

Minister for Climate Action
Ministear airson Gnìomhachd na Gnàth-shìde
Alasdair Allan MSP
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Committee
Room T3.40
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Edinburgh
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Your ref: Ref: ENV/295/R

12 September 2024

Dear Edward,

THE INVASIVE ALIEN SPECIES (DE-LISTING) REGULATIONS 2024

EU EXIT LEGISLATION – PROTOCOL WITH SCOTTISH PARLIAMENT

Thank you for your letter of 27 June 2024 confirming that the Net Zero, Energy and Transport Committee is content for the Scottish Government to give consent to UK Ministers making regulations on its behalf in relation to the above Statutory Instrument.

We recognise that it is possible that the invasive character of some species may change as Scotland's climate warms. We work closely with Defra, the Welsh Government and the GB Non-native Species Secretariat (NNSS) in relation to emerging threats from all INNS, not just potential future threats from the de-listed species. While no single body will be responsible for monitoring the de-listed species, NatureScot, SEPA, Scottish Forestry, Forestry and Land Scotland and Scotland's eNGOs have a good awareness of what is happening on the ground in Scotland in relation to INNS. These bodies collaborate routinely on tackling INNS and there is regular communication and exchange of information between them at the Scottish Government's Non-Native Species Action Group meetings which are also attended by the NNSS.

The GB list of species of special concern will be reviewed on a regular basis. Article 4(2) of the UK Regulation on the prevention and management of the introduction and spread of invasive alien species requires that the Secretary of State undertakes a comprehensive review of the GB list of species of special concern every six years. The first comprehensive review was completed in April 2022 and the next comprehensive review is due to be completed by August 2028. The comprehensive reviews consider the following questions:

- whether each species can establish in GB (including in a future climate);

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- whether it is likely to have a significant adverse impact on biodiversity or the related ecosystem services, and
- whether the inclusion of the species on the GB list of species of special concern will effectively prevent, minimise or mitigate their adverse impact.

They are led by the NNSS and involve panels of independent species experts who advise on whether the species under consideration meet the criteria set out in Article 4(3) of the UK Regulation. Once the panels have reached a consensus on which species meet one or more of these criteria, risk assessments are drafted for these species where these do not exist already. The assessments are then reviewed by the UK Non-native Species Risk Analysis Forum (NNRAF) to ensure they are fit-for-purpose and consistent with the evidence provided.

The Scottish Regulation likewise requires that a comprehensive review of the Scottish list of species of special concern is carried out every six years. For the first comprehensive review in 2021/2022 the Scottish list, which is currently identical to the GB list, was reviewed at the same time as the GB list.

The GB Committee on INNS recognises fully that six of the ten species being de-listed are considered at least moderately likely to be able to establish under the 2100 climate scenario. Once a species has been de-listed, there is no barrier to listing it again in the future if new evidence suggests it meets the criteria for doing so. Any new evidence relating to the ability of de-listed species to establish in GB will be kept under review and considered at least every six years according to the comprehensive review cycle. This will provide four further opportunities to amend the lists between 2022 and 2050.

However, there will also be scope to consider new evidence between the formal comprehensive review exercises. To that end the NNSS have provided a [‘recommendation for listing’ form](#) on their website by which stakeholders and the general public will be able to submit new relevant evidence about the ability of these species to establish.

It will be possible for UK Ministers to take action quickly in relation to any species, delisted or otherwise, where they have evidence concerning the presence in, or imminent risk of introduction into, GB of an invasive alien species which is not included on the GB list of species of special concern but which the NNRAF (or an alternative scientific forum) has found, on the basis of preliminary scientific evidence, to be likely to meet the criteria set out in Article 4(3) of the UK Regulation. It will likewise be possible for Scottish Ministers to take rapid action in relation to any species where they have evidence concerning the presence in, or imminent risk of introduction into, Scotland of an invasive alien species which is not included on the Scottish list of species of special concern.

Article 10 of the UK Regulation makes provision for ‘emergency measures’ which may be taken by UK Ministers in relation to invasive non-native species which have not been included on the Scottish list of species of special concern but which have been found, on the basis of preliminary scientific evidence, to be likely to meet the criteria set out in Article 4(3). These measures may consist of any or all of the restrictions set out in Article 7(1). These restrictions include a introducing a ban on these species in relation to:

- bringing them into GB;
- keeping and breeding them;
- transporting them from or within GB;

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- selling, using or exchanging them;
- permitting them to reproduce, grow or be cultivated; and
- releasing them into the environment.

Under the UK Regulation it would be necessary for UK Ministers to notify the GB Committee and the NNRAF of any emergency measures that they plan to introduce. In addition they would need to request that the NNRAF or an equivalent scientific forum risk assess the species concerned within 24 months of the date on which the emergency measures come into force. Emergency measures may be retained for up to two years, providing ample time to re-add these species to the Scottish list in order to make the above restrictions permanent.

Article 10 of the Scottish Regulation mirrors Article 10 of the UK Regulation in relation to emergency measures that may be introduced in Scotland by Scottish Ministers.

In addition, Scotland now has a dedicated Non-native Species Inspector who will assist in carrying out targeted rapid responses to the detection of any new INNS found in the wild.

In relation to the Committee's query regarding the potential implications for UK trade if businesses in Great Britain begin selling ornamental species that are de-listed, the Scottish Government did not raise this matter with UK counterparts since we were aware that Northern Ireland was being kept informed in relation to the various drafts of the Statutory Instrument and the Explanatory Memorandum. The UK Government has confirmed that they sought, and received, consent from Northern Ireland on the provisions.

By virtue of the Windsor Framework, Northern Ireland retains the EU list of species of Union concern. These species are subject to a range of restrictions in Northern Ireland as set out in Article 7 of Regulation (EU) No 1143/2014 of the European Parliament and of the Council. These include preventing these species from being brought into the territory of Northern Ireland, kept, bred, transported, placed on the market, used or exchanged, allowed to reproduce, grown or cultivated, or released into the environment. Where the GB and Scottish lists of species of special concern diverge from the EU's list of Union concern, those species which have been removed from the GB and Scottish lists but which remain on the EU list will be continue to be subject to the aforementioned restrictions under Article 7 in Northern Ireland.

Under the Invasive Alien Species (Enforcement and Permitting) Order (Northern Ireland) 2019, it is an offence to transport to or from Northern Ireland to or from any place within Great Britain, or within Northern Ireland an invasive alien species which is included on the EU list of Union concern. The single exception is where such transportation is of species to facilities in the context of eradication. My officials have made enquiries about the nature of the checks that are in place to prevent the de-listed species being exported to Northern Ireland but to date they have not yet received this information; I will send this in a separate letter once we have received it.

The UK Government confirmed that, at an earlier stage in the planning process for the SI, consideration was given to the interaction between the de-listing SI, the UK Internal Market Act, and the Windsor Framework. The Department of Business and Trade confirmed that EU rules would continue to apply in Northern Ireland as the Windsor Framework takes precedence over the UK Internal Market Act, such that goods moving to Northern Ireland would need to meet the relevant requirements in Northern Ireland under EU law.

