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Appendix 3:
Focus Group Report –
Policy challenges and evidence needs for river woodlands

Julie Rostan, Keith Marshall, Kerry A. Waylen, Flurina Wartmann, Susan Cooksley, Kerr Adams, Josie Geris, Mark Wilkinson, Marc Stutter

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1 Introduction

The RivyEvi project (Creating healthy and resilient river systems across Scotland: prioritising research and development gap opportunities for river woodlands) aims to update and prioritise the research and development (R&D) needs identified in the prior 2022 Riverwoods Evidence Review. This project is based on a phase of evidence review and extensive stakeholder engagement. The RivyEvi project phases are described in Figure 1.

This report presents details of the policy focused stakeholder engagement. This followed the survey, stakeholder workshop (Appendix 1), and interviews (Appendix 2), and involved two focus groups with policy stakeholders (26th September and 27th November 2024) which ran in parallel with a monitoring-focus group (Appendix 4) and engagement and discussion around nature finance (Appendix 5). The results of the stakeholder engagement are discussed in relation to the updated evidence review presented in the main project report. Summarised data from the policy stakeholder engagement are available in the project database (Appendix 6).
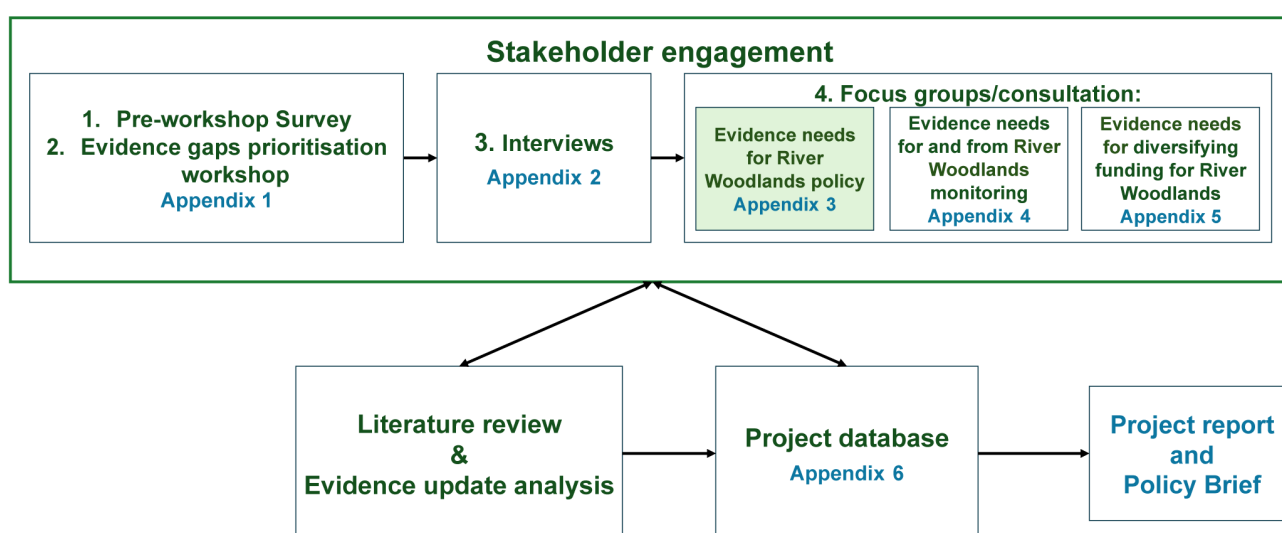
Figure 1: RivyEvi project steps and linked outputs. All the project outputs can be found on the CREW website.

Research undertaken

Prior to the external stakeholder workshop an in-person pilot focus group was conducted with members of the Project Steering Group in September 2024. Here we tested three open-ended questions designed to guide the discussion:

- What are the current policy challenges around river woodlands? Participants were asked to focus on issues spanning various policy areas they were familiar with.

- What evidence would help address these challenges? We asked participants to distinguish between challenges requiring evidence-based solutions and those needing other types of action.

- What pathways could address these gaps? Participants were encouraged to adopt a solution-oriented mindset to generate actionable pathways throughout the conversation.

