



MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Environmental Statement

Volume 3, Annex 3.14: Invasive non-native species technical report



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Glossary

Term	Meaning
Environmental Impact Assessment	The process of identifying and assessing the significant effects likely to arise from a project. This requires consideration of the likely changes to the environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
Evidence Plan Process	A voluntary consultation process with specialist stakeholders to agree the approach to, and information to support, the EIA and Habitats Regulations Assessment processes for certain topics.
Expert Working Group	A forum for targeted engagement with regulators and interested stakeholders through the Evidence Plan process.
Landfall	The area in which the offshore export cables make landfall (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Lytham St. Annes between Mean Low Water Springs and the transition joint bay inclusive of all construction works, including the offshore and onshore cable routes, intertidal working area and landfall compound(s).
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The offshore and onshore infrastructure connecting the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm to the national grid. This includes the offshore export cables, landfall site, onshore export cables, onshore substations, 400 kV grid connection cables and associated grid connection infrastructure such as circuit breaker compounds. Also referred to in this report as the Transmission Assets, for ease of reading.
Onshore Order Limits	See Transmission Assets Order Limits: Onshore (below).
Planning Inspectorate	The agency responsible for operating the planning process for applications for development consent under the Planning Act 2008.
Study area	This is an area which is defined for each environmental topic which includes the Transmission Assets Order Limits as well as potential spatial and temporal considerations of the impacts on relevant receptors. The study area for each topic is intended to cover the area within which an impact can be reasonably expected.
Survey area	The area within which each survey has been undertaken. This may differ from the Study Area as a Survey Area will be based on species or survey-specific guidance on the extent of survey required, which may be limited by, for example, habitat conditions, or be defined in terms of buffer areas around an area of potential impact.
Transmission Assets	See Morgan and Morecambe Offshore Wind Farms: Transmission Assets (above).
Transmission Assets Order Limits	The area within which all components of the Transmission Assets will be located, including areas required on a temporary basis during construction and/or decommissioning.

Term	Meaning
Transmission Assets Order Limits: Onshore	<p>The area within which all components of the Transmission Assets landward of Mean High Water Springs will be located, including areas required on a temporary basis during construction and/or decommissioning (such as construction compounds).</p> <p>Also referred to in this report as the Onshore Order Limits, for ease of reading.</p>

Acronyms

Acronym	Meaning
EIA	Environmental Impact Assessment
ES	Environmental Statement
EWG	Expert Working Group
INNS	Invasive Non-Native Species
LERN	Lancashire Environmental Records Network
SSSI	Site of Special Scientific Interest

Units

Unit	Description
%	Percentage
km ²	Square kilometres
m	Metres

1 Invasive non-native species technical report

1.1 Introduction

1.1.1 Overview

1.1.1.1 This document forms Volume 3, Annex 3.14: Invasive non-native species technical report of the Environmental Statement (ES) prepared for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (referred to hereafter as ‘the Transmission Assets’). The Environmental Statement presents the findings of the Environmental Impact Assessment (EIA) process for the Transmission Assets.

1.1.1.2 The purpose of this technical report is to present the results of the invasive non-native species (INNS) and site-specific field surveys undertaken between September 2023 and May 2024 to inform Volume 3, Chapter 3: Onshore ecology and nature conservation of the ES.

1.1.1.3 The desk study and site-surveys were designed to identify key INNS for which control measures need to be considered during construction, and identifies key locations where INNS are known to be present within the Onshore Order Limits to inform the Outline Biosecurity Protocol (document reference: J1.12).

1.1.2 Study area

1.1.2.1 The study area is intended to cover the area within which an impact can be reasonably expected and describes the geographical extent subject to desk-based research.

1.1.2.2 The study area is the area subject to desk-based research for INNS and comprises the Onshore Order Limits and a 1 kilometre (km) buffer (hereafter referred to as the ‘study area’).

1.1.2.3 The location and geographic extent of the study area is presented in **Figure 1.1** of this technical report.

1.1.3 Survey area

1.1.3.1 The survey area is defined as the area within which each survey has been undertaken and is based on species or site-specific guidance on the extent of survey required. The survey area for INNS (hereafter referred to as the ‘survey area’) is defined as a 150 metre (m) buffer around the Onshore Order Limits, as shown in **Figure 1.1**.

1.1.3.2 Adopting a survey area that is greater in extent than the Onshore Order Limits ensures that the ES is accurately informed with data from within the Onshore Order Limits (i.e., that may be subject to direct impacts) and data from outside the Onshore Order Limits (i.e. that may be subject to indirect impacts).

1.1.4 Contextual data

- 1.1.4.1 Owing to the iterative design process of the Transmission Assets, some site surveys were undertaken further than 150 m from the Onshore Order Limits. These surveys may have been located within, or within the buffer of, previous iterations of the Onshore Order Limits. Nevertheless, information from these surveys have been included in this technical report because they provide context regarding the ecological sensitivity of the wider area and to inform Volume 3, Chapter 3: Onshore ecology and nature conservation of the ES (where relevant). Any contextual information (based on survey data collected from outside the survey area) is clearly marked throughout this technical report.