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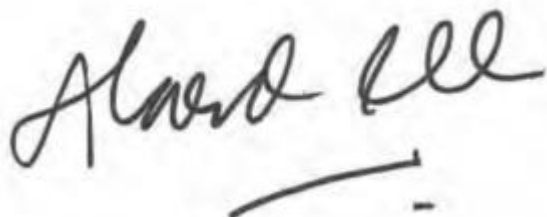
Defra carried out a single impact assessment, a DMA or De-Minimus Assessment, for their SI. I have attached a copy of this for your consideration.

Finally, following the change in UK government, Defra have paused the work on their de-listing SI in the light of the new government considering further the position on the listing of species.

I am copying this letter to the Convener of the Delegated Powers and Law Reform Committee.

I hope the above answers provide a satisfactory response to the Committee's questions but please let me know if you require further information.

Yours sincerely,



Alasdair Allan

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Title: AMENDMENT TO LIST OF INVASIVE ALIEN SPECIES OF SPECIAL CONCERN 2024 Date: Sign off date BRU No: Provided by the BRU on sign-off Lead department or agency: Defra Other departments or agencies: N/A		De Minimis Assessment (DMA)	
		Stage: Final	
		Source of intervention: Domestic	
		Type of measure: Secondary	
Summary: Rationale and Options		Contact for enquiries: <i>Lead policy: Gabriella Wyer</i> <i>Lead economist: Nicholas Mitchell</i>	
Total Net Present Value (2019 prices) £7.3m	Business Net Present Value (2019 prices) £7.3m	Net cost to business per year (EANDCB in 2019 prices) £0m	

Rationale for intervention and intended outcomes

1. An invasive alien species is a non-native species whose introduction or spread has been found to threaten or adversely impact upon biodiversity and related ecosystem services. Invasive alien species included on the list of species of special concern are considered to have such an adverse impact as to require concerted action across Great Britain. Listed species are subject to the restrictions set out in retained EU Regulation (EU) 2014/1143 (henceforth ‘the Retained Regulation’), which makes an offence of keeping, breeding, transporting, placing on the market, using, exchanging, and releasing into the environment species of special concern. As such, this retained law means that businesses are unable to trade in these species.
2. The ten species that will be removed from the list of species of special concern by this amending legislation will no longer be subject to the restrictions of the Retained Regulation, thus legalising their trade. The economic rationale for this intervention includes the secondary benefits of greater revenue for plant retailers, producers, and potentially exporters – although this is expected to be very minimal as the species remain banned in the EU - who will have greater access to these plants. Total annual revenue in the UK in the flower and plant growing industry is estimated to be approximately £1.7bn, with around 12,000 people employed in the industry.¹ There are also positive externalities/ wider benefits, such as health and wellbeing benefits associated with greater access to de-listed species and biodiversity benefits from greater availability of species to produce.
3. The decision to de-list ten species is de-regulatory and thus could not have been resolved without regulatory intervention.
4. At present, the list of species of special concern (detailed in the Annex to Commission Implementing Regulation (EU) 2016/1141²) includes 66 species. A statutory requirement within the Retained Regulation requires a comprehensive review of the list of species of special concern to be undertaken by 2 August 2022, and every six years thereafter, to ensure that it is up-to-date and evidence-based, with all listed species meeting the criteria for inclusion as set out in Article 4(3) of the Retained Regulation.
5. The Retained Regulation requires that this list is updated as appropriate with the removal of listed species if they no longer meet one or more of the five criteria for listing laid down in Article 4 (3) (see Policy background section of list).
6. One of the criteria required for a species to be listed is that it must be able to establish in Great Britain under current or foreseeable climate conditions. Following the UK’s departure from the EU, a comprehensive, independent scientific evaluation was undertaken that concluded that ten of the listed species no longer met this criterion on a GB basis (compared with an EU basis). This was reviewed by stakeholders, Non-native Species Risk Analysis Forum (NNRAF) and the statutory GB Committee

¹ IBIS World, *Industry Statistics and Trends* Available online: <https://www.ibisworld.com/united-kingdom/market-research-reports/flower-plant-growing-industry/#IndustryStatisticsAndTrends>

² Legislation.gov.uk, Commission Implementing Regulation (EU) 2016/1141 of 13 July 2016 adopting a list of invasive alien species of Union concern pursuant to Regulation (EU) No 1143/2014 of the European Parliament and of the Council. Available online: <https://www.legislation.gov.uk/eur/2016/1141/annex>

for Non-native Species, which subsequently recommended, on the basis of the evidence, the delisting of those ten species. This was agreed by Ministers from England, Wales, and Scotland.

7. The ten species are the following:

- a. Small Asian mongoose;
- b. Coati;
- c. Striped eel catfish;
- d. Balloon vine;
- e. Perennial veldtgrass;
- f. Water hyacinth;
- g. Whitetop weed;
- h. Crimson fountaingrass;
- i. Mesquite; and
- j. Kudzu vine.

8. The delisting of these species is considered necessary to comply with existing legislation. It will also remove unnecessary restrictions on keepers, retailers, producers, importers, and exporters that may want to trade in or keep these species.

Describe the policy options considered

2.1 Option 0: Do Nothing.

9. Under the “Do Nothing” (baseline) option, the legislation would remain the same, no species would be delisted, and economic benefits would not be realised.

2.2 Option 1: De-List four species.

10. Delisting of four species utilising a climate change scenario of 2100.

2.3 Option 2: Delisting ten species (*preferred option*)

11. Delisting of ten species utilising a climate change scenario of 2050.

12. The preferred option is **Option 2**, and the rationale for this is set out in the section that follows. Non-regulatory alternatives have been considered but they have not been pursued because this is a deregulatory measure.

Rationale for DMA rating

13. This intervention has been completed as a de-minimis assessment (DMA) as the annual monetised impact is below the +£5m threshold for a DMA. The intervention is not contentious as it is deregulatory and expected to have no negative impact on producers, suppliers, and wider society. There are also no direct costs related to this intervention.

Will the policy be reviewed? Yes

If applicable, set review date:

Are these organisations in scope?

Micro
Yes

Small
Yes

Medium
Yes

Large
Yes

Senior Policy Sign-off:

Date:

DD/MM/YYYY

Peer Review Sign-off:

Date:

DD/MM/YYYY

1.0 Policy Rationale

14. The Annex to Commission Implementing Regulation (EU)³ 2016/1141 details a list of species of special concern that consists of invasive non-native species whose adverse impact are such that concerted action is required across Great Britain.
15. The list of species of special concern was retained in domestic law following EU Exit. It was formerly known as ‘the list of invasive alien species of Union concern’.
16. The Retained Regulation includes a statutory requirement to undertake a comprehensive review of the list every six years and to update the list appropriately with the addition of new invasive alien species that meet the criteria for listing, and the removal of species that no longer meet one or more of the criteria for listing.
17. The comprehensive review⁴, completed in April 2022, was the first to be undertaken following EU Exit, and therefore the first to take Great Britain as the territorial scope for the list of species of special concern. As a result of the review, ten species were recommended for removal from the list in virtue of their inability to establish in Great Britain under foreseeable climate conditions (to 2050).
18. Once a species has been de-listed there is **no barrier** to listing it again in the future if new evidence suggests it meets the criteria for doing so. Article 4(2) in the Retained Regulation requires a comprehensive review of the list of species of special concern to be undertaken every 6 years; there are four further opportunities to review the list between 2022 and 2050.
19. It was agreed, at the April 2022 GB Non-native Species Committee⁵ meeting, that the GB Non-native Species Secretariat (“GBNNS”) would retain a list of species removed from the list of species of special concern, and that these species would be reviewed by the GB Committee at each comprehensive review.

