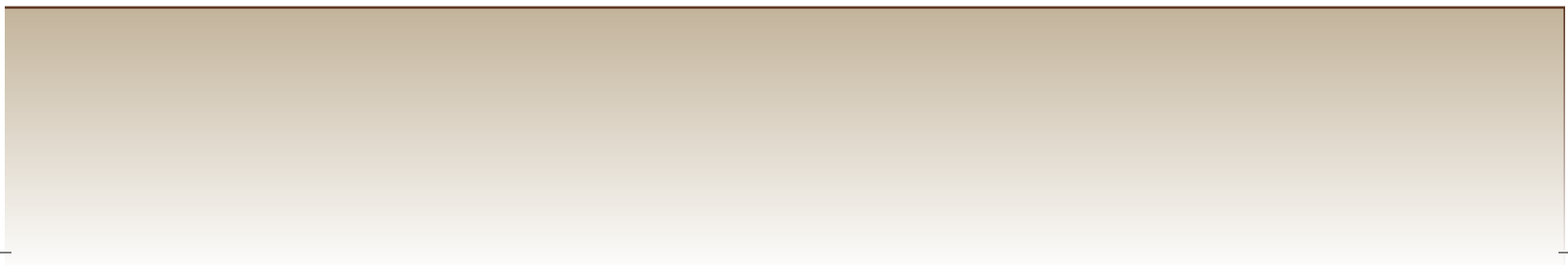


River Otter

**Beaver Management
Strategy Framework**





Acknowledgement of stakeholder involvement and expertise

This Beaver Management Strategy Framework has been developed by the River Otter Beaver Trial (ROBT) Steering Group. The Steering Group commends this document to statutory bodies and all key stakeholders who may be affected by beaver reintroduction.

The ROBT Steering Group membership comprises the following organisations and advisors:

- Beaver Advisory Committee for England;
- Clinton Devon Estates;
- Devon County Council;
- Devon Wildlife Trust;
- Dr Roisin Campbell-Palmer;
- East Devon and Blackdown Hills AONB;
- Environment Agency;
- Game and Wildlife Conservation Trust;
- Natural Devon (Devon LNP);
- Natural England;
- Professor Alastair Driver;
- Professor John Gurnell;
- Salmon and Trout Association;
- South West Rivers Association / Angling Trust;
- South West Water;
- University of Exeter;
- University of London;
- The Country Land and Business Association; and
- The National Farmers Union.

A Working Group was established to develop this Beaver Management Strategy Framework for the River Otter. Its development was led by the ROBT Management Group which includes the following organisations and experts:

- Devon Wildlife Trust;
- Clinton Devon Estates;
- Derek Gow Consultancy;
- The University of Exeter;
- Dr Roisin Campbell-Palmer; and
- Professor John Gurnell.

The wider Working Group also comprises representatives from:

- Natural England;
- Environment Agency;
- Forestry Commission;
- The National Farmers Union;
- The Country Land and Business Association;
- South West Rivers Association
- Westcountry Rivers Trust; and
- Game and Wildlife Conservation Trust.

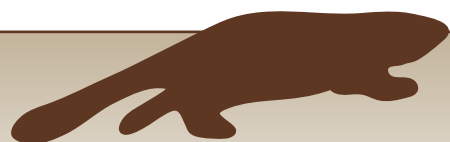
The ROBT Steering Group and Management Group are grateful for the considerable time, diligence and dedication that has been provided by these various members of the Working Group.

The plan draws heavily on the Eurasian Beaver Handbook (Roisin Campbell-Palmer et al. 2016) and of the various authors' knowledge and experience, many of whom also sit on the ROBT Steering Group and Working Group.

We are also grateful to have access to the expertise of Professor John Gurnell, the author of 'The Feasibility and Acceptability of Reintroducing the Eurasian Beaver to England' (Natural England, PTES. 2009).

This Strategy Framework has been developed for the River Otter catchment (with reference to neighbouring river catchments that beavers will naturally spread into). The inclusion of national stakeholders and international advisors in the Working Group ensures the approach could be readily adapted and adopted nationwide for other catchments where beavers might be reintroduced or colonise.

The Steering Group is grateful for Defra's financial support to facilitate the drafting of this document.



Secretary of State for Environment, Food & Rural Affairs
Westminster
London SW1A 0AA

June 2019

Dear Secretary of State,

I am delighted to provide you with the completed Beaver Management Strategy Framework (BMSF) for the River Otter. We have drafted this strategy with input and advice from all members of the Steering Group of the River Otter Beaver Trial (the Trial) and with the help of funding from Defra. The BMSF proposes an approach that we believe should apply to this catchment after March 2020 when the Trial is due to come to an end if beavers are allowed to remain.

Beavers are nature's aquatic engineers and have the capacity to transform watercourses and riparian landscapes, restoring dynamic natural processes to our river catchments and ecosystems. Their activities bring a wide range of benefits and their presence in the River Otter has provided much inspiration and excitement. However, their activities bring management challenges which are magnified where beaver activity impacts on infrastructure or where reinvigorated wetlands encroach on farmland, or conflict with other business enterprises, employment land, river users and residential properties.

