

THE HIGHLAND COUNCIL

PLANNING ENVIRONMENT AND DEVELOPMENT COMMITTEE

Agenda Item	7
Report No	PED 5/14

8TH JANUARY 2014

HIGHLAND INVASIVE NON-NATIVE SPECIES POLICY / HIGHLAND COUNCIL INNS POLICY / JAPANESE KNOTWEED RISK ASSESSMENT

Report by Director of Planning and Development

Summary

This report presents 3 papers for approval: The revised Highland Invasive Non-native Species Strategy 2013-16, Highland Council's Invasive Non-native Species policy and a proposed risk assessment for Japanese Knotweed. The paper also highlights key issues associated with the proposed policies and risk assessment.

1. Background

- 1.1 Invasive species were identified as being a significant local threat to the biodiversity of Highland in the Highland Biodiversity Action Plan (2006). This being the case the Highland Invasive Species Group was convened in 2008. The Highland Invasive Species Group is a sub-group of the Highland Biodiversity Partnership, which itself is now part of the Highland Environment Forum. The Council is a member of the Highland Invasive Species Group through its Biodiversity Officer, who acts as its secretariat.
- 1.2 The Highland Council was a signatory to the Highland Invasive Species Strategy 2010-2012 and the revised version of this is appended for approval in this paper (Annex1).
- 1.3 Currently the Highland Council controls Japanese Knotweed and Himalayan Balsam on some of its land holdings and provides support for the Inverness Invasive Non-Native Plant Species Project and Giant Hogweed Control Project on the Munloch and Auldearn Burns.

2. Invasive Species

- 2.1 An invasive non-native species (INNS) is any non-native animal or plant that has the ability to spread causing damage to the environment, the economy, our health and the way we live.
- 2.2 There is a legal requirement via the Wildlife and Natural Environment (Act) 2011 not to spread invasive species either deliberately or inadvertently. This

also applies to soil contaminated with seeds or vegetative material that can germinate. The main species that concern the Highland Council are Giant Hogweed, Japanese Knotweed and Himalayan Balsam.

3 Highland Council Invasive non- Native Species Policy

- 3.1 Annex 2 proposes an INNS policy for Highland with the following 6 priority species highlighted: Rhododendron, Giant Hogweed, Himalayan Balsam, Japanese Knotweed (including Giant and hybrid Knotweeds), American Mink and Grey Squirrel. The policy also provides guidance for prioritising areas for control and activity and the extent of control that the Council should undertake.

4 Japanese Knotweed assessment

- 4.1 Annex 3 summarises the risks associated with Japanese Knotweed and identifies ways of prioritising sites to be controlled (high risk sites), the assessment process to be followed and the extent of control that the Council should undertake.
- 4.2 There is growing demand for an integrated approach to INNS control in Fort William, which is the other urban area in Highland with a significant Japanese Knotweed problem. In November 2013 the Biodiversity Officer convened a meeting between the relevant external organisations and Highland Council Services to identify means to deliver coordinated control of INNS in Fort William.

5 Resource Implications

- 5.1 If control of these plant species on Highland Council owned land is to increase there will be resource implications for the Council. However there is currently no single figure for how much Services spend on INNS control and how much is planned in the future. TECS is currently drafting a tender specification for weed control on their sites and INNS control could be part of this contract. The total extra resource required for control of INNS by Highland Council is unlikely to be great, as long as it involves spraying. Total additional cost is estimated at under £20,000 per annum. However if soil needs to be removed or cleaned then the cost increases. For example the Japanese Knotweed by the Inverness Campus access was excavated and the soil sieved repeatedly until all the root fragments of Japanese Knotweed were removed at a cost of £200,000. Should spraying not prove effective on any Council owned site a paper will be brought back to members for their consideration and approval.
- 5.2 A key requirement for control is greater coordination of activity and improved data management. The Biodiversity Officer will manage an Invasive Species database on behalf of the Council. It should be noted that resources spent on INNS control as part of a long-term control scheme will save the Highland Council money in the long term.
- 5.3 The Highland Council, through the biodiversity budget, currently contributes to various Highland-wide strategic projects including the Northern Mink Project,

Highland Rhododendron Project, Giant Hogweed Project and the Inverness Non-native Plant Scheme Project. Project support amounts to just under £7,000 annually, with significant leverage from other funding sources.

