

Cardiff Council
Coastal Defence Scheme
Invasive Species Management Plan
March 2024



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CARDIFF COASTAL DEFENCE SCHEME INVASIVE SPECIES MANAGEMENT PLAN

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Details of document preparation and Issue:

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1	Simon Dooley	Michelle Barker	Gary Brown	28/02/2024	Draft for Review

CARDIFF COASTAL DEFENCE SCHEME INVASIVE SPECIES MANAGEMENT PLAN

1. Location and Description of Invasive Species

Introduction

This invasive species management plan has been prepared to support the proposed construction of The Cardiff Coastal Defence Scheme along the banks of The River Rhymney and The Coastal Foreshore. This plan was prepared as a result of multiple surveys within and adjacent to the project site which identified extensive areas of Japanese Knotweed.

An adjacent well developed coastal saltmarsh is considered to be supporting habitat for the Severn Estuary SAC/SPA/Ramsar and as such the control of the invasive species including post construction monitoring and remedial actions if required are considered vital.

Responsible persons and contact details

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Table 1.1 – Responsible persons*Japanese Knotweed*

Japanese Knotweed is present in numerous locations within and adjacent to the project site and is further detailed in table 1.2 below and location plans in Appendix A.

Location	Description	Approximate Grid Reference
Rear of Rover Way Traveller Camp (Location 12)	Area of Knotweed stems present within the working area and also within the project area itself	ST 21872 76678 ST 22029 76905 ST 22053 77028
Adjacent to Rumney Yacht Club (Location 22)	Area of Knotweed stems present within the working area and also within the project area itself	ST 21848 77418 ST 21691 77500
Bend of River near Southern Way Bridge (Location 32)	Area of Knotweed stems present within the working area	ST 21439 77624
Between Southern Way and Lamby Way (Location 42)	Area of Knotweed stems present within the working area	ST 21503 78010

Table 1.2 – Locations of Know Japanese Knotweed*Aquatic Invertebrate Invasive Species*

Ecological survey and reporting to date has not identified the presence of aquatic invertebrate invasive species. However as species have been recorded further along the shoreline, a marine assessment has been completed as is attached in appendix C.

2. Legislation

JK is listed within Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). It is a criminal offence to plant or to cause them to grow in the wild under these Regulations. Penalties may include a fine and/or 6 months imprisonment, or 2 years and/or an unlimited fine on indictment.

Legislation covering the handling and disposal of invasive species include the following:

- The Invasive Alien Species (Enforcement and Permitting) Order 2019
- The Highways Act 1980;
- The Control of Pesticides Regulations 1986

- The Environmental Protection Act 1990;
- The Town and Country Planning Act 1990 (as amended);
- The Environmental Protection (Duty of Care) Regulations 1991;
- The Water Resources Act 1991;
- The Landfill (England and Wales) Regulations 2007;
- The Hazardous Waste Regulations 2005;
- The Waste Management Licensing Regulations 1994;
- The Environmental Permitting Regulations 2010 (as amended);
- The Control of Substances Hazardous to Health (COSHH).

3. Current Treatment

There is currently no direct treatment of the Japanese Knotweed at this site however a yearly visual survey is undertaken by Cardiff Councils Public Rights of Way Team to ensure no spreading of Japanese Knotweed is taking place.

4. General Recommendations for Invasive Species Management on construction sites

Japanese Knotweed

As a general rule, a 7m horizontal construction exclusion zone should be implemented around a stand of JK, unless otherwise advised by a specialist and suitably-qualified contractor. This is considered to be the maximum horizontal distance that JK rhizomes are likely to cause infestation of the soil. The JK stand and construction exclusion zone should be isolated with fencing and a restricted access sign attached. There is no specified vertical limit of potential rhizome infestation however, the rhizome rarely penetrates deeper than 3m.

Long Term Herbicide treatment is advised as the first line of treatment with Glyphosate being the preferred product. This required to be undertaken by a qualified contractor and if the knotweed is near open water than a licence is required from NRW.

Japanese Knotweed is located extensively through the project site as described in section 1. A 7m exclusion zone will be implemented around these locations. Where it will not be possible to avoid ground disturbance a management approach will be required as set out in Section 5.

Aquatic invertebrate invasive species

As described in Section 1 there are invasive marine species along the shoreline and as such standard biosecurity requirements will be required to be followed as per the Good site practice below and the risk assessment in Appendix C.

Good Site Practice

Good site practice with sufficient control methods should ensure the following:

- All Japanese Knotweed locations not within the construction zone should be clearly marked to avoid spread
- All vehicles and footwear to be cleaned on arrival
- Any vehicles or personnel required to enter the 7m exclusion zone should be suitably inducted and informed of the risk and boots and vehicles thoroughly checked and cleaned before leaving the exclusion zone
- The designated cleaning area should be within an area of Hardstanding or covered by a membrane that will allow waste collection
- All site staff and contractors should be made aware of their responsibility regarding invasive species. This should be provided by tool box talks
- Any works involving the invasive species should be signed off by the Ecological Clerk of Works

5. Proposed Invasive species management as part of The Cardiff Coastal Defence Scheme

Prior to commencement of works a visual survey will be undertaken by the contractor and Ecological Clerk of Works to ensure no new Knotweed locations have generated.