The Trial has recognised these potential conflicts from the outset and has adopted an open, partnership approach to solving the problems. This has included a review of how other countries have approached the resolution of such conflicts. The rapid provision of high quality and pragmatic support for landowners and members of local communities is vital to avoid different viewpoints becoming polarised, which can otherwise lead to animosity between stakeholders.

The Steering Group includes a wide range of representatives, among them the NFU, CLA and fishing organisations as well as government agencies, conservation NGOs and landowners. There are different attitudes towards beavers among the partners, but I am very grateful that members of the group have acted in the interests of the Trial.

Through the Trial we believe that we have demonstrated how beavers and people can co-exist in a managed and productive landscape, and our experience over the past four years has underpinned the development of the BMSF. If it is decided by Defra that beavers can remain on the River Otter, the Steering Group believe that the approach set out in the BMSF would be the best way to proceed. It will give the species the best chance of being widely accepted by ensuring the right balance is struck between meeting the needs of those landowning communities, farmers and rural enterprises, and river users who will inevitably be impacted by beaver activity, and the provision of the wide range of natural capital benefits from which society can benefit.

I very much hope this strategic framework can also be used to inform future management decisions which will need to be made after March 2020.

For the management approach to work, I would stress the importance of the following, all of which we consider to be vital elements for inclusion: -

- **A clear decision is made as close as possible to the end of the Trial as to whether the beavers can remain.**

The long period of uncertainty in Scotland led to problems for landowners and for the beavers. It will be important to avoid this being repeated in Devon, and to build on the trust and goodwill that has been developed to date on the River Otter.

- **A clear and timely decision is made regarding the legal status of beavers, in advance of the end of the Trial in March 2020.**

The future management regime proposed for the River Otter will be influenced by the legal status of beavers in England and associated licencing provisions. It is vital that the Local Management Group, who we are proposing will have responsibility for delivering the BMSF, are able to prepare properly for a post-trial environment in the clear knowledge of their legal status.

- **Adequate resources are provided to implement this Beaver Management Strategy Framework for the River Otter.**

It is essential that the requests for advice and support from landowners and land managers, rural enterprises, and other river users are rapidly and pragmatically handled if the goodwill built up through the Trial is to be maintained. This should include supporting the costs of mitigating beaver impacts, if these cannot reasonably be avoided, and the ability to reward landowners who make space for water on their land and as a result maximise the natural capital benefits for wider society. I believe that central government has a vital role to play in funding this.

Thank you for your supportive stance towards the River Otter Beaver Trial, and we look forward to working closely with Defra as the Trial reaches its conclusion.

Yours sincerely,



Harry Barton

Chief Executive, Devon Wildlife Trust and
Chair, River Otter Beaver Trial Steering Group



Background and Purpose

The River Otter Beaver Trial (ROBT) is a five-year trial reintroduction of beavers within the River Otter catchment in Devon, that concludes in March 2020. At the conclusion of the Trial, Natural England / Defra will be responsible for deciding future options for the beavers currently living wild in the river.

The extinction of beavers from Britain some 400 years ago was driven primarily by hunting for fur and meat. If beavers are permitted to once again colonise the English riparian landscape their capacity to revitalise watercourses and enhance the wealth of natural capital provided is considerable. However, their reintegration into more populous, productive and heavily modified landscapes is complex, has the potential to cause conflict, and will require the use of a suite of management techniques, as are now being successfully employed across Europe and North America, where the populations of beavers are recovering.

This Beaver Management Strategy Framework (BMSF) proposes an approach that enables the wide range of benefits that beavers bring to the health and ecological function of the riparian environment to be maximised, whilst establishing the necessary means to minimise the negative effects that **will** occur. At the heart of this approach lies the recognition that if beavers are permitted to remain, we must once again learn to live alongside them, and pragmatically and efficiently mitigate the conflicts. This process will, in the long term, provide more space for water and natural riverine processes in our landscapes which in turn will enable the multitude of benefits for society and for our environment to be realised.

The document presents a series of principles, imperatives and recommendations to Defra, to inform a future strategic management approach that should be adopted for the population of beavers currently found in the River Otter (and for the adjacent catchments where this population might be expected to naturally spread) after completion of the Trial in 2020.

The ROBT is supported by a governance structure which includes a Steering Group, comprising a broad range of key stakeholders. These stakeholders are unanimous that, in the event beavers are permitted to remain living and breeding in the wild in the River Otter, there needs to be a management framework and associated advisor support and financial mechanisms in place in March 2020 to guide future management of beavers and the riparian habitats they influence so effectively. In the absence of a management regime the potential for beaver/ human conflict will increase; correspondingly the acceptance of their activities in the landscape will decline and the natural capital benefits that could be realised for society will be greatly reduced.

Clarity regarding the legal status of beavers will also be required. In addition, adequate funding of the proposed BMSF will help maintain the constructive working relationships that have been forged between stakeholders to date and prevent discussions about beaver management becoming polarised, as has occurred elsewhere.

Non-intervention presents unacceptable risks to both the future of beavers and human interests in river catchments.

