

# Appendix 4

## International Perspectives

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## International perspectives

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This summary has been compiled by Dr Roisin Campbell-Palmer through her direct professional experience of international beaver management programmes. It has been augmented by the research conducted to inform the production of the Eurasian Beaver Handbook (Campbell-Palmer et al, 2016).

In addition, in 2017, a research questionnaire was circulated to beaver managers throughout the northern hemisphere where beavers and people live alongside each other, in order to gain an understanding of different management models, and their relative strengths and weaknesses.

The following key points have emerged from this research and are most relevant to the English situation:

- Any management regime should include rapid access to expert advice and support;
- Availability of public funding for the wider societal benefits derived from beaver activity is essential, especially to encourage added value through more holistic management of riparian areas; and
- Raising awareness of the benefits beavers can bring (which are often less visually apparent) is essential to provide objective balance to debates which can often focus on the negative impacts that are more easily observed.

Key features of management	Applicability to England
<b>France</b> (Information provided by National Beaver Network Co-ordinator, ONCFS, National Office for Hunting and Wild Fauna)	
<ul style="list-style-type: none"> <li>- Beaver management is the responsibility of the state that provides an advisory service.</li> <li>- Beavers are typically managed on a catchment scale. 'Beaver-free zones' are not practiced.</li> <li>- Beavers are fully protected, along with structures used for shelter and reproduction, though derogations are possible outside of the breeding season.</li> <li>- The use of lethal traps is not permitted.</li> <li>- Dams are protected by law. Those causing damage to infrastructure or property can be managed under authorisation, with the applicant responsible for costs. There is no responsible party for any damage caused by beaver structures and activity, even though owners of</li> </ul>	<ul style="list-style-type: none"> <li>- Managing the 'favourable conservation status' of populations is considered at the catchment scale.</li> <li>- Protection may occur through law but derogations under licence especially with certain impacted land-uses would appear to be practical.</li> <li>- Killing traps should not be permitted, especially given risk to other wildlife such as otters and badgers.</li> <li>- Given the varying number, functionality and seasonality of dams within a beaver territory, the protection of every dam is not required for the welfare or conservation of the species. Therefore a management system enabling protection of key natal dams and mitigation would be more appropriate.</li> </ul>



<p>waterways are legally and financially responsible for maintenance.</p> <ul style="list-style-type: none"> <li>- No compensation system exists for damage to agricultural or private households, though technical advice is provided by the Government.</li> <li>- No impacts on migratory fish have been reported or studied, this is not generally seen as an issue and dams not viewed as impassable obstacles.</li> <li>- There are no specific schemes for beaver created wetlands, though sometimes areas of land are purchased by the state for wetland conservation.</li> <li>- There have been no significant reports of conflict in urban districts.</li> <li>- A national network of specialists in the field provide expert advice and rapid technical support.</li> <li>- Population distribution of beavers is monitored by the state.</li> </ul>	<ul style="list-style-type: none"> <li>- Land purchase of riparian zones and beaver created wetlands may be viable to reduce ongoing management conflicts in some areas, as well as to enhance valuable wildlife habitats.</li> <li>- As beaver populations increase, knowledge, experience and tolerance of living alongside this species develops.</li> <li>- A network of specialists who can respond to conflicts rapidly should be established, with information shared and population distribution monitored.</li> </ul>
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**Scotland** (Information provided by Operations Officer, Scottish Natural Heritage SNH)

