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

INDURENT PARK

LLANWERN

NEWPORT

NP 19 4QZ

Prepared for: Indurent Management Limited

Date: February 2025

Report Reference: JN00741/TN02 REV01

Protected Species Survey Form	
Prepared for	Contact
Indurent Management Limited	Jamie Payne
Site name	Date
Indurent Park, Llanwern	27/06/2025, 03/11/2024
Conditions	Surveyor
No rain, water levels normal	CH

Proposed Works

- 1.1 In order to enable the more efficient management of the water levels within the reen system, it is proposed to create a new penstock and weir at the northern end of the reen running through Indurent Park in Newport. This will include earthworks to two relatively small sections of the reen on both banks, one to install a weir and one to install the penstock. 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 a reen at the northern end of Indurent Park, approximately 170m in length. One single lane snakes through the business park and this section runs from south to north at the eastern edge of the site. It forms a small part of a large network of reens that connect the reen to the wider landscape, including the Gwent levels. The reen is approximately 2m wide, steep-sided on the eastern edge and a low but steep bank on the western edge, next to which runs a maintenance track. Vegetation ranges from low cover of grass species to small areas of scrub with butterfly bush *Buddleja davidii* and willow *Salix spp.* being the main contributors to this.
- 1.3 The approximate grid reference is ST 37226 87126 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 approximately 1.5km to the south, south-west of the site, while the Whitson section of the same SSSI lies approximately 1.9km to the south, south-east. No other statutory sites are within 2km of the site. Figure 2 below shows the statutory sites.

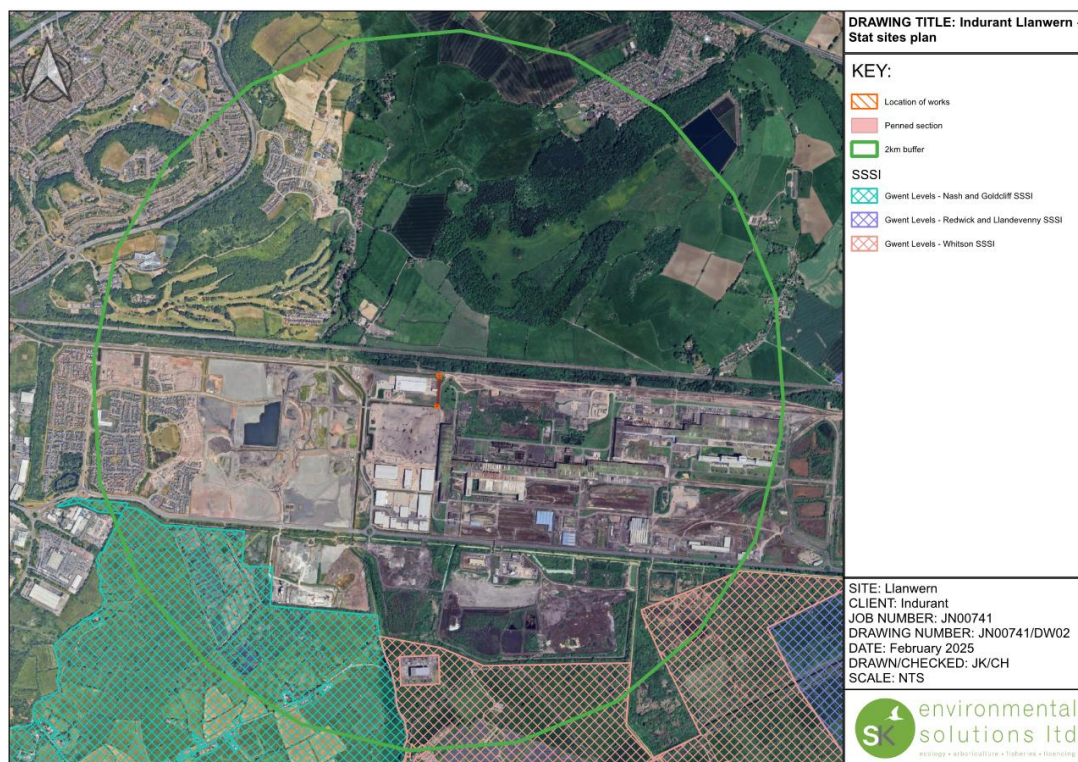


Figure 2: Statutory sites

- 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 slightly atypical from the remainder of the reen system. While the remainder of the system to the south is starting to be choked by common reed *Phragmites australis*, the section under study is characterised by a mixture of low level vegetation including common grass and forbs species, as well as some sections of shrub, as described above. The section to the north of this has seen extensive growth of woody species and both banks are now covered in trees at and above scrub height.
- 1.7 A thorough search for evidence of water voles was undertaken, including latrines, food cached, runs and borough entrances. No such signs were found present. Water voles are known to be present in the southern and central sections of the reen and are likely to be colonising this section within the next couple of years, but survey work confirmed that they have not done so yet.
- 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.

Conclusions and Recommendations

- 1.10 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 penstock and weir and not likely to 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.
- 1.11 In order to facilitate the works, it will be necessary to remove vegetation and carry out earthworks in two small sections along the reen, the locations of the penstock and weir. The remainder of the section of reen will not be impacted by the physical works. Management activities to ensure the woody species do not become dominant may be carried out at the same time, but are concurrent, not incidental.
- 1.12 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 (JN00741 TN01 PMW) and must be followed at all times. The document also includes measures to avoid impacts on water voles and nesting birds.

Green Infrastructure Statement

- 1.13 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 realistically covering the penstock and 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.