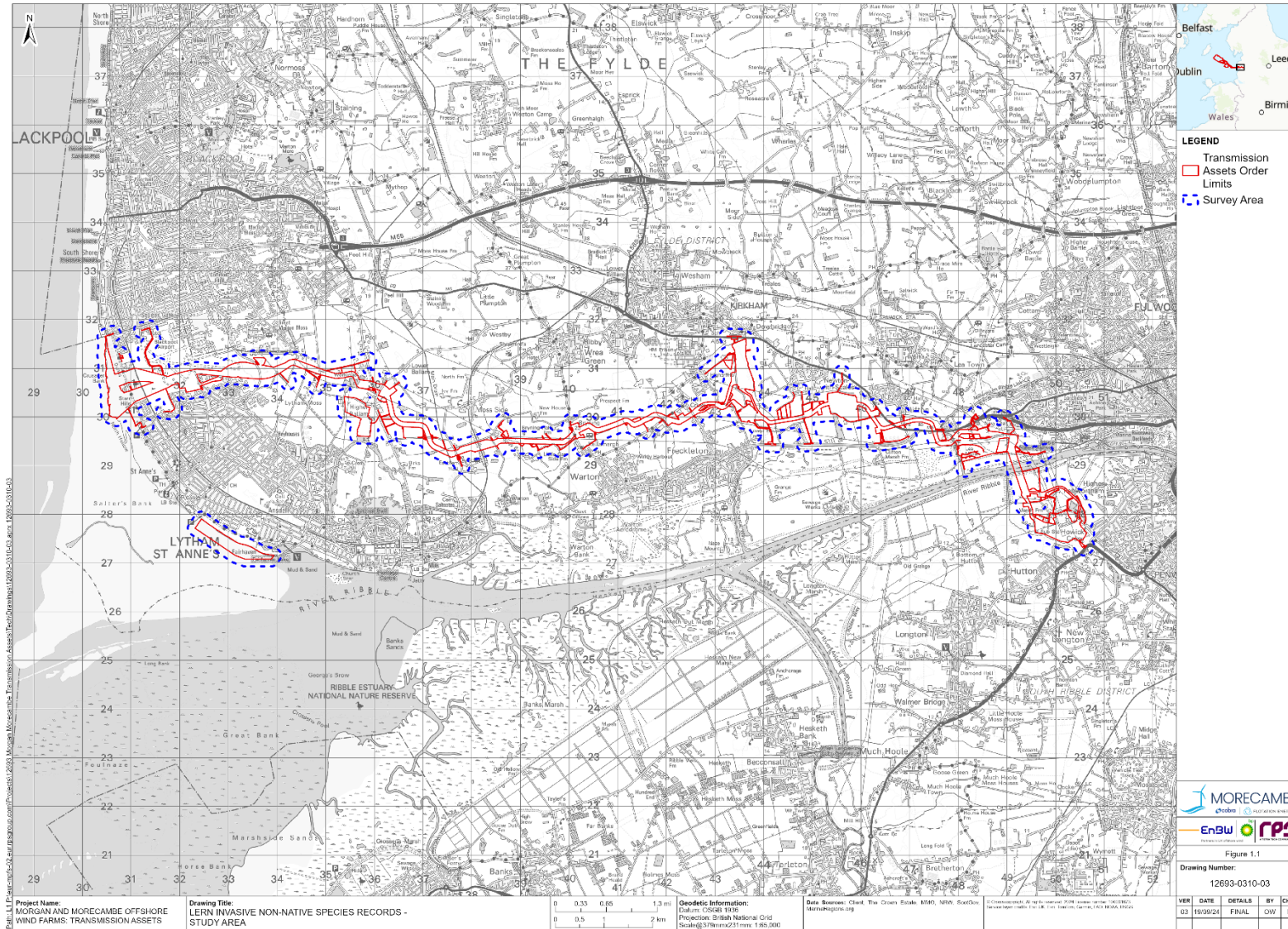


Figure 1.1: Invasive non-native species study area and survey area

1.1.5 Relevant legislation

- 1.1.5.1 The key piece of legislation in the UK relevant for INNS is the Wildlife and Countryside Act 1981 .
- 1.1.5.2 It is an offence under section 14 (1) of the Act to 'allow to escape into the wild' any animal listed in Schedule 9, Part I A or B.
- 1.1.5.3 It is an offence under section 14(2) of the Act to '*plant or otherwise cause to grow in the wild*' any plant listed in Schedule 9, Part II.
- 1.1.5.4 Plant material or soil containing seeds / rhizomes of Schedule 9 plants is considered as '*controlled waste*' and must be disposed of in accordance with an environmental permit issued under the Environmental Permitting (England and Wales) Regulations 2016.

