to the development, no electricity shall be exported from the development until the means to remedy the identified damage have been approved by the Local Planning Authority.

Reason: To protect the integrity and safety of the highway network.

16. There shall be no permanent illumination on the site unless otherwise agreed in writing by the Local Planning Authority.

Reason: To protect the rural character of the site.

17. Details of the location of the strengthening of existing hedgerow planting and any new tree, hedgerow and orchard planting shall be provided in writing to the Local Planning Authority. Planting shall broadly accord with Appendix 4.3 Draft Landscape and Ecology Management Plan (March 2024) and shall include details of ground preparation, species and planting pattern. Thereafter the new planting shall be implemented by the end of the first full planting season (October to March inclusive) available after the first export date. The new planting and existing planting shall be maintained and managed for the lifetime of the development in accordance with a management scheme that shall be submitted to and agreed in writing by the Local Planning Authority prior to the first export date.

Following completion of the initial planting:

- a) Details, with photographic evidence, must be submitted to the Local Planning Authority within three months following the completion of the landscape scheme, showing the site before and after planting, seeding, fencing has been undertaken, and to confirm this is all in line with the approved documents in terms of plant species, plant size, ground preparation & planting methodology; and
- b) Details, with photographic evidence, must be submitted to the Local Planning Authority submitted by every fifth anniversary of the completion of the landscape scheme, confirming the maintenance and management of the planting has proceeded as approved.

Reason: To protect and enhance existing landscape features on the site and to mitigate harm to rural character caused by the proposal.

18. All areas of grassland not identified for enhanced shrill carder bee habitat (Map 2 of the Draft LEMP) shall be managed in accordance with a grassland management plan that shall be submitted to the Local Planning Authority in writing prior to the first export date. The management plan shall demonstrate how the wider grassland will be managed including how it will be managed to provide wildflower growth in the areas identified as 'wildflower margins' in Map 2. Following the Local Planning Authority's written agreement the wider grassland shall be managed as agreed or in accordance with any other management plan as may be subsequently agreed.

Reason: To promote the special features of the SSSI and to secure wider net benefit for biodiversity.

19. Full details of Tree & Hedgerow removal or any significant tree work (lopping, topping or any other works of reduction) shall be provided in writing to the Local Planning Authority prior to the first export date. The details shall include:

- Precise location of trees and hedges to be removed or worked upon;
- Extent of works if not being removed;
- Removal methodology;
- Timing of removal or other works;
- Mechanisms to prevent disturbance to nesting birds and other fauna;
- Mechanisms to prevent sediment being mobilised and entering the ree system.

No tree or hedge shall be removed or worked upon until these details are agreed in writing. No tree or hedge shall be removed or worked upon that has not been identified for removal or other works and no works shall be carried out that do not accord with the agreed scheme.

Reason: To provide ecological enhancement, to protect landscape features and to protect the interests of flora, fauna and the special features of the SSSI.

20. Details, including the locations, of all proposed reed crossings (other than underground power cables) either temporary or permanent, shall be provided to the Local Planning Authority in writing prior to their construction. Following the Local Planning Authority's written agreement the reed crossings shall be installed as agreed. No other reed crossings shall be installed.

Reason: To protect the interests of the SSSI and the integrity of the local drainage system.

21. No later than 12 months before the 40-year expiration date, a Decommissioning and Site Restoration Plan (DSRP) shall be submitted for the written approval of the Local Planning Authority. The scheme shall make provision for the removal of the solar farm and all other associated equipment and paraphernalia, and the subsequent restoration of the site. The scheme shall include details of:

- the extent of equipment and foundation removal and the site restoration to be carried out;
- the management and timing of any works;
- a traffic management plan to address likely traffic impact issues during the decommissioning period;
- an environmental management plan to include details of measures to be taken during the decommissioning period to protect wildlife, habitats and tree & hedge features on the site;
- identification of access routes;
- location of material laydown areas;
- full details of the removal of the sub-station, solar panels, BESS, any associated buildings and plant, any trackways and sub-surface cabling and all associated works of ground restoration including trench backfilling;
- full details of all works to restore the land to allow for agricultural production following the removal of structures from the site, including removal of piles;
- a programme of implementation.

