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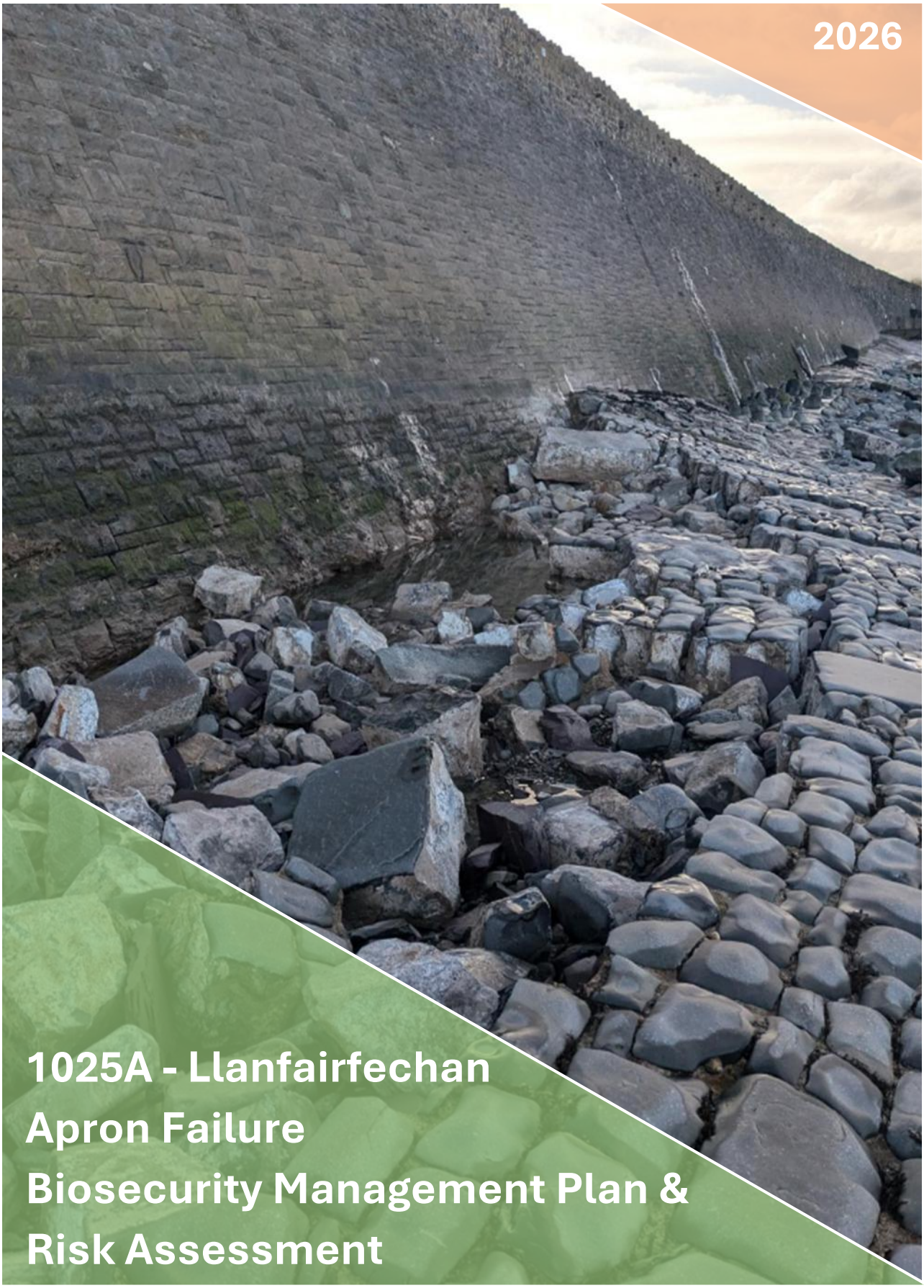
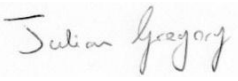


1025A - Llanfairfechan Apron Failure Biosecurity Management Plan & Risk Assessment

EcoVigour Integrated Environmental Management

NetworkRail

MGroupServices

Document Information			
Project	1025A - Llanfairfechan Apron Failure		
Location	Address: North Wales Expressway, Llanfairfechan, Conwy, Wales, LL33 0PN Grid Ref: SH 68696 75682		
Title	Biosecurity Management Plan & Risk Assessment		
Document Ref	EV002566/BSMP-1	Issue / Revision	1.0
File reference	EV002566/BSMP-1		
Start Date	03/03/2026		
	Name	Signature	Date
Assessment Undertaken by	Owain Waters		03/03/2026
Document prepared by	Owain Waters		03/2026
Checked by	Julian Gregory		03/2026
Authorised by	Julian Gregory		03/2026

Document Control		
Rev.	**Date**	**Description**
0	03/2026	Draft
1	03/2026	Issued

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1. INTRODUCTION

1.1 OVERVIEW

1.1.1 This Biosecurity Management Plan & Risk Assessment identifies the biosecurity risks associated with the Llanfairfechan Apron Failure Remedial works. It identifies potential biosecurity sources, pathways and receptors.

