**Screening report**

Assessment of effects of translocation of Eurasian beaver to the Great Glen - River Ness and River Lochy catchments.

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| **Responsible Authority:** | NatureScot |
| **Title of the plan:** | Assessment of effects of translocation of Eurasian beaver (*Castor fiber*) to the Great Glen - River Ness and River Lochy catchments. |
| **What prompted the plan:**  (e.g. a legislative, regulatory or administrative provision) | Since November 2021 there has been a Scottish Government policy to actively support beaver translocation to suitable new areas of Scotland. NatureScot are seeking to explore the suitability of the Great Glen given factors: the existing beaver presence (on the river Oich); the ongoing engagement regarding translocations to the neighbouring Beauly catchment; a recent licence application from Abriachan Forest Trust that could lead to beavers moving into the Ness catchment and the known further interest in beavers translocation to others sites in these catchments. As part of our requirements under Environmental Assessment (Scotland) Act 2005, we wish to consider the environmental effects of issuing licences for beaver translocation in these catchments.  Through this screening assessment we aim to consider if there is a need to carry out further environmental assessment or if the findings of previously completed ERs for beaver translocations in other parts of Scotland have already considered the main effects that would be likely to occur in these catchments. In particular, is there any new information that the Consultation Authorities might be asked to consider. If it is determined a further assessment is not required, NatureScot would be in a position to assess any licence applications for beaver release that were submitted that relate to these catchments. |
| **Plan subject:**  (e.g. transport) | Any licence applications to release beavers in Scotland would be subject to the granting of a licence under the Under section 14 of the Wildlife and Countryside Act 1981 (as amended). The possession and transport of beavers for the purpose of translocation is also licenced under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).  The subject of the screening is the effect of issuing such licences for the translocation of Eurasian beaver to the River Ness and Lochy catchments (SEPA main catchments). We are considering these two catchments together given they are connected via the Caledonian canal. |
| **Screening** is required by the Environmental Assessment (Scotland) Act 2005.  Based on Boxes 3 and 4, our view is that: | **An SEA is required, as the environmental effects are likely to be significant:** Please indicate below what Section of the 2005 Act this plan falls within  Section 5(3)  Section 5(4)  **An SEA is not required, as the environmental effects are unlikely to be significant:** Please indicate below what Section of the 2005 Act this plan falls within  Section 5(3)  Section 5(4) |
| **Contact details:** | Kieren Jones  Beaver Officer  NatureScot  beavers@nature.scot |
| **Date:** | 20/02/2024 |

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| **Context of the Plan:** | Several SEAs have already been carried out that relate to beaver presence in Scotland. This includes:  The original assessment in 2017 that predicated the decision to allow beavers to remain in Scotland following the Scottish Beaver Trial in Knapdale and unauthorised releases in Tayside.  [Beavers in Scotland SEA](https://consult.gov.scot/forestry/beavers-in-scotland/user_uploads/sct09170881161-01-2.pdf) - 2017  [Annex 2 – SEA Habitats Regulations Appraisal](https://www.gov.scot/binaries/content/documents/govscot/publications/consultation-paper/2017/12/consultation-beavers-scotland-strategic-environmental-assessment-environmental-report-2017/documents/00528947-pdf/00528947-pdf/govscot%3Adocument/00528947.pdf)  Further to this and following the Scottish Government decision to support further beaver translocations in Scotland, NatureScot produced an SEA addendum in 2022 to update the 2017 ER and provide a national overview of the potential constraints and opportunities from beaver translocation to other catchments in Scotland.  [Beavers in Scotland - Environmental Report Addendum 2022 | NatureScot](https://www.nature.scot/doc/beavers-scotland-environmental-report-addendum-2022#Annexes) and [Post Adoption Statement](https://www.nature.scot/doc/beaver-sea-consultation-er-post-adoption-statement-addendum-loch-lomond-and-forth).  At the same time NatureScot produced an ER for the effects of beaver translocation to the River Leven (Loch Lomond) and River Forth catchments.  [Assessment of environmental effects of beaver translocation to the River Leven (Loch Lomond) and River Forth catchments | NatureScot](https://www.nature.scot/doc/assessment-environmental-effects-beaver-translocation-river-leven-loch-lomond-and-river-forth)  Accompanying Habitats Regulations Assessment  Later in 2023 NatureScot consulted on ERs for two further catchments.  [Beaver Translocation Consultation - River Beauly Catchment Environmental Report | NatureScot](https://www.nature.scot/doc/beaver-translocation-consultation-river-beauly-catchment-environmental-report) and [Post Adoption Statement](https://www.nature.scot/doc/beaver-sea-consultation-er-post-adoption-statement-river-beauly-catchment)  Accompanying [Habitats Regulations Assessment](https://www.nature.scot/doc/beaver-translocation-consultation-river-beauly-catchment-habitats-regulation-appraisal-hra-possible)  And  [Beaver Translocation Consultation - River Spey Catchment Environmental Report | NatureScot](https://www.nature.scot/doc/beaver-translocation-consultation-river-spey-catchment-environmental-report) and [Post Adoption Statement](https://www.nature.scot/doc/beaver-sea-consultation-er-post-adoption-statement-river-spey-catchment)  Accompanying [Habitats Regulations Assessment.](https://www.nature.scot/doc/beaver-translocation-consultation-river-spey-catchment-habitats-regulation-appraisal-hra-possible)  In carrying out strategic environmental assessments for new catchments we have sought not to replicate the content of the comprehensive 2017 Beavers in Scotland SEA and 2022 addendum, but instead to highlight what are likely to be the key effects (including cumulative effects) in the local environment in new catchments and explore where the balance is likely to sit in terms of benefits and risks. The extent to which different receptors may be impacted by beaver activity will differ in different catchments depending on the prevailing topography, types of land and water management, natural heritage zones etc, but the list of receptors and hence interactions with beavers is expected to be common to many catchments.  The consultations carried out that have accompanied the previous ERs have not elicited a large number of responses. The Consultation Authorities have agreed with NatureScot’s assessment of effects and the adequacy of mitigation measures. Public comments have tended to focus on the desirability of beaver translocation rather than the assessment of environmental effects. Although helpful comments have been received in relation to these ERs, the substance of the assessments has not been materially changed by the consultations. Hence the post-adoption reports have focused on the monitoring and mitigation measures that require to be put in place where beaver release licences are approved. NatureScot have updated out internal procedures with regard to HRA to ensure that such measures are in place and have a clear delivery plan in advance of a licence being issued.  All of the previous ERs have concluded that on balance the effects are likely to be positive for biodiversity and water resource management; that there may be locally negative effects on material assets, but that issues can be adequately resolved by mitigation and management of beaver activity.  Here we consider the characteristics of the River Ness and River Lochy catchments and whether there are any effects that have not already been considered under SEA. Any beaver release licences issued in these catchments would still require a monitoring and mitigation plan to be agreed and put in place as a condition of the licence.  We are in the process of considering a National Habitats Regulation Assessment for beaver translocation, again recognising that effects on protected features are likely to be similar in different areas, whilst allowing for application of appropriate assessments to specific sites and whether there are site specific requirements or different conclusions with regard to the effect on site integrity. To date there have been a number of protected features in each catchment for which monitoring, and mitigation would need to be assured in order to conclude there would be no adverse effect on site integrity (AESI). Monitoring and mitigation plans have been put in place to reflect these interests.  In addition, the Scottish Code for Conservation Translocations (SCCT) sets out the need for local engagement in relation to translocation proposals. This process should also highlight the need for further management actions relating to local circumstances. It is a requirement of our licensing process to ensure that SCCT has been adequately followed. |
| **Description of the Plan:** | NatureScot wish to determine the effect of beaver translocation to the River Ness and River Lochy catchments to inform the consideration of any applications for wild release licences. We note that there is currently evidence of beaver occupancy in the river Lochy catchment on the river Oich. It is not yet known the number of animals that are present and whether they originate from natural dispersal (beavers at Cannich being the closest geographically) or from an unauthorised release. However, subsequent releases in this catchment would require a licence from NatureScot.  In screening the effects in these catchments, we would only intend to carry out a full environmental assessment that would be subject to public consultation if we felt that the environmental effects would be sufficiently different to those experienced elsewhere in Scotland. These effects have already been considered in previous assessments and hence further assessment and consultation on a catchment specific ER is unlikely to add value to the existing body of assessments. |