Insights from the survey, workshop, interviews, and the successful pilot focus group informed November's online focus group discussion. A collaborative online co-working document (Google Docs) which summarised pre-identified policy challenges and associated evidence needs was shared with contributors beforehand, serving as a basis for discussion.

The online focus group involved 18 participants representing various sectors. An additional 45 stakeholders were invited to contribute via the online document, ensuring broad engagement from policymakers, implementers, and advocates. Invitations were extended via the project's contact list, recommendations from the project steering group, and snowball sampling techniques. A breakdown of the participants sectors and number is available in Table 1. We are not able to determine the number of participants contributing solely via google docs as these inputs were anonymous.

Table 1: Participant numbers by sector for the pilot and main focus groups.		
Focus group	**Number**	**Sector**
Pilot	5	Public sector: environmental management/forestry
Main	5	Public sector: environmental management/forestry
	4	Public sector: government
	8	3rd sector: conservation/fisheries and rivers
	1	Agriculture
Total	**23**	

This focus group was conducted using two virtual breakout rooms each with two facilitators. This enabled in-depth, small-group discussions focused on the key questions. The online document was updated to incorporate insights from the discussion and recirculated among participants and the wider stakeholder group for a final round of input. This iterative process was designed to maximise opportunities for participation and ensure the document's comprehensiveness.

Findings

These findings are grouped by overarching policy areas and detail the nuanced points raised and discussed by the participants. They relate to associated evidence needs and the pathways considered necessary to address these challenges (summarised in Table 7). The purpose was to share knowledge and there was broad acceptance across the sectoral representatives of the challenges and pathways discussed. Evidence needs raised by stakeholders are discussed further in the context of the existing literature in the main project report. Summarised data are available in the projects database Appendix 6 – Tab 4.

1.1 Biodiversity

Discussions relating to biodiversity policy identified the largest number of challenges and associated evidence needs. The policy challenges raised by participants were:

- To identify opportunities for policy amendments that would allow the establishment of trees, where appropriate, in designated areas.

- Updated herbivore management policy and implementation guidance, particularly in relation to beavers and deer.

- Understand to what extent new RW can compensate for the loss of trees due to development elsewhere (biodiversity net gain).

- How best to facilitate habitat connectivity and nature networks given other land-management objectives.

- Interactions with the management of INNS (Invasive Non-Native Species).

- Managing any biosecurity risks associated with the establishment of river woodlands (RW).

These challenges and their associated evidence needs are listed in Table 2.

Participants expressed a need for relevant policies to be updated to allow tree planting where appropriate, in designated areas where planting restrictions are currently in place. They reported a lack of sufficient evidence to determine how much tree cover areas such as shallow peatland, and moorland could sustain without impacting designated features. For example, an improved understanding of the hydrology of wetlands and what constitutes a functional system, would inform decisions over the type and extent of desirable tree cover. Encouraging scattered woodland in heathland mosaics was suggested to enhance ecological resilience while noting that current restrictions on tree planting in such areas may no longer align with evolving policies and the growing recognition of the benefits of RW. Reassessing designated areas could create opportunities for expanding riparian tree planting as part of a more diverse ecosystem approach.

Participants suggested that the Scottish Government's implementation of the Scottish Biodiversity Strategy would be key to this, and the ability to balance site-specific sensitivities and trade-offs. Additionally, research and monitoring in designated areas should be prioritised, acknowledging timescales that reflect rapid environmental change. To address the challenges and evidence gaps related to designated areas, participants pointed to emerging opportunities, such as the new OECM (Other Effective Area-Based Conservation Measures) to identify opportunities for appropriate tree planting in designated sites.

A more holistic ecosystem approach was encouraged with participants highlighting the need to further integrate underrepresented elements such as species diversity and the role of invertebrates into biodiversity policy. By addressing these factors, pathways to action could better reflect the interconnected challenges of biodiversity conservation and RW management.

Others underlined the need for coordinated policy to drive immediate action in the face of the climate and biodiversity crises, a point repeated throughout our discussions.