1.1.6 Consultation

- 1.1.6.1 In October 2022, the Applicants submitted an EIA Scoping Report to the Planning Inspectorate, which described the scope and methodology for the technical studies being undertaken to provide an assessment of any likely significant effects for the construction, operation and maintenance and decommissioning phases of the Transmission Assets.
- 1.1.6.2 Of those consultees, Lancashire County Council referred to a requirement to undertake surveys for invasive or injurious weeds.
- 1.1.6.3 The scope, methodology and findings of the INNS surveys, including those undertaken beyond the current Transmission Assets Order Limits, were discussed, and agreed with stakeholders via regular onshore ecology Expert Working Group (EWG) meetings. Further detail regarding consultation undertaken with respect to onshore ecology, including terrestrial invertebrate surveys can be found in Volume 3, Chapter 3: Onshore ecology and nature conservation of the ES.

1.2 Methodology

1.2.1 Overview

- 1.2.1.1 A combination of desk studies and field surveys were undertaken to ascertain the presence of INNS and the diversity of these species within the study and survey areas.
- 1.2.1.2 The results of the desk study are presented in Volume 3, Annex 3.1: Onshore ecology desk study technical report of the ES and summarised below.

1.2.2 Desk study

1.2.2.1 INNS data was collected from existing studies and datasets. These are summarised in **Table 1.1** below.

Table 1.1: Summary of key desktop sources for Transmission Assets relevant to INNS

Title	Source	Year	Author
Lancashire Environmental Records Network (LERN)	LERN data share site	2024	LERN

1.2.3 Site specific surveys

1.2.3.1 Information on the distribution of INNS was obtained from incidental records of INNS recorded by surveyors undertaking phase 1 habitat surveys and other ecological surveys between September 2023 and May 2024, predominantly within the summer months.

1.2.3.2 Surveys and recordings were restricted to species with the potential to be present within the Onshore Order Limits and to be accidentally spread during construction in the absence of effective biosecurity protocols. This comprises plant species, particularly plants listed on Schedule 9 of the Wildlife & Countryside Act (1981 and as amended). Specific attention was given for the presence of Japanese rose *Rosa rugosa* as flagged by Natural England in their EIA Scoping Response (see Volume 3, ES Chapter 3: Onshore ecology and nature conservation of the ES).

1.2.3.3 Results were recorded and mapped using the ArcGIS Field Maps application. Any sightings of non-target species (or evidence of) recorded during surveys were reported in the separate incidental records form on the ArcGIS Field Maps application.

1.2.3.4 Further surveys will be undertaken prior to the commencement of construction, where required. The purpose of these surveys is to inform mitigation proposals and fulfil requirements of relevant mitigation licenses, where required.

Limitations

1.2.3.5 The use of desk study and incidental records of INNS recorded during other ecological surveys is considered to provide a robust indication of the INNS plant species present within the Onshore Order Limits which have been considered in the impact assessment and the Outline Biosecurity Protocol (document reference: J1.12).

1.2.3.6 The data is not intended to provide a comprehensive distribution map of the INNS recorded. More detailed surveys to map INNS distributions will be undertaken prior to commencement to inform the production of detailed control measures for INNS where this are required.

1.3 Results

1.3.1 LERN INNS data

1.3.1.1 Records of INNS plant species provided by LERN which are within the study area are listed below with the locations of the records shown in Volume 3, Annex 3.1: Onshore ecology desk study technical report of the ES (for species listed on Schedule 9 of the Wildlife & Countryside Act). This includes the following Schedule 9 INNS species.

- Giant hogweed *Heracleum mantegazzianum*.
- Himalayan balsam *Impatiens glandulifera*.
- Japanese knotweed *Reynoutria japonica* (scientific name from Stace (2019)).
- Japanese rose.
- Montbretia *Montbretia crocosmia x crocosmiiflora*.
- Rhododendrum *Rhododendrum ponticum*.
- Three-cornered garlic *Allium triquetrum*.
- Variegated yellow archangel *Lamium galeobdolon*.
- Wall cotoneaster *Cotoneaster horizontalis*.

1.3.2 Incidental INNS records

1.3.2.1 Locations of incidental INNS recorded by surveyors undertaking phase 1 habitat surveys and other ecological surveys between September 2023 and May 2024, predominantly within the summer months, are shown on **Figure 1.2** to **Figure 1.8**.