<ul style="list-style-type: none"> <li>- The Scottish Government (SG) have permitted beavers to remain in Scotland. Two populations are recognised, with those establishing outside of these, removed.</li> <li>- SNH is the advisor to the SG on wildlife and landscapes. Scottish Environment Protection Agency are responsible for Flood Risk Strategy.</li> <li>- The management and costs of beavers and their impacts is expected to fall onto landowners and those responsible for infrastructure.</li> <li>- Expert mitigation advice is provided by SNH for free, funded through grant-in-aid. Ultimately landowners are expected to cover the cost of beaver mitigation though currently SG are partially funding trial mitigation interventions.</li> <li>- Beavers have been afforded European Protected Species status</li> </ul>	<ul style="list-style-type: none"> <li>- Beaver populations exist outside of formal trial catchments.</li> <li>- Currently statutory bodies fund beaver advice and some mitigation costs, though there is an expectation that in the future beavers will be treated consistently with other wildlife.</li> <li>- Agri-environment and positive payment schemes for mitigation and retention of beavers and associated naturalisation of riparian zones are important incentives.</li> </ul>
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<p>with a licencing scheme in development.</p> <ul style="list-style-type: none"> <li>- No current evidence of significant impact on migratory fish or conflicts in urban areas.</li> </ul>	
<p><b>The Netherlands</b> (information provided by Dutch Mammal Society)</p>	
<ul style="list-style-type: none"> <li>- The government is responsible for Water Management, and for achieving 'favourable conservation status' of beaver populations.</li> <li>- Mitigation advice is provided, though costs are expected to be covered by landowner/organisations experiencing the issue.</li> <li>- Lethal control or translocation is possible under licence.</li> <li>- Riparian buffer zones are used in some agricultural areas to reduce beaver conflicts.</li> <li>- Managed costs are born by organisations experiencing the issues in beaver no-go areas, although water authorities are responsible for ensuring farmland is not flooded by beaver dams.</li> <li>- Only farmers can receive compensation (if they demonstrate they have taken appropriate avoidance measures), direct agricultural damage can be claimed via the 'Fauna Fund.'</li> <li>- No significant issues with migratory fish (though there are no significant salmon populations).</li> </ul>	<ul style="list-style-type: none"> <li>- Favourable conservation status of beavers could be achieved through an appropriate management plan with a range of management techniques which may see translocation/lethal control in some areas, whilst non-lethal management utilised in others.</li> <li>- Encouragement of riparian buffer zones to reduce beaver impacts has been effective. Positive payment schemes rather than compensation could be more acceptable.</li> <li>- Capture and translocation is possible under licence as it requires specialist equipment and knowledge. Animal welfare, future management and landowner permissions are all associated with re-release.</li> </ul>
<p><b>USA – Massachusetts</b> (Information provided by Michael Callahan, President of the Beaver Institute Inc.)</p>	
<ul style="list-style-type: none"> <li>- Water and flood risk management is overseen by State Department of Environmental Protection, with the Department of Fish and Game responsible for beaver management.</li> <li>- Trapping to remove or lethal control is the main form of management, funded through fishing and hunting licence fees. Beavers are easily removed especially if their activity is deemed a threat to human health,</li> </ul>	<ul style="list-style-type: none"> <li>- Statutory bodies oversee water and beaver management</li> <li>- A network of specifically trained beaver handlers is able to translocate animals under licence.</li> <li>- Areas determined unsuitable for long-term beaver occupation could be zoned and a more robust beaver management approach implemented.</li> </ul>



<p>safety or property. If not a permitted management system through the local conservation committees exists.</p> <ul style="list-style-type: none"> <li>- Beaver free areas are in operation where non-lethal management is deemed unfeasible – once these areas are determined by a beaver expert then trapping can continue on a permanent basis without a permitting system.</li> <li>- Most beaver management costs fall to those experiencing the problem. Sometimes a town will pay for mitigation. No government funding is available.</li> <li>- There is a recreational hunting season.</li> <li>- No negative impacts on migratory fish have been observed, in fact beavers are being proactively translocated to improve watersheds for Pacific salmon recovery.</li> </ul>	<ul style="list-style-type: none"> <li>- Opportunities for monitoring impacts of beaver activity on river and Atlantic salmon population.</li> </ul>
<b>USA – California</b> (Information provided by Heidi Perryman, 'Worth A Dam' NGO)	
<ul style="list-style-type: none"> <li>- The State of California is responsible for all water, catchment and flood risk management.</li> <li>- Lethal control of beavers is undertaken via state permit.</li> <li>- 'Beaver-free' zones are not considered a practical management option; instead city/council authorities are responsible for day to day conflict management.</li> <li>- No compensation schemes are available.</li> <li>- Volunteer groups assist with mitigation and tree protection.</li> </ul>	<ul style="list-style-type: none"> <li>- Opportunity for conservation charities to promote beaver education and awareness programmes with general public and neighbouring landowners and demonstrate range of management options available.</li> <li>- A Beaver Festival is held annually to promote importance of the species.</li> </ul>
<b>Belgium</b> (Information provided by beaver protection workgroup, Natagora)	
<ul style="list-style-type: none"> <li>- Water and flood risk management occurs according to water body size – either at a regional level for larger water bodies, the municipality or landowner. Within Wallonia the Division of Nature and Forestry (DNF) is responsible for beaver management. Beavers are protected by law with DNF acting as the licencing body for any derogations.</li> </ul>	<ul style="list-style-type: none"> <li>- Beaver management requires a prompt response. Determined on a 'needs' basis.</li> <li>- Education and promotion of beavers and their activities especially in protected areas is crucial. Management of expectations worthwhile, especially associated with changing hydrology and tree felling.</li> </ul>