Agreeing on appropriate herbivore management, particularly relating to impacts of beavers and deer on woodland establishment, was highlighted as a challenge affecting implementation, management, funding, and affected by stakeholder views. It was noted that while generic evidence on protecting trees from browsing by deer management is available, this is not yet the case for beavers. Improved understanding of their impacts (whether positive or negative) on RW, particularly during the establishment phase, would support the development of acceptable and appropriate management strategies.

Addressing herbivore management challenges was seen as a landscape-scale approach to avoid inconsistent outcomes. Participants emphasised that relying heavily on deer fencing enclosures is neither financially sustainable nor ecologically effective and underlined that trials of alternative or complementary management measures might inform future implementation. Holistic landscape management was flagged as a more effective solution, however achieving this would require proactive engagement with local authorities and stakeholders to build public understanding and acceptance of necessary interventions such as culling. Additionally, some participants raised the need to consider livestock impacts on river wood establishment, linking to broader policy challenges around how best to balance herbivore management across other land use priorities.

In relation to planning and biodiversity net-gain policies, one participant expressed the need to understand the extent to which new RW might compensate for the loss of native woodland due to major public interest operations such as housing.

The management of Invasive Non-Native Species (INNS) remains a major consideration. Species such as Japanese Knotweed and grey squirrels were mentioned, and participants highlighted the need to know how to mitigate the risk of INNS spreading as land transitions to less-grazed riparian habitats. Questions were also raised about the efficacy of current INNS control efforts, and whether certain non-native species might offer biodiversity benefits in the face of changing environmental conditions. Finally, a point was raised on biosecurity considerations around the establishment of RW and the positive or negative impacts this might have for biodiversity.

Table 2: Policy challenges and associated evidence needs on biodiversity.	
	Biodiversity
Policy challenges for river woodlands	**Associated evidence needs**
The need for policy improvement for tree planting in designated areas	• What is the sensitivity of habitats in response to tree planting? (where there could be conflicting conservation goals e.g., near wetlands or salmon habitats). • Clearer evidence of how RW influence key species like freshwater mussels and salmon. • What are the benefits and potential negative effects of allowing natural processes to unfold in areas designated for salmon conservation. • Research is needed to determine optimal combinations of native species for specific habitats like wetlands. • Comparing the ecological benefits of natural regeneration versus managed tree planting. • How do existing designations (e.g., bogs, peatlands, protected species like wading birds) restrict low-density native tree planting and what trade-offs arise in terms of ecological benefits. • What are the ecological differences and benefits of various habitat mosaics created by different types of woodland covers?
Herbivore management policy, particularly concerning beavers and deer	• Practical research on effective tree protection strategies, including advancements in fencing technology and deterrents. • What is the ability of woodlands to regenerate following grazing pressure? • Evaluation of the role of dense or sacrificial planting schemes and determining optimal levels of such planting. • Comparative studies on the cost-effectiveness of small pocket woodlands versus fenced corridors. • Research on managing and mitigating the combined browsing impacts of deer and beavers. • What are the trade-offs between protecting trees from beavers and the ecosystem benefits beavers provide by felling trees, including species-specific impacts (e.g., benefits for trout versus potential negative effects for salmon)? • How established and extensive RW need to be to support beavers without requiring mitigation effort? • Guidance on designing planting schemes with beaver activity in mind, such as denser planting to account for felling. • Better Scotland-specific evidence on the impact of grey squirrels in riparian areas. • What are the public attitudes towards herbivore management, particularly regarding non-lethal control methods and large-scale fencing interventions?
Compensation for the loss or removal of trees.	• Evidence on the ecological benefits of compensatory tree planting to mitigate the effects of removing trees from another location. • What lessons can be learned from international models (e.g., the United States) to implement effective compensatory mitigation in Scotland?
Habitat connectivity	• Research to understand how to better integrate RW into Nature Networks to maximise habitat connectivity.
Management of INNS (Invasive Non-Native Species)	• Research into the risks and impacts of invasive species like Japanese knotweed within RW. • Exploration of whether certain non-native species might provide ecological benefits, especially under rapidly changing environmental conditions.
River woodlands and biosecurity	• What are the risks for INNS to spread following changes from heavily grazed land to less-grazed riparian zones? • What are biosecurity risks associated with RW compared to non-RW and in a context of climate change? • What are the effects of different tree species on water temperature and aquatic habitats?

