

ETZ Test Rig, Hareness Road Invasive Non-Native Species Management Plan



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CONTROL SHEET

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EXECUTIVE SUMMARY

EnviroCentre Limited was commissioned by ETZ Ltd to produce an Invasive Non-Native Species (INNS) Management Plan for a proposed test rig site at Hareness Road, Aberdeen.

Under the Wildlife and Countryside Act 1981 (as amended by the Wildlife and Natural Environment (Scotland) Act 2011), it is a statutory offence to cause or allow non-native plant species to grow in the wild outside their native range.

A total of eight non- native species with invasive tendencies were recorded within the site boundary:

- Buddleia (*Buddleja davidii*)
- Cotoneaster species (incl. *Cotoneaster simonsii* and *C. horizontalis*)
- Garden lady's-mantle (*Alchemilla mollis*)
- Montbretia (*Crocsmia x crocosmiiflora*)
- Japanese rose (*Rosa rugosa*)
- Larch (*Larix sp.*)
- Sitka spruce (*Picea sitchensis*)
- Tutsan (*Hypericum androsaemum*)

Management options for each species are considered, with reference to the species' ecology and methods of reproduction, and a treatment schedule specific to each species or group of species is provided.

The proposed treatment of INNS will involve chemical and/or mechanical treatment as recommended based on the current guidance for each species. Herbicide application must be undertaken during the peak growing season, approximately May to August in the Northeast of Scotland, and must be applied by qualified professionals in accordance with the product label.

Excavated plant material can be left on site to decompose. It is recommended that material is placed into black plastic bags or covered in black polythene sheeting to accelerate the rate of decomposition and prevent certain species re-rooting.

Repeated treatments are likely to be required over several years for larger populations of INNS. Ongoing monitoring is critical to preventing the re-establishment of target species.

Contents

Executive Summaryi

1 Introduction 1

 1.1 Terms of Reference 1

 1.2 Scope of Report 1

 1.3 Site Description 1

 1.4 Legislation, Policy and Guidance 1

 1.5 Report Usage 1

2 Methods 3

 2.1 Field Survey 3

 2.2 Constraints 3

3 INNS Locations and Ecology 4

 3.1 Montbretia 4

 3.2 Garden Lady’s-Mantle 4

 3.3 Cotoneasters 4

 3.4 Other INNS 5

4 INNS Management Plan 6

 4.1 Management Recommendations and Control Methods 6

 4.2 Treatment Schedule 8

Appendices

- A INNS Survey Plan
- B Photographic Record

1 INTRODUCTION

1.1 Terms of Reference

EnviroCentre Limited was commissioned by ETZ Ltd to conduct an Invasive Non-Native Species (INNS) survey at a proposed test rig site associated with the offshore wind sector, with associated infrastructure and lighting. The study area is defined by the red line site boundary indicated in Appendix A.

1.2 Scope of Report

This report will outline the INNS survey results and provide species-specific management recommendations with the goal of eradication from site. Included with this report are Survey Plans (Appendices A to C) showing recorded INNS locations.

1.3 Site Description

The site is situated south of Aberdeen, located at NJ 9588 0262, at an elevation of 55m above sea level. Dense gorse scrub dominates the site, with areas of acid grassland and sparsely vegetated land scattered throughout. Hareness Road borders the site to the south, Altens Industrial Estate to the north and west, and grassland and scrub border the site to the south and east.

1.4 Legislation, Policy and Guidance

In Scotland the law on non-native species is covered by the Wildlife and Countryside Act 1981 (as amended by the Wildlife and Natural Environment (Scotland) Act (2011)).

Under such legislation, in Scotland, it is an offence to plant, or otherwise cause to grow, a plant in the wild at a location outside its native range.

Information on Invasive Non-Native Species is provided by NatureScot¹ and the Non-Native Species Secretariat (NNSS)².

1.5 Report Usage

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre Limited.

If this report is to be submitted for regulatory approval more than 12 months following the report date, it is recommended that it is referred to EnviroCentre Limited for review to ensure that any relevant changes in data, best practice, guidance or legislation in the intervening period are integrated into an updated version of the report.