Policy background(*)

20. An invasive alien species is a non-native species whose introduction or spread has been found to threaten or adversely impact upon biodiversity and related ecosystem services. Invasive non-native species are one of the top five threats to biodiversity globally: they challenge the survival of some of our rarest species, damage our natural ecosystems, and cost Great Britain almost £2 billion per year.⁶
21. Invasive non-native species inflict economic damage on a range of sectors, including agriculture, transport, and utilities. A recently published report, led by the Centre for Agriculture and

³ Official Journal of the European Union, *Commission Implementing Regulation (EU) 2016/1141* (2016) Available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1141&rid=7>

⁴ NNS, *De-listing Comprehensive review and de-listing of species* (2022) Available online: <https://www.nonnativespecies.org/legislation/species-of-special-concern/#Comprehensive-review>

⁵ GB Non-native Species Committee: The GB Committee was established in 2021 following the UK’s departure from the EU. It comprises members of the Programme Board that represent England, Scotland and Wales and is a separate statutory body established to undertake the functions of the Committee within the retained EU IAS regulation. The Committee has a fundamental role in advising on the potential listing of species on, or de-listing of species from, the list of species of special concern. It does not cover Northern Ireland, to which the EU Regulation on Invasive Alien Species still applies under the terms of the Northern Ireland Protocol. The Committee is supported by the same independent Secretariat as the Programme Board. Available online: <https://www.nonnativespecies.org/about/coordination/#>

⁶ APHA, *Invasive species: A global problem we can tackle together* (2023) Available online: <https://aphascience.blog.gov.uk/2023/09/08/tackling-invasive-species/>

Bioscience International (CABI), that assessed the direct costs of invasive non-native species to the UK noted the mechanism of economic impact to range from the 'loss of crops, damaged buildings, and additional production costs, to the loss of livelihoods and ecosystem services'⁷.

22. Invasive alien species included on the list of species of special concern are considered to have such an adverse impact across Great Britain as to require concerted and co-ordinated action by the UK, Welsh, and Scottish Governments and their Agencies. The decision to add any species to the list draws on horizon scanning exercises, existing risk assessments, new risk assessments, additional information concerning the presence of species in captivity, trade and the feasibility of management, and the views of stakeholders.
23. Listed species are subject to the restrictions set out in retained EU Regulation (EU) 2014/1143 (henceforth 'the Retained Regulation')⁸, which make an offence of keeping, breeding, transporting, placing on the market, using, exchanging, and releasing into the environment species of special concern. As such, the Retained Regulation means that businesses are unable to trade in these species.
24. The Retained Regulation applies to England and Wales, the offshore marine area, and to any provision that relates to controls on imports into and exports from the UK. It does not extend to Scotland and Northern Ireland except insofar as it relates to:
 - a) controls on imports into and exports from the UK, and
 - b) the offshore marine area.
25. At present, the list of species of special concern (Annex to Commission Implementing Regulation (EU) 2016/1141)⁹ includes 66 species, 36 of which are invasive non-native plants and 30 of which are invasive non-native animals.¹⁰
26. Non-native species included on the list of species of special concern must meet all the following criteria set out in Article 4(3) of the Retained Regulation¹¹:
 - a) they are found, based on available scientific evidence, to be alien to the territory of Great Britain;
 - b) they are found, based on available scientific evidence, to be capable of establishing a viable population and spreading in the environment under current conditions and in foreseeable climate change conditions in the territory of Great Britain;
 - c) they are, based on available scientific evidence, likely to have a significant adverse impact on biodiversity or the related ecosystem services, and may also have an adverse impact on human health or the economy;
 - d) it is demonstrated by a risk assessment carried out pursuant to Article 5(1) [in the Retained Regulation] that concerted action across Great Britain is required to prevent their introduction, establishment or spread;

7 Eschen, R., Kadzamira, M., Stutz, S. et al. An updated assessment of the direct costs of invasive non-native species to the United Kingdom. *Biol Invasions* 25, 3265–3276 (2023). Available online: An updated assessment of the direct costs of invasive non-native species to the United Kingdom | Biological Invasions (springer.com)

⁸ Official Journal of the European Union, *Regulation (EU) No 1143/2014 on the prevention and management of the introduction and spread of invasive alien species* (2014). Available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R1143&rid=5>

⁹ Official Journal of the European Union, *Commission Implementing Regulation (EU) 2016/1141* (2016). Available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1141&rid=7>

¹⁰ NNSS, *List of invasive non-native animals* (2022). Available online: <https://www.nonnativespecies.org/legislation/species-of-special-concern/#Comprehensive-review>

¹¹ Official Journal of the European Union, *Regulation (EU) No 1143/2014 on the prevention and management of the introduction and spread of invasive alien species* (2014). Available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R1143&rid=5>

e) it is likely that the inclusion on the list of species of special concern will effectively prevent, minimise or mitigate their adverse impact.

27. The Retained Regulation includes a statutory requirement to comprehensively review the list of species of special concern every six years to ensure that it is up-to-date and evidence based. This requires the addition of new invasive species where appropriate, and the removal of listed species if they no longer meet one or more of the five criteria for listing stated above.

Problem under consideration

28. A comprehensive review of the list of species of special concern was completed in April 2022. As explained, this review must determine whether the 66 species currently listed meet all the criteria for listing set out in the Retained Regulation.
29. Given EU Exit, the comprehensive review looked to determine whether listed species would be able to establish viable populations and spread under current or future climate change conditions specifically in the territory of Great Britain (thereby meeting the criterion in Article 4(3)b). This differs from the previous criteria for listing, which set the territorial area for establishment as that of the European Union. The comprehensive review focused on the question of the ability to establish in Great Britain, alongside consideration of the other criteria (Article 4(3)a, c-d).
30. The likelihood of species being able to establish in Great Britain under future climate conditions was assessed in three stages. First, existing risk assessments were used to screen the list of 66 species in order identify those for which establishment under current or future climate conditions were uncertain. Twenty-three such species were identified. Second, independent experts¹² assessed the likelihood that each of these 23 species would be able to establish in Great Britain under future conditions. Experts judged the likelihood of establishment based on predefined climate scenarios for 2050 and 2100 derived from the UK Climate Change Risk Assessment. Third, all assessments were reviewed by the Non-native Species Risk Analysis Forum (NNRAF)¹³ to ensure they were fit-for-purpose and consistent with the evidence provided.
31. The result of these three stages was an expert-elicited rating for the likelihood of each species being able to establish under the two different climate scenarios, with associated confidence ratings and supporting comments. These results were presented in a *fiche* (index card/form) for each species that was reviewed by the comprehensive review Task and Finish Group, comprising Defra, Scottish Government, Welsh Government, Natural England, Natural Resources Wales, NatureScot and the chair of the NNRAF, with the Environment Agency, Scottish Environment Protection Agency (SEPA) and Centre for Environment, Fisheries and Aquaculture Science (Cefas) consulted as appropriate.
32. Ten species were identified that no longer met the criteria for listing because they were considered unlikely to be able to establish in Great Britain under the 2050 climate scenario. The Task and Finish Group consulted stakeholder working groups in England, Wales, and Scotland on the species proposed for de-listing in the two climate change scenarios.
33. The Task and Finish Group considered all the evidence and stakeholder views. They then recommended to the GB Committee that they base their recommendation to the Defra Secretary of State (SoS), Scottish Ministers, and Welsh Ministers on the 2050 climate scenario, on the basis that there is considerably more confidence in the predicted climate at this point. The GB

¹² Included experts from: APHA, BTO (British Trust for Ornithology), INBO (Belgian Research Institute for Nature and Forest), Newcastle University, MBA (Marine Biological Association), Southampton University, APEM, ARC (Amphibian and Reptile Conservation), Durham University, St. Andrews Botanic Garden, Imperial College London, Sheffield University, Cefas and Defra.