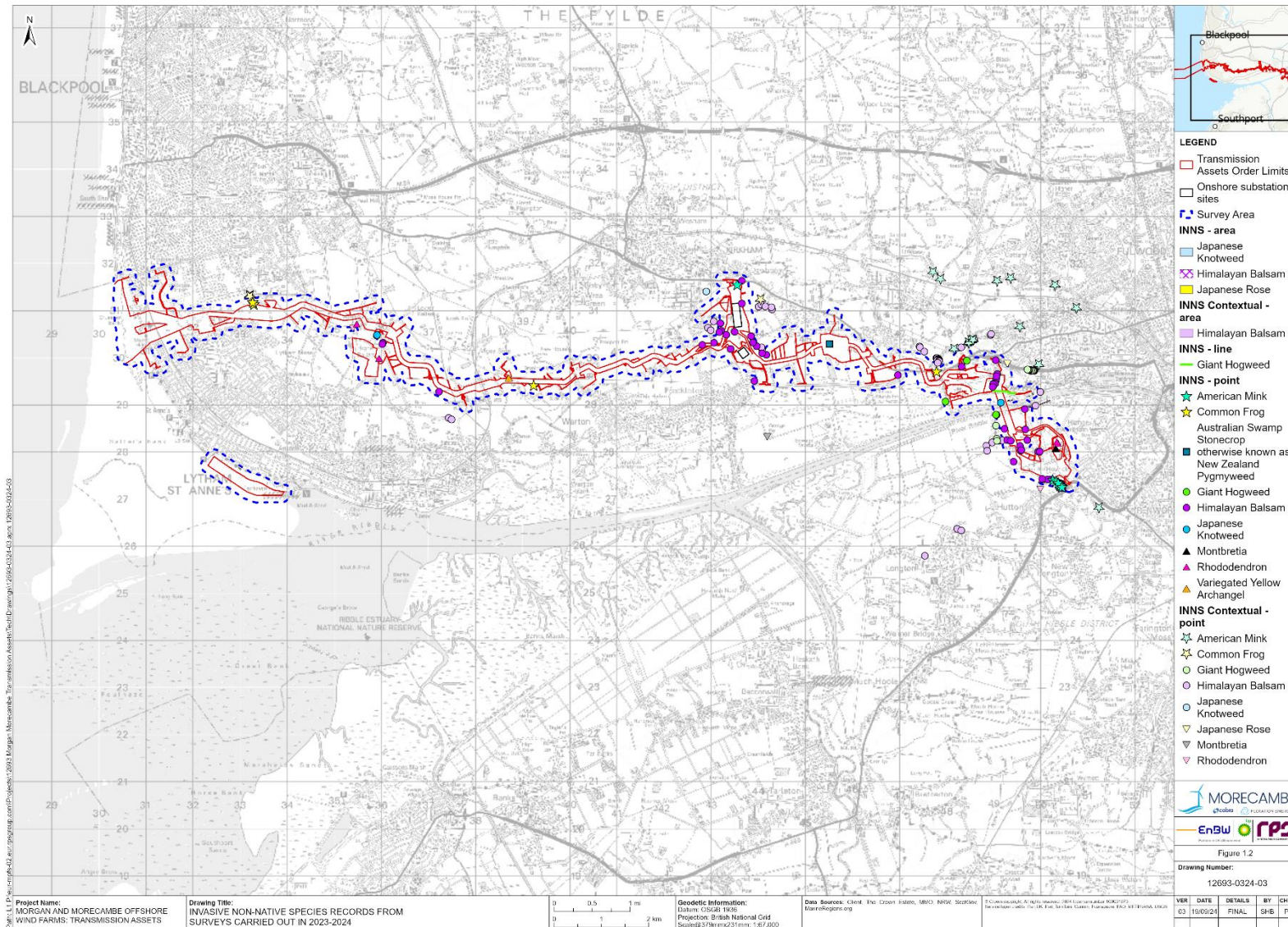


Figure 1.2: Incidental Schedule 9 INNS records from ecology surveys (1 of 7)