¹ NatureScot (2023) Professional Advice: Invasive Non-native Plants. Available at: <https://www.nature.scot/professional-advice/protected-areas-and-species/protected-species/invasive-non-native-species/invasive-non-native-plants>

² Non-Native Species Secretariat (NNSS). Available at: <https://www.nonnativespecies.org/legislation/species-of-special-concern/>

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2 METHODS

2.1 Field Survey

The field survey was undertaken on the 27th May 2024 by EnviroCentre Ecologist Jake Brendish, an Associate member of the Chartered Institute of Ecology and Environmental Management (ACIEEM).

The survey involved a search of the site area for INNS and other undesirable plant species. All INNS locations were recorded as point data in the field within a bespoke QField³ project with underlying aerial maps used to aid navigation and accuracy.

2.2 Constraints

The survey was undertaken during the peak growing season at a time when most undesirable plant species were likely to be visible. However, due to the dense scrub and number of INNS present, it is possible that some small plants may have been missed.

³ <https://qfield.org/>

3 INNS LOCATIONS AND ECOLOGY

The following section should be read in conjunction with Appendix A: INNS Survey Plan and Appendix B: Photographic Record.

Eight non-native species with invasive tendencies were recorded on site:

- Buddleia (*Buddleja davidii*)
- Cotoneaster species (incl. *Cotoneaster simonsii* and *C. horizontalis*)
- Garden lady's-mantle (*Alchemilla mollis*)
- Montbretia (*Crocsmia x crocosmiiflora*)
- Japanese rose (*Rosa rugosa*)
- Larch (*Larix sp.*)
- Sitka spruce (*Picea sitchensis*)
- Tutsan (*Hypericum androsaemum*)

3.1 Montbretia

Four distinct stands of Montbretia were present, all close to the eastern edge of site.

Montbretia is a monoecious plant and common garden escape which can occasionally produce viable seed. However, it mostly reproduces vegetatively, with rhizomes giving rise to new shoots a short distance from the parent plant⁴. In this way, montbretia clones itself so readily that even small root fragments may lead to the establishment of a new plant if improperly disposed of.

3.2 Garden Lady's-Mantle

Two large patches of garden lady's-mantle were recorded on site: one on sparsely vegetated urban land to the north, and a larger patch on acid grassland to the south. A small number of plants were also noted along the eastern boundary between these colonies.

Garden lady's-mantle is another common garden escape, and has been cultivated in the UK since the 19th Century. It can form dense patches which smother slower-growing native vegetation. While it primarily reproduces by seed, it can also spread via rhizome fragments in a similar fashion to Montbretia.

3.3 Cotoneasters

At least three species of Cotoneaster were recorded. Himalayan cotoneaster (*C. simonsii*) was scattered at low density across much of the site, while wall cotoneaster (*C. horizontalis*) was recorded in a single location towards the eastern boundary. At least one other large-leaved cotoneaster species was frequent along the western boundary fence.

⁴ Non-native Species Secretariat – Montbretia: <https://www.nonnativespecies.org/non-native-species/information-portal/view/1040>

The fruits of *Cotoneaster* species are frequently consumed by frugivorous bird species. Each fruit typically contains 3 or more seeds, which are dispersed via bird droppings and germinate as a clone of the parent plant. The seeds can remain viable for up to five years.

While extensive across the site, *Cotoneasters* are best managed using standard INNS control methods and are therefore included within the management plan for other INNS (see 3.4 below).

3.4 Other INNS

The remaining undesirable species were present at a lower frequency within the southern half of the site:

- *Buddleia* – a single plant adjacent to the southwest fence;
- Japanese rose – single bush 10m from the southwest fence;
- Larch and Sitka spruce – saplings scattered to the north of the southwest fence; and
- *Tutsan* – two plants approx. 15m from the east boundary.

4 INNS MANAGEMENT PLAN

Herbicides must be applied by qualified professionals in accordance with the product label.