The approved scheme shall be implemented within 6 months of the expiry of this permission and then proceed fully in accordance with the agreed details of the decommissioning programme. The works shall proceed in full accordance with the agreed DSRP.

Reason: To ensure the site is fully restored to allow agricultural use and to maintain the rural appearance of the area, and to accord with the Environmental Statement.

22. If the solar farm hereby permitted fails to supply electricity to the grid for a continuous period of 6 months, a scheme shall be submitted to the Local Planning Authority for its written approval within 3 months of the end of that 6-month period for the repair or removal of the solar farm and all other associated equipment & paraphernalia. Where repairs or replacements are required, the scheme shall include a proposed programme of remedial works. Where removal of the solar farm is required, the scheme shall include the same details required under the decommissioning condition of this permission. The relevant scheme shall thereafter be implemented in accordance with the approved details and timetable.

Reason: To ensure the solar farm beneficially generates electricity or is otherwise removed to the benefit of the character and appearance and the agricultural potential of the area.

23. Prior to the commencement of any works on the site a Water Quality Monitoring Plan shall be submitted to the Local Planning Authority. The Plan shall establish a pre-development baseline of 12 months, and shall include a reporting schedule to the Local Planning Authority and shall identify the duration of the monitoring regime. All monitoring reports shall have regard to the baseline assessment. In the event that significant reductions in water quality are identified through monitoring then the applicant or any successor in title shall provide a contingency plan to address the issue to the Local Planning Authority in writing. Following the Local Planning Authority's written agreement, the contingency plan shall be implemented as agreed thereafter alongside the monitoring regime or any amended monitoring regime.

Reason: To protect the interests of the relevant SSSI and of other water bodies in the area to the benefit of ecology and the wider environment.

24. Details of the locations and gaps beneath the installed fencing shall be provided in writing to the Local Planning Authority prior to the installation of any permanent fence. Following the Local Planning Authority's written agreement the fences shall be installed as agreed.

Reason: To allow the passage of small / medium animals through the site in the interests of ecology.

25. Prior to the installation of the solar farm details of the construction of any platforms required for the siting of plant or other structures and the slab level of those platforms shall be provided in writing to the Local Planning Authority showing how those levels relate to the levels of adjacent ground and as necessary mitigate flood risk. In areas identified at risk of flooding in the submitted Flood Consequences Assessment mitigation required to protect solar arrays and other equipment from unacceptable flood consequences shall also be provided including levels information. Following the Local Planning Authority's written agreement the platforms, arrays and other equipment shall be built as agreed.

Reason: To protect visual amenity, to limit ground intrusion in the interests of archaeology and to mitigate flood risk as relevant.

26. Details of the Battery Electrical Storage System (BESS) including the Heating, Ventilation & Air Conditioning (HVAC), Battery Management Systems (BMS), temperature and smoke alarms, fire detection & suppression systems and deflagration venting shall be provided to the Local Planning Authority in writing prior to the installation of the BESS. Following the Local Planning Authority's written agreement the BESS shall be installed as agreed and retained as agreed thereafter.

Reason: To ensure that the risk of fire and explosion is minimised in the interests of public safety and the wider environment.

27. Prior to the first export date details of:

- the routing and construction of the permissive paths,
- the details and placement of the proposed benches,
- the details of any interpretive signage proposed, shall be provided in writing to the Local Planning Authority.

Following the Local Planning Authority's written agreement the permissive paths, benches and signage shall be provided as agreed within 3 months of the first export date

and shall be retained as agreed. Unfettered public access to the permissive paths shall be allowed for the duration of the development.