1.1.2 Key risks are:

- Release of Invasive non-native plant species (Terrestrial and Marine);
- And release or propagation waterborne diseases and fungus;

1.1.3 This document supports the Habitat Regulations Assessment (HRA), Water Framework Directive (WFD) and Rail Environmental Social Management Plan (ESMP). These documents have been submitted to Natural Resources Wales as part of the necessary Marine License Application to sanction works with the protected designated sites and wider environment.

1.2 PROJECT BACKGROUND

1.2.1 Recent significant damage has been sustained to the lower concrete apron below the Sea Defence Wall at Llanfairfechen. Resulting in exposed voiding with the outer sea defence alignment. Timely remedial measures have been requested by Network Rail asset teams. MGroup have been commissioned to undertake the repairs at the earliest opportunity.

1.2.2 The coastal defence is situated along the north facing shore of Conwy Bay, to the rear of the defence is the Chester South Junction to Holyhead CNH3 railway line and A55 North Wales Expressway. Along this defence length, the closest designated SAC boundary runs parallel and overlaps the defence alignment. The SSSI boundary also overlaps the defence footprint. Scheduled repairs required by Network Rail (NR) are proposed to be undertaken during Summer 2026 (exact start date of works dependent on Marine License Assent).

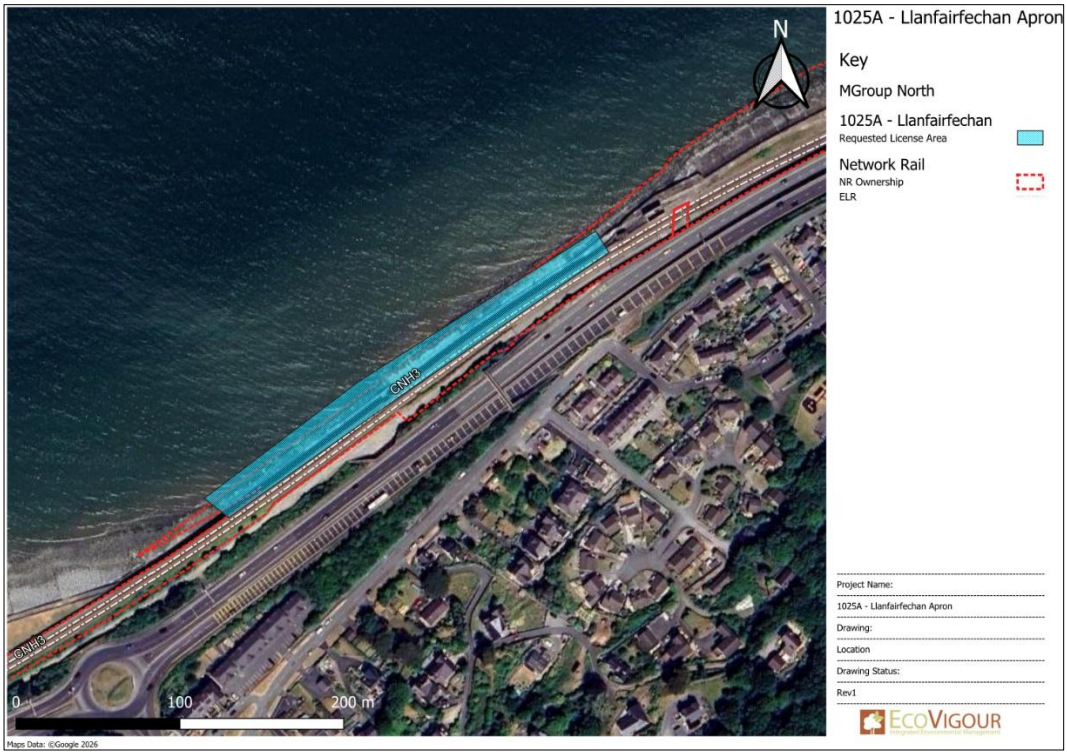


Figure 1: Main works location (OS Map).