6 **Legal Implications**

- 6.1 There is a legal requirement through the Wildlife and Natural Environment (Act) 2011 not to spread invasive species either deliberately or inadvertently. This also applies to soil contaminated with seeds or vegetative material. Training has been provided to TECS operatives by the Biodiversity Officers on this issue. There is no legal implication, provided Council operatives are not responsible for the spread of Japanese Knotweed in the future.

7 **Equalities and Climate Change implications**

- 7.1 There are no equalities or climate change implications arising from this paper.

8 **Risk Implications.**

- 8.1 We are now seeing the spread of plants which were previously non-invasive e.g. Gunnera in Skye and Lochalsh. Early intervention, “nipping problems in the bud”, costs little and removes the issue. If the Council does not control INNS this may lead to spiralling future control costs e.g. Giant Hogweed in Stirling. As a result the Highland Council should continue to participate in and support strategic INNS control projects in Highland.
- 8.2 Uncontrolled INNS could also have an economic impact through reduced attractiveness of tourist sites.
- 8.3 By supporting strategic projects and controlling INNS on Council-owned sites, the Council will be doing all it can to minimise INNS spread in the Highlands.

Recommendation

Members are invited to:

- (a) Approve and adopt the revised Highland Invasive Non-native Species Strategy 2013-16.
- (b) Approve and adopt the Highland Council’s Invasive Non-native Species policy and the recommendations within it.
- (c) Agree to support the priority assessment of sites where Japanese Knotweed is present on Council owned land or on neighbouring ground where Japanese Knotweed makes up less than 10% of the Japanese Knotweed patch.

Designation: Biodiversity Officer (job-share)

Date: 9/12/13

Author: Jonathan Willet

Background Papers:

Appendix 1: Highland Invasive Non-native Species Strategy 2013-16

Appendix 2: Highland Council's Invasive Species Policy

Appendix 3: Japanese Knotweed Risk Assessment.

**Highland Invasive Species Forum
The Highland Non-native Invasive Species Strategy 2013-16.**

Aims:

1. To bring the priority Invasive Non-native Species (INNS) in Highland under control through coordinated control programmes, leading to local or regional eradication if feasible in the long term.
2. To minimise the number of INNS colonising Highland.

Actions to be delivered in 2013-16

1. Improve data coverage and currency e.g. Species distribution, change in distribution.
2. Best available advice. Keep updating it and make sure it is widely available.
3. Training of local contractors on INNS control methods.
- 4.1. Biosecurity (terrestrial): develop generic protocols for dealing with a species new to Highland or spreading into a new area in Highland. Agree set lines of communication.
- 4.2. Biosecurity (terrestrial): Investigate the pathways for new INNS to spread into Highlands and develop and disseminate awareness raising materials to reduce this risk as required.
5. Improve the Highland Invasive Non-native Species web pages.

Ongoing Objectives:

1. To bring together the key players and take stock of the situation regarding invasive non-native species in Highland;
 - 1.1. *Convene a regular Highland Invasive Species Forum.*
 - 1.2. *To provide a point or points of contact for INNS issues.*
2. To raise awareness and spread good practice;
 - 2.1. *Collect and mobilise data relating to INNS in Highland and make this data publically available.*
 - 2.2. *Raise the profile of the issues relating to INNS to the public, agencies, organisations and landowners.*
 - 2.3. *To make the best available management advice available to the above.*
 - 2.4. *To provide training on the most effective measures for INNS control.*
 - 2.5. *To encourage community involvement in survey and where appropriate control programmes.*
 - 2.5. *Ensure no high risk INNS are introduced to Highland.*
 - 2.6. *Stop or if this is not possible slow the spread of high risk INNS into Highland.*
3. To identify any major gaps and prioritise key areas for future work;
 - 3.1. *Undertake projects to identify the existing and available data on INNS in Highland.*
 - 3.2. *Produce maps identifying key control areas in Highland.*
 - 3.3 *Promote research into key INNS or management issues.*

4. To work together to initiate programmes of INNS control.
 - 4.1. *Institute a strategic and coordinated control programme for the identified top 6 species in Highland (see Appendix 1).*
 - 4.2. *Institute strategic and coordinated control programme locally important INNS were possible.*
 - 4.3. *Tackle INNS at the appropriate scale; preferably at the catchment level or above.*
 - 4.4. *Maximise the coordination between agencies, RAFTS Biosecurity Plans, NGOs, community bodies and land managers in any control projects.*
 - 4.5. *Seek to ensure that projects will deliver the stated goals and cleared sites will not be reinvaded at the end of the project.*
 - 4.6. *Support local groups to take forward control projects for local priority INNS e.g. Salmonberry in Caithness as well as Highland, Scottish and UK priority INNS.*
 - 4.7. *Work to maximise access to resources available through the SRDP and other funding streams.*

Appendix 1 - Policy for Top 6 species.

