

Newport City Council
Civic Centre
Newport
NP20 4UR

Ein cyf/Our ref: CAS-284179-M5B2
Eich cyf/Your ref: 25/0520

Dyddiad/Date: 29 July 2025

Annwyl Syr/Madam/Dear Sir/Madam,

**BWRIAD/PROPOSAL: THE CONSTRUCTION AND OPERATION OF A 132KV GIS
SUBSTATION, INCLUDING SUBSTATION BUILDING, ASSOCIATED
INFRASTRUCTURE AND WORKS**

**LLEOLIAD/LOCATION: LAND ADJACENT TO ELECTRIC SUBSTATION CELTIC WAY
CELTIC LAKES, NEWPORT**

Thank you for consulting Cyfoeth Naturiol Cymru (CNC)/Natural Resources Wales (NRW) about the above, which we received on 08 July 2025.

We have concerns with the application as submitted. However, we are satisfied that these concerns can be overcome by attaching the following condition to any planning permission granted:

Condition: Construction Environment Management Plan

Please note, without the inclusion of this condition we would object to this planning application. Further details are provided below.

Protected sites

Gwent Levels St Brides Site of Special Scientific Interest

The proposed substation and section of the of access track lies within Gwent Levels St Brides SSSI. The SSSI is notified for its range of aquatic plants and invertebrates associated with the interconnected reens and ditches of the drainage system. The special interests of the SSSI are dependent on the water quality, water quantity, the existence of the drainage system and its continued management. Any development which has an adverse impact on any of these factors will have an adverse impact on the wildlife for which the area was notified.

Habitats

Whilst the proposed development lies mostly within areas of hardstanding and bare ground, the PEA states that a small area (0.2ha) of tall ruderal and neutral grassland would be

permanently lost. In line with the stepwise approach set out in Planning Policy Wales, loss of SSSI habitat should be avoided. Where this loss is unavoidable, there must be adequate mitigation or compensation. We note that the development would seek to provide a Net Benefit for Biodiversity, with enhancement of surrounding grassland proposed. We welcome consultation on any management plans and planting list to ensure that species are suitable for the SSSI.

Species

Shrill carder bee, a feature of Gwent Levels SSSIs, has been recorded within the wider Imperial Park area. The proposed development site has been deemed as unsuitable for the shrill carder bee. Prior to any vegetation removal, We would advise that a check for shrill carder bee or their nests (depending on the time of year) is undertaken.

Ditches & reens

Percoed branch west reen is approximately 50m to the west of the proposed development site. Percoed reen is approx. 50m south of the development site. There looks to be a ditch close to the site (approx. 5m away) which flows into Percoed reen. We note from the Preliminary ecology assessment that surface water drainage will remain as per the existing drainage on site. Any clean water discharged to the drainage system should be of a quality compatible with the Gwent Levels SSSI and should be discharged at greenfield run-off rate.

We welcome that a Construction Environmental Management Plan will be produced, and this will need to set out pollution prevention measures to be implemented to ensure no adverse impact to the SSSI. We recommend the following condition is included to secure the inclusion of a CEMP

Condition: Construction Environmental Management Plan

No development, including site clearance, shall commence until a final version of a site wide Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP should include:

- Construction methods: details of materials, how waste generated will be managed;
- General Site Management: details of the construction programme including the timetable and details of any site clearance; details of site construction drainage, containments areas, appropriately sized buffer zones between storage areas (of spoil, oils, fuels, concrete mixing and washing areas) and any watercourse or surface drainage.
- Soil Management: details of topsoil strip, storage and amelioration for re-use.
- CEMP Masterplan: details of the extent and phasing of development.
- Resource Management: details of fuel and chemical storage and containment; details of waste generation and its management; details of water consumption, wastewater and energy use.
- Traffic Management: details of site deliveries, plant on site, wheel wash facilities.
- Pollution Prevention: demonstrate how relevant Guidelines for Pollution Prevention and best practice will be implemented, including details of emergency spill procedures and incident response plan.
- Details of the persons and bodies responsible for activities associated with the CEMP and emergency contact details.
- Landscape/ecological clerk of works to ensure construction compliance with approved plans and environmental regulations.

The CEMP shall be implemented as approved during the site preparation and construction phases of the development.

Justification: A CEMP should be submitted to ensure necessary management measures are agreed prior to commencement of development and implemented for the protection of the environment during construction.

Protected Species

We note that the information submitted in support of the above application (Preliminary Ecological Appraisal prepared by RPS, June 2025) has identified that whist dormice are likely to be using the application site as no dormouse habitat is to be removed, we recommend that you discuss the need to secure further measures/ avoidance measures with your internal ecological advisor.