Reason: To secure wider benefits of the scheme in terms of opportunity for outdoor recreation and in the interests of wider public health.

28. Prior to the first export date a scheme for noise mitigation broadly in accordance with Environmental Statement, Appendix 3.2 Noise Assessment shall be submitted in writing to the Local Planning Authority. That scheme shall demonstrate how noise will be mitigated from installed noise generating equipment on the site so that harm to residential and wider amenity is avoided. Following the Local Planning Authority's written agreement the scheme shall proceed in accordance with the agreed details.

Reason: To mitigate noise generation on the site in the interests of residential and wider amenity.

29. Where the approved development requires physical works within the root protection areas of existing trees and hedges outside of the identified buffer strips (Condition 7) then it shall be carried out in accordance with principles set out in Paragraphs 6.6 - 6.10 of Environmental Statement, Appendix 3.3 Arboricultural Impact Report.

Reason: To protect existing tree and hedge features on the site and ensure their long-term retention to the benefit of visual amenity, landscape character and biodiversity.

ANNEX B: Appropriate Assessment

Preliminary Matters

1. The purpose of this Annex is to report on the impacts of the scheme on the Severn Estuary Special Area of Conservation (SAC), River Usk SAC, Severn Estuary Special Protection Area (SPA) and Severn Estuary RAMSAR. It takes the form of an Appropriate Assessment (AA) for consideration by the Welsh Ministers in their role as the competent authority and has been prepared in accordance with the requirements of Regulation 63 of the Conservation of Habitats and Species Regulations 2017, as amended. In light of the requirements of Regulation 63(3) in carrying out my assessment I have had regard to the comments of Natural Resources Wales (NRW) in its letter of September 2024.
2. To inform this Habitats Regulations Assessment (HRA) the application was accompanied by the '*Craig Y Perthi Solar Farm – Habitat Regulations Assessment*', dated February 2024.

Likely Significant Effects

3. The application site is located approximately 4.1km to the north of the Severn Estuary Special Area of Conservation (SAC), Severn Estuary Special Protection Area (SPA) and Severn Estuary Ramsar Site, and some 4.5km to the east of the River Usk SAC.
4. The qualifying features of the Severn Estuary SAC are Annex I habitats consisting of estuaries, mudflats and sandflats not covered by seawater at low tide, Atlantic salt meadows, sandbanks which are slightly covered by seawater all the time and reefs together with Annex II species of sea lamprey, river lamprey and twaite shad. It is also noted that migratory fish (including salmon, eel, sea trout and allis shad) are 'part of notable species sub-feature of estuarine feature', whilst the assemblage of fish species, internationally important populations of migratory bird species, internationally important populations of wintering bird species, assemblage of nationally important populations of waterfowl and hard substrate habitats (rocky shore) are 'notable species sub-feature of estuarine feature'.
5. The Severn Estuary SPA has been designated due to its importance during the spring and autumn migration periods for waders moving up the west coast of Britain, as well as in winter for large numbers of waterbirds, especially swans, ducks and waders. Estuary, subtidal sandbanks, intertidal mud and sand, Atlantic salt meadow/salt marshes, hard substrate habitats and freshwater grazing marsh/neutral grassland are supported habitats for designated bird interest features of the SPA. The Severn Estuary RAMSAR is important for the run of migratory fish between the sea and rivers via the estuary and for migratory birds during spring and autumn migrations.
6. The qualifying features of the River Usk SAC are Annex 1 habitat consisting of water courses of plain to montane levels with the *Ranunculus fluitans* and *Callitriche-Batrachion* vegetation together with Annex II species of lamprey, twaite shad, Atlantic salmon, bullhead and otter.
7. The HRA Report identifies that the Likely Significant Effects (LSE) to European Eel and migratory fish through impacts to reens and ditches, such as direct habitat loss / damage and changes in water quality and water levels, could impact populations. There is also potential for direct harm or injury and the creation of barriers to their movement. LSE on European Eel and migratory fish, an interest features of the Severn Estuary SAC and RAMSAR cannot therefore be ruled out at this stage.