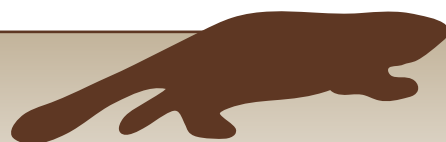
Building consensus

The ROBT Steering Group convened a Working Group to oversee the production of the Beaver Management Strategy Framework (BMSF) for the River Otter. This Working Group brought together a team of national beaver experts, representatives of the statutory sectors, conservation and land management non-governmental and charitable organisations, land and property owners and managers, and other river user representatives. The inclusion of organisations within the Working Group with national remits recognises the national relevance and strategic importance of this document. The Working Group has also drawn on international experiences from those countries where beavers have been reintroduced and where people are successfully learning to live alongside the species.

The Group was established in October 2017 and met for six whole-day and one half day session. The workshop discussions were comprehensive and robust, but at all times have been conducted in a constructive, inclusive and consensus building manner.

The approach we have adopted considers beaver colonisation of a catchment in three key phases from early *establishment*, through to *building* and then *maintenance*. The conservation status, and resilience, of the population should increase over time which in turn will influence the nature, intensity and suitability of differing management interventions. This BMSF is tailored to the building phase and indicatively applies to the period 2020 to 2030.

The BMSF is underpinned by a set of **principles** that were agreed first. These are presented in full within this document and provide the foundation from which the strategy was constructed. The principles are then further developed by **imperatives and recommendations**. These are fully supported by a series of **appendices** that provide the detailed background and evidence base for each statement presented.



Principles for the post-2020 management of beavers on the River Otter

Background

The River Otter Beaver Trial (ROBT) concludes its five-year term on the 31st March 2020. The ROBT Management Group and Steering Group have agreed the need to prepare for the possibility that on conclusion of the Trial a government decision is made which enables beavers to live and breed on the river and potentially expand naturally into neighbouring catchments. A Beaver Management Strategy Framework has been drafted, adopted by the Steering Group and widely disseminated – the strategy will be underpinned by the principles outlined in this document which will help guide and inform beaver management.

Introduction

Experience drawn from decades of scientific study in Eurasia and North America demonstrates clearly that, in line with the development of natural capital principles, beavers can play a significant role in the sustainable provision of a wide range of environmental services. The River Otter Beaver Trial Management Group members have reviewed, understood and contributed to this research which demonstrates the potential for beavers to improve the ecological and hydrological function of riparian environments. We also recognise the potential negative impacts arising from beaver activity, for example, local flooding of farmland, residential properties, or critical infrastructure and the possible negative impacts on migratory fish.

The key to post-trial success will be to establish an effective, locally led management regime to give confidence that the benefits of supporting the beaver's reintroduction can be delivered whilst efficiently minimising and mitigating any potential negative impacts. Drawing from our detailed knowledge of Eurasian beaver management (*e.g. Campbell-Palmer et al., 2016*), where successful regimes exist, along with detailed experience gained in Devon and Scotland, we propose the following beaver management principles. When met, these principles will help to ensure beaver populations thrive, maximising positive impacts and efficiently mitigating any conflicts.

The following principles have been developed by a diverse spectrum of organisations involved in conservation, species and land management and associated academic disciplines. The core and supplementary principles must be considered collectively in order to ensure future beaver management is appropriately underpinned within the River Otter.

1. Core Principles

- a. Beavers will be sustained as long-term viable components of the River Otter catchment;
- b. Beavers will require active management. All proposed beaver management will be approached via a strict hierarchy of actions of increasing impact: education, risk avoidance, mitigation, trapping and relocation, and finally (in the absence of any other suitable alternative) lethal control;
- c. Beaver welfare will be a critical consideration in all decision-making processes relating to beaver management;
- d. The regulatory framework should enable the prevention of damage to agriculture, fisheries, and other land and river uses, housing and infrastructure. It should also prevent associated significant public safety risk and avoid new liabilities for those who own and manage these assets;
- e. A spatially explicit risk assessment will identify locations of acceptability of the presence of beaver-engineered features. Tolerances will range from zero through to active encouragement of beaver activity where multiple benefits are clear. The risk assessment will provide a framework which will help inform the intensity of beaver management activities;
- f. Resourcing mechanisms should be established nationally to ensure the management hierarchy is successfully delivered. We recommend that management initiatives reflect approaches taken in the EU which are locally led, financially supported, and able to deliver advice and support at all management hierarchy levels whilst adhering to a nationally agreed framework.

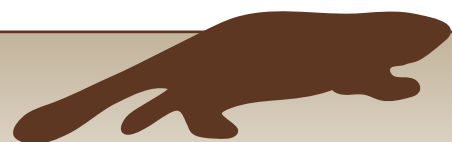
The following **supplementary principles** are grouped by the core objective themes which would be achieved through successful beaver management delivery:

2. Community awareness, engagement and education

- a. Communities must be able to contribute to and access accurate and objective information regarding beavers in the landscape and be given opportunities to be actively engaged in understanding the benefits they bring, risks they present and the lawful management activities which will be required;
- b. Beaver impacts (both positive and negative) should be monitored and the results disseminated to communities within the catchment. This will support informed local decision-making and constructive input into beaver management activities.