Rhododendron.

- Identify key control areas.
- Aim to bring Rhododendron under control in these areas working towards functional eradication. (see note 1).
- Reduce the overall area of Rhododendron in Highland.
- Encourage and facilitate landscape scale control programmes with land manager collaboration, wherever possible.

Note 1. Functional eradication means that all bushes have been destroyed, however it is accepted that seedlings may keep appearing for years to come from the existing seedbank. Therefore sites will need to be visited regularly to ensure these seedlings are removed and do not establish themselves.

Himalayan Balsam

- Seek to eradicate this from catchments.
- Coordinate control between land managers on a catchment.
- Involve local community volunteers wherever possible.

Giant Hogweed

- Seek to eradicate this from catchments.
- Coordinate control between land managers on a catchment.
- Ensure the projects last for at least 5 years.

Japanese Knotweed (this includes Giant Knotweed and any hybrids of these two species)

- Use the Priority Assessment criteria to identify key control areas.
- Control at the appropriate scale for the infestation, in partnership with all adjacent land managers.
- Seek to eradicate Japanese Knotweed from Transport corridors/ riparian zones/ sites that are loci for its spread by humans.
- Eradicate it from development sites prior to development starting.
- Seek to control this species in other high risk of spread areas.
- Ensure the projects last for at least 5 years.

American Mink.

- Monitor this species on the *cordon sanitaire* stretching north from Ullapool to Dornoch, with a view to maintaining this area as Mink-free
- Support the National Mink Control Project to deliver action in Highland pushing Mink further south.

- Support local initiatives for Mink survey and control, where groups can prove that there is practical local support and a stand-alone, defensible area in the long term.

Grey Squirrel.

- Maintain the Highlands free of Grey Squirrels.
- Make sure key organisations are aware of who to contact should a Grey Squirrel be sighted.
- Support the Scottish Squirrel Strategy.

Highland Council Policy on Invasive Non-native Species.

1. Definitions (from the GB INNS website).

1.1. Native Species

Native species are those species who have colonised the British Isles since the end of the last Ice Age (around 10,000 years ago) under “their own steam” and not through deliberate or inadvertent human agency. The Collared Dove is a good example of a recent natural colonist. Native species ranges are not fixed and can fluctuate due to climatic conditions.

1.2. Non-native Species.

Man first arrived in Britain about 8,000 years ago and most land animals and plants that have become established since this date have been brought here by man. These are termed non-native species.

1.3. Invasive Non-native species (INNS).

An invasive non-native species is any non-native animal or plant that has the ability to spread causing damage to the environment, the economy, our health and the way we live. These make up a small proportion of the INNS present in the British Isles.

2. National and International Policy Drivers.

There are a series of International and National policy drivers for the control of Invasive Species.

- Convention on Biological Diversity (1992).
- The Convention’s European Strategy on Invasive Alien Species (2003).
- Nature Conservation (Scotland) Act 2004.
- The Invasive Non-native Species Framework Strategy for Great Britain (2008)
- Convention on Biological Diversity Strategic Plan for Biodiversity 2011-2020, including the Aichi Targets. (2010).
- Wildlife and Natural Environment (Scotland) Act 2011.

3. Local Background.

Invasive species were identified as being a significant local threat to the biodiversity of Highland in the Highland Biodiversity Action Plan (2006). With this being the case, in 2008 the Highland Invasive Species Group was convened. It is a sub-group of the Highland

Biodiversity Partnership, which itself is now part of the Highland Environment Forum. The Council is a member of the Highland Invasive Species Group through its Biodiversity Officer, who acts as secretariat.