1.3 VESSELS TO BE USED DURING THE PROJECT

1.3.1 No vessels are currently envisaged to be used during this project. If however, vessels do become a requirement then this section will detail the vessel type, intended role, vessel operator/owner and port of origin.

1.4 INVASIVE SPECIES – SUMMARY

1.4.1 Invasive, non-native, alien or exotic species (INNS), are species that have been released into an environment outside of their native bio-geographic range or habitat either by accident or intentionally.

1.4.2 Consequently, some species are more resilient or aggressive in the new environment to their native counterparts, out-competing and ultimately having a detrimental impact on native habitats as a whole.

1.4.3 Within the marine environment, INNS can be spread via a number of natural and anthropogenic pathways including ocean currents, aquatic debris, aquaculture, biofouling of marine vessels, exchange of ballast water and or even intentional introductions.

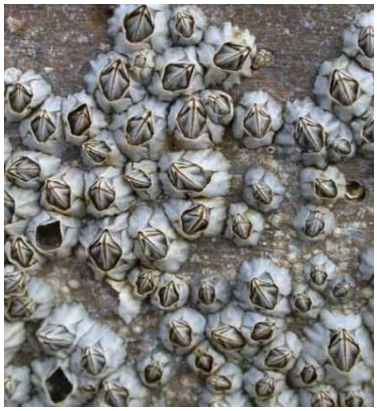
1.4.4 The general stages describing the encroachment of a new INNS is summarised below:

- **Introduction** – this is most frequently due to human activity e.g. shipping, aquaculture, poor biosecurity controls.
- **Establishment** – having arrived in the new habitat, a species will begin to compete with a niche
- **Expansion** – once established, the species will expand and occupy as much space as possible, reducing available resources or directly attacking native species.
- **Persistence** – successful expansion can lead to long term establishment of that species in an area, with an increasing difficulty to control the spread. Additionally, the further the expansion the higher the likelihood of a species being introduced in other areas, continuing a vicious cycle.

1.5 PRIORITY MONITORING AND SURVEILLANCE LIST FOR WALES

1.5.1 NRW have produced a list of invasive species identified as High, Medium and Low Risk for Wales in the Marine environment. This is referenced to in Appendix A - Marine Invasive Non-native Species Priority Monitoring and Surveillance List for Wales.

1.5.2 The table below highlights the marine INNS currently known in be proximity to Pant Eidal area downstream of the DJP structure and the wider estuary. To date, this species has not been identified on the structure, however sightings will be recorded and forwarded to NRW.

	Conwy Bay	
Marine Non-native species known to be present	Austrominius modestus (Low Risk Status), has been identified to the southwest of the wall failure.	

1.6 Characteristics of Known Marine INNS (Example)

1.6.1 The table below are extracts from Appendix A - Marine Invasive Non-native Species Priority Monitoring and Surveillance List for Wales. This illustrates the level of risks posed by the species, likely pathway, impact and current management actions.

Table 1: Summary of Marine INNS characteristics (Example).

Species and Group	Risk Assessment Score	Justification	Primary Introduction Pathway	Impact Summary	Management Action
Austrominius modestus Crustacean	Low / unknown risk Risk assessment not available	NA	Recorded in Wales	More data required	Record sightings

1.7 Terrestrial INNS

1.7.1 There are identified terrestrial INNS, (Japanese Knotweed) within proximity to the project footprint. However, no current access routes require interface with this species at this time.

Table 2: Identification of Terrestrial INNS.

INNS Name	Identification
Example: Reynoutria japonica (Japanese Knotweed)	

1.8 Mobile INNS

1.8.1 The table below details two invasive bird species have been highlighted within the Wales INNS portal regarding Tremadog Bay. Sightings of these birds should be recorded and forwarded to NRW to improve records. INNS of birds apply additional competition pressures to species such as White Fronted Geese, which have been in decline for over a decade.

Table 3: Identification of INNS of Bird.

INNS Name	Identification
Example: Alopochen aegyptiaca (Egyptian Goose)	

2. BIOSECURITY RISK ASSESSMENT & MANAGEMENT

2.1 SUMMARY OF THE RISKS OF INNS SPREAD AS A RESULT FROM PROJECT ACTIVITIES AND PREVENTATIVE MANAGEMENT MEASURES

2.1.1 The following aspect register formulates the assessed risk by multiplying the likelihood of an event or encountering a species (L), by the severity implicated by that event/encounter (S). This quantified the assessed risk of the impact (R).

2.1.2 (L) & (S) are measured between Negligible (1), moderate (2) & high (3) to create the final value.

