



environmental
solutions ltd

ecology • arboriculture • fisheries • licencing

**PROPOSED WEIR
ECOLOGY INFORMATION AND
GREEN INFRASTRUCTURE STATEMENT**

**GLAN LLYN – JULIAN'S REEN
LLANWERN
NEWPORT
NP 19 4DW**

Prepared for: **Revantage Corporate Services**

Date: **July 2025**

Report Reference: **JN00474/TN02 REV03**

Protected Species Survey	
Prepared for	Contact
Revantage Corporate Services	Elise Coulter
Site name	Date
Glan Llyn, Julian's Reen	27/06/2025, 05/11/2024
Conditions	Surveyor
No rain, water levels normal	CH

Proposed Works

- 1.1 Glan Llyn is a large development, with a complex reen network intersecting the site. As a result, management of the water levels within these reens is also complex. One of the reens, known as Julian's reen or drain 2, already has a Penstock located at the southern end. In order to enable the more efficient management of the water levels within this reen, it is now necessary to also install a weir in the centre of the reen. This will facilitate the management of water levels both on and off site, especially towards the south, where the site lies in close proximity to the Gwent levels. Construction of the weir will include earthworks to a small distinct section of the reen on both banks. Vegetation within this section will also need to be cleared as part of the preparatory works.

Site Description

- 1.2 The proposed works location comprises a section of Julian's reen in close proximity to a lake that was the site of a relocation of water voles in 2023. The reen is approximately 2.5m wide, steep-sided and the vegetation has become dominated by common reed *Phragmites australis* and some willow *Salix spp.* growth is also present. The section between the existing Penstock and the proposed weir location is approximately 350m in length.
- 1.3 The approximate grid reference is ST 35519 86860 and the approximate location is shown on Figure 1 below:

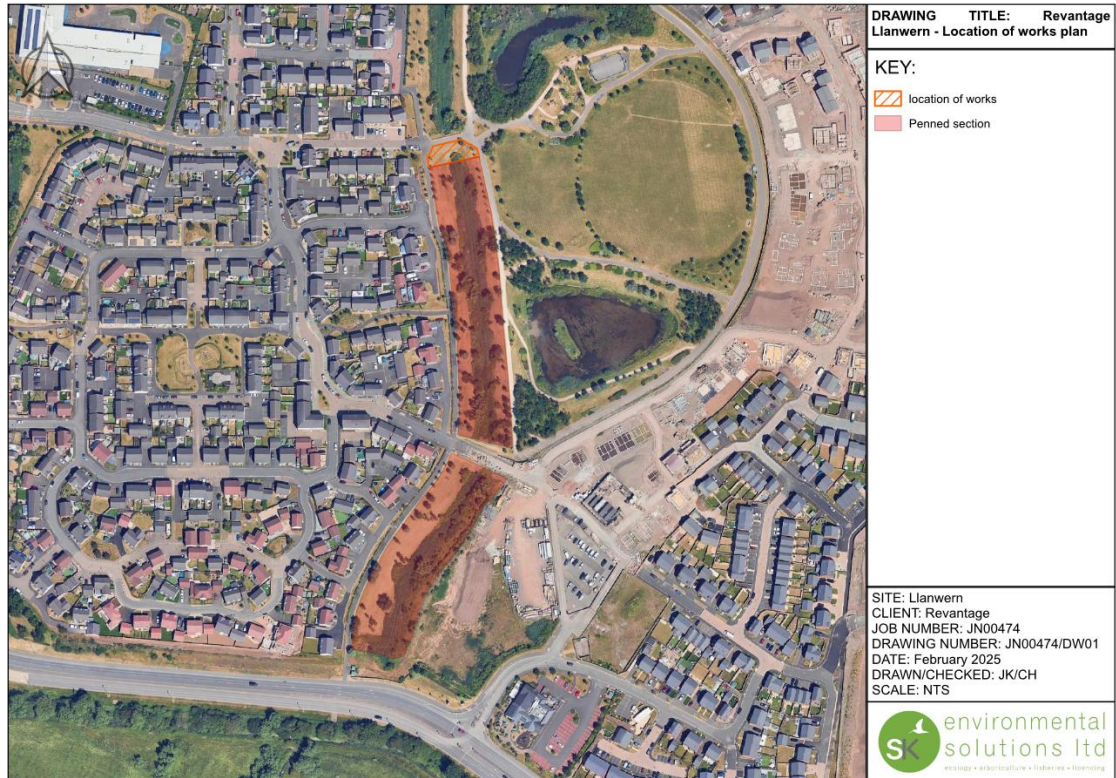


Figure 1: Site location plan

- 1.4 The Gwent levels SSSI section of Nash and Goldcliff starts less than 100m away from the southern end of the section to be impacted. The Whitson section of the same SSSI lies approximately 1.5km to the south-east. No other statutory sites are within 2km of the site. Statutory sites are shown below on figure 2.