There is a legal requirement through the Wildlife and Natural Environment (Act) 2011 not to spread invasive species either deliberately or inadvertently. This also applies to soil contaminated with seeds or vegetative material that can grow into new plants. The main species that concern the Council are Giant Hogweed, Japanese Knotweed and Himalayan Balsam.

There is a legal grey area with the spread of seed from Invasive Plants onto adjoining land holdings. As long as the plant cannot be proven to have been planted deliberately or inadvertently by the Highland Council then it is not liable for controlling the spread of seed under the existing legislation. However, this would go against the principle of the Highland Council being a good neighbour.

As Invasive Species become more and more of an issue for the operations of the Council, it is starting to affect many different services and operations. This being the case there is a pressing requirement for a policy on Invasive Species to be agreed and implemented by the Council and all of its Services.

Any action taken by the Council to control Invasive Non-native Species (INNS) needs to be targeted at the highest priority areas to make the best use of limited financial resources and deliver best value. In the long term this will be a "spend to save" policy that will reduce the Highland Council's potential legal liabilities in relation to INNS in the future and for land earmarked for future development reduce the costs of controlling INNS on these sites and minimise delays to their development.

Currently the Highland Council undertakes some control of Japanese Knotweed and Himalayan Balsam on its land holdings and provides support for the Inverness Invasive Non-Native Plant Species Project and the Giant Hogweed Control on the Munloch and Auldearn Burns.

3.1. Priority Plant and Animal INNS in Highland.

The 6 Priority INNS for Highland are:

- Rhododendron
- Giant Hogweed
- Himalayan Balsam
- Japanese Knotweed (and Giant and hybrid Knotweeds)
- American Mink
- Grey Squirrel

This Policy concerns mainly plant INNS as they are the biggest issue on Council-owned land. The priority animal INNS species are dealt with through the Highland Invasive Species Forum of which the Council is a member. The single priority animal INNS in Highland is American Mink they are much more dispersed than the plants and so need to be dealt with on a whole catchment basis rather than INNS plants which tend to be found in more localised areas. The Grey Squirrel is not currently found in Highland and the action is maintaining vigilance and rapid response to any sightings.

3.2. Prioritisations of Locations.

To maximise the use of limited resources, sites with INNS on them need to be prioritised. Three key types of location are suggested as being of highest priority for control.

- A catchment or sub-catchment scale INNS eradication/ control project that takes place in the vicinity of The Highland Council's' landholdings.
- Land owned by The Highland Council with INNS on it that is deemed to be of high risk of spreading or being spread onto adjacent land or other areas. e.g. road verges, sites to be developed.
- Any other areas identified as high priority by the Japanese Knotweed Priority Site Assessment Document.

4. Policy Proposals.

1. The Highland Council, or a third party designated by them, will undertake INNS control on their land holding to contribute to any catchment or sub-catchment scale INNS eradication/ control project that takes place in the vicinity of its landholdings.
- 2.1 The Highland Council will undertake control of INNS on its land that are deemed to be of high risk of spreading or being spread; either when the whole area of infestation is on its land or when any adjacent landowner who also has part of the same infestation on their land agrees to take forward control work at the same time.
- 2.2 The Highland Council will wholly fund and take forward control of high risk INNS sites that extend beyond their landholding (with the other landowner's permission) but only if 10% or less of the entire infestation is on an adjacent landholding.
- 2.3 If more than 10% of the entire infestation extends beyond Council-owned land, the Highland Council will not start control work until the other landowner has agreed to take forward control on their land at the same time as the Council. The Highland Council will direct the landowner to any funding available for INNS control.
3. The Council will maintain a database of the INNS recorded on its landholding and the level of priority of their location.
4. In its landscaping work the Council will not plant non-native plants in areas deemed to "be in the wild" by the WaNE Act (2011). E.g. Road verges outwith urban boundaries.

Jonathan Willet. August 2013.

Priority Assessment of Sites with Japanese Knotweed Present

1. Link to Highland Council Policy

INNSP 2.1. The Highland Council will undertake control of INNS on its land that are deemed to be of high risk of spreading or being spread; either when the whole area of infestation is on its land or when any adjacent landowner who also has part of the same infestation on their land agrees to take forward control work at the same time.