Activity	Pathway/Vector	Risk Assessment			Preventative Measures	Risk of spread following mitigation		
		L	S	R		L	S	R
Import/removal/disposal of materials	Transfer of INNS on materials	1	1	2	All artificial material to be used will be new and so free from Biofouling. Equipment will be jet washed if required to remove site material from previous usage. Material from any breaking out of existing concrete will be thoroughly collected and removed from the environment.	1	1	2
Introduction of manmade structures	Increased availability of artificial hard surfaces available for colonisation by INNS	1	1	2	No new manmade structure independent of the refurbishment works will be introduced to the estuary.	1	1	2
Disturbance of INNS present	Dispersal of INNS released into the water during construction activities	2	2	4	Pre-works check of any components influenced by the tidal limits which could allow for species such as Austrominius modestus. If present, these will be marked up and avoided, or removed from site if required.	1	1	2

Activity	Pathway/Vector	Risk Assessment			Preventative Measures	Risk of spread following mitigation		
		L	S	R		L	S	R
Use of plant machines and support vehicles during project.	Transfer of INNS from previous sites				All site personnel and site visitors will be informed if any INNS are known to be present on site and that they are jointly responsible for preventing their spread/impacts. They will be made aware of what these species look like so they can avoid it where possible and take appropriate actions. All site personnel and visitors will be inducted in good biosecurity practices. This will include adoption of the CHECK-CLEAN-DRY campaign (NNSS, 2015). The CHECK-CLEAN-DRY poster will be displayed in the site office as a reminder of good biosecurity practices: - http://www.nonnativespecies.org/checkcleandry/ The spread of waterborne diseases will be limited through the adoption of the CHECK-CLEAN-DRY campaign. This would entail the use of a suitable disinfectant e.g. Virkon® S Aquatic to decontaminate all machinery and PPE prior to it entering site for the first and upon leaving site, either at the end of the phase or if being sent to a different project/off hired. Following application of a suitable disinfectant, machinery and PPE will be allowed to fully dry for at least 72 hours before being used near another aquatic site.			
Personnel transferring between roles and different sites.	Transfer of terrestrial INNS	1	3	4	Personal and Company vehicles will likely visit other sites as part of the normal role of a given employee. A disinfection station will be set up at the entrance to the compounds to disinfect wheels and boots/wellies, using an aquatic disinfectant such as Virkon S. All equipment, tools, vehicles and personal protective equipment (PPE) used on site will be checked for seeds originating from any identified INNS before leaving the area. If seeds from identified invasive species are identified, the items will be cleaned and removed seeds will be destroyed.	1	1	2

3. Monitoring and Corrective Action

3.1 INNS Monitoring

3.1.1 Monitoring for non-native species will continue during the remedial process.

3.1.2 Implementation of a monitoring programme for non-native species would include toolbox talks with site personnel on INNS identification. This information could then be shared with NRW to improve knowledge of INNS whereabouts in this specific portion of the Afon Wen.

3.1.3 The ongoing requirement for vigilance and reporting of instances of INNS identification.

3.1.4 Should terrestrial INNS be encountered near working areas or along access and egress points that cannot be segregated from these areas. Then a be-spoke INNS Management Plan will be required.

3.1.5 Inspections and cleaning should be undertaken periodically as a means of routine surveillance but may be specifically appropriate before and after any planned period of machine inactivity.

3.2 Corrective measures should non-compliance occur

3.2.1 Corrective measures will be implemented in the event of a machine or individual found breaching biosecurity protocol, for example a plant machine being allowed to arrive at the structure but on arrival found to have significant biofouling or a vehicle coming into contact with terrestrial INNS and entering the vicinity of the estuary without prior biosecurity measures being implemented.

3.2.2 Corrective actions could include:

- Inform relevant authorities where appropriate i.e. for non-compliant vessels or machines.
- Remove offending machine back to local yard or nearest compound.
- Undertake appropriate measures to clean the machine while minimising any further risks e.g. cleaning in situ within secure compound.
- Investigate the cause of the incident and implement measures to avoid such events from occurring again.

4. CONCLUSION

4.1.1 The assessment has considered the individual project activities and specific known marine and terrestrial non-native species present within the works footprint and access routes.

4.1.2 Consequently, implementation of the management measures will ensure the risk of INNS spreading in this section of the Afon Wen as a result of the scour protection project will remain low.

4.1.3 This document will be reviewed in 6 months to ensure any new data is added to assessment to ensure it is always robust and reflects all available data.