¹³ NNS, *Terms of reference of the GB Non-native Risk Analysis Forum (GB NNRRAF)* Available online: <https://www.nonnativespecies.org/assets/GB-NNRAF-ToRs-2022.pdf>

Committee concurred with this proposal, which was then agreed to by Ministers from England, Wales, and Scotland.

34. Consequently, the proposed regulation will remove ten species from the list of species of special concern. They include the following three animal species:

- a. *Herpestes javanicus*, small Asian mongoose¹⁴ (small predatory mammal from southern Asia. Widely invasive in tropical and sub-tropic areas);
- b. *Nasua nasua*, coati¹⁵ (cat sized mammal from South America);
- c. *Plotosus lineatus*, striped eel catfish¹⁶ (venomous eeltail catfish native to Indo-Pacific).

35. And the following seven plant species:

- d. *Cardiospermum grandiflorum*, balloon vine¹⁷ (ornamental plant with native area from southern Mexico to Brazil and the Caribbean);
- e. *Ehrharta calycina*, perennial veldtgrass¹⁸ (perennial grass native to southern Africa);
- f. *Eichhornia crassipes*, water hyacinth¹⁹ (aquatic plant native to South America);
- g. *Parthenium hysterophorus*, whitetop weed²⁰ (Central and South American herb);
- h. *Pennisetum setaceum*, crimson fountaingrass²¹ (ornamental grass from North Africa);
- i. *Prosopis juliflora*, mesquite²² (Thorny shrub native to southern USA, Mexico, and Central America); and,
- j. *Pueraria montana*, kudzu vine²³ (Eastern Asian vine).

36. The ten species that this amendment de-lists will no longer be subject to the restrictions set out in Retained Regulation, thus legalising trade in these species.

37. This amendment will de-list these ten species from the list of species of special concern for England and Wales, for Scotland to the extent of the offshore marine area, and for Northern Ireland to the extent of the GB marine area. The amendment will also extend to imports and exports into and out of Great Britain, and imports and exports into and out of Northern Ireland to the extent of the Northern Ireland offshore area.

38. The Retained Regulation also refers to a “Scottish list of species of special concern” that applies to Scotland. Scotland will amend their list, removing the same ten species, by laying their own statutory instrument (SI).

Rationale for intervention

¹⁴ Circabc, *Herpestes Javanicus* risk assessment, Scientific Forum on Invasive Alien Species Available online: <https://circabc.europa.eu/ui/group/98665af0-7dfa-448c-8bf4-e1e086b50d2c/library/a5d8291e-9011-4af6-b03b-08d764581f7e/details>

¹⁵ Circabc, *Nasua Nasua* risk assessment, Scientific Forum on Invasive Alien Species Available online: <https://circabc.europa.eu/ui/group/98665af0-7dfa-448c-8bf4-e1e086b50d2c/library/5a1464b3-c001-433d-b9ad-3befa972056f/details>

¹⁶ Circabc, *Plotosus lineatus* risk assessment, Scientific Forum on Invasive Alien Species Available online: <https://circabc.europa.eu/ui/group/98665af0-7dfa-448c-8bf4-e1e086b50d2c/library/e6b0f646-c55c-4f7e-a375-a22e4159e6b7/details>

¹⁷ Circabc, *Cardiospermum grandiflorum* risk assessment, Scientific Forum on Invasive Alien Species Available online: <https://circabc.europa.eu/ui/group/98665af0-7dfa-448c-8bf4-e1e086b50d2c/library/96ca5491-857a-40b2-b74f-3501a03cada4/details>

¹⁸ Circabc, *Ehrharta calycina* risk assessment, Scientific Forum on Invasive Alien Species Available online: <https://circabc.europa.eu/ui/group/98665af0-7dfa-448c-8bf4-e1e086b50d2c/library/df7daf97-64ea-41e2-b8ce-59855f00f3e0/details>

¹⁹ Circabc, *Eichhornia crassipes* risk assessment, Scientific Forum on Invasive Alien Species Available online: <https://circabc.europa.eu/ui/group/98665af0-7dfa-448c-8bf4-e1e086b50d2c/library/10c05be4-60b2-4477-a494-1913e275bab2/details>

²⁰ Circabc, *Parthenium hysterophorus* risk assessment, Scientific Forum on Invasive Alien Species Available online: <https://circabc.europa.eu/ui/group/98665af0-7dfa-448c-8bf4-e1e086b50d2c/library/d9990498-a863-4ae2-8d07-264433e34c10/details>

²¹ Circabc, *Pennisetum setaceum* risk assessment, Scientific Forum on Invasive Alien Species Available online: <https://circabc.europa.eu/ui/group/98665af0-7dfa-448c-8bf4-e1e086b50d2c/library/6309ab79-275c-43fe-b615-17438b68657e/details>

²² Circabc, *Prosopis juliflora* risk assessment, Scientific Forum on Invasive Alien Species Available online: <https://circabc.europa.eu/ui/group/98665af0-7dfa-448c-8bf4-e1e086b50d2c/library/454307cb-ed3a-4a8f-9a32-2ba519eb4ac3/details>

²³ Circabc, *Pueraria montana* (var. *lobata*) risk assessment, Scientific Forum on Invasive Alien Species Available online: <https://circabc.europa.eu/ui/group/98665af0-7dfa-448c-8bf4-e1e086b50d2c/library/be84d857-a388-4128-bedd-240d87f5b324/details>

39. The proposed secondary legislation is the result of the conclusion of a comprehensive review of the list of species of special concern. The statutory requirement to review the list every six years ensures the list remains up-to-date and evidence based. Where species no longer meet all the criteria for listing set out in the Retained Regulation they should be delisted. EU Exit resulted in a change in the territorial area covered by the list of species of special concern from the EU to Great Britain. As a result, the comprehensive review conducted in 2022 identified ten species that are unlikely to be able to establish in Great Britain under current and foreseeable climate conditions.
40. The decision to de-list ten species is de-regulatory and thus could not have been resolved without government intervention.