3. Maximising benefits and environmental services

- a. Wherever possible and practicable, financial support must be available for land and property owners who provide space for beaver generated wetlands which provide multiple ecosystem services. These incentives should be long term and complement cross-



sectoral policy priorities and could integrate with emerging public/private PES payment mechanisms;

- b. On-site and one-to-one advice should be available to land and property owners in relation to managing existing and/or potential beaver impacts;
- c. Flexible and pragmatic mechanisms should be available whereby appropriate funding is made available to help impacted or at-risk property owners and land-managers to mitigate beaver impacts;
- d. Landscapes where the presence of beavers would provide considerable public benefit should be identified, and land and property owners incentivised to provide space for beaver colonisation;

4. Managing impacts

- a. The management regime established, at the catchment level, should be robust and defensible, but it should also be pragmatic and enabling. It will be kept under constant review as beavers spread throughout the catchment and prepare for the likelihood of beavers colonising neighbouring catchments;
- b. Processes associated with beaver advice, mitigation and management must be rapid, efficient and easy to access;
- c. A suite of practical management interventions is available which will be deployed where there is a risk to key infrastructure from beaver activity;
- d. Prior to lethal control of beavers in low-risk areas or areas where societal benefits may accrue, the applicant must first be able to demonstrate that mitigation advice has been sought and acted upon, and that a significant risk to land and/or property still remains;
- e. In specific locations beaver activity may have direct negative impacts on local biodiversity. These areas will be identified, and targeted management measures implemented to mitigate risk.

5. Healthy beaver populations

- a. There must be zero tolerance of the unlawful translocation, persecution or killing of beavers;
- b. Appropriate resources should be available to support beaver management, for example translocation activities;
- c. Beaver populations should be monitored to understand their colonisation of the landscape, their population dynamics, and general health.

Management Imperatives and Recommendations

The following imperatives and recommendations regarding post-trial beaver management are complemented by supporting detailed information and evidence provided in the **appendices** to this document.

FIRST IMPERATIVE

A timely decision at the end of the River Otter Beaver Trial (ROBT)

A clear decision regarding the future of beavers in the River Otter (and for the adjacent catchments where this population might reasonably be expected to naturally spread) must be made in advance of the end of the ROBT in March 2020.

This decision will facilitate a seamless transition between the ROBT and proposed future management regimes.

Where transitions between trial and reintroduction phases have been delayed elsewhere it has been shown to cause significant and unnecessary conflict between stakeholder groups. Strong relationships have been forged through the ROBT between a diverse range of stakeholders. Delays in decision making creates an environment of uncertainty and risks undermining these relationships and the welfare and population resilience of the beavers.

Beavers have been confirmed in a number of different catchments in England and Wales. Translocation of beavers from the River Otter represents one of the management tools available to avoid unacceptable beaver impacts in specific locations. Movement of beavers to and from the River Otter will also be an important tool in securing their genetic health and resilience. **It is important therefore that clarity regarding the status of those populations outside of the River Otter is provided.**

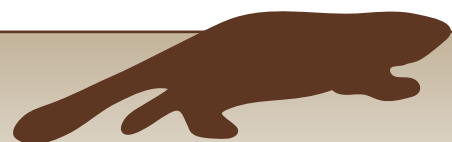
SECOND IMPERATIVE

Clarity is given on the legal status of beavers

It is recognised that the issue of the legal status of beavers is controversial. A clear consensus on the appropriate protection that may best serve the reintegration of the species into the riparian landscape is hard to achieve.

Beavers could be at risk of targeted persecution and their populations may be seriously impacted by any concerted effort to reduce their abundance. However excessive levels of protection and impractical administration will serve to increase resentment and levels of avoidable conflict from within, and between, key stakeholder groups

There are differences in opinion within the Steering Group regarding legal protection for beavers. Some members consider it crucial that beaver populations are given carefully targeted and specific protection to secure their positive conservation status and welfare. This formal recognition would also enable this proposed Management Strategy to be embedded within a legal framework.



Other Steering Group members do not however agree that protection is required and felt that it may be counter-productive and risk alienating key stakeholder groups.

There is unanimity in the need to ensure pragmatic, efficient and timely resolution of significant conflicts when they occur, fully reflecting the management hierarchy.

THIRD IMPERATIVE

Future governance for beaver management

The establishment of a local Beaver Management Group for the River Otter catchment is recommended as the preferred model for overseeing the full implementation of the River Otter BMSF, and associated monitoring and reporting.

The engineering and feeding activities of beavers will lead them into conflict with human activities and interests on occasions (in particular farmers and river users). These conflicts (both real and perceived) will need to be proactively managed if beavers are to be an accepted and valued part of our wildlife.

The ROBT has demonstrated that the provision of accurate information, advice and support is an essential tool in avoiding negative beaver/human interaction. Any delay in establishing clear and adequately funded governance structures, incorporating the proposed Local Management Group will risk the polarisation of views and unnecessary conflict.

Decisions about the management of beavers must involve, and be guided by, the key stakeholders and communities living alongside the beavers.

