



TWEED
FORUM

Tweed Catchment

Management Plan Review



2005-09



TWEED FORUM

MEMBERS:

Borders Forest Trust	BFT
Environment Agency.....	EA
Federation of Borders Angling Associations	FBAA
Forestry Commission Scotland.....	FCS
Natural England	NE
Northumberland County Council	NCC
Northumberland National Park Authority	NNPA
Northumbrian Water	NW
Northumberland Wildlife Trust.....	NWT
Royal Society for the Protection of Birds.....	RSPB
River Tweed Commission	RTC
Scottish Agricultural College.....	SAC
Scottish Borders Council	SBC
Scottish Enterprise Borders	SEB
Scottish Environmental Protection Agency	SEPA
Scottish Government.....	SG
Scottish Natural Heritage	SNH
Scottish Rural Property & Business Association	SRPBA
Scottish Water	SW
Southern Upland Partnership.....	SUP
Tweed Forum.....	TForum
Tweed Foundation	TFoundation
Visit Scotland (Borders)	VS



Tweed Catchment Management Plan Review 2005-09

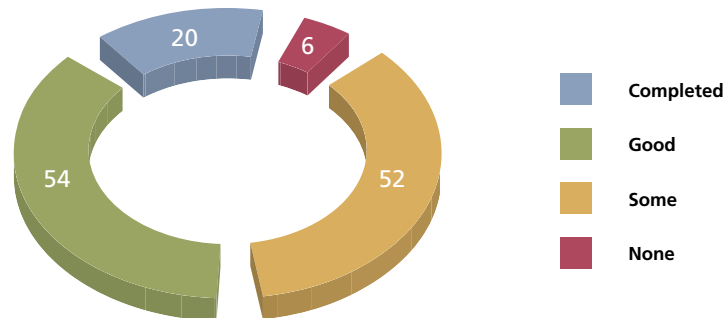
The Tweed is one of the region's greatest assets. It provides a common thread for our natural, built and cultural heritage and much of the region's population live or work along its banks. Tweed Forum is an umbrella organisation that brings together bodies, on both sides of the border, with an interest in the management and welfare of the river and its environs. In 2003, the Forum produced the Tweed Catchment Management Plan after extensive consultation with individuals, communities, local organisations and agencies. By working at the catchment level, we seek to coordinate, and where possible integrate, work to protect and manage the Tweed; to add value through partnership working and to highlight priorities for action.

Much has been achieved since 2003 and we first reported on progress in the 2005 review (see www.tweedforum.com/cmp for details). This latest review takes stock of recent achievements and highlights the priorities for the future. Whilst the Tweed is in a better state now than for generations, we cannot be complacent as the legacy of past pressures, such as habitat loss and pollution, cannot easily be reversed.

New challenges, such as climate change, and new opportunities, such as the Water Framework Directive, mean that the way we tackle the issues, and the way we work together, must evolve in order to maximise the impact of our efforts. The need to increase resilience against more extreme climatic

events and to safeguard and enhance the ecosystem services provided by our freshwater habitats has never been more explicit. Tweed Forum is ideally placed to facilitate this and this review provides a snap shot of progress over the last 4 years and priorities for the future.

Over the next few pages, we will provide a summary of progress to date on the Tweed Catchment Management Plan (CMP). The seven strategic aims of the CMP: Water Quality, Water Resources, Habitats and Species, Riverworks, Flood Management, Tourism and Recreation and CMP Delivery & Development, will all be reviewed separately. Please see www.tweedforum.com/cmp for the CMP document in full.