Economic benefits:

41. The ten species that this amendment removes from the list of species of special concern will no longer be subject to the restrictions in the Retained Regulation, therefore legalising trade in these species. The government is best placed to legalise trade in these species. The de-listing will generate greater revenue for plant retailers, producers, and potentially exporters. There is a large market in the UK for flower and plant growing. Total annual revenue in the UK is estimated to be approximately £1.7bn, with around 12,000 people employed in the industry. The total market size is also projected to grow over the next five years, from 2023 to 2028.²⁴
42. The delisted species can also be viewed as merit goods with positive externalities, such as improved wellbeing and health benefits. For context, in 2021, the total asset value of ecosystem services in the UK was just over £1.5 trillion, an increase of 3% since 2017. Health benefits from recreation, valued at £445 billion in 2021, was the largest contribution to the total asset value of UK ecosystem services²⁵. In 2022, 46% of Brits purchased a houseplant, with 43% of people who purchased houseplants saying they improved their wellbeing²⁶. The de-listing is likely to add a small contribution to overall health and wellbeing benefits from ecosystem services for those able to purchase the de-listed species.

Reduced public sector spending

43. The de-listing of these species will also help to reduce government expenditure (e.g. monitoring the arrival/establishment, on the ground enforcement of the regulation, etc.) on species that do not pose a threat to biodiversity and related ecosystem services, or have an adverse impact on human health or the economy. This ensures that resources can be focused on those species that pose the greatest threat, and that we do not impose unnecessary restrictions on species that do not pose a threat in current or foreseeable climate conditions. We have not been able to estimate this reduction in costs but expect it to be minimal.

Potential costs

44. There are risks associated with the de-listing of any species. If climate scenarios change as predicted and these species are able to, the de-listing of these species may generate costs that have not been monetised in this analysis. The most widespread and costly risks are damage to forestry, aquaculture, and agriculture. Other risks include negative impacts on tourism, construction, transport, and human health. However, there are strong safeguards in place, and we do not expect such a scenario to manifest. This is because any new evidence relating to the

²⁴ IBIS World, *Industry Statistics and Trends* Available online: <https://www.ibisworld.com/united-kingdom/market-research-reports/flower-plant-growing-industry/#IndustryStatisticsAndTrends>

²⁵ ONS, *UK natural capital accounts: 2023 (2023)* Available online: <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/uknaturalcapitalaccounts/2023>

²⁶ Horticulture Magazine, *UK houseplant Statistics* Available online: <https://horticulture.co.uk/houseplants/statistics/>

ability of de-listed species to establish in Great Britain will be kept under review and considered at least every six years as part of the comprehensive review cycle.

Policy objective

45. The objective of this amendment is to ensure that the list of species of special concern remains up-to-date and evidence based. Following EU Exit, the territorial scope of the list of species of special concern changed from the EU to Great Britain. It is thus crucial that the list is amended in order to fit of the conditions in Great Britain: some species contained on the list do not pose a threat to the country under current and foreseeable climate conditions. De-listing such species ensures that the list of species of special concern remains credible.
46. A coherent legislative framework is essential for tackling the threats posed by invasive non-native species. As mentioned, there is a statutory requirement to update the list of species of special concern following a six-yearly comprehensive review.
47. Species of special concern must not be intentionally brought into Great Britain, kept, bred, sold, used or exchanged, allowed to reproduce, grown or cultivated, or released into the environment, or transported to, from or within Great Britain. Under The Invasive Alien Species (Enforcement and Permitting) Order 2019, a person guilty of an offence under this Order is liable, on summary conviction, to imprisonment for a term not exceeding six months, a fine, or both. A person convicted on indictment is liable to imprisonment for a term not exceeding two year, a fine, or both.
48. This amendment ensures that the enforcement of The Invasive Alien Species (Enforcement and Permitting) Order 2019, and the appropriate application of its penalties, only apply to those invasive non-native species that are considered to have the potential to significantly and adversely affect biodiversity or related ecosystem services, human health, or the economy.

Options considered

49. We have identified three options for this case, including the “Do Nothing” option, which are presented below:

Option 1: Do Nothing.

50. Under the “Do Nothing” (baseline) option, the legislation would remain the same, the species would not be delisted, and economic benefits would not be realised.
51. However, neglecting to de-list these species would be considered a failure to meet legislative commitments. Producing secondary legislation to amend the list of species of special concern as agreed by Ministers reflects a statutory requirement in the Retained Regulation²⁷ to amend the list following the comprehensive review—and as appropriate between reviews—to ensure that all listed species meet the conditions stipulated in Article 4(3)(a)-(b).
52. The GB governments have made an additional commitment to updating the list of species of special concern as appropriate in the refreshed GB Non-Native Species Strategy (Key Action 9.3).²⁸ A failure to de-list would thus also be considered a failure to keep a public commitment and could attract some stakeholder criticism.

²⁷ Legislation.gov.uk, *Regulation (EU) No 1143/2014 of the European Parliament and of the Council* (2014) Available online: <https://www.legislation.gov.uk/eu/2014/1143#:~:text=This%20Regulation%20sets%20out%20rules.unintentional%2C%20of%20invasive%20alien%20species.>

²⁸ NNSS, *The Great Britain Invasive Non-Native Species Strategy: 2023 to 2030* (2023) Available online: <https://www.nonnativespecies.org/about/gb-strategy/the-great-britain-invasive-non-native-species-strategy/>

Option 2: De-List four species.

53. The GB Committee could have recommended that Ministers base the de-listing decision on a climate change scenario of 2100.
54. The comprehensive review initially identified twenty-three species for which establishment in Great Britain under current or future climate conditions was uncertain. Independent experts then assessed the likelihood that each of these twenty-three species would be able to establish in Great Britain under two different climate scenarios.
55. Assessing the likelihood of establishments under a 2100 climate change scenario resulted in four species being recommended for removal from the list of species of special concern in virtue of the fact that they were not expected to be able to establish viable and spreading populations under this scenario. Those four species were:
 - a. Small Asian mongoose;
 - b. Striped eel catfish;
 - c. Balloon vine; and
 - d. Mesquite.
56. Out of the five stakeholder groups consulted, one group strongly urged that this 2100 scenario was used, proposing that four, instead of ten, species be de-listed. Their main concern was that de-listing these species will create source populations in gardens, ponds, and other locations, the risks of which would not be mitigated by a later re-listing.
57. In April 2022, the statutory GB Invasive Non-native Species Committee made the decision not to recommend to Ministers that the de-listing decision be based on the 2100 climate change scenario because the climate is inherently more difficult to predict this far in the future and highly dependent upon measures that may or may not be used to limit emissions.
58. We have taken a proportionate approach: this option will not be appraised quantitatively to the extent that data exists given the GB Committee's clear steer not to recommend this approach.