1.2 Agriculture, forestry and land management

Three main policy challenges that may require more evidence were identified under this heading:

- Effective alignment of forestry grants with agricultural payments to incentivise land managers.

- Integration of riparian tree planting with intensive agriculture/crop landscapes (e.g. evidence to support more appropriate forestry practices).

- Addressing funding challenges and logistical barriers to providing reliable off-stream water access for livestock where riparian or nearby tree planting has been implemented.

Stakeholders discussed the need for robust and accessible data demonstrating the economic effects of RW, including their potential to enhance soil health, mitigate flooding, and improve animal welfare, thereby fostering agricultural resilience. Clarity around guidance associated with tree planting such as maintenance requirements and appropriate planting and management regimes (e.g., species, spacing, coppicing) is also essential, particularly regarding ecological and economic implications. This was linked to guidance requirements to ensure access to drinking water for livestock where riparian planting is adjacent to pasture.

Streamlined funding mechanisms with clear economic incentives are required to reduce administrative burdens on farmers and highlight synergies between agricultural and biodiversity goals. For instance, linking carbon credits, biodiversity markets, and environmental payments could demonstrate the long-term benefits of RW on farm resilience. Given the current reluctance of some farmers to engage due to perceived financial risks, innovative mechanisms, such as blended Environment, Social, and Governance

(ESG) models, could be developed to improve engagement with climate and biodiversity action. Farmers often benefit from place-based insights into potential income opportunities such as diversification through crop and biomass energy production, short rotation coppicing, integrated riparian buffers, and compensation mechanisms for land loss. Policies providing scale-sensitive payment schemes to address liability concerns and ensure equitable benefits for both upstream and downstream farmers with advice disseminated through trusted advisory channels might encourage implementation of small-scale RW.

While guidance exists for tree species selection and planting methods, evidence gaps persist in relation to more holistic forest establishment and management. Participants noted that forestry policies tend to replicate outdated planting regimes rather than seeking ecological and agricultural synergies that align with visions for more integrated landscapes. Ideally forestry guidance and regulations should be revised to promote the establishment of riparian buffer strips during conifer restocking to achieve long-term ecological benefits.

Farming representatives expressed concerns about widespread tree planting reducing the area of arable and grazing land, potentially restricting local food production and increasing reliance on imports. Evidence supporting policies to integrate trees into lowland arable farming systems remains incomplete, necessitating further collaborative research into the impacts associated with such practices and to align economic and environmental priorities. Landscape analysis studies, using tools like LiDar, could support policy delivery by indicating locations where the environmental benefits of riparian trees might be realised while minimising impacts on, or even benefiting, productive farmland.

Table 3: Policy challenges and associated evidence needs on agriculture, forestry and land management.	
	Agriculture, forestry and land management
Policy challenges for river woodlands	**Associated evidence needs**
Aligning afforestation grants with agricultural payments **Integrating tree planting into productive agricultural landscapes including by enhancing forestry practices** **Addressing funding challenges and logistical barriers to providing reliable off-stream water access for livestock in areas where riparian or nearby tree planting has been implemented.**	• What are the economic costs and benefits of riparian tree planting for farmers, including impacts on soil health, animal welfare, and flood and drought resilience? • What are effective methods to ensure off-stream water access for livestock when riparian tree planting is implemented? • How can tree planting enhance long-term farm productivity and food security by mitigating climate risks such as drought and flash flooding? • How can afforestation grants and agricultural payments be better integrated to incentivise tree planting on productive farmland? • What evidence is available on the barriers posed by long-term tree planting and maintenance commitments, and how can these be addressed to encourage farmer participation? • How can clearer guidelines on tree species, spacing, and planting methods help land managers make informed decisions about integrating trees into agricultural landscapes? - What are the definitions and ecological implications of various tree planting models (e.g., single trees, rows, coppices, naturalised vs. native woodlands)? • Evidence on the benefits of integrating trees into lowland farming settings under intensive agriculture is incomplete; pressures and benefits in this context require further study. • Evidence on missed opportunities where commercial forestry buffer strips have not been planted and qualitative evidence on the necessary uplift or incentive required for behaviour change.