Flood risk

The planning application proposes less vulnerable development. The Flood Map for Planning identifies the application site to be at risk of flooding and within Flood Zone 2 and 3 (Rivers/ Sea) / TAN15 Defended Zone.

We refer you to Section 10 of Technical Advice Note 15: Development, flooding and coastal erosion, dated 2025 (TAN15) for advice on how you should consider this application in line with current planning policy. Our role is to provide you with detailed advice on the findings and conclusions of the Flood Consequences Assessment (FCA) in relation to flooding from rivers and/or the sea, including the impact on flooding elsewhere. For advice on flood risk from surface water and or small watercourses you should consult with your Lead Local Flood Authority.

We have reviewed the supporting FCA undertaken by RPS dated July 2025 referenced ENV-22018 for the proposed substation which is in a wider substation compound surrounded by a private flood defences (with a crest level of 6.5m AOD) with flood doors providing access to the site. Our advice to you is that the FCA satisfactorily demonstrates that the risks and consequences of flooding are manageable to an acceptable level. Therefore, we have no objection to the application as submitted. Further detail is provided below:

We have provided the Caldicot and Wentlooge (2016) model as well as the River Ebbw (2018) Integrated Catchment Model and confirmed that the site benefits from flood defences in the form of an Embankment graded as being in Fair condition with a standard of protection of 1000 years, the crest level of this defence is not provided.

Topography shows levels along the southern boundary of the site sit between 5.9-5.96m AOD.

Using the River Ebbw 2018 flood model provided by NRW,

- 1 in 100 year plus 25% climate change event: the site is shown to be flood free, flooding confined to the Percoed Reen.
- 1 in 100 year plus 70% climate change event: flood level is 6.33m AOD and the site is completely inundated with flood water. Depths are shown to be up to 0.25m in the west of the site where the substation is proposed. In the east of the site, depths remain below 1m, generally between 0.3-0.4m (flood level 6.29m AOD).

The FCA does not provide any information for the 1 in 1000 year plus climate change event. However, table 4 lists undefended figures of the 1 in 1000 year current day event but uses defended 1 in 1000 year information to assess the inundation time for the site in Section 6.19 – stating flood waters will not reach the site until 14.4 hours after the start of the event.

For completeness the FCA should be updated provide flood level data for the 1 in 1000 year plus climate change event for the fluvial source of flooding and to confirm that model checks/updates have been undertaken to ensure the suitability of the River Ebbw model use for this site.

We would question the site being located within the River Ebbw TAN 15 defended zone given the distance from these defences – it is likely the designation is based upon the Coastal Defences and not relate to the fluvial outlines. The applicant should justify the information used, and given the age of the model data we would have expected model checks/upgrades to have been undertaken and discussed within the FCA.

Section 6.24 of the FCA states that NRW mapping is within the TAN 15 defended zone where defences are shown to have standard of protection of 1000 years (2023) against the sea. It is confirmed in the FCA that the lifetime of development for the substation is 75 years.

The tidal assessment undertaken uses the existing hydraulic modelling data results and recognises that due to the age and purpose of the modelling it does not contain exact scenarios to support a 2025 FCA. Since the production of the modelling in 2016 both the extreme sea levels have changed, and the climate change uplift magnitudes have been subject to revision. The FCA compares the 2016 model results as a proxy for the required 2025 FCA scenarios.

Following this comparison the 2016 modelling uses higher Extreme Water levels than those required for the FCA assessment. As such it concludes that on site flood levels would be lower than those provided within the Caldicot and Wentlooge model – the FCA provides nodal data for the 2100 year events.

The following flood levels are provided:

- 1 in 200 year 2100 – 6.13m AOD, flood depths up to 0.14m northeast of the site and 0.19m along the existing access road
- 1 in 1000 year 2100 – 8.4m AOD, flood depths up to 2.41m northeast of the site and 2.46m along the existing access road.

Section 6.39 states that the because the site is within a TAN 15 defended zone and the condition is confirmed as “fair” with a standard of protection of 1000 years, the defended 200 year plus climate change scenario is taken forward to assess levels at the site. The FCA suggests an inundation time of 21.3 hours with most of the site inundated by flood waters by 27 hours.

The site benefits from a flood wall surrounding the entire area and set to a level of 6.5m AOD which the FCA states will provide protection from the 1 in 200 year 2100 event and the 1 in 100 year plus 70% climate change event with a 370mm and 170mm freeboard respectively. This flood wall will be overtopped for the 1 in 1000 year plus climate change

tidal event, and may result in a flood depth 2.09m around the area of the proposed substation.

