

Supporting Notes

All figures and boundaries are indicative (unless stated otherwise). They have been calculated and mapped to the best of our ability, however, we acknowledge that discrepancies do exist. We have provided linked references wherever possible. Please always refer to the published documentation for exact figures and boundaries.

Infographic

The table below outlines information used to produce the figures on the Infographic (shown in orange italic quotes below)

- *“The importance of the landscape has been recognised through the designation of a series of Sites of Special Scientific Interest (SSSI). This includes the ‘Gwent Levels SSSIs’, six contiguous SSSIs, totaling over 5,400 hectares, which have been notified for their wet ditch habitats and range of aquatic plants and invertebrates.”*

The six ‘Gwent Levels SSSIs’ (GLs SSSIs) are:

- Gwent Levels – Magor and Undy
- Gwent Levels – Redwick and Llandeenny
- Gwent Levels – Whitson
- Gwent Levels – Nash and Goldcliff
- Gwent Levels – St Brides
- Gwent Levels – Rumney and Peterstone

Additional SSSIs found within the Gwent Levels landscape include:

- Magor Marsh
- Newport Wetlands

- *“19% - total area of Gwent Levels SSSIs which could be within solar development application boundaries, if all built”*

and

- *“1038 hectares - total area of Gwent Levels SSSIs which could be within solar development application boundaries, if all built”*

These figures were calculated from proposed development application boundaries/scoping ‘red line’ boundaries, which were digitised by eye from maps in the public domain, as at March 2025. The figures are indicative only. Application boundaries can be found at the following links for proposed developments:

[DNS/3220457- Rush Wall Solar Park Ltd](#) (Status: In progress)

[DNS/3279787- Craig y Perthi Solar Farm](#) (Status: In progress)

[DNS CAS-02923-L7H4Q3- Atlantic Eco Park Solar Farm](#) (Status: Researching)

[DNS CAS-01772-Z5P5D2- Wentlooge Solar \(Resubmission\)](#) (Status: In progress)

[DNS CAS-01960-J2H3X5- Magor Net Zero](#) (Status: Researching)

NSIP [EN010171- Future Energy Llanwern Solar Project](#) (Status: Pre-application)

Documents for the already constructed Llanwern Solar Farm (APP/G6935/A/16/3150137) could no longer be found on the DNS planning portal. However the boundary was mapped according to that shown in the [Gwent Levels Post Construction Monitoring Study](#) (July 2024).

- *“Equivalent to more than 1000 rugby pitches (international size)”*

This indicative figure was calculated by dividing the estimated total area of GLs SSSIs within proposal boundaries (1038ha) by the maximum dimensions of the playing area of an international rugby pitch (according to World Rugby’s Laws of the Game) = L144m x W70m = 10080m² (1.008ha). Calculation: 1038ha/1.008 = 1029.8 rugby pitches.

- *“548 hectares – total area of the largest proposed solar development application boundary. A Nationally Significant Infrastructure Project (NSIP), almost entirely within Gwent Levels SSSIs”*

This figure is taken from the Future Energy Llanwern Pre-application EIA Scoping Report ([Application Document Ref: EN 010171/SCP/1](#)), where the total area of the ‘Scoping Red Line Boundary’ is given as 548.3 hectares.

- *“6 SSSIs within proposals, [...]”*

The six SSSIs within proposals are the aforementioned ‘Gwent Levels SSSIs’.

- *“[...]which support one of the rarest and most threatened bumblebees in England and Wales – the **Shrill Carder Bee**”*

The Shrill Carder Bee is noted as a ‘special feature’ in the ‘YOUR SPECIAL SITE AND ITS FUTURE’ documents of all 6 SSSIs and based on information from Natural Resources Wales’ [Protected sites baseline assessment 2020](#), the species is labelled as a ‘qualifying feature’ for five of the GLs SSSIs (Magor and Undy; Nash and Goldcliff; Redwick and Llandevenny; St. Brides; Whitson) and a ‘notified feature’ for two of the GLs SSSIs (Redwick and Llandevenny; Whitson).

[‘A Conservation Strategy for the Shrill carder bee, *Bombus sylvarum* in England and Wales 2020-2030’](#) describes the Shrill Carder Bee as one of the rarest and most threatened bumblebees in England and Wales. On page 9 of the Strategy, solar farms on the Gwent Levels are noted as one of the development pressures that represent a major threat and driver for loss of habitat for Shrill Carder Bee populations.

- *“over 200 species of insects and other invertebrates recorded within the SSSIs, including many that are **nationally rare and scarce**”*

This statement is taken from the [‘SE Wales Area Statement- Gwent Levels Landscape Profile’](#).

- *“up to 43% of the total area of the ‘Gwent Levels – Whitson SSSI’ within solar development boundaries, if all built”*

This figure was calculated by taking the approximate total area of proposed and built developments (as referenced above =386.88ha) which fall within the Gwent Levels – Whitson SSSI’s mapped boundary (SSSI total area=891.30ha - taken from the NRW SSSI open data layer at [DataMapWales](#)). Calculation: 386.88/891.30x100 = 43.4%

Percentage SSSI Map

The Percentage SSSI Map shows the boundaries of the six Gwent Levels SSSIs and two additional SSSIs within the Gwent Levels landscape (as listed above), styled in light green with a solid green outline to show the extent of individual SSSIs. Overlaid is the approximate percentage of the total area of each of the six Gwent Levels SSSIs which fall within the boundaries of the seven solar developments (six proposed and one built- listed above). Note that the non-'Gwent Levels SSSIs'(i.e. Magor Marsh and Newport Wetlands) do not fall within development boundaries, so no percentages are shown for these.

Development Overview Map

The Development Overview Map shows the boundaries of statutorily designated sites taken from the NRW open data layers on DataMapWales for [SPA](#), [SAC](#), [SSSI](#) and non-statutory wildlife sites, taken from Gwent Wildlife Trust's internal Nature Reserve layer. Note: not all non-statutory wildlife sites are shown, for example, Sites of Importance for Nature Conservation (SINCs) are omitted, as this layer is not available as open data through DataMapWales.

Indicative proposed and operational solar development boundaries (digitised by eye from maps in the public domain, as at March 2025) have been overlaid on top of the statutory/non-statutory sites listed above. Please refer to the DNS/NSIP and other links mentioned previously for exact solar development site boundaries.

Please note that in referencing 'solar development boundaries' these represent all land included in the planning application for operational or proposed developments. Therefore this might include land proposed for mitigation, compensation etc., as well as land used for site infrastructure such as solar arrays, battery storage, cabling, tracks etc.

The boundaries are styled according to the Key shown on the map and may overlap creating mixed styles. Descriptions as follows:

- Proposed developments – solid dark grey fill, with no outline
- Operational developments – solid dark brown fill, with no outline
- SPA boundary – dark blue vertical line fill, with no outline
- SAC boundary – dark blue horizontal line fill, with no outline
- SSSI boundaries (terrestrial) – solid light green fill, with no outline
- Severn Estuary SSSI – solid light blue fill, with no outline
- GWT reserves boundaries- dark green cross-hatched line fill, with no outline