1.3 Flood and drought

The policy challenges raised by participants in the context of flood and drought policy area were:

• Operational effects of riparian tree planting in terms of floods

• Tree planting and water scarcity

There is a need to understand the potential effects of increased areas of RW on flood risk management, particularly in relation to risks such as culvert blockages caused by fallen trees, to help in identifying appropriate mitigation measures.

Additionally, the role of RW in mitigating water shortages is critical, especially considering the increasing pressures from floods and droughts on agriculture. The lack of consistency in mapping opportunities for woodland placement and the integration of natural flood management tools was considered as a significant gap in the evidence base. Field-scale mapping techniques would allow better placement of river woods to help minimise soil loss, reduce flood risk, and enhance overall water management for instance. Participants also underlined the need for effective modelling of riparian forest hydrology to better understand the effects of different types of river woods. One

participant felt that while much research focuses on evapotranspiration models of trees on grass, there is some evidence to suggest that in some situations trees can enhance the natural hydrological cycle, improving water penetration and recharge of groundwater over winter.

Participants felt that addressing these challenges would require a combination of policy innovation, improved mapping tools, and stakeholder engagement. Advancing field-scale mapping tools such as woodland-for-water mapping, will provide clearer guidance for the strategic placement of RW. This knowledge should also inform effective EIAs to help anticipate and mitigate any unintended consequences of riparian tree planting.

Financing and resourcing NBS are critical to operationalising these solutions and will require both public and private sector engagement to overcome funding barriers and address uncertainty and risk. Finally, fostering better coordination among local authorities and stakeholders might assist the successful integration of riparian tree planting into broader flood management strategies.

Table 4: Policy challenges and associated evidence needs on flood and droughts.	
	Flood and droughts
Policy challenges for river woodlands	**Associated evidence needs**
Operational effects of riparian tree planting in terms of floods	• What are the impacts of increased riparian tree cover on operational flood management, including risks such as culvert blockages and fallen timber? • How do floods and droughts affect vegetable production and livestock, and what role can RW play in mitigating water shortages and enhancing agricultural resilience?
Tree planting and water scarcity	• What are the ecological and operational implications of treefall into streams, and what measures are required to manage these impacts effectively? • How can field-scale NFM (Natural Flood Management) maps be developed to strategically guide the placement of woodland buffers and other nature-based solutions (e.g., hedgerows, tree belts, pond storage) in Scotland? • What is the impact of sediment flow from fields on flooding, and how can woodland buffers be designed and sited to address this issue effectively? • How do RW influence the hydrological cycle compared to areas without trees, and what empirical evidence and modelling can improve our understanding of these effects? • What is the capacity of resilience of different tree species in areas of high flood or droughts?

1.4 Water quality

The establishment of RW presents opportunities for improving water quality, but key evidence gaps remain. Research is needed to quantify the benefits and impacts of RW on various water quality parameters, such as sedimentation, nutrient levels, and pollution control, and in different types of location. Tools to better understand pollution sources and pathways within catchments could enhance landscape-scale planning, and clarity is needed on which tree species and placings are most effective at reducing erosion. Further investigation into potential phytoremediation impacts, particularly regarding nutrient budgets and building resilience for different land uses (e.g. upland phosphate management), is critical to realise the benefits of RW for water quality.

Considering current drinking water policy development, a better understanding of the effects of RW on drinking water supplies, particularly private supplies, would be helpful, including the impacts of riparian planting on water pH levels and dissolved organic carbon. Moreover, evidence is needed to evaluate the role of any pesticides and chemical treatments used in establishing RW and their potential risks to aquatic environments, and addressing regulatory challenges associated with this. The stakeholders highlighted a range of opportunities but few concrete solutions to addressing these gaps however collaboration between regulators, researchers, and land managers could help to advance practical solutions such as developing tools for catchment-scale pollution mapping and promoting the use of phytoremediation. Opportunities to incorporate nutrient budgets into frameworks such as the Woodland Water Code might allow guidance for riparian woodland establishment to be updated.