Progress towards achieving CMP actions (%)
2005-2009



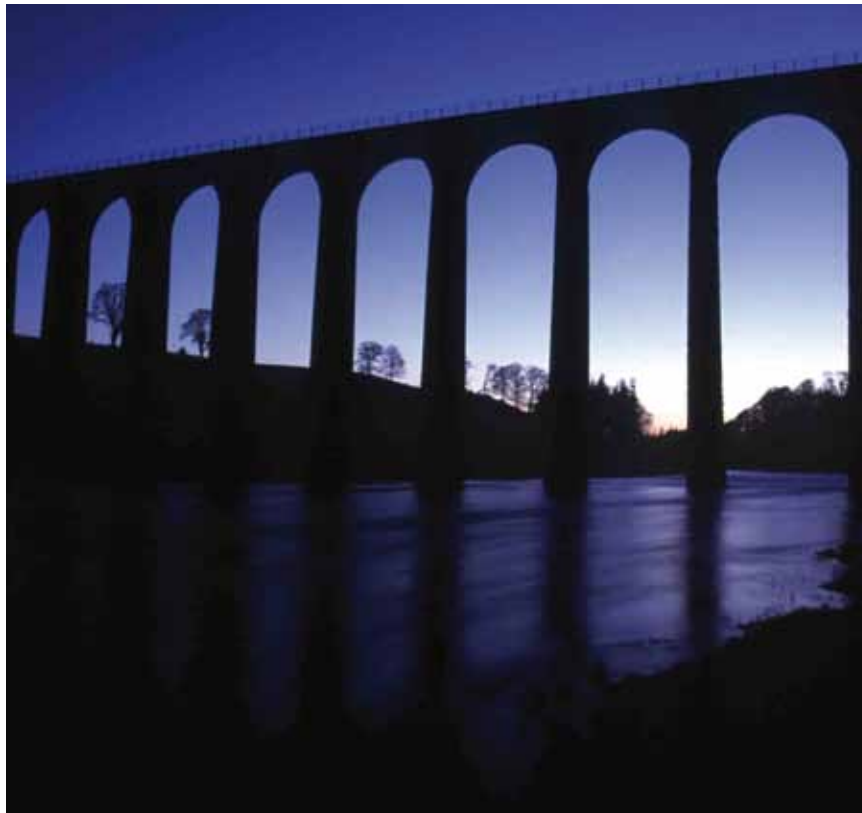
WATER QUALITY

Maintain and enhance the water quality of the Tweed Catchment

FUTURE PRIORITIES

- Address diffuse pollution issues in priority catchments
- Continue to raise awareness amongst all sectors about the importance of rivers, promote practical ways to reduce diffuse pollution and the economic savings that can be made
- Increase awareness of both statutory and non-statutory diffuse pollution 'codes of practice'

The main river stretches 160km from its source at Tweed's Well high on Tweedsmuir to the breakwater at Berwick Upon Tweed





WATER QUALITY - PROGRESS

Targets	Progress	Progress to date by lead partners
Continue to reduce the impact of diffuse agricultural pollution		<p>EA, SEPA, NE, TForum</p> <ul style="list-style-type: none"> CSF Initiative has delivered targeted action within the Till catchment, with Whole Farm Plans for 75 holdings and a dedicated awareness raising programme The Tweed CFW Initiative (2005-2007) has delivered 11 CFWs SEPA have jointly produced a 'Constructed Farm Wetlands Design Manual for Scotland and Northern Ireland' New CAR diffuse pollution GBRs have been introduced to improve water quality The Eye and Till catchments have been given priority status for diffuse pollution issues 75% of farms along the Till/Breamish are in agri-environmental stewardship schemes Routine monitoring by agencies has highlighted problem areas
Minimise impact of agrochemicals/sheep dips		<p>EA, SEPA, NE, SEARS</p> <ul style="list-style-type: none"> CSF has monitored sheep dip issues in the Till catchment and funded improvements to dipping equipment and animal health plans Raising awareness of the impact of agrochemicals within the farming community has been ongoing The launch of SEARS should make it easier to comply with regulations Routine monitoring by agencies has highlighted problem areas
Continue to reduce the impact of forestry activities		<p>FCS, SEPA</p> <ul style="list-style-type: none"> Freshwater interests have been represented by Forum members at Forestry Panel meetings Acidification and erodibility in Tweed have been investigated and found to have minimal impact
Promote use of sustainable surface water management systems		<p>NCC, SBC, SEPA, SW</p> <ul style="list-style-type: none"> All new developments now require SUDS, where appropriate SUDS are required by GBRs A SUDS coordinator will interact with developers and regulators in Scotland A 'Sewers for Scotland' manual has been published
Minimise impact of waste water treatment plants and septic tanks		<p>EA, SEPA, NE, SW</p> <ul style="list-style-type: none"> Septic tank registration now required under CAR, with good general awareness raising throughout the catchment CAR provides for authorisation of discharges to the water environment Improvements have been delivered at several waste water treatment plants
Investigate failures to meet river quality targets and implement action plans as appropriate		<p>EA, SEPA</p> <ul style="list-style-type: none"> Investigations of failures on the Till and Wooler Water have ruled out point sources Regular monitoring by agencies will highlight problem areas