4.1 Management Recommendations and Control Methods

With the exception of montbretia, the INNS present can all be removed mechanically by pulling or digging the plants from the soil. It is essential that all root masses and rhizomes are removed during this process to prevent any regrowth of the plants. Additionally, chemical control with a systemic herbicide may be appropriate prior to mechanical removal to maximise efficacy.

Removed vegetation should be left to decompose on site or disposed of at an approved facility. Chemically treated plants should remain undisturbed to allow the herbicide to work.

Mature infestations often have a significant number of viable seeds built up in the soil. The management programme aims to deplete the seed bank over time by killing or removing emergent plants prior to seed production. Management must therefore continue until the seed bank is completely depleted.

Table 4-1 overleaf details suitable mechanical and chemical control methods for each of the remaining INNS on site. Whilst mechanical and chemical control methods can be undertaken separately, a combination of both is often the most effective means of controlling INNS infestations (where appropriate).

Table 4-1: INNS Control Methods

Species	Mechanical Control	Chemical Control	Timing
Buddleia	Removal of all parts of the plant via digging.	Not recommended due to limited extent of buddleia across the site and risk of herbicide application to adjacent non-target species.	Spring – prior to seed production.
Cotoneaster species	Young seedlings can be pulled from the soil. Larger plants develop multiple stems from the large root mass, which should be excavated to remove the entire plant and prevent regrowth.	Smaller individuals may be foliar sprayed with herbicide, with the addition of wetting agents to improve the uptake of the chemicals. Larger individuals can be stump treated promptly after cutting to kill the plant.	Early spring – prior to flowering and berry production. A nesting bird check must be undertaken prior to clearance of large-leaved species along western boundary if during peak nesting season (April to August inclusive).
Garden lady's-mantle	Plants should be dug up by hand, with a focus on removing as much of the root material as possible.	Not recommended in isolation , though plants can be treated prior to mechanical removal.	Spring – prior to flowering.
Japanese rose	The plant and root system can be excavated but it is essential that the entire root system is removed.	Foliar spraying with systemic herbicide can be undertaken prior to mechanical removal to maximise eradication success.	Removal during the winter may be more efficient as it is easier to see all plant bases.
Larch & Sitka spruce saplings	The youngest seedlings can be pulled from the soil by hand. Larger plants should be dug out from the roots.	Not recommended due to limited benefit of stem injection in very young plants and high risk of non-target application for foliar spraying.	No seasonal restrictions.
Montbretia	Not recommended in isolation , though dead plants can be mechanically removed after treatment.	Foliar spraying with systemic herbicide to kill the entire rooting system.	Spring – prior to flowering and during peak growth period. Follow-up treatment in summer if required.
Tutsan	Removal of all parts of the plant via digging. Care must be taken to ensure all root material is removed.	Not recommended due to limited extent of tutsan across the site.	Spring – prior to fruit production.