Greater emphasis on collaborative pilot projects and case studies that generate actionable data is needed to refine these pathways and develop effective strategies to balance woodland establishment with other regulatory and environmental concerns.

Table 5: Policy challenges and associated evidence needs on water quality.	
	Water quality
Policy challenges for river woodlands	**Associated evidence needs**
Evidencing the benefits and impacts of riparian woodland establishment on different water quality parameters	• What tools are most effective for identifying pollution sources and pathways within catchments? • How viable is phytoremediation for improving water quality in riparian woodland areas, and what is its overall impact? • How does riparian woodland establishment affect DOC levels in drinking water, particularly for private water supplies? • What are the nutrient budgets for various land uses, such as upland phosphate management, and how can RW contribute to building resilience? • What pesticides and chemical treatments are required to establish RW, and what are their potential impacts on aquatic ecosystems? • What are the regulatory challenges and risks associated with chemical use near rivers, and how can these be addressed? • How does large-scale riparian tree planting influence water pH, and what are the potential ecological effects? • Which tree species are most effective in preventing erosion along riverbanks?

1.5 Climate change and cross-policy topics

Key challenges emerged across various policy areas:

- **Establishing spatial targets:** The amount of riparian woodland required to achieve ecological, climate, water quality and land-use goals remains unclear. Current policies advocate for overall increases in woodland cover such as moving from 19% to 30% but without guidance on location, impact thresholds, or adaptive frameworks, these targets lack specificity.

- **Right tree in the right place:** Determining appropriate tree species for different landscapes and understanding the trade-offs between climate benefits and GHG footprints (e.g., in wetlands), and biodiversity remains a question. Competing conservation interests such as balancing the conservation of specific species against broader ecological objectives, such as resilience and biodiversity can create tensions. Ensuring that RW are resilient to various climate impacts is essential but considered underexplored.

- **Nature finance mechanisms:** The absence of robust regulatory oversight for compensatory payments for land-use change and natural capital markets limits the scalability of solutions.

- **Cumulative benefits:** It is important to consider the ecosystem benefits of RW over time, such as nutrient cycling, erosion control, and carbon sequestration, into holistic and evidence-based strategies.

It was felt that biogeographical insights were essential for decision-making around building climate resilience. Understanding the mix of tree species more able to adapt to shifting climatic zones will improve the likelihood of restored woodlands surviving and providing longer term benefits. This temporal element was reflected in the need for evidence on cumulative impacts or river woods.

A consistently expressed challenge related to encouraging behaviour change, with calls for social research to unpick landowner attitudes, and understanding barriers and motivators to enable more effective incentives to engage. This links to the need to develop appropriate nature finance mechanisms where it is important to understand how regulation and planning could work alongside natural capital markets to improve uptake. Lessons from successful international models could guide development of robust frameworks that attract investment and ensure accountability.

It was clear that the challenges described here intersect multiple policy areas. While defining agreed targets and comprehensive strategies involves difficult discussions around trade-offs, stakeholders emphasised the need for evidence based cross-policy frameworks. These should inform interventions capable of accommodating the interactions between the environmental, economic, and social benefits RW can provide, and establish actionable thresholds and coverage requirements.