some progress good progress complete



WATER RESOURCES

Ensure that there is water available for abstraction while protecting the needs of the natural environment

FUTURE PRIORITIES

- Explore demand management and storage measures which encourage water conservation and reduce overall abstraction volumes during periods of low flow e.g. winter storage reservoirs
- Assess the potential impact of climate change on flows and demands, and undertake research to better understand how this could affect ecological needs and land use practices in the catchment
- Assess the potential impact of land use changes on flows and undertake monitoring as required
- Ensure data is fed back to stakeholders to inform catchment-based action on the ground

The Tweed is the second largest river basin in Scotland, with a total catchment area of 5000km²





WATER RESOURCES - PROGRESS

Targets	Progress	Progress to date by lead partners
Reduce the impact of surface and groundwater abstractions on riverine, riparian and wetland ecology		<p>EA, NE, NW, SEPA, SW</p> <ul style="list-style-type: none"> The Till CAMS will manage abstractions sustainably over a 6 year cycle A conceptual model for the Till Fell Sandstone outcrop, to improve understanding of the effects of groundwater abstractions, is underway Discussions have been held with local farmers about winter storage reservoirs Customers have been encouraged to 'use water wisely' (Waterwise Initiative) and 'efficient use of water' is a WFD requirement All abstractions in Scotland must now be authorised under CAR
Ensure flows in the rivers and burns of the Tweed catchment meet the requirements of riverine, riparian and wetland species and habitats		<p>EA, NE, NW, SEPA, SNH, SW</p> <ul style="list-style-type: none"> Ease of fish passage, and cost-benefit of improvements, have been assessed on two reservoirs Flow requirements for EU LIFE species have been calculated Areas where low flows have detrimental impact have been highlighted through various processes e.g. CAR, CAMS
Ensure reservoir release regimes minimise ecological impacts and where feasible reflect more natural hydrological conditions		<p>SEPA, SW</p> <ul style="list-style-type: none"> Critical review of water orders and reservoir release schemes have been carried out in Scotland and 2 schemes at the top end of Tweed will be modified. Work to maximise the use of fixed releases is ongoing Monitoring of reservoir releases (particularly temperature differentials) has shown no impact on plants and animals. Levels are monitored as routine Information on reservoir releases, garnered via licensing process, is available on a public register Information on the timings and volumes of reservoir releases is distributed to key partners

some progress good progress complete



HABITAT & SPECIES

Maintain and enhance the status and distribution of riverine, riparian and wetland species and habitats of conservation interest

Tweed is the 10th longest river in the UK and the second longest in Scotland

FUTURE PRIORITIES

- Develop information systems to assist targeted restoration programmes and establish habitat networks
- Identify priority areas of riverine, riparian and wetland habitats that require protection and restoration
- Promote the national RAFTS biosecurity planning process and support any local measures that contribute to this process
- Continue with the Tweed Invasives project (catchment-wide control of Giant Hogweed/Japanese Knotweed and Himalayan Balsam on the Till)
- Encourage the retention and expansion of wetlands and natural ponds to safeguard and enhance ecosystem services
- Develop and implement a wetland and riparian habitat strategy to inform future management
- Ensure that Local Plan policy reflects the importance of wetlands and ponds and the planning process encourages the inclusion of ponds and wetlands in landscape development
- Promote and encourage agricultural practices, which maintain, enhance and create wetland areas and ponds
- Monitoring of macrophytes on the Till is needed within the next year and additional fish monitoring is likely to be required
- Riparian fencing on the Eye Water
- Provide centralised access to English and Scottish registers of designated riverine, riparian and wetland sites
- Support CAC to deliver effective SRDP applications
- Continue to define priority species and habitats