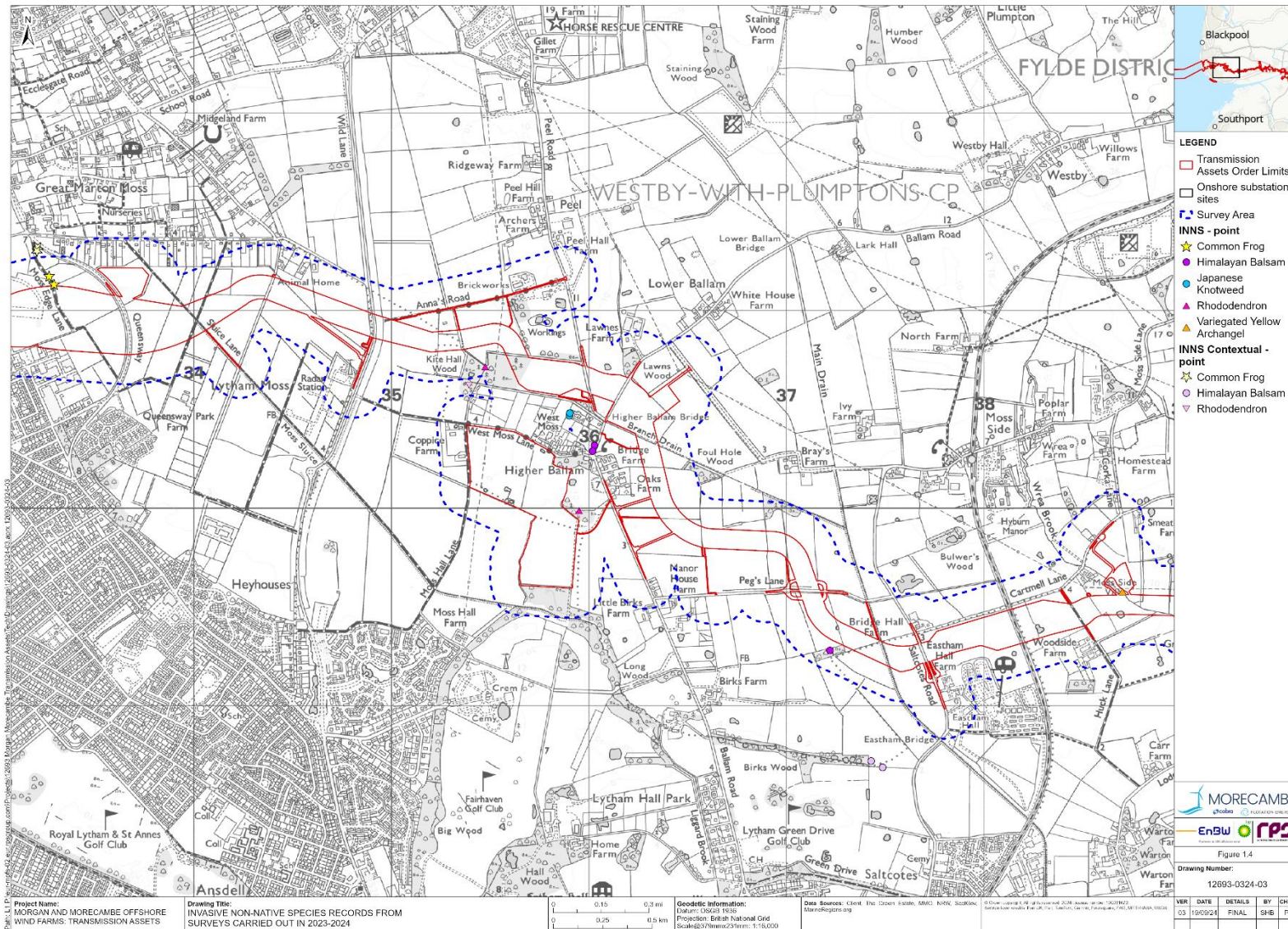


Figure 1.4: Incidental Schedule 9 INNS records from ecology surveys (3 of 7)