Table 6: Policy challenges and associated evidence needs – Climate change and cross policy topics.	
Policy challenges for river woodlands	**Associated evidence needs**
Determining the required amount and design of riparian woodland	• What are the specific thresholds of riparian woodland coverage needed to achieve measurable benefits for biodiversity, water quality, and ecosystem function? • What should riparian woodland look like to optimise its ecosystem functions (e.g., species composition, structural diversity)? • How far from a watercourse should riparian woodland extend to maximise benefits? • What is the "tipping point" for defining a functioning riparian woodland? How long does it take for RW to deliver measurable ecological benefits?
Enhancing landowner engagement and adoption	• What factors influence landowners' willingness to change land use for riparian woodland planting? • What social and economic incentives are most effective in encouraging landowners to participate in riparian woodland schemes? • Can peer-to-peer networks and community engagement models improve landowner adoption rates?
Addressing regulatory gaps for nature finance mechanisms	• How can regulation and planning aid in standardizing nature finance markets, such as the Woodland Water Code
Addressing climate change resilience in riparian woodland management	• Which tree species are most resilient to climate extremes, such as high floods and droughts? • How can riparian woodland species be managed to resist diseases (e.g., alder decline)? • What strategies ensure RW adapt to future climate conditions, such as shifts in rainfall and warming patterns?
Optimising locations for riparian woodland planting and Incorporating the cumulative benefits of tree planting into policy	• Where is riparian woodland planting inappropriate due to negative impacts, such as increased GHG emissions in wetlands? • What tools can help effectively site riparian tree planting? • What are the biogeographical considerations for determining suitable sites for riparian woodland planting in Scotland? • What datasets and mapping tools can effectively demonstrate where ecosystem services overlap and provide the highest returns? • What are the cumulative benefits of RW at different scales, from hyporheic zones to catchment levels?

The sections above specify the policy related evidence gaps identified by our stakeholders. In Table 7 below, we summarise the key policies that were spoken about in relation to the challenges they identified. These are policies that could provide pathways to overcoming the challenges, either by being better coordinated, or further developed to take the challenges into account. This list is not exhaustive, but indicative of the key policies and legislations, and we acknowledge the broader suite of Scottish policies and legislations that exists that may be related to the issues discussed here.

Table 7: Policy challenges and associated policy development related opportunities to address these that were identified by stakeholders across both the pilot and main policy focus groups.		
Overarching policy area	**Identified policy challenges**	**Key relevant policies/strategies that could provide pathways**
Biodiversity and conservation	Improve policy relating to tree planting in designated areas?	Scotland's Forestry Strategy (SFS)
	Herbivore (especially deer and beaver) management policy re. tree protection.	Scottish Biodiversity Strategy (SBS)
	Can new riparian woodland compensate for the loss of trees due to development elsewhere?	Climate Change Act (2009) and associated plans
	How should RW fit within the wider habitat network?	Woodland Carbon Code (WCC)
	How to incorporate the management of INNS?	Scotland's Beaver Strategy
	RW and biosecurity	
Agriculture, forestry and land management	How to manage barriers to funding for off-stream water for livestock post tree planting?	Scottish Biodiversity Strategy (SBS)
	How to integrate afforestation grants and agricultural payments to incentivise farmers?	Forestry Grant Scheme (FGS)
	How to balance establishment of riparian woods in lowland/arable agriculture?	Woodland Carbon Code (WCC)
	Establishment of riparian buffer strips between plantation blocks and watercourses.	Scotland's Forestry Strategy (SFS)
		Scottish Rural Development Programme (SRDP)
Water quantity: flood risk and drought management	Policy needs for managing headwaters to benefit downstream flow and water quality	Scottish National Adaptation Plan (SNAP3),
	Mitigating impacts of riparian tree planting	National Planning Framework 4 (NPF4) and Local Environment Planning
	Incorporating RW into FRM strategy	Scotland's National Flood Resilience Strategy (SNFRS),
	Managing any impacts of tree planting on water scarcity	Flood risk management Planning (FRMP),
		Water Framework Directive (WFD).
Water quality	Trading off the impacts and benefits of riparian woodland establishment on different water quality parameters?	River Basin Management Plans (RBMP)
		Scotland's Water Environment Fund (WEF)
Across policy areas	How much RW is enough?	Scottish National Adaptation Plan (SNAP3)
	Appropriate regulation for nature finance mechanisms inc. compensatory mitigation (e.g. USA)	Environment Strategy 2020
	How might cross-sector policy incorporate the cumulative benefits of establishing RW?	Climate Change Act (2009)
	"Right tree in the right place" re. GHG, biodiversity networks, etc.	Woodland Water Code (WWC)
	How to maximise resilience of new river woods to CC impacts (e.g. disease, flood, drought, INNS)?	SG Natural Capital Framework
		Scotland's Forestry Strategy
		River Basin Management Plan (WFD)
		Scotland's Water Environment Fund (WEF)
		Scottish Biodiversity Strategy (SBS)
		Taskforce on Nature-related Financial Disclosures (TNFD)