The River Otter catchment is a convenient size (c.250km²) to pilot a Beaver Management Group approach and is benefitted by many stakeholder and community groups that operate at this scale. It will be important that close co-operation with the Catchment Partnership operating in East Devon is fostered.

FOURTH IMPERATIVE

Future funding for the Beaver Management Group

Funding for the Beaver Management Group which would oversee the implementation of all aspects of this BMSF is essential. Financial Support from central government for the delivery of this service is vital and could be complemented by grants and investments for the BMG from a range of public and private organisations. Such support should be identified in advance of the end of the ROBT term.

Through the delivery of the River Otter Beaver Trial it has been clearly demonstrated the pivotal role an expert, pragmatic and solutions focussed group plays in enabling society to benefit from the multitude of natural capital enhancements derived from the reintroduction of beavers, whilst mitigating the negative impacts specific stakeholders (e.g. farmers and landowners) will experience.

The efficacy of the current group and resilient relationships which have been built, leads to the conclusion that this governance model can be adapted to meet the demands of the post-trial

environment.

The level of support currently provided to land and property owners and land managers will be broadly consistent with what will be needed during a future phase of beaver population expansion on the River Otter. This equates to approximately 1.5 full time equivalent staff members and a modest travel and materials budget, with access to bespoke Environmental Land Management (ELM) scheme support

Beavers are highly mobile and will, over time, disperse to adjacent catchments. If the government does not permit natural colonisation of neighbouring catchments, adequate resources must be put in place to monitor their movements and return or translocate dispersing animals.

FIFTH IMPERATIVE

Strategic support for rural businesses and land-based enterprises

The future of beavers within the catchment must be one of working with existing businesses and communities and enabling opportunities for new enterprises and land management regimes. This will require robust science to inform management of the impacts of beavers and having policies that reflect the importance of the relationship of people with the land.

Whilst the majority of people living in the catchment are employed in service industries there is a strong focus on land management and agricultural related sectors. The economy within the River Otter catchment is very rural and dependent on access to good communication networks. The volatility of many markets means that rural businesses will need to be able to respond to new opportunities; the way the land is managed and what it is managed for will need to be dynamic. New business opportunities associated with beaver reintroduction must be facilitated whilst ensuring other mainstream ventures are not restricted by their presence.

SIXTH IMPERATIVE

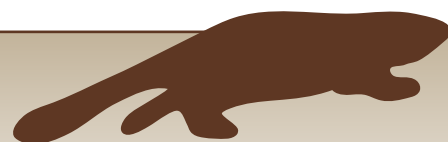
Financial support for land and property owners

Financial support for land and property owners is essential to enable more space for water and natural riverine processes, and to support the implementation of impact avoidance and mitigation measures.

A bespoke Environmental Land Management (ELM) Scheme is proposed that reflects the ecosystem services provided and the degree of impact on existing land-uses.

A core objective of the Management Strategy is to help redress the balance between the overwhelming majority within society that benefit from beavers in the landscape but bear few or no costs, and the minority of farming, land management and landowning interests who incur costs but on balance experience lower levels of benefit.

The potential societal benefits that beavers provide through enhancing natural capital and the provision of associated ecosystem services are considerable. Bespoke ELM scheme funding, and/or Conservation Covenants, would facilitate the restoration of this species, and the plethora of



ecosystem services provided, and help avoid polarisation of the debate regarding beaver impacts.

Core central government and Defra funding for ELM schemes to support landowners who work with natural riverine processes is vital and could be enhanced by businesses which benefit from beaver engineering (e.g. water and insurance companies). The value of specific benefits is being assessed through the ROBT research programmes which will help to inform funding proposals. The benefits which are most investable relate to flood risk, water quality and resource protection (e.g. water and soil), and carbon sequestration enhancements.

Appendix 7 introduces a proposed ELM scheme to pay property owners who facilitate wetland restoration and employ mitigation interventions.

Such a scheme might be overseen in the River Otter by the Beaver Management Group or the Catchment Partnership and administered by the Beaver Officer or integrated into existing initiatives such as Catchment Sensitive Farming programmes.

//

Recommendations

The following recommendations have been proposed which are important considerations which need to be taken into account if beavers are permitted to remain in the River Otter post trial.

RECOMMENDATION 1

The Local Management Group must be sufficiently resourced to deliver targeted education and awareness programmes

Education and awareness raising work for key stakeholders and the local community is a crucial element of any management regime. This is vitally important during the early phases of re-colonisation especially when associated with a new reintroduction.

The normalisation of beavers in the riparian landscape and an understanding of the need for management should be engendered through carefully targeted public engagement including proactive work with land and property owners, land managers and river users.

The most important tool available in the hierarchy of beaver management is the provision of information to raise awareness of the species, the multitude of benefits they bring and also the localised risks.

Beavers have been absent from the British Isles for such a prolonged period that widely held beliefs and myths exist among many, and the provision of factual information quickly eliminates many concerns.

As our interaction and knowledge of the species becomes normalised and widely understood, we expect the resources required for the delivery of this element of the strategy to decline substantially. This observation is based on experience gained from other species reintroduction programmes, including beavers in Europe.