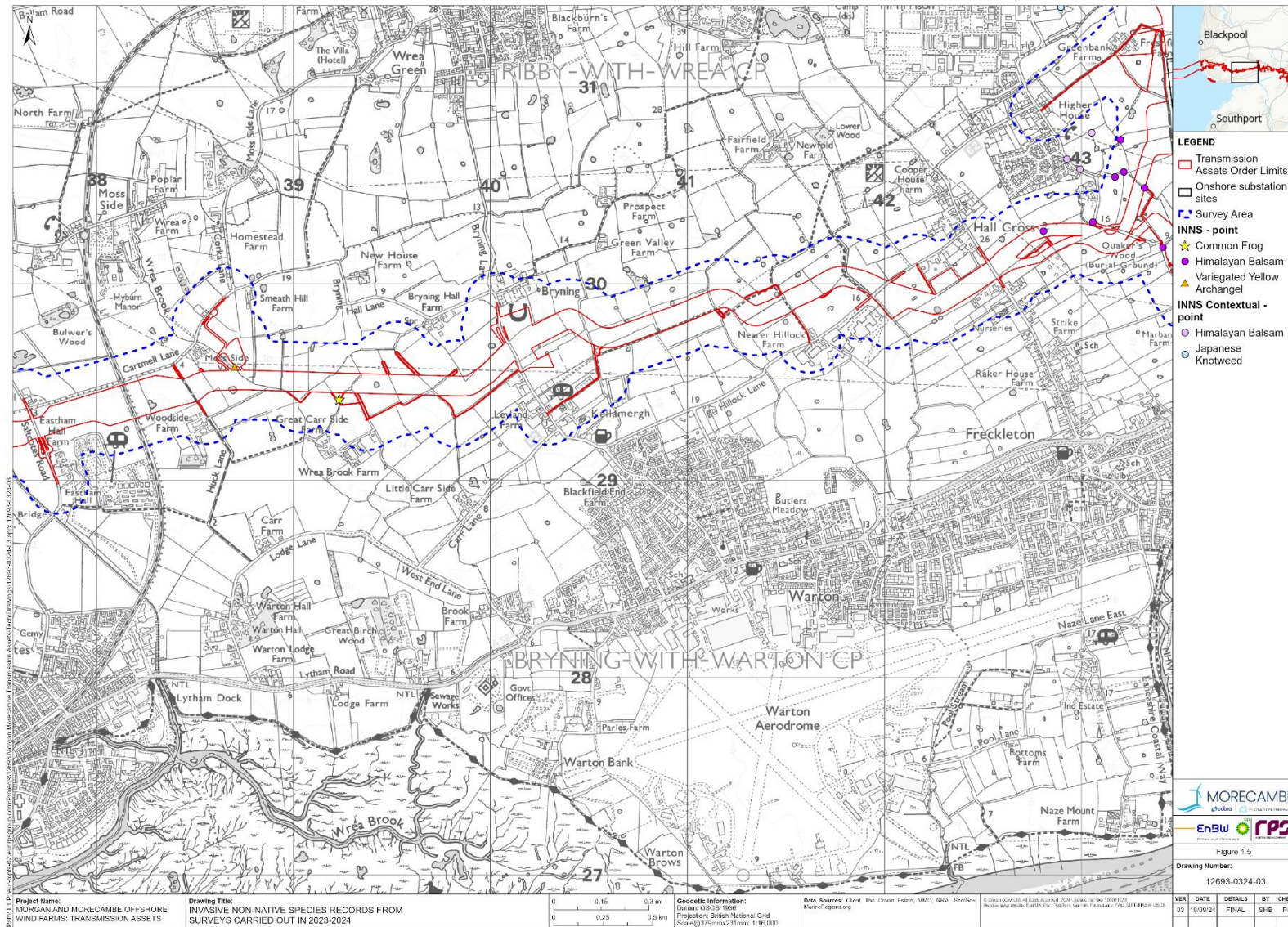


Figure 1.5: Incidental Schedule 9 INNS records from ecology surveys (4 of 7)

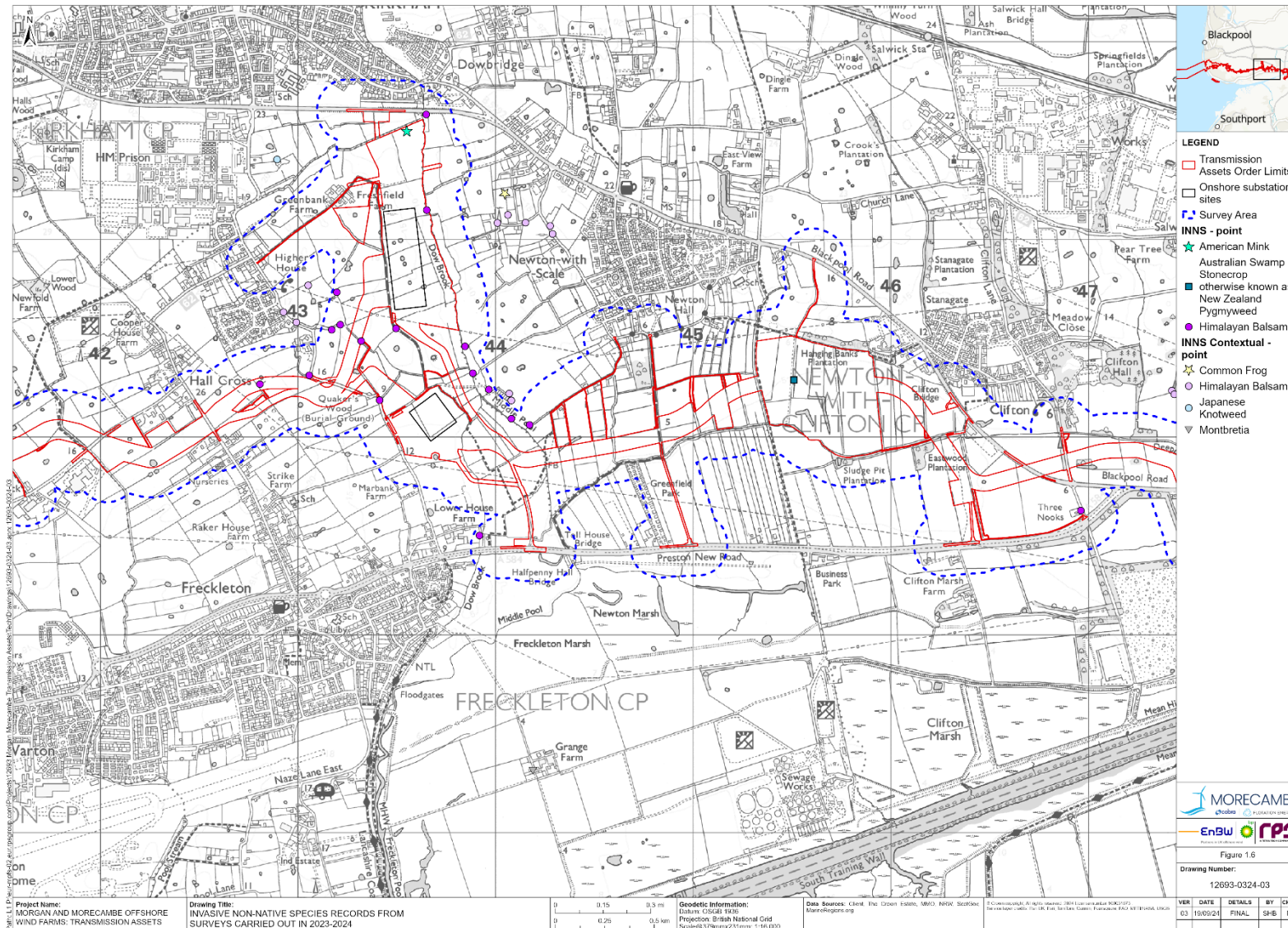


Figure 1.6: Incidental Schedule 9 INNS records from ecology surveys (5 of 7)