We would like to emphasise that discussions consistently referred to the need for knowledge sharing and coordination across governmental departments and their agencies to improve coherence and reduce conflict between policies and associated implementation measures. It was felt that overarching strategies such as SNAP3 could help to move this forward, both in terms of satisfying cross sectoral evidence needs, and to building capacity for ongoing dialogue. SNAP3 is seen as particularly relevant due to commitments to create regional adaptation partnerships by 2029 and promoting development of both nature networks and NbS. It was also noted that other governance structures, such as the Regional Land Use Partnerships (RLUPS) could potentially have a role in coordinating at sub-national levels.

Conclusions and recommendations

The alignment of target driven objectives, which necessarily cut across different, and sometimes competing policy areas, is a critical step towards facilitating the delivery of RW. **Relevant policies should be coherent and provide viable targets for riparian woodland coverage and be guided by the information contained in the augmented Evidence Review**. The responsibility for this lies with relevant individuals in the agencies and departments influencing or impacted by efforts to manage and increase RW. Agreed policy objectives are needed to provide a clear roadmap for stakeholders and enable coordinated and focused efforts.

The ability to identify the optimal siting and extent of new RW, and to assess their potential contributions to ecosystem services over time, could be enhanced by research that makes use of tools such as LiDar mapping and advanced spatial modelling. Such advances would contribute to decision-making and the delivery of multiple benefits.

Stakeholder collaboration remains fundamental to success. **Strengthening partnerships among policymakers, landowners, researchers, and local communities will foster the exchange of knowledge and build trust**. Peer-to-peer networks can play a pivotal role in disseminating best practices and encouraging increased adoption of sustainable approaches.

Establishing stronger and more effective regulatory frameworks for natural capital markets and diversifying funding mechanisms is essential to upscale restoration efforts. Sustainable finance models for including effective carbon markets, green finance and emerging nature markets, may unlock resources to support large-scale riparian woodland initiatives while ensuring accountability.

The importance of monitoring and evaluation cannot be overstated. **Long-term monitoring programs that assess resilience, biodiversity outcomes, and climate impacts are required to support adaptive learning and iterative policy refinement**. By tracking progress and outcomes, stakeholders can make evidence-based adjustments to optimise effectiveness.

Despite the insights provided by stakeholders, the integration of these pathways into cohesive strategies remains a key challenge. A critical need exists for cross-policy integration to align diverse and sometimes conflicting agendas, such as flood management, biodiversity conservation, and agricultural resilience. This coordination relates to several areas including the share of costs across funding departments, alignment of strategic targets, and different timescales required to achieve policy goals.

Stakeholders acknowledged that RW hold immense potential to enhance landscape resilience. Addressing the gaps in RW management requires actionable pathways that align evidence, policy, and practice across diverse domains. At the forefront is the development of integrated frameworks that unify evidence and solutions across local, regional, and national scales. Adaptive management strategies are needed to balance these scales and ensure that policies address both broad and localised priorities effectively (Urbanič *et al.*, 2022).

Many of the challenges flagged by our participants require cross-policy and cross-sector coordination, a finding in common with other work studying integrated resource governance (Nicholson *et al.*, 2025). **It is important to recognise that those with expertise and responsibility for developing policy should play a direct role in working with representatives from other policy sectors. Together, they can map out challenges and evidence needs, and identify realistic pathways and actions, while considering resource and other constraints, to enable meaningful progress**.

This document describes the main policy related challenges to the delivery of RW as discussed by our focus group participants. It links these to evidence needs that would help to address the challenges, and reports on indicative pathways to achieving this. Recommendations based on these findings are combined in the main report in combination with those of the other stakeholder engagement activities.

Acknowledgements

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