| **What are the key components of the plan?** | To determine the effect of beaver translocation to the Rivers Ness and Lochy catchments (the Great Glen), for any novel effects not already considered or assess if there are likely to be substantial differences in the likelihood or significance of effects from previous assessments - relating to the special characteristics of these catchments.  We have not carried out detailed spatial mapping of receptors specifically for these catchments but the 2022 Addendum contains as an [electronic appendix](https://www.nature.scot/sites/default/files/2022-10/Beavers%20in%20Scotland%20ER%20Addendum%20Electronic%20appendix%20-%20catchment%20scale%20analysis%20results%20-%202022%20%281%29.xlsx) the results of a quantitative analysis of potential environmental interactions for all 138 main river catchments in Scotland, including these two catchments. The outputs are based on overlap of existing datasets with modelled beaver distributions (Potential Core Beaver Woodland or PCBW) and river damming capacity (Beaver Dam Capacity).  Beaver effects are expected to be very much constrained in these catchments by the topography with much of the land being steep and mountainous and beaver presence likely to also be limited by woodland cover. We note the existing [natural and man-made obstacles](https://marinescotland.atkinsgeospatial.com/nmpi/default.aspx?layers=1746) to fish passage which may also present issues for beaver dispersal – for example on the Foyers, Tarf, Doe, Coiltie, Garry, Arkaig and Loy. |
| **Have any of the components of the plan been considered in previous SEA work?** | Previous Environmental Reports have assessed effects arising from beaver interactions with the following receptors:   * Biodiversity, flora and fauna   The 2017 Beaver in Scotland was very comprehensive and assessed effects systematically by taxonomic group. The focus was on interest that were likely to overlap with potential beaver habitat within the policy areas of Tayside and Knapdale. The Addendum recognises that fortuitously these two areas reflect different geographies in Scotland with differing environmental characteristics and hence a lot of variation is encompassed between them. Summarised in [Table 4a](https://www.nature.scot/doc/beavers-scotland-environmental-report-addendum-2022#Annexes:~:text=not%20established%20mitigation.-,Table%204%20%2D%C2%A0%C2%A0High%20level%20summary%20of%20impacts%20and%20significance%20of%20effects%20from%202017%20ER,-4a%20%2D%20Biodiversity).  Woodland is a key feature with regard to beaver activity with many benefits recognised. However, the main risk to all woodland types relates to the potential interaction with other herbivore impacts limiting woodland regeneration - this is likely to be common to all catchments if beavers were introduced. Whilst the character of woodlands in the Great Glen may vary from other catchments, becoming more oceanic to the west, the risks (and benefits) remain the same. Herbivore impacts were however, recorded to be lower here than in many catchments (NWSS 2006-2013). The Lochy catchment has a significant proportion of ‘assumed’ and ‘potential’ rainforest that overlaps with PCBW, i.e. most woodland occurs next to freshwater lochs or rivers. Although there is relatively less aspen than in some other catchments, again what there is, is within proximity of freshwater. The oceanic character means that may of the remnant native woodlands and designated woodlands are notable for their lichen and bryophyte assemblages e.g. Loch Arkaig Pinewood.  Beaver presence in the Great Glen also potentially opens up beaver presence to other west coast locations through onward dispersal via tidal sections of Loch Eil and loch Linnhe and beyond (as has been observed in the Tay estuary). With beaver presence in Knapdale there is already beaver presence on the west coast, although spread from Knapdale appears to have been very limited. Beavers do not occupy saltwater locations but can tolerate seawater or brackish conditions for short periods and hence can move along coasts between freshwater bodies. Hence releases in the Lochy catchment could facilitate spread into the Glen Nevis/ Appin coastal catchment, or along Loch Eil side and the Ardgour coast. West coast native woodlands are recognised to be of global importance as ‘Atlantic rainforest’. As has been observed at Knapdale beavers will only tend to access trees within 20m of water bodies and hence much of the woodland resource and associated interests are unlikely to be impacted. However, some monitoring of impacts would also be recommended in response to beaver presence in other locations. We expect the national HRA to make recommendations for wider areas.  Beaver translocations into the Ness catchment would also open up the potential for spread into other river catchments notably along the Moray firth. This potential already exists from beaver presence on the river Beauly and in the longer term from recent releases on the river Spey.  Other ER and HRAs have concluded that in order to be assured there will be no AESI on woodland interests from the combined impacts of beaver and other herbivores, a monitoring and management needs to be in place. Such a plan can be conditioned on specific release proposals, but ultimately as beavers become widespread and in the longer term, ensuring the appropriate management of woodlands will become a matter for regulation or incentivisation under other wildlife legislation or agricultural cross-compliance. Where there are particular trees or stands of trees of conservation importance, there are established techniques for the protection of individual trees or stands of trees. The risks are greater where there is a lack of information about species distributions and where a greater proportion of the existing woodland resource would potentially be subject to beaver activity in the long- term. Whilst there are multiple drivers for riparian woodland establishment and woodland restoration more widely, a programme of beaver restoration could help to act as a catalyst for such initiatives. That much of the woodland resource would be accessible to beavers strengthens the case for woodland expansion in these catchments, to make the woodland resource more resilient to temporally and spatially patchy beaver impacts.  