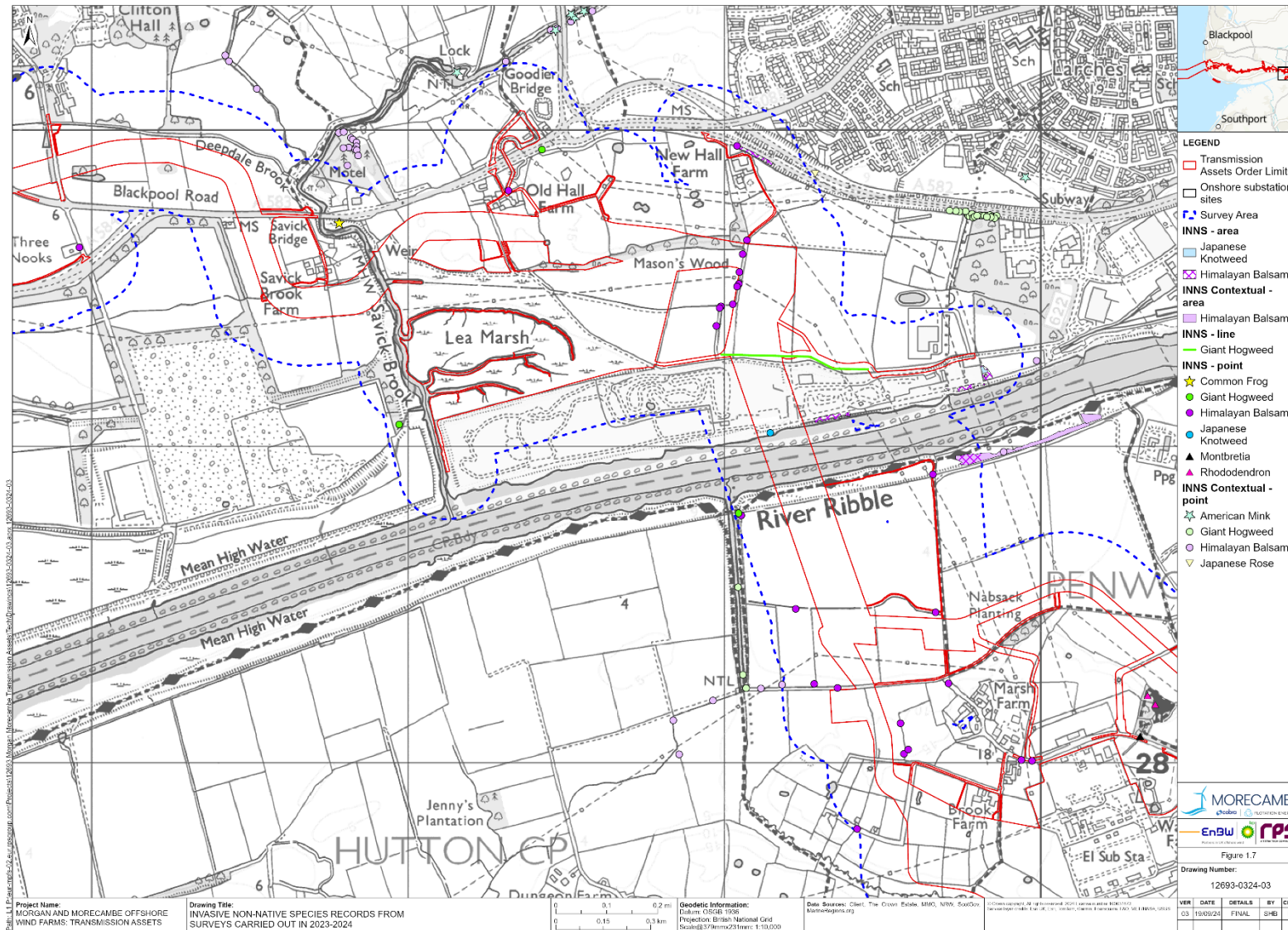


Figure 1.7: Incidental Schedule 9 INNS records from ecology surveys (6 of 7)