Option 3: De-List ten species (Preferred option)

59. The 2022 comprehensive review of the list of invasive alien species of special concern presented Great Britain with an opportunity to ensure that all listed species met the criteria detailed in the Retained Regulation with respect to the territory of Great Britain, rather than with respect to the territory of the EU.
60. The **GB Invasive Non-native Species** Committee has a fundamental role in advising on the potential listing of species on, or de-listing of species from, the list of species of special concern. The committee members include leading experts from Defra, Animal and Plant Health Agency (APHA), Natural England, the Environment Agency, Welsh Government, and Scottish government.²⁹ The GB Invasive Non-native Species Committee, drawing on evidence provided by the NNRAF, recommended to Ministers that they base the de-listing decision on a climate change scenario of 2050, and this decision was agreed by Ministers from England, Wales, and Scotland.
61. Using a 2050 climate change scenario to determine species' ability to establish in Great Britain, the committee's conclusion is that ten species no longer meet the criteria for inclusion on the list in virtue of the fact that they are not considered capable of establishing in Great Britain under current or future climate change conditions. The climate scenarios are based on the Independent Assessment of UK

²⁹ NNSS, *Terms of reference of the GB Invasive Non-Native Species Committee (the "GB Committee")* Available online: <https://www.nonnativespecies.org/assets/GB-committee-Tors-2022.pdf>

62. The GB Committee's decision to recommend that Ministers base the species de-listed on the 2050 climate scenario draws upon the justification that there is considerably more confidence in the predicted climate at this point relative to the 2100 projection. Beyond this, the climate is inherently more difficult to predict and highly dependent on measures that may or may not be effective in tackling climate change and limiting emissions.
63. Further, the GB Committee pressed that once a species has been de-listed there is no barrier to listing it again in the future if new evidence suggests it meets the criteria for doing so. Article 4(2) requires a comprehensive review of the list of species of special concern to be undertaken every six years; there are, therefore, four further opportunities to review the list between 2022 and 2050.
64. Under the 2050 climate change scenario, the following ten species are recommended for removal:
- a. Small Asian mongoose,
 - b. Coati;
 - c. Striped eel catfish;
 - d. Balloon vine;
 - e. Perennial veldtgrass;
 - f. Water hyacinth;
 - g. Whitetop weed;
 - h. Crimson fountaingrass;
 - i. Mesquite; and
 - j. Kudzu vine.
65. There is a statutory requirement to update the list by removing these ten species, and this was agreed by the GB Invasive Non-native Committee, as well as by Ministers in England, Wales, and Scotland.
66. As outlined in Option 1 (Do Nothing), the GB governments have also made a public commitment to update the list of species of special concern as appropriate in the refreshed GB Non-Native Species Strategy (Key Action 9.3)³¹. A failure to de-list would thus also be considered a failure to keep a public commitment and would likely attract some stakeholder criticism.

2.0 Rationale for De Minimis Rating

67. This intervention has been completed as a de-minimis assessment (DMA) as the annual monetised impact is below the +£5m threshold for a DMA. The intervention is not contentious as it is deregulatory and as long as the assessment that these species cannot establish under the 2050 scenario is correct, will have no negative impact on producers, suppliers, and wider society. There are also no costs of this intervention other than the minimal costs associated with raising awareness of changes to legislation.

3.0 Costs and Benefits

Option 1 – Do Nothing

³⁰ CCC, *Independent Assessment of UK Climate Risk* (2021) Available online: <https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/>

³¹ NNSS, *The Great Britain Invasive Non-Native Species Strategy: 2023 to 2030* (2023) Available online: <https://www.nonnativespecies.org/about/gb-strategy/the-great-britain-invasive-non-native-species-strategy/>

68. This option represents the business-as-usual scenario and will incur no additional costs or benefits. This option will provide no benefits associated with the de-listing of species, such as additional revenue to suppliers and producers, and wellbeing benefits. There will also be no costs associated with the de-listing process.

Option 2 – Delisting of four species

69. Option 2 would involve de-listing four species, based on the 2100 climate change scenario. This option has not been analysed in detail because the GB Non-Native Species Committee has recommended to Ministers that the de-listing decision should not be based on the 2100 climate change scenario. This decision has been made based on the evidence provided by the GB NNRAF.

70. It has not been appraised because, based on a detailed literature review of the four species to be de-listed in this option, we were unable to find any measurable or significant evidence of potential monetizable benefits for the de-listing of these species. Based on a lack of any market for these species prior to being listed, we do not expect these species to have a market following de-listing. As we do not expect a market to develop for these species, no benefits have been monetised. Expected monetised benefits can be found in the Option 3 narrative.

71. There have been no costs monetised for this option. Non-monetised costs will include limited costs for online changes to listed species and building awareness of changes to legislation. This can be seen as part of normal official duties so has not been monetised. No benefits have been monetised for this option.

72. Non-monetised benefits for this option include wellbeing benefits associated with the increased availability of these species to produce and use.

73. Although Option 2 is not expected to produce the same level of benefits as Option 3, with the same costs, we do expect Option 2 to have lower risk levels. This is due to its proposal to de-list only four species, so the potential for any of these species to establish and cause harm, such as damage to agriculture, aquaculture, and forestry, is lower than for Option 3, where ten species will be de-listed.

Option 3 – Delisting of ten species (*preferred option*)

74. This option will involve de-listing ten species, based on the 2050 climate change scenario. This option includes the expected overall sales of the species being de-listed. We expect the main monetizable benefit to be the expected overall sales of the banned species. We have calculated this based on the existing market imports and domestic production for Water Hyacinth only from 2016, before the species was listed. We also expect this intervention to have health and wellbeing benefits associated with the increased availability of these species to produce and buy. This benefit has not been monetised.

75. Option 3 has been identified as the preferred option as there is greater confidence in the evidence for the de-listing based on the 2050 climate scenario. As the list of Species of Special Concern is comprehensively reviewed every six years, there is a safeguarding option of adding species back in at review points if needed. This will increase the scope to realise benefits while being able to adapt the approach if needed to mitigate against any future costs related to species establishing. The first comprehensive review was completed in April 2022 and the next comprehensive review is due to be completed by August 2028.

76. The estimated overall sales based on the analysis central scenario is of around £7.3m over a 10-year appraisal period (discounted), with an average of around £0.8m per year. This estimate is based on the domestic production and imports of water hyacinth. Our sensitivity analysis shows

that overall sales over a 10-year period could range between £1.8 - £14.3 million, with an average of £0.2 - £1.4 million per year (NPV, 2019 prices).

Assumptions and analysis central approach

77. Based on desk literature reviews and consultation with Defra and APHA experts, we have only used Water Hyacinth in this analysis as we have not found any evidence of a retail or production presence for the other nine species being de-listed. Based on the evidence suggesting the other nine species being de-listed did not have a market prior to being listed, we do not expect the other species to have a significant market size following the de-listing. Due to this, we have not used Water Hyacinth as a proxy for other species. However, if any of the other species were to develop a market following de-listing, the benefits could be greater than those estimated. Hence this analysis can be regarded as conservative.

78. As the time it will take for sales/production to return to 2016 levels (or above that) is unknown, we have estimated three benefit realisation sensitivity ranges. We have assumed benefits will be realised in 6 years in the central scenario, with a linear increase over this period, 10 years in the low scenario, and 3 years in the high scenario. This equates to an annual average growth rate of 17% per annum for the central scenario, 10% for the low scenario and 33% for the high scenario. This is an internal analytical assumption and has been tested with Defra and APHA experts. This is likely to be a conservative assumption as recent market data shows there has been strong growth in plant sales since 2019³². In 2022, the market size of the flower and plant growing industry increased by 16.2%³³. Although we have no evidence of individual market recovery following a ban to guide this assumption, we can use recovery time from previous economic shocks to guide how long markets will be expected to take to recover. Following previous major economic shocks, such as Covid-19 and the 2008 recession, markets have generally recovered within five years.³⁴

79. We have assumed benefits will reach the same level as seen in 2016 and not exceed that level. This can be regarded as a conservative estimate, given total market size of the flower and plant growing industry is projected to grow over the next five years, from 2023 to 2028³⁵, and houseplant sales in UK garden centres in 2021 increased by 50% since 2019³⁶.