Effects on a wide range of bird species have been assessed in the HRAs accompanying the River Beauly and River Spey catchments in particular. There are a number of lochs in both catchments that overlap with PCBW that are used by black throated diver, Slavonian grebe and Common Scoter, noting that not all of these lochs may be accessible to beaver. The water level of larger lochs is unlikely to be altered by beaver dams, and as elsewhere, there should be facility to monitor loch outflows for dams to ensure water levels are not elevated resulting in nest sites being inundated. There is also potential for beavers to alter the distribution and abundance of willows and aquatic communities that border the lochs and are used by Slavonian grebes for nesting. The [Knapdale experience](https://digital.nls.uk/pubs/e-monographs/2015/BeaversinScotlandAreporttoScottishGovernment.pdf) (P47) suggests that whilst there was evidence of some aquatic plant communities being reduced through herbivory or inundation, new areas of habitat were also created by damming. Again the national HRA will make recommendations for monitoring and mitigation of these interest.  Freshwater pearl mussels are present in the Ness catchment, but there is no overlap with modelled beaver dam capacity, indicating presence is on main rivers not liable to damming. Freshwater pearl mussel may be present in the Lochy catchment but their presence is unconfirmed. The River Morriston SAC has freshwater peal mussel and Atlantic Salmon interests, both of which were last assessed to be in unfavourable condition. Elsewhere packages of monitoring and mitigation have been proposed to assure there is no AESI. This involves surveillance for beaver dams and steps to assess and if necessary, facilitate fish passage at key migratory periods and to ensure there is adequate sediment transport.  [South Laggan Fen SSSI](C://Users/IFJB1/Downloads/Site_Management_Statement_1454.pdf) at the southern end of Loch Pich is notified for its open water transition fen and is dependent on periodic flooding. The existing hydrological regime is maintained by culverts which may require some protection from damming. However, beaver presence could help to maintain a balance of open areas and permanent reed beds.   * Water quality, resource and ecological status   The main effects are summarised in the 2022 [Addendum](https://www.nature.scot/doc/beavers-scotland-environmental-report-addendum-2022#Annexes:~:text=LSE%20otter.-,4b%20%2D%20Water,-Receptor) The effects in these catchments are likely to be similar to other largely upland catchments. The large extent of loch shore and steep and rocky nature of many of the rivers and burns will likely limit beaver activity and effects.   * Population and human health   The main effects are summarised in the 2022 [Addendum](https://www.nature.scot/doc/beavers-scotland-environmental-report-addendum-2022#Annexes:~:text=species%20of%20lamprey.-,4c%20%2D%C2%A0Population%20and%20human%20health,-Receptor) and are considered common to all catchments.   * Cultural heritage   As with other catchments assessed, there are important sites of cultural significance, however, established monitoring and mitigation approaches are considered to apply.   * Material assets   Prime Agricultural Land has been most impacted by beaver activity in parts of Tayside due to the low-lying fertile land with reliance on field drains. Both catchments have minimal Prime Agricultural Land (Land capability for Agriculture classes 1-3.1) that overlaps with potential core beaver woodland (none in the Lochy and 0.7ha in the Ness catchment, with 110ha of overlap with LCA 3.2 in the Ness catchment mostly between Dores and Inverness). Whilst other crofting and farmed land has the potential to be impacted by beaver, the nature of impacts is likely to more limited. As in other areas the Beaver Management Framework would apply to address any serious conflicts that arise.  Forestry is a key land use in these catchments, though beaver impacts are likely to be highly constrained by topography throughout these catchments.  The [Ness District Salmon Fishery Board](https://ndsfb.org/) covers the entire Ness catchment with different parts of the catchment being important for different life stages of Atlantic salmon (*Salmo trutta*) and other fish species including brown trout and Arctic charr. The river Lochy is managed by [the Lochaber District Salmon Fishery Board](https://lochaber.dsfb.org.uk/) and both catchments are important for angling. However, the potential effects of beaver activity are likely to be the same as in other rivers with fish and fisheries interests such as the River Spey and Endrick Water SACs that have already been considered by ER and HRA.  Both catchments have a low human population density with relatively fewer potential interactions with built up areas and infrastructure. The west coast railway line emerges from largely treeless loch Treig into Glen Spean with 17km of overlap with potential beaver habitat (PCBW). Beaver impacts on the rail infrastructure has been observed in Tayside and Network Rail are experienced at monitoring and mitigating these impacts, although there are costs involved.  