Further works involving the knotweed is detailed in table 5.1 below:

Location	Treatment
Rear of Rover Way Traveller Camp (Location 12)	<i>Prior to construction:</i> A pre-construction survey will be undertaken to ensure no new locations of Knotweed are present. Japanese Knotweed stems are to be cut 10cm above ground level to avoid spreading the knotweed crown, rhizome and/or propagules. The cutting of the stems at 10cm ensures that all is cut is the winter stems. The Cut Japanese Knotweed stems to be cleared and mulched down on site in areas of known existing Japanese knotweed. <i>During construction:</i> Good site practice to be followed. 1. There will be an initial scrape of 500mm across the area. 2. The PCA CSJK will then identify remaining Japanese Knotweed rhizome that may require further excavation in order to facilitate the required depth for the ground works to take place in such a way as to not result in any spread of the Japanese Knotweed material.

	3. The dumper trucks used to transport the material will be $\frac{3}{4}$ filled to prevent material falling out. 4. The excavated Japanese Knotweed material to be stored within the area already containing Japanese Knotweed, with the topsoil being stored separately to the sub soil. 5. The stored material to be profiled to ensure stability and integrity of the stored material. 6. Exclusion zones to be set up around these storage areas using Heras Fencing and appropriate signage, for ongoing monitoring during the re-engineering process. 7. The signage will indicate that it is stored Japanese Knotweed material and that it is a restricted access area. 8. The storage zones will be mapped and recorded. 9. This excavated material, both the top soil and sub soil to be re-used within identified Japanese Knotweed areas only. 10. The summary is that all excavated material, containing Japanese Knotweed crown and rhizome, will stay within known, identified, Japanese Knotweed zones.
Adjacent to Rumney Yacht Club (Location 22)	<i>Prior to construction:</i> A pre-construction survey will be undertaken to ensure no new locations of Knotweed are present. Japanese Knotweed stems are to be cut 10cm above ground level to avoid spreading the knotweed crown, rhizome and/or propagules. The cutting of the stems at 10cm ensures that all is cut is the winter stems. The Cut Japanese Knotweed stems to be cleared and mulched down on site in areas of known existing Japanese knotweed. <i>During construction:</i> Good site practice to be followed. 1. There will be an initial scrape of 500mm across the area. 2. The PCA CSJK will then identify remaining Japanese Knotweed rhizome that may require further excavation in order to facilitate the required depth for the ground works to take place in such a way as to not result in any spread of the Japanese Knotweed material.

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Bend of River near Southern Way Bridge (Location 32)	<i>Prior to construction:</i> A pre-construction survey will be undertaken to ensure no new locations of Knotweed are present. Japanese Knotweed stems are to be cut 10cm above ground level to avoid spreading the knotweed crown, rhizome and/or propagules. The cutting of the stems at 10cm ensures that all is cut is the winter stems. The Cut Japanese Knotweed stems to be cleared and mulched down on site in areas of known existing Japanese knotweed. <i>During construction:</i> Good site practice to be followed. 1. There will be an initial scrape of 500mm across the area. 2. The PCA CSJK will then identify remaining Japanese Knotweed rhizome that may require further excavation in order to facilitate the required depth for the ground works to take place in such a way as to not result in any spread of the Japanese Knotweed material.

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Between Southern Way and Lamby Way (Location 42)	<i>Prior to construction:</i> A pre-construction survey will be undertaken to ensure no new locations of Knotweed are present. Japanese Knotweed stems are to be cut 10cm above ground level to avoid spreading the knotweed crown, rhizome and/or propagules. The cutting of the stems at 10cm ensures that all is cut is the winter stems. The Cut Japanese Knotweed stems to be cleared and mulched down on site in areas of known existing Japanese knotweed. <i>During construction:</i> Good site practice to be followed. 1. There will be an initial scrape of 500mm across the area. 2. The PCA CSJK will then identify remaining Japanese Knotweed rhizome that may require further excavation in order to facilitate the required depth for the ground works to take place in such a way as to not result in any spread of the Japanese Knotweed material.

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6. Ongoing Monitoring and Management

The Invasive Species Management Plan will be regularly monitored by the persons named in Section 1 and updated where required.

Site workers and the ECW will remain vigilant for the new growth of invasive species within and in close proximity to the works, and this Invasive Species Management Plan will be updated accordingly.

Post construction the flood defences will be inspected annually by a T98 qualified officer. Said officers will also undergo training in invasive species so a visual survey can also be undertaken of the site.

The monitoring and inspection of the area for invasive species is detailed in table 6.1 below. Should any remedial works be required then a suitably qualified contractor will be appointed.

Time after project completion	Inspection frequency
Project completion	Immediate inspection
Up to 1 year	Every 3 months
2 – 5 years	Every 6 months
Post 5 years	Annually