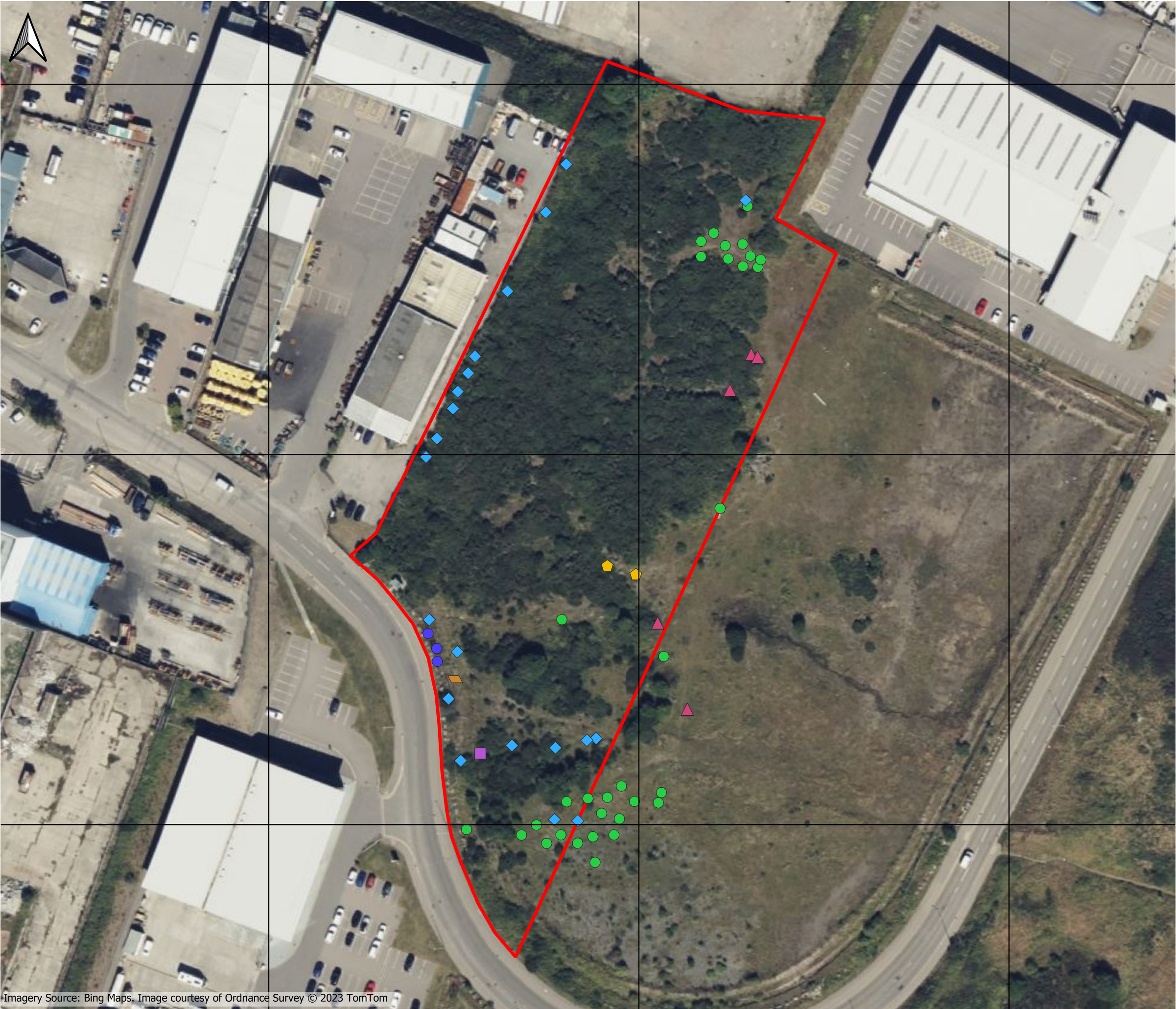
Excavated material should be left on site to decompose, though it is recommended that all plant material is placed into black plastic bags or covered in black polythene sheeting. This serves the dual purpose of accelerating decomposition by blocking light and increasing temperature and preventing those species capable of vegetative reproduction from re-rooting.

Regular monitoring will be required in the years following treatment to avoid reestablishment of INNS.

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APPENDICES

A INNS SURVEY PLAN



Imagery Source: Bing Maps. Image courtesy of Ordnance Survey © 2023 TomTom

Legend

Site Boundary

INNS Update

- Buddleia
- Conifer saplings
- ◆ Cotoneaster sp.
- Garden lady's-mantle
- ▲ Montbretia
- Japanese rose
- ◆ Tutsan

Do not scale this map

Client
ETZ Ltd

Project
Cable Test Rig, Hareness Road

Title
INNS Location Plan

Status
FINAL

Drawing No. 378984-QGIS005	Revision -	Date 29 May 2024
Drawn JB	Checked ACS	Approved GN

Scale
1:1,000 @ A3 0102030 m

Rev	Date	Amendment	Initials
-	-	-	-



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B PHOTOGRAPHIC RECORD



Photo 1: Garden Lady's Mantle in the southern half of site



Photo 2: Wall Cotoneaster



Photo 3: Himalayan Cotoneaster



Photo 4: Large-leaved Cotoneaster species