1.1. Action.

1. On adoption of the Invasive Species Policy Highland Council will identify Japanese Knotweed on High Risk Sites (as described in this document) and then initiate control of these sites that are wholly on its land within 1 year of them having been assessed. The aim of the control is for eradication of the plant from the site, this may take 5 or more years.

2. Highland Council will work in partnership with adjacent landowners on High Risk Sites that are only partially on its land within 3 years of them having been assessed as long as there is adjacent landowner agreement for undertaking Japanese Knotweed control. The aim of the control is for eradication of the plant from the site. Adjacent landowners will be advised of funding for invasive species control available through the Scottish Rural Development Programme (SRDP).

3. Introduction

Picture 1. Japanese Knotweed and Himalayan Balsam (pink flowered).



[Japanese Knotweed](#) is a plant that can cause property damage, reduce a properties value if present nearby and can form new colonies from parts of the plant as small as a thumbnail.

The plant originated in Japan and was brought over to the UK in the early 1800's. Major infrastructure and house building projects since then have moved a great deal of soil around the country and this lead to it being (inadvertently) spread. Fly tipping of soil has also caused this spread. All areas of Japanese Knotweed away from areas with Victorian-era gardens have colonised in this way. (Fly tipping of soil and garden waste is also a mode of spread)

Japanese Knotweed does not currently set seed as all the plants in the UK are female but establishes itself by the suckering of an existing plant from its rhizome (tuberous root system) or by movement of viable plant material (down to thumbnail-sized) to a suitable site.

The rhizome can be as much as 3 metres underground and 7 metres laterally from the parent plant. This underground food store means that the plant can persist for several years even with repeated spraying.

There is the possibility that fertile hybrids could be created as [Giant Knotweed](#) *Polygonum sachalinensis* can pollinate Japanese Knotweed. However there are very few stands in Highland, three obvious ones are at Lael, Letterfinlay and Fort William, but other sites exist. With our warming climate these seeds could germinate, grow and create a huge problem. Therefore Giant Knotweed should be treated wherever it is found on Highland Council land.

4. Treatment.

The main form of treatment is foliar spraying with Glyphosate. This should be carried out towards the end of the growing season when the plant is sending food to its rhizome.

Cutting the stems and filling them with Glyphosate or injecting the stems has also been used and this has been very effective and can be done in wet weather. However it is more time consuming than spraying.

Treatment needs to continue for at least 5 years as the plant is persistent. There is little point starting treatment if it is not seen through to the end.

The most expensive form of treatment is removing the plant and the soil surrounding its rhizome. This can involve the removal of tens or hundreds of cubic metres of soil that need to be disposed of at sites licensed to take “contaminated waste” as described under the Environment Protection Act 1990, these are deep landfill sites. In addition all the machinery in contact with soil contaminated with Japanese Knotweed plant material needs to be cleaned when taken off site. This method is most often used when the plant is found on a development site and needs to be removed quickly. Removal of a large area in this manner can be very expensive and should be treated as a last resort. Early treatment of an infected site can save significant sums of money.

5. Wildlife and Natural Environment Act (Scotland) 2011

The [Wildlife and Natural Environment Act \(Scotland\) 2011](#) act includes provisions for Invasive Non-native Species (INNS). The approach is guided by the internationally recognised three stage hierarchy of a) prevention, b) eradication and c) control and containment.

The Act includes the following statement: “*Subject to the provisions of this Part, any person who plants, or otherwise causes to grow, any plant in the wild at a place outwith its native range is guilty of an offence.*” An offence will not be caused by a landowner allowing a plant to spread from their land if they didn’t plant it in the first place.

However as a good neighbour, the expectation would be that they should treat the plant if it is spreading from their property onto an adjacent land holding.

5. Reasons for Highland Council to Control Japanese Knotweed

Although there is no legal responsibility to control Japanese Knotweed on its land, unless there is proof that it was planted/ moved there by Council employees, there are good reasons why Highland Council should take forward control on a limited number of prioritised sites.