<ul style="list-style-type: none"> <li>- Beaver management occurs on a case by case basis reflecting the need and level of conflict.</li> <li>- Some compensation is available for losses caused by wild animals (which include beavers) and a minimum claim of 500 euros is set.</li> <li>- Beavers and their structures are protected, though there is now growing pressure for some lethal control as population numbers are increasing. In some higher conflict areas, there is reluctance by landowners to spend time and money on mitigation instead focussing on securing consent for lethal control.</li> <li>- No significant impacts on migratory fish have been recorded.</li> <li>- Many urban conflicts seem to involve a reluctance to tolerate beaver impacts on regularly used paths.</li> </ul>	
<p><b>Germany – Bavaria</b> (Information provided through fact finding field trips with Gerhard Schwab, Bavaria)</p>	
<ul style="list-style-type: none"> <li>- Water catchment and flood risk management are the responsibility of the Ministry for Environment, with agriculture sitting under the Ministry for Culture. The Water Management Authorities have a similar remit to EA.</li> <li>- Flood risk management has a three-tiered system according to water body size, with upper catchments managed by local communities with 50% state funding.</li> <li>- Beaver management is the responsibility of the county nature conservation agency which produces guidance and employs two beaver managers who are supported by a network of trained and supervised volunteers (their expenses are paid via county funds).</li> <li>- There is funding available for mitigation measures, and encouragement of the leasing or selling of vulnerable land to the</li> </ul>	<ul style="list-style-type: none"> <li>- Governmental and local authority funding is available to support beaver management.</li> <li>- The availability of compensation schemes can risk over-reporting of issues.</li> <li>- Positive payments for wildlife and provision of ecosystem services is deemed more effective.</li> <li>- The RAG (Red/Amber/Green) prioritisation system for management of beaver structures is simple and effective.</li> <li>- Beaver management knowledge is increasing. Informed and experienced advisors are key to success.</li> <li>- The opportunity to purchase land to reduce beaver conflicts and maximise benefits through a system of riparian and wetland conservation areas has proved successful.</li> <li>- Potential conflict areas can be mapped in advance.</li> <li>- Conservation bodies could amend reserve purchase guidelines to</li> </ul>