Whilst we would expect the FCA to provide finished floor levels for the substation – our calculation of 2.09m flooding is based on the given 8.4m flood level for the 1 in 1000 year 2100 event and the suggestion that the finished floor levels is approx. 6.31m (given that it would experience a 0.25m of flooding in the 1 in 100 year plus 70% climate change event which as a flood level of 6.33m).

The flood wall is to be extended to incorporate additional areas as part of the development and gates along the flood water are fitted with flood resilient measures to prevent ingress of water. This is a private flood defence, and we can not provide comments on the suitability/insurance of it's use over the lifetime of the development.

The FCA states that site uses should sign up to received flood warnings and avoid accessing the site if a warning is received and it is recommended that a Flood Management Plan is produced for site management and operational staff.

According to the FCA Emergency services can pass through greater depths of water than standard vehicles, depths of 430mm and 190mm are expected in the 1 in 100 year plus climate change and 1 in 200 year plus climate change events. The site will remain accessible to emergency services during the design flood events – we would direct the LPA to consult with their Emergency Planners on these statements.

Whilst we consider that updates may be required to the River Ebbw model data given it's 7 year age and changes since development, given the low risk nature of this development, we leave it to your authority to determine whether this information is required for completeness.

Battery Systems and pollution

The proposed scheme involves the storage of large battery systems contain lithium ion electrolytes and hydrocarbons which have the potential to cause pollution in the event of fire at the site as a result of battery failure.

We are not the expert body to advise as to whether measures proposed by the applicant to minimise the risk of fire, or to suppress a fire at the site are adequate. We recommend that you seek advice from a Battery Energy and Electrical process safety expert and the relevant Fire and Rescue Service in determining whether the proposed measures to minimise the risk of fire, and to suppress a fire at the site are adequate.

You may also wish to consult the below guidance in relation to such matters:

- The National Fire Chiefs Council (NFCC) provide [Grid Scale Battery Storage System Planning](#) guidance;
- HSE guidance [on managing health and safety in grid scale electrical energy storage systems](#) which includes an assessment of the principal hazards.
- CIRIA C736 - Design of containment systems for the prevention of water pollution from industrial incidents.

Before determining the planning application, you should be satisfied that in the event of a fire all contaminated firewater can be fully contained on site and cannot enter the wider environment. We advise that measures to avoid pollution from contaminated firewater

should be clearly set out by the applicant and provide sufficient detail in support of the planning application. This should include demonstration, to your satisfaction, that:

- thermal runaway detection equipment, automated alert systems, automated fire suppression systems and planned responses to a fire are adequate in detecting and prevent the spread of fire. The relevant Fire and Rescue Service may advise you on these matters.
- there is sufficient spacing between units to help to prevent further spread of fires;
- contaminated firewater and foam run-off is prevented from infiltrating the ground or any offsite drainage networks with the use of impermeable surfaces, secondary containment and sealed drainage systems;
- the scheme includes sufficient storage capacity to contain contaminated firewater in the event of a fire. The relevant Fire and Rescue Service may advise you on what they consider to be adequate storage capacity;
- Notwithstanding the wider TAN15 considerations, where the site is proposed within a flood risk area, the risk of fire from battery exposure to a flood event has been avoided, and the proposed method of containing contaminated firewater will operate effectively without the risk of pollution;
- the proposed method of transporting contaminated firewater off-site will be effective, including under the prevailing conditions of a fire at the site;
- adequate post event cleanup and environmental remediation has been considered and planned.

Other Matters

Our comments above only relate specifically to matters included on our checklist, *Development Planning Advisory Service: Consultation Topics* (September 2018), which is published on our [website](#). We have not considered potential effects on other matters and do not rule out the potential for the proposed development to affect other interests.

We advise the applicant that, in addition to planning permission, it is their responsibility to ensure they secure all other permits/consents/licences relevant to their development. Please refer to our [website](#) for further details.

If you have any queries on the above, please do not hesitate to contact us.

Yn gywir / Yours faithfully,

Rhian Isaac

Cynghorydd - Cynllunio Datblygu/Advisor - Development Planning
Cyfoeth Naturiol Cymru/Natural Resources Wales

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Croesewir gohebiaeth yn Gymraeg a byddwn yn ymateb yn Gymraeg, heb i hynny arwain at oedi./Correspondence in Welsh is welcomed, and we will respond in Welsh without it leading to a delay.