80. We have followed Green Book³⁷ and the impact assessment calculator³⁸ guidance as per the following:

- a. Used the standard Green Book discount rate of 3.5%;
- b. For unit prices we have used 2023 as the base year;
- c. Adjusted prices for inflation using the OBR GDP deflator³⁹;
- d. Base year price of 2019 and present value year of 2020; and
- e. A 10-year appraisal period has been used, in line with Green Book guidance.

³² Horticulture Magazine, *UK houseplant Statistics* Available online: <https://horticulture.co.uk/houseplants/statistics/>

³³ IBISWorld, *Flower & Plant Growing - Market Size (2012–2030)* (2023) Available online: <https://www.ibisworld.com/united-kingdom/market-size/flower-plant-growing/#:~:text=The%20market%20size%2C%20measured%20by,industry%20increased%2016.2%25%20in%202022.>

³⁴ ONS, *GDP and events in history: how the COVID-19 pandemic shocked the UK economy* (2021) Available online: <https://www.ons.gov.uk/economy/grossdomesticproductgdp/articles/gdpandeventsinhistoryhowthecovid19pandemicsshockedtheukeconomy/2022-05-24>

³⁵ IBIS World, *Industry Statistics and Trends* Available online: <https://www.ibisworld.com/united-kingdom/market-research-reports/flower-plant-growing-industry/#IndustryStatisticsAndTrends>

³⁶ Horticulture Magazine, *UK houseplant Statistics* Available online: <https://horticulture.co.uk/houseplants/statistics/>

³⁷ https://assets.publishing.service.gov.uk/media/623d99f5e90e075f14254676/Green_Book_2022.pdf HM Treasury, *The Green Book* (2022) Available online: https://assets.publishing.service.gov.uk/media/623d99f5e90e075f14254676/Green_Book_2022.pdf

³⁸ Department for Business and Trade, *Impact assessment and options assessment calculator* (2023) Available online: <https://www.gov.uk/government/publications/impact-assessment-calculator--3>

³⁹ HM Treasury, *GDP deflators at market prices, and money GDP September 2023 (Quarterly National Accounts)* (2023) Available online: <https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-september-2023-quarterly-national-accounts>

81. The central scenario has been estimated based on our central estimates on the number of plants being produced domestically and price per plant as set out in Table 1 below. The analysis assumes that the price per Water Hyacinth plant is around £2.60, we estimate domestic production to reach around 300,000 plants (reaching 2016 levels) and 92,000 plants to be imported on an annual basis.

Table 1 Central estimate Water Hyacinth price, domestic production, and imports data per year

	Central
Price £	£2.60 ⁴⁰
Domestic production	300,000 ⁴¹
Imports	92,000 ⁴²

Assumptions and sensitivity analysis approach

82. **Sensitivity analysis** has been conducted for this option, based on low and high ranges for unit price, imports and domestic production of Water Hyacinth. For unit price, we have used three separate online listings for Water Hyacinth, using the low and high prices for sensitivity analysis. The high range used a price from a US based retailer as a proxy. We also have an extreme high unit price, based on an online listing⁴³, which was significantly higher than the high unit price used, so we have not used this in the analysis.

83. Where we have no existing low or high ranges based on available evidence (e.g. high domestic production, and low and high import data), we have used 75% and 125% of the central figure for each species (as set out in Table 1 above) to calculate the low and high ranges. Table 2 sets out the estimated values used for the analysis, data marked * is where we have used a 75% or 125% figure for the low and high ranges respectively.

84. This is an internal analytical assumption and has been tested with experts from Defra and APHA. We have not used a wider range for the sensitivity analysis as we have used conservative assumptions elsewhere in the analysis, including an assumption that the total market size will not be greater than the 2016 level and only Water Hyacinth will develop a market following the de-listing. We have reasonable confidence in this assumption due to the assurance given by Defra and APHA policy colleagues.

Table 2 Water Hyacinth Input Data

Price			Domestic production			Imports		
Low ⁴⁴	Central	High	Low	Central	High	Low	Central	High
£2	£2.60 ⁴⁵	£4.00 ⁴⁶	140,000	300,000	375,000*	69,000*	92,000	115,000*

⁴⁰ Based on EU Fiches – unpublished

⁴¹ Based on EU Fiches – unpublished

⁴² Based on EU Fiches – unpublished

⁴³ The extreme high unit price is £15.38 per unit from Water Hyacinth pontederia Crassipeseasy Live Aquarium Pond - Etsy UK, the high range used in analysis is £4.01. This extreme high unit is believed to be an outlier.

⁴⁴ Lincolnshire Pond Plant, Baby Eichhornia crassipes Major (Water hyacinth) – Floating Pond Plants – Pond Plants – Water Plants Available online: <https://lincspplants.co.uk/product/baby-water-hyacinth/>

⁴⁵ Based on EU Fiches – unpublished

⁴⁶ PLAYITKOI, Eichhornia Crassipes - Water Hyacinth Available online: <https://playitkoi.com/products/water-hyacinth?variant=39275683277>

85. The de-listing of these species has already become public and has been shared amongst online plant retailers for Water Hyacinth.⁴⁷ We do not expect this intervention to have any external, public sector, or distributional costs, or wider impacts on society.
86. We also do not expect significant environmental impacts from the de-listing of these species. For example, Water Hyacinth has occasionally been found in ponds and canals, but it is unable to survive the winter in England and Wales. There is a small risk that Water Hyacinth could survive winters in England if climate conditions change significantly. However, the list of species of special concern is comprehensively reviewed every six years. The first comprehensive review was completed in April 2022 and the next comprehensive review is due to be completed by August 2028. The GB Invasive Non-native Species Committee has committed to re-considering these de-listed species as part of each comprehensive review.
87. Given the limitations with the data and the uncertainties around the retail price and the time it will take for the market to recover, sensitivity analysis has been produced based on the points set out previously.
88. Our sensitivity analysis shows that overall sales over a 10-year period could range between £2-£16 million (discounted), as presented in Table 3 below.

Table 3 Summary of the costs and benefits from option 3 (preferred option)

Cost and benefits	Description			
Non-monetised Costs	<ul style="list-style-type: none"> Limited costs for online changes to listed species and building awareness of changes to legislation. This can be seen as part of normal official duties so has not been monetised. 			
Monetised Costs (£m)	<ul style="list-style-type: none"> None 			
Non-monetised Benefits	<ul style="list-style-type: none"> Wellbeing benefits from greater access to banned species 			
Monetised Benefits (£m, 10-year appraisal period)		Total Benefits	Imports	Domestic production
	Low	1.8	0.9	0.9
	Central	7.3	1.8	5.3
	High	14.3	3.5	10.6

89. The net present value of the intervention in 2019 prices is £7.3m. Business net present value is £7.3m in 2019 prices. The net cost to business of this intervention is minimal and has therefore been recorded as £0 for this intervention.
90. The successful delivery of this intervention would be the de-listing of the ten species, which will enable them to be traded in Great Britain. Market forces would dictate if a market would be developed or re-established in the case of Water Hyacinth. Through the Non-native Species Secretariat and its inspectorate⁴⁸, the production, import/export, and trade of species could be monitored, and data collected from retailers and trade associations in Great Britain.