8. In terms of the Severn Estuary SPA, the primary pathway of effect during the construction phase would be temporary habitat loss to construction activities and disturbance during the wintering season affecting birds. During the operational phase of the development, the effect could be permanent loss of habitat used by interest features species of this SPA. Consequently, LSE on wintering birds cannot be ruled out at this stage.
9. Similarly, the primary pathway of effect during the construction phase for wintering and passage birds would be temporary habitat loss to construction activities and disturbance during the wintering season affecting birds that also active within the Severn Estuary RAMSAR. During the operational phase, the effect for wintering and passage birds could be permanent loss of habitat. It therefore follows that LSE on the wintering waterfowl assemblage, an interest features of the RAMSAR, cannot be ruled out at this stage.
10. Turning to LSE on the qualifying features of the River Usk SAC. During construction work, there is potential for a limited amount of airborne pollutants and dusts to be created for a brief period of time. Predominant winds in this area are from the south-west such that any pollutants would be carried away from this SAC, whilst dilution over the intervening distance would negate any effect. There is limited potential for unmitigated construction to result in water borne pollutants. Consequently, LSE on the watercourse, and on fish and otter cannot be ruled out at this stage.
11. As LSE cannot be ruled out in relation to qualifying features of the Severn Estuary SAC, River Usk SAC, Severn Estuary Special Protection Area (SPA) or Severn Estuary RAMSAR, I shall carry out an Appropriate Assessment of the effect on the designated areas.

Appropriate Assessment

12. A series of mitigation measures are proposed during both construction and operational phases of the development. They include the adoption and implementation of a Construction Environmental Management Plan which details protection of watercourses, surface water management and dust minimization. Other measures include improved water quality associated with changes in land management together with the protection of boundary habitats and a ditch management plan. a decommissioning and restoration scheme. Specific measures to protect birds consists of wintering Lapwing mitigation habitat on the site.
13. NRW has confirmed that it is satisfied that the suite of mitigation measures would prove effective protection against the identified LSE. They would be secured by imposition of the recommended conditions.
14. The requirements contained in the suggested conditions, such as pollution control measures, are standard practice in schemes of this nature. Specialist contractors are accustomed to carrying out their work in a responsible manner to avoid unacceptable impacts on the sensitive environment of the site and the wider area.
15. The Council will be familiar with discharging similar conditions in relation to comparable projects. I consider that the suite of measures proposed to mitigate any harmful effect on the SAC can be relied upon to be effective. The Council would be in a position to secure any additional information it requires to ensure that harmful effects are avoided. In the circumstances it is reasonable to assume that the conditions' requirements will be complied with and monitored effectively, particularly given the potentially serious environmental consequences of not doing so in these circumstances.

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16. I have taken into account all the available evidence and I have adopted the precautionary principle in carrying out my assessment. I conclude that it is beyond reasonable scientific doubt that the scheme, either alone or in combination with other projects, would not have an adverse effect on the integrity of the Severn Estuary SAC, Severn Estuary SPA, Severn Estuary Ramsar Site or the River Usk SAC. This conclusion is predicated on securing the identified mitigation measures through the imposition of the recommended planning conditions.

Recommendation

17. For the reasons given above, and having had regard to all other matters raised, I recommend that this report be accepted as an Appropriate Assessment which complies with the requirements of Regulation 63 of the Conservation of Habitats and Species Regulations 2017, as amended.

Melissa Hall

INSPECTOR

ANNEX C: Documents Submitted Post Hearing Sessions

1	Signed Statement of Common Ground between NRW and applicant, dated March 2025 by dated by NRW April 2025.
2	Applicant's Post-Hearing Further Information, dated May 2025, incorporating the consolidated list of suggested planning conditions.
4	Landscape and Ecology Management Plan Post-Hearing revision dated May 2025.