<p>state nature conservation organisations / agencies. Limited compensation is available for farming and fishing businesses but not for private residential land. Evidence must be documented and checked by a beaver consultant before compensatory payments are made.</p> <ul style="list-style-type: none"> <li>- Beavers are protected under the Habitats Directive. Landowners can remove dams under instruction from a consultant - natal and mature dams receive more protection. Active removal of structures and beavers, including culling is practised as a last option in some areas under licence.</li> <li>- Long term planning involving the use of buffer zones around fresh water- bodies is employed to reduce future conflict.</li> <li>- Beaver management is jointly operated between NGO beaver managers, county state agencies and volunteer beaver consultants. A rapid response is key to this system's efficacy and success.</li> <li>- A long-term education programme designed for all sectors of society is delivered.</li> <li>- Beaver impact on migratory fish is not reported as an issue. There have been observations of some restrictions in fish passage during periods of low flow however.</li> <li>- Meat or other derivatives from beavers can't be officially sold.</li> <li>- There are numerous beaver occupied areas purchased by the government which helps to reduce conflict and ongoing incentive payments.</li> </ul>	<p>prioritise beaver managed landscapes.</p> <ul style="list-style-type: none"> <li>- Some areas are kept 'beaver free' as far as possible on a traffic light system but not at a catchment scale as this is not practical.</li> </ul>
<b>Norway</b> (Information provided by Dr Roisin Campbell-Palmer)	
<ul style="list-style-type: none"> <li>- The right to hunt beavers belongs to the landowner. Annual harvest quotas are issued to conglomerates of landowners.</li> </ul>	<ul style="list-style-type: none"> <li>- A closed season on lethal control and implementation of mitigation interventions on structures associated with reproduction is employed.</li> </ul>



<ul style="list-style-type: none"> <li>- Landowners are expected to control beaver populations on their land to manage impacts on adjacent land.</li> <li>- There is a closed season to hunting. Applications to control beavers within the closed season are granted if significant damage is occurring.</li> <li>- Lodges and dams are protected – but a licencing system is in place to enable management if required.</li> <li>- Cost of beaver impacts and mitigation are mostly born by the landowner.</li> <li>- The quota system is under review. A landowner regulated harvest has been suggested, but concerns have been raised that this may lead to significant population reductions.</li> </ul>	<ul style="list-style-type: none"> <li>- A licencing system is in place for lodge and natal dam removal.</li> <li>- Beavers should be promoted as part of native wildlife assemblages and therefore the majority of conflict mitigation to be covered by landowner with support from the government especially in terms of prompt advice, licensing for management, positive payment schemes for development of riparian habitats.</li> <li>- Favourable conservation status is considered and maintained at a population scale.</li> </ul>
<b>Denmark</b> (Information provided by Dr Roisin Campbell-Palmer)	
<ul style="list-style-type: none"> <li>- Beaver management is carried out through a Steering Group consisting of the Nature Agency and Danish Centre for the Environment and Energy</li> <li>- Landowners must resolve the conflicts they experience, although there is limited state funded advice.</li> </ul>	
<b>Czech Republic</b> (Information provided by Dr Roisin Campbell-Palmer)	
<ul style="list-style-type: none"> <li>- Ministry of the Environment and Nature Conservation Agency of the Czech Republic are responsible for beaver management.</li> <li>- 10-15yr management plan to sustainably preserve beaver populations and provide a relevant framework to manage conflicts and develop public awareness.</li> <li>- Compensation is available for crop and forestry damage.</li> <li>- A tiered approach to beaver management is taken spatially – from no tolerance to full protection.</li> </ul>	<ul style="list-style-type: none"> <li>- Zonation of management approaches could be possible i.e. beaver removal is more likely in prime agricultural areas, whereas beavers are tolerated in less agriculturally productive areas. This should be agreed after documentation of ongoing conflicts and consideration of alternative management actions has taken place.</li> </ul>
<b>Finland</b> (Information provided by Dr Roisin Campbell-Palmer)	
<ul style="list-style-type: none"> <li>- Finnish Wildlife Agency is responsible for beaver management – controlling hunting</li> </ul>	<ul style="list-style-type: none"> <li>- Consideration of beavers as a managed game species if additional protection is not applied.</li> </ul>





<p>with game quotas assisted by hunting volunteers.</p> <ul style="list-style-type: none"><li>- No management plan currently in place. Hunting for recreation and to manage 'problem' animals occurs.</li></ul>	
<b>Others (Dr Roisin Campbell-Palmer)</b>	
<ul style="list-style-type: none"><li>- In some European countries (Estonia, Finland, Latvia, Lithuania, Poland and Sweden) the Eurasian beaver has reduced protected status, so that regulated hunting is permitted within the context of maintaining favourable conservation status.</li></ul>	