- There can be significant long term costs/risks from not controlling High Risk sites. e.g. increased control costs, larger infestations, possible legal liability if THC employees cause its spread, replacement of infrastructure, paths etc and the cost of removal of waste arising from such works
- Controlling key Japanese Knotweed sites now, saves money in the future.
- Japanese Knotweed is becoming more and more of an issue for road verge maintenance and flood control works.
- Japanese Knotweed is one of the top 6 INNS prioritised for action in Highland as identified by the Highland Invasive Species Forum (HISF).
- THC as a land owner (and member of the HISF) has a key role, to be an exemplar of best practice land management.
- There are frequent calls from the public for control (and therefore a need to prioritise action).
- It helps Highland Council to deliver its Biodiversity Duty.
- It can avoid added expense and delays to development. There is a significant cost to remove and dispose of Japanese Knotweed if it has to be dug up from a development site, spraying can take 3+ years to eradicate the plant but is far cheaper.

5.1. The Need for a Threat of Spread Assessment.

Action to eradicate this species will need to focus on high risk areas to make most efficient use of limited resources. To determine what sites are high risk, and therefore should be treated first, straightforward criteria have been developed.

5.2. Defining High Risk/ Low Threat of Spread Sites.

High risk sites are those that have been or are likely to be disturbed, naturally or by people, causing plant material or soil containing plant material being transported around the site or off the site. This activity may lead to the establishment of new colonies of the plant.

Sites that are not likely to be disturbed will be classified as low risk as Japanese Knotweed spreads fairly slowly by suckering.

6. Identifying High Risk Sites.

Sites with Japanese Knotweed will be deemed High Risk if there is one or more of the following risk factors found on the site:

1. Within 5 metres of a road.
2. Within 5 metres of a watercourse/ waterbody/ the sea or sites designated for nature conservation. These additions are at SNH's request.
3. Within 1 metre of a footpath
4. On a site that is to be developed.
5. Other sites that might be subject to flailing, cutting or strimming or general soil disturbance.
6. If a site has Giant Knotweed present on it or nearby then it will be classified a High Risk site.

The following information then needs to be gathered and sent to jonathan.willet@highland.gov.uk in an Excel spreadsheet or gathered in that organisations reporting system.

1. Date
2. Risk factor on site: 1, 2, 3, 4, 5, 6.
3. Location (grid ref or address)
4. Brief Description of location.
5. Area covered by the plant(s).
6. Land ownership/ management (if known)
7. Recorder's name.
8. Photograph of the plant and its location on site (if possible)

Once the data is gathered, the site's status can be fully assessed. If a site is confirmed to be at high risk then eradication/ containment or control measures will begin. If the site is under no risk from disturbance but within a high risk area then site

can be removed from the High Risk register. However to do this a justification for taking no action must be provided and accepted.

6.1. High Risk Sites Partially on Council Land.

The following policies will apply;

INNSP 2.2 The Highland Council will wholly fund the control of high risk INNS sites partially outwith their landholding (with the other landowner's permission) but only if 10% or less of the infestation is on an adjacent landholding.

INNSP 2.3 If more than 10% of the INNS infestation is on an adjacent landholding the Highland Council will not start control work until the other landowner has agreed to take forward control as the same time as the Council. The Highland Council will direct the landowner to any funding available for INNS control.

7. Species Control – Service Responsibility.

The list of High Risk Japanese Knotweed sites on Council owned land will be circulated to the relevant Council Service and they will be responsible for controlling these sites through their own budgets.

8. Action Reporting.

A structure for reporting the progress of the treatment of High Risk Japanese Sites will be discussed collectively by the Council Services. The exact detail of this is still to be agreed. Progress will be reported back on annually to the appropriate meeting or committee.

9. Further Information.

[SNH WaNE pages](#)

[GB Non-Native Species Secretariat](#)

Note.

1. The Highland Non-native Invasive Species Strategy. Appendix 1 - Policy for Top 6 species.

Japanese Knotweed

- Use the Priority Assessment criteria to identify key control areas.
- Control at the appropriate scale for the infestation, in partnership with all adjacent land managers.
- Seek to eradicate Japanese Knotweed from Transport corridors/ riparian zones/ sites that are loci for its spread by humans.
- Eradicate it from development sites prior to development starting.
- Seek to control this species in other high risk of spread areas.
- Ensure the projects last for at least 5 years.

2. The cost of controlling Japanese Knotweed by spraying varies from £1-5 per square metre over 5 years depending on the size of the clump and the distance between clumps. Other methods such as stem filling and stem injection are more expensive but can take place in wet weather. Soil removal can be very expensive and should only be used as a last resort.

Jonathan Willet. October 2013.