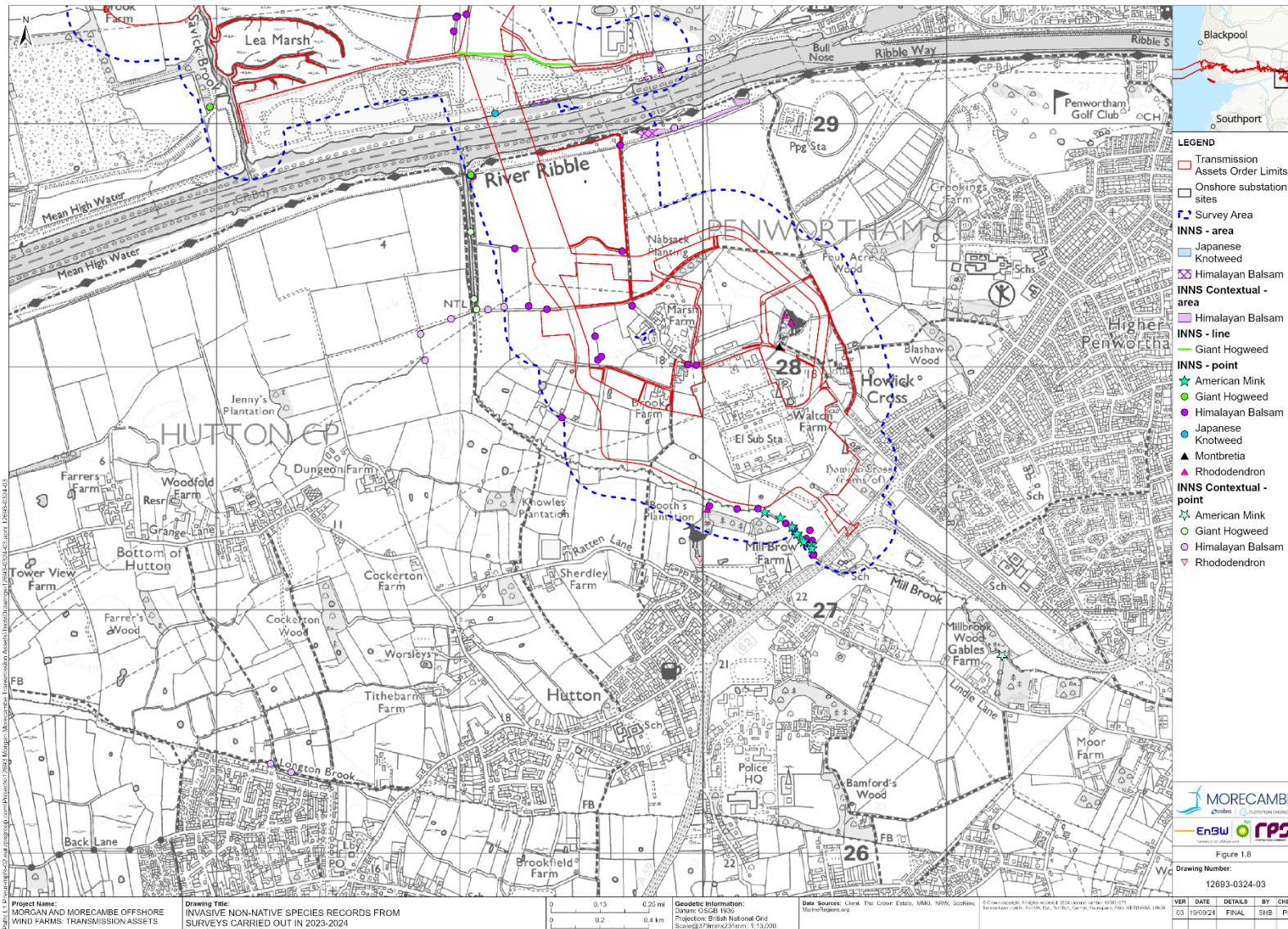


Figure 1.8: Incidental Schedule 9 INNS records from ecology surveys (7 of 7)

1.4 Summary

- 1.4.1.1 The desk study and incidental records of Schedule 9 INNS have indicated that the following species will require consideration in the Outline Biosecurity Protocol (document reference: J1.12) and, where appropriate, wider control programmes and the Outline Ecological Management Plan (document reference J6).
- Himalayan balsam – several records of this species occurred, particularly in the watercourse and ditch network in the vicinity of the north substation, and in Savick Brook and watercourses in the vicinity of or within Lea Marsh and the proposed mitigation and biodiversity benefit areas here.
 - Japanese Knotweed – records include one from the area of arable land identified for habitat creation for biodiversity benefit.
 - New Zealand Pigmyweed – record obtained close to the cable corridor in one location.
 - Japanese Rose – occasional record of species recorded during surveys.
 - American mink *Neogale vison* - recorded during otter *Lutra lutra* surveys.
- 1.4.1.2 Several records of INNS were obtained from the desk study data search at the sand dunes at Landfall. As trenchless techniques will be employed to install cables under the dunes, there should be minimal risk of further spread of invasives, but a biosecurity protocol will be produced to cover any works involving staff or plants within the dunes.
- 1.4.1.3 Records of other Schedule 9 INNS species recorded from the data search or during surveys were mostly outside the Onshore Order Limits. Desk study records and incidental records during ecological surveys are considered to provide a reliable indication of the INNS that need to be considered during construction and an initial indication of their locations.
- 1.4.1.4 Given that pre-commencement surveys are required pre-construction to map out the distribution of INNS for development of the Detailed Ecological Management Plan and the Detailed Biosecurity Protocol, full specific survey of INNS was not considered to be required at this stage of the application process.
- 1.4.1.5 Further pre-commencement surveys to inform INNS control measures will be undertaken in advance of construction.

1.5 References

Stace, C (2019) New Flora of the British Isles. 4th edn. Cambridge University Press, Cambridge, UK.