RECOMMENDATION 2

Pragmatic and timely support for all stakeholders

It is essential that high-quality and pragmatic one-to-one advice and support is readily available for land and property owners, land managers, and river users that enables rapid resolution of serious conflicts, taking into account an understanding of beaver ecology and land management requirements.

To assist impacted stakeholders in their acceptance of beaver impacts, support needs to be practical, pragmatic and rapidly available. During the autumn and winter months impacts on trees and drainage systems can develop very rapidly, and support resources need to be immediately available. Large landscape trees can be damaged by ringbarking, and drainage ditches can be blocked within a few nights; mitigation deployed rapidly can minimise these impacts. Land and property owners will require immediate support; if advice and support is not timely, many will simply take action, sometimes inappropriately.

RECOMMENDATION 3

Beaver management decisions need to be made at the catchment scale

The best beaver management decisions are made at a catchment scale based on a scientific understanding of the species and experience in the ecology and zoology of beavers.

Beavers are highly mobile mammals which are capable of navigating efficiently throughout the majority of watercourses. The River Otter beaver population has rapidly explored and established territories throughout this small catchment. For example, one dispersing tagged beaver travelled 50km from its natal lodge to its newly occupied territory within a few weeks. Management must therefore be underpinned by a scientific understanding of beaver populations, recognising their territorial behaviour and capacity to quickly colonise suitable habitats, including where these become available following beaver removal or mortality.

Establishing fenced beaver exclusion zones to protect key infrastructure is an important tool but is likely to be only applicable in a minority of high-risk situations. To date it has not been considered necessary or practical in the River Otter catchment.

A more frequently required practical solution is the prioritisation of avoidance and mitigation interventions provided to impacted land and property owners. This should be based on the prior identification of high-risk locations where certain beaver activities will not be tolerated.

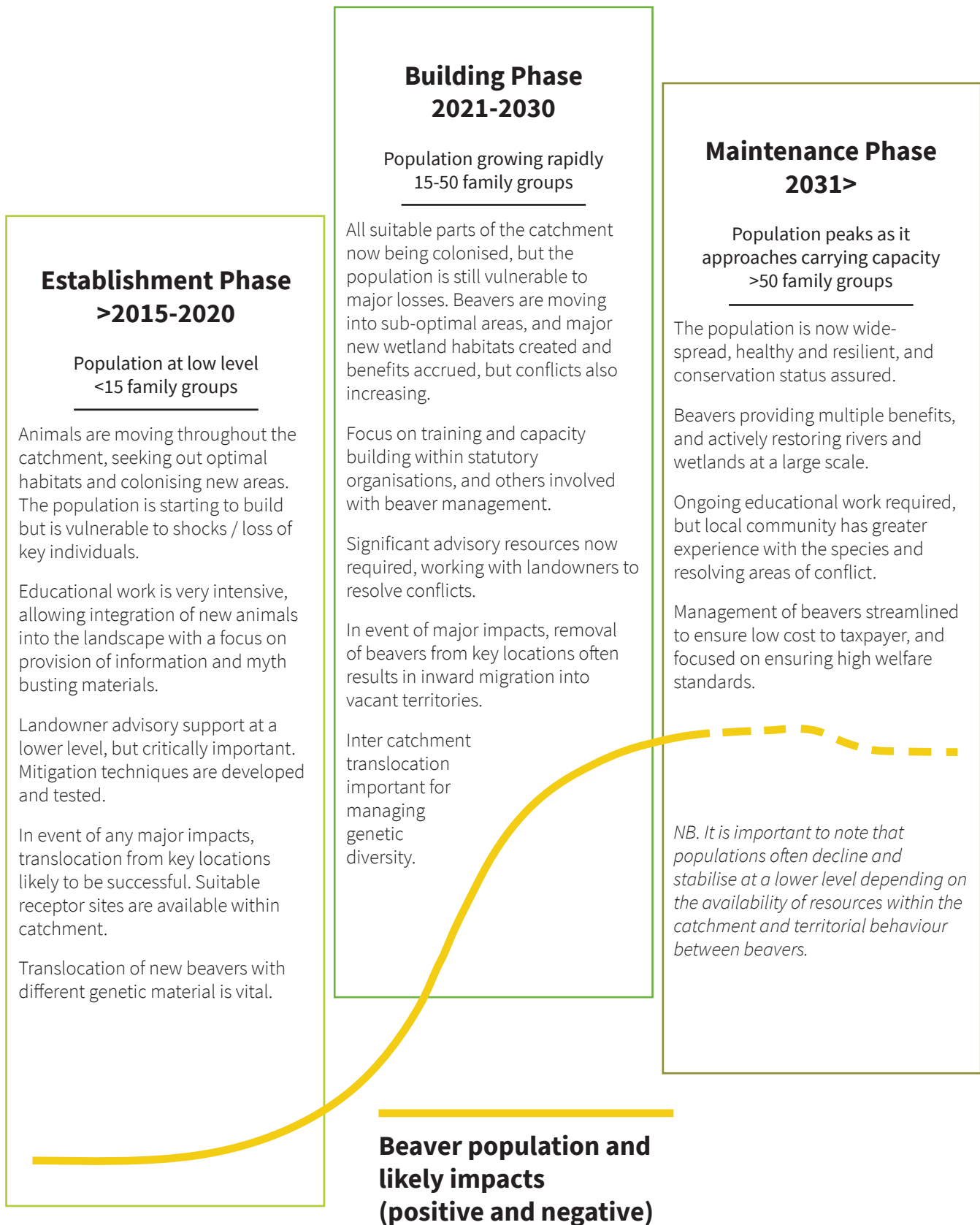
RECOMMENDATION 4

Phases of colonisation and associated management interventions

The resourcing and prioritisation of beaver management activities within the River Otter should be considered in three distinct phases, as outlined in the chart on the following page.