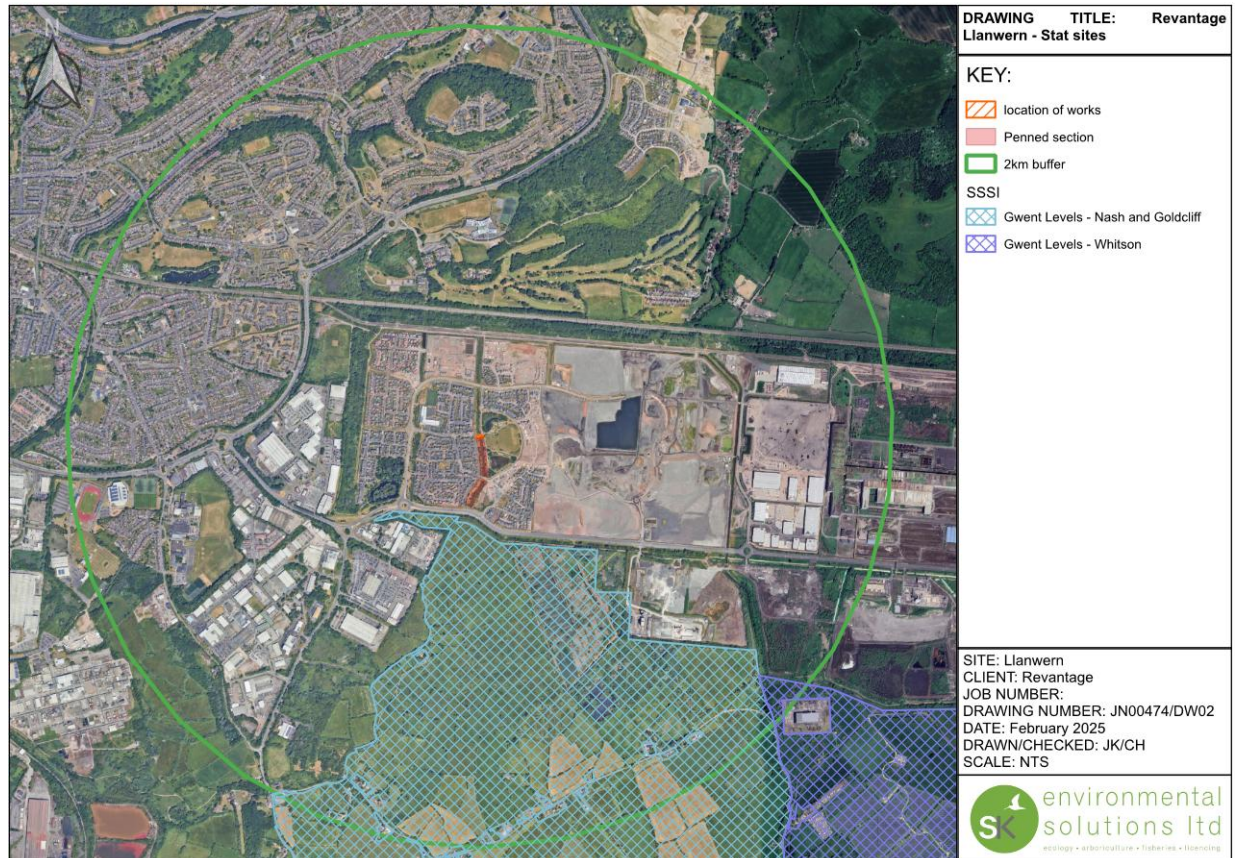


Figure 2: Statutory sites

- 1.5 An ecological walkover and water vole *Arvicola amphibius* survey of the site was undertaken by SKE, first in June and then again in November 2024, in order to determine the presence or likely absence of protected species at, or within, the vicinity of the proposed works location.

Survey Results

- 1.6 Survey work assessed the habitats along the section to be similar to the other reens present on site, with common reed being the dominant species that now needs to be combatted.
- 1.7 A thorough search for evidence of water voles was undertaken, with a small number of latrines and food caches being found present in the wider reen. No such signs were found in the location of the proposed weir, crucially no borough entrances were found present. Water voles are known to be present in the wider area and close proximity, with the location of the weir forming part of a territory.
- 1.8 Some limited potential for nesting activities by birds is present within the young willow trees along this section of the reen.
- 1.9 Aquatic invertebrates and fish have not been part of the assessment, but are likely to be present.
- 1.10 No evidence of otter using the reens, in particular the section of reen affected by this development, has been found during survey work.

Conclusions and Recommendations

- 1.11 Impacts of the works are likely to be confined to the short term. The purpose of the works is to better manage water levels, which in turn will benefit wildlife, in particular water voles. The works are confined to the creation of a weir and not hinder movement of animals along the reen. Stabilising the water levels to ensure both adequate water levels in summer and avoidance of flood in winter will be a beneficial impact of the works.
- 1.12 Otters have not been identified as using this section of the reen system, no otter resting places such as holts or hovers are present within the section under survey, or indeed any part of the reen system. No impacts on otters and their resting places are therefore anticipated as a result of these works, due the combination of their absence, along with the minor scale of the works. Occasional passage of the species along the reen, however, cannot be entirely discounted and precautionary measures set out in a method of working will need to be followed.
- 1.13 In order to facilitate the works, it will be necessary to remove vegetation and carry out earthworks in a very small section of the reen. The remainder of the section of reen will not be impacted by the physical works.
- 1.14 Impacts are limited to potential impacts of pollution and increased sediment run-off. A Precautionary Method of Working which, among others, includes measures for pollution prevention has been drawn up (JN00474 TN03 PMW) and must be followed at all times. The document also includes measures to avoid impacts on water voles, otter and nesting birds.
- 1.15 It will be necessary to periodically review the presence or likely presence of the above species groups on site, in order to ensure that no harmful impacts occur. Repeat survey prior to the start of the works will need to be carried out, the results of which can be used in order to ascertain whether the PMW is still based on an accurate reflection of conditions on site.

Green Infrastructure Statement

- 1.16 The reen section in question is already in place, as is a management plan and plans to plant it up with species suitable for water voles. The small-scale nature of the development, with a footprint only covering the weir works, means it is impractical to install any additional features for the benefit of wildlife. The reduction of fluctuation in water levels is what creates a benefit for fauna in this location.