⁴⁷ Ornamental Aquatic Trade Association, *Water Hyacinth set to return to GB ponds* (2023) Available online: <https://ornamentalfish.org/water-hyacinth-set-to-return-to-gb-ponds/>

⁴⁸ One of the aims of the inspectorate is to make sure that legislation is better understood by stakeholders and enforced. It will also collect data such as risks from new arrival to Great Britain. Source available online: <https://www.nonnativespecies.org/about/inspectorate/>

Risks and uncertainties

91. There are potential risks associated with the de-listing of these species. If the climate scenarios used for the rationale of de-listing these species do not change as predicted, they may bring further disbenefits and costs. These include the costs of damage to forestry, aquaculture, and agriculture. There are safeguards in place, for example, these species will still be monitored through the Non-native Species Information Portal and the NNS Inspectorate. However, we do not expect such a scenario to manifest. Any new evidence relating to the ability of de-listed species to establish in Great Britain will be kept under review and considered at least every six years as part of the comprehensive review cycle.⁴⁹
92. Given the limited evidence on the production, import and retail of these ten species, the estimates used for this analysis should be treated with caution and carry a high level of uncertainty. There is no certainty that over the coming years the market for water hyacinth would return to levels seen in 2016 before its ban. The same can be said for the nine species, where a market could develop, even if a small one.

Conclusion Summary

Table 4 below summarises the costs, benefits, risks, assumptions, and caveats used for the three options considered for this DMA. Only Option 3 has been appraised due to the limitations in data available for species being de-listed in Option 2. Option 3 is the preferred option as it is the only option that presents monetised benefits, with costs being equal for all options.

Table 4 Summary of options

	Option 1 – Do Nothing	Option 2 – Four species de-listed	Option 3 – Ten species de-listed (preferred)
Summary	<ul style="list-style-type: none"> No species will be de-listed and no changes to the baseline expected 	<ul style="list-style-type: none"> This option will involve de-listing four species, based on the 2100 climate change scenario. 	<ul style="list-style-type: none"> This option will involve de-listing ten species, based on the 2050 climate change scenario.
Monetised costs (£m)	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None
Non-monetised costs	<ul style="list-style-type: none"> No expected non-monetised costs 	<ul style="list-style-type: none"> Limited costs for online changes to listed species. 	<ul style="list-style-type: none"> Limited costs for online changes to listed species.
Monetised benefits (10-year appraisal period, discounted, £m)	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Low – 1.8 Central – 7.3 High – 14.3
Non-monetised benefits	<ul style="list-style-type: none"> No expected non-monetised benefits 	<ul style="list-style-type: none"> Wellbeing benefits associated with greater availability of previously banned species 	<ul style="list-style-type: none"> Wellbeing benefits associated with greater availability of previously banned species
Risks	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Species de-listed in this option have no evidence of providing economic benefits prior to listing. 	<ul style="list-style-type: none"> Risk that Water Hyacinth will become invasive if climate conditions change in future years.
Key assumptions	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Benefits will be realised in 6 years (central), 3 	<ul style="list-style-type: none"> Benefits will be realised in 6 years

⁴⁹ NNS, *Comprehensive review and de-listing of species* Available online: <https://www.nonnativespecies.org/legislation/species-of-special-concern/#Comprehensive-review>

		<p>years (high), 10 years (low).</p> <ul style="list-style-type: none"> • Benefits will increase at a linear rate over the initial benefits realisation period • Benefits will reach the same level as seen in 2016 and not exceed that level. • Where there is no data for ranges, we have assumed a low of 75% of the central, and a high of 125% of the central value. • 3.5% discount rate 	<p>(central), 3 years (high), 10 years (low).</p> <ul style="list-style-type: none"> • Benefits will increase at a linear rate over the initial benefits realisation period • Benefits will reach the same level as seen in 2016 and not exceed that level. • Where there is no data for ranges, we have assumed a low of 75% of the central, and a high of 125% of the central value. • 3.5% discount rate
Caveats/limitations in analysis	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • No imports, exports, or domestic production data is available for any of the four species being de-listed in this option. 	<ul style="list-style-type: none"> • Imports and domestic production data was only available for Water Hyacinth. • Price data for the high price range for Water Hyacinth comes from a US based retailer, so may not be accurate for UK markets.

Risks and unintended consequences

Equalities Impact Assessment

93. No equality impacts are expected from this legislation.

Justice Impact Test

94. No additional burden to the justice system is expected from this legislation.

Trade Impact

95. Under the preferred option 3 there could be an increase in trade as the legislation will allow for water hyacinth to be imported and traded in Great Britain.

3.0 Post implementation review

96. The instrument does not include a statutory review clause, as a requirement for a review would be disproportionate when considering the economic impact (less than +£5m) of the regulatory provision on the qualifying activity.

97. A light touch approach for monitoring and evaluating the delivery of this intervention is expected, and this will be based on the trade of these ten species. Through the Non-native Species Secretariat and its inspectorate, the production, import/export, and trade of species could be monitored, and data collected from retailers and trade associations in Great Britain. This will involve an indicative monitoring and evaluation of the sale of some species through various stakeholders. A comprehensive tracking of total sales for all delisted species will not be possible

in the interim period before the initial five-year review.

98. With respect to monitoring the appropriateness of removing these species from the list of species of special concern, the GB Committee agreed, in April 2022, that GBNNSS would maintain a list of species that are removed from the list. These species will be reviewed by the GB Committee at each six-yearly comprehensive review to ensure that their de-listing remains appropriate and evidence-based.

1. **Review status:** Please classify with an 'x' and provide any explanations below.

<input type="checkbox"/>	Sunset clause	<input type="checkbox"/>	Other review clause	<input type="checkbox"/>	Political commitment	<input type="checkbox"/>	Other reason	<input type="checkbox"/>	No plan to review
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Regulations to be reviewed every five years to ensure continued suitability.

2. **Expected review date** (month and year, xx/xx):

<input type="text"/>	<input type="text"/>	/	<input type="text"/>	<input type="text"/>	Five years from when the Regulations come into force
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3. **Rationale for PIR approach:**

Circle the level of evidence and resourcing that will be adopted for this PIR (see Guidance for Conducting PIRs):

Describe the rationale for the evidence that will be sought and the level of resources that will be used to collect it.

- **Will the level of evidence and resourcing be low, medium or high? (See Guidance for Conducting PIRs)**
- **What forms of monitoring data will be collected?**
- **What evaluation approaches will be used? (e.g. impact, process, economic)**
- **How will stakeholder views be collected? (e.g. feedback mechanisms, consultations, research)**

Rationale for not conducting a PIR:

Describe the rationale for why a PIR will not be conducted and why this is deemed to be the suitable route to follow.