For any catchment where beavers are reintroduced, these phases of colonisation would be applicable, and advice and management support should reflect the specific requirements at each





phase. This Framework indicatively applies to the period 2021 to 2030, which coincides with the beaver population *building phase* in the River Otter.

As beaver populations within a catchment increase, and depending on the physical properties of the watersheds, beavers are inclined to disperse into adjacent catchments. If beavers are permitted to remain and new catchments are colonised, they should be managed as distinct units, with the learning and application of the proposed River Otter governance reflected in each new catchment being colonised.

RECOMMENDATION 5

A catchment-based Beaver Officer should be employed to lead the delivery of the BMSF

For the *building phase* (2021 – 2030), it is recommended that a Beaver Officer, who reports to the Beaver Management Group, provides intensive, strategically targeted, expert support and advice primarily within the River Otter catchment.

This intensive level of support reflects the high-profile pioneering nature of the River Otter catchment beaver reintroduction. The resources required will be kept under routine review by the Beaver Management Group. Part of the role of this Officer would include working alongside stakeholder organisations to provide training and capacity building to enable them to carry out their relevant responsibilities with due regard to the BMSF.

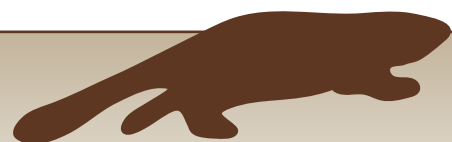
If a government decision allows beavers to naturally disperse from the River Otter catchment into the adjacent river systems, the River Otter Beaver Officer and Management Group would provide support and advice to facilitate the establishment of new Beaver Management Groups. This would be inclusive of all key local stakeholders.

RECOMMENDATION 6

The intensity of dedicated Beaver Officer resources is likely to reduce over time

As beaver populations expand and enter the maintenance phase, and as beaver / human interactions become more normalised, the intensity of dedicated officer support is expected to reduce.

During initial phases of beaver re-introduction, the resources required to provide advice and support will be comparatively high. As interactions become normalised and stakeholders learn to understand beaver behaviour and what does and doesn't constitute a risk, the intensity of advisory resources is likely to decline. This has been the case in Bavaria and other areas in Europe where beavers have been reintroduced. This may allow the Beaver Management Group to extend their geographic remit over time to provide support in neighbouring catchments (if applicable).



Flowchart of beaver management decisions

The flowchart opposite is recommended for adoption. It provides an overview of how the Beaver Management Group would make decisions on management, which would be implemented during the Building Phase on the River Otter (2020 – 2030).

RECOMMENDATION 7

The importance of providing rivers and streams more space

Wherever possible and appropriate, more space should be made available to allow natural and dynamic riverine processes to operate. This will maximise the extent of potential benefits derived by beaver activity and avoid or successfully mitigate many of the conflicts.

Making space for watercourses to behave more naturally, by providing buffers for example, would enable beaver dams and canals to restore natural riverine processes, floodplain function and connectivity, providing ecosystem service benefits (such as flood relief, and base flow maintenance), as well as resolving many of the concerns around impacts on agriculture or migratory fish. It is important to work with and enhance natural processes or risk stasis in sub-optimal or failing ecological status of water bodies.

Without this space, many beaver related conflicts are magnified. This is clearly highlighted in the case of fisheries management. Beaver dams have the potential to restore complex channel morphology, creating fish habitats and benefitting fish populations if the watercourse is permitted to come ‘out of bank channel’ in response to beaver damming. Natural bypass channels are also able to form, allowing fish migration around the dams. However, a dam built in a deeply incised channel without the space to move or spill out, can simply drown out spawning gravels and block the migration of fish.