The Caledonian canal is a special feature of the Great Glen, with 29km across both catchments of which c. 45 % is adjacent to potential beaver habitat (PCBW). Beavers are known to make use of canals and there are cases in other European countries of burrows damaging retaining banks that are not reinforced by revetments. Impacts on the Crinan canal were considered in the 2017 ER with the recommendation that continued monitoring should be conducted to look for any burrowing into canal embankments and for beaver activity in feeder lochs. Further to that assessment, NatureScot have been involved in trials of methods for detecting beaver burrows, which could potentially be employed on watercourses with well-defined profiles such as canals. <https://www.jbaconsulting.com/2023/03/13/introducing-rivereye-innovative-beaver-burrow-detection/>. Engagement with Scottish canals is advised ahead of any translocation proposals in the Great Glen.  Both catchments have large and small scale hydro schemes; notably on the Tarf, Foyers, Morriston, Garry, Oich and Spean. Beaver impacts on hydro schemes were briefly considered in the Beauly ER, with hydros likely to present a barrier to some beaver movements and the rapid changes in water levels making some reaches unsuitable for beaver. There is the potential for localised impacts from beaver on the hydro infrastructure (more likely on smaller schemes). Existing mitigation is likely to be in place for woody debris, but more frequent inspections of the dam intakes or the installation of sensors may be required.  In each case there may be impacts from damming, tree felling and burrowing, but the scale and nature of impacts are likely to be site specific. In each case there are established mitigation measures or licensing approaches that could be applied.  Hence, we are satisfied that we have understood the impacts that beavers are likely to have on the range of receptors at a general level and that there are suitable approaches in place to deal with negative effects. Whilst the focus of ERs and HRAs has tended to be on the negative effects, the policy of beaver restoration is founded on the considerable positive benefits for nature restoration and ecosystem services that beavers can bring. |
| **In terms of your response to Boxes 7 and 8 above, set out those components of the plan that are likely to require screening:** | We are not aware of any receptors present in the Ness or Lochy catchments that have not already been considered in other catchments or that would lead to different conclusions being reached with regard to likely significant effects or adverse effects (under HRA), provided that the same monitoring protocols are established prior to the beavers being released and mitigation employed. |

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| **Summary of how environmental principles have been considered:**  (including an outline of how the guiding principles, as set out in section 13 of the Continuity Act, are relevant to the plan) | Through previous ERs NatureScot have sought to assess the balance of positive and negative environmental effects likely to arise from beaver translocations. The precautionary principle is embedded in the HRA assessments that have been carried out with appropriate monitoring and mitigation plans to assure there is no AESI being conditioned on release licences. The nature of the proposal to reintroduce a former native species, with long-term consequences for the wider environment is somewhat different to projects and plans that are normally assessed. Once released, the beavers are regarded as wild animals with a legal status as *res nullis*, and as such no authority is responsible for their actions. However, the monitoring and mitigation plans put in place seek to assure that there is adequate monitoring to avoid damage and a plan in place for addressing negative impacts should they arise. |
| **Summary of interactions with the environment and statement of the findings of the Screening:**  (Including an outline of the likely significance of any interactions, positive or negative, and explanation of conclusion of the screening exercise.) | We believe that the more detailed ERs assessing the effects of beaver translocation to new catchments have already considered the range of effects that are likely to arise in these two catchments. And that although the scale and nature of effects may vary geographically, the conclusions regarding the balance of effects are likely to be the same for these catchments. These catchments are considered to present a low risk of conflict and a high potential for nature restoration from beaver presence.  HRAs have been carried out for six catchments to date and all have been able to conclude no AESI from beaver translocation with appropriate monitoring and mitigation in place. There is nothing in our screening assessment to suggest the assessments would be any different for these catchments.  Therefore, we conclude that no new effects are likely to arise that have not been previously considered and there would not be added value from further assessment and producing a detailed ER and its related public consultation for the River Ness and Lochy catchments. However, we would expect any proposals for beaver release would involve engagement with the communities, land and asset managers likely to be affected as per the Scottish Code for Conservation Translocations. |

When completed send to: [SEA.gateway@gov.](mailto:SEA.gateway@gov.)scot or to the SEA Gateway, Scottish Government, Area 2F (South), Victoria Quay, Edinburgh, EH6 6QQ.

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