RECOMMENDATION 8

Monitoring of beaver health

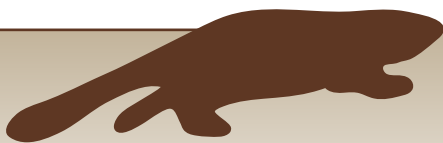
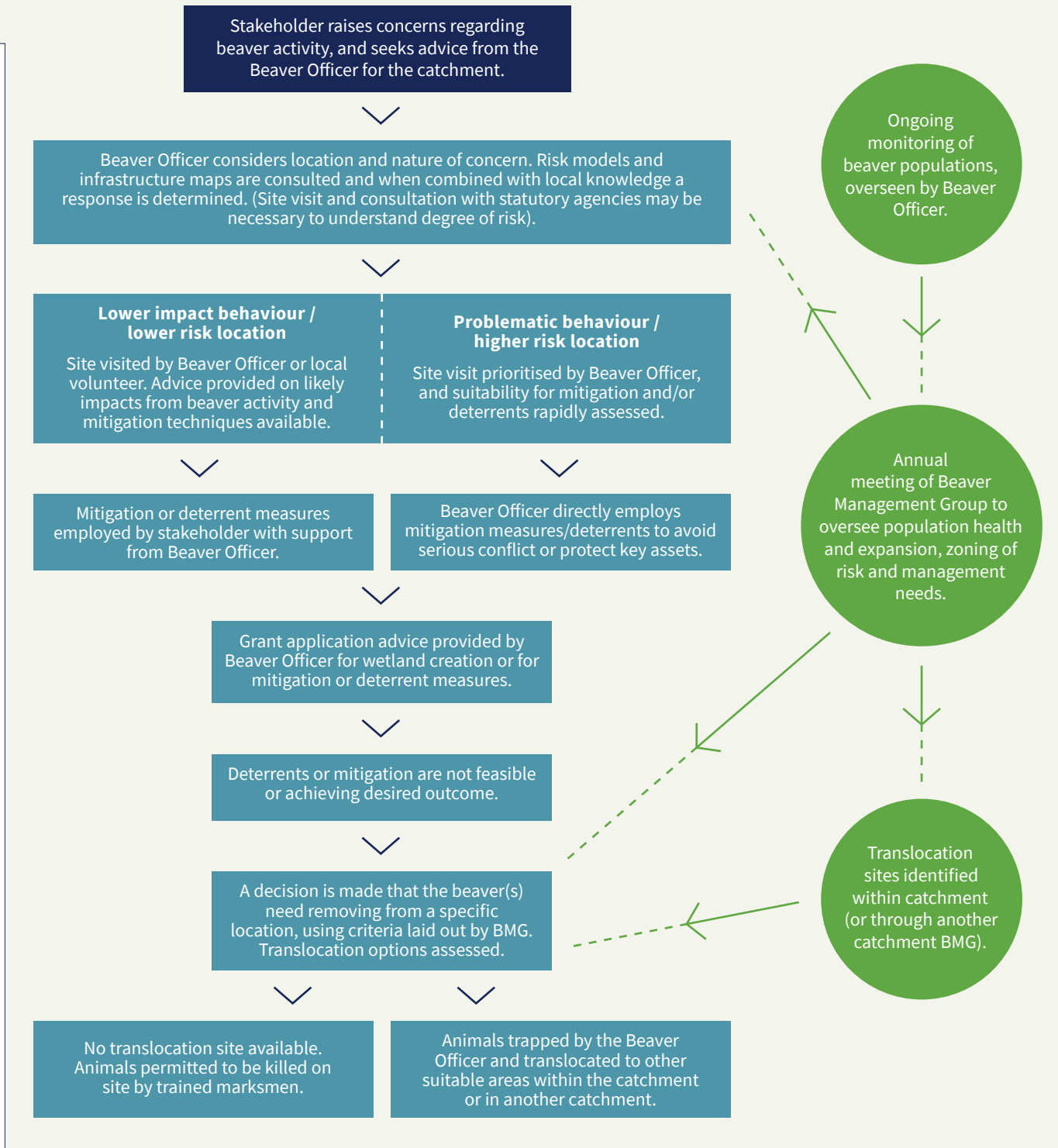
The health of the beavers should be periodically tested, and steps taken to proactively ensure their genetic resilience.

Before the end of the ROBT, a representative sample of beavers trapped and health tested in 2019 will be compared with baseline health data taken from the beavers before release. This should be compared with future monitoring data, revealing important information about the health of the beavers and any associated health risks to people and animals.

It is essential that genetic diversity and health of potential founding populations such as the River Otter beavers is fully considered and proactively managed.

Beaver Management Strategy Framework Decision making flowchart - post 2020

Detailed Information about beavers and their behaviour widely available through webpages, factsheets and partner organisations. Contact details for Beaver Officer / beaver hotline also disseminated.

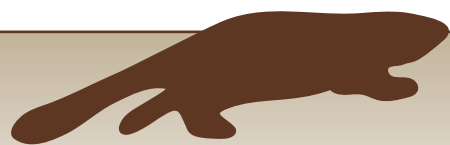


Appendices

1. Background to the River Otter Beaver Trial (ROBT)
2. Developing a Beaver Management Strategy Framework (BMSF) for the River Otter (post 2020)
3. Beaver ecology and key factors informing future management
4. International perspectives
5. Assessment of risks arising from beavers on the River Otter
- 5a. Risk Assessment table
6. Governance Structures
7. River Otter Beaver Management Strategy
8. Considerations regarding legal protection
9. Outstanding issues to be considered or resolved
10. Key literature, resources and glossary

To view these appendices go to:

www.devonwildlifetrust.org/what-we-do/our-projects/river-otter-beaver-trial







Left: a beaver is prepared for release as part of the River Otter Beaver Trial. Photo: Nick Upton naturepl.com
Right: a female beaver on the River Otter. Photo: Mike Symes