HABITAT & SPECIES - PROGRESS

Targets	Progress	Progress to date by lead partners
Improve knowledge of the extent, status and distribution of riverine, riparian and wetland habitats		<p>EA, NE, SBC, SNH, SEPA</p> <ul style="list-style-type: none"> RHS programme is ongoing, however MIMAS will replace in Scotland NorthEast Wetland Feasibility Study has mapped current/historical wetlands Info on statutory nature conservation designations available from NE and SNH websites Scottish Borders Wetland Vision has mapped existing and potential wetlands
Improve knowledge and understanding of species of conservation interest		<p>EA, NE, LBAP, RSPB, SNH, TForum</p> <ul style="list-style-type: none"> Regular monitoring undertaken by agencies Record Centre has centralised dataset for Scottish Tweed (EYE project is starting in Northumberland) Yearly fish stock monitoring by Tweed Foundation Local RSPB staff have contributed to the UK Bird Atlas and yellow wagtail/lapwing survey Tweed Water Vole Initiative surveys 'Invertebrates of Exposed Riverine Sediments' and Hydroporus rufifrons surveys in the Till
Encourage the strategic development of habitat networks throughout the catchment, linking riparian, floodplain, wetland and native woodland habitats		<p>BFT, FCS, LBAP, SBC, SNH</p> <ul style="list-style-type: none"> Borders Woodland Strategy published in 2006 Planning tool to guide the creation/enhancement of native habitats at the catchment scale
Encourage the retention and expansion of wetlands and natural ponds to safeguard habitats, improve biodiversity and reduce diffuse pollution		<p>BFT, EA, FWAG, NCC, NE, SBC, TForum</p> <ul style="list-style-type: none"> Raising awareness with guided walks, e.g. Ettrick Marshes guides and FWAG farm walks TWRP has restored/created 50ha of wetland habitat Local Plan reflects importance of wetlands and ponds Over 70 ponds, including Great Crested Newt habitats, created
Enhance the conservation and natural heritage value of the riparian zone		<p>EA, NE, SNH, TForum, TFoundation</p> <ul style="list-style-type: none"> Reduction/exclusion of stock in riparian areas actively pursued by CSF and CAC Riparian fencing maintained throughout catchment Friends of Gala Water initiative supported
Improve knowledge, understanding and awareness of the potential threats of non native riverine and riparian species		<p>EA, FWAG, NE, RTC, TForum, TFoundation</p> <ul style="list-style-type: none"> Awareness raising activities, e.g. leaflets distributed at canoe rally Stonecrop eradication implemented American signal crayfish control techniques being trialled in the catchment National Biosecurity Planning by RAFTS
Control and where possible eradicate Giant Hogweed and Japanese Knotweed		<p>EA, NE, SEPA, SNH, SBC, NCC, NW, TForum</p> <ul style="list-style-type: none"> Tweed Invasives project delivering catchment-wide control of Giant Hogweed/Japanese Knotweed Pilot Himalayan Balsam control programme on the Till
Protect the genetic integrity of the Tweed fishery and guard against further introductions of non native aquatic species		<p>RTC, TFoundation</p> <ul style="list-style-type: none"> Tweed & Eye Fisheries District Management Plan (4th ed.), formally adopted by RTC Restriction on the introduction of fish stocks to 'open' waters Commission has adopted its own biosecurity policy

RIVERWORKS

Ensure all riverwork operations respect the physical, ecological and aesthetic integrity of the river system.

FUTURE PRIORITIES

- Investigate and facilitate the restoration of priority waterbodies which are failing WFD targets due to morphological pressures
- Continue the Riverworks Group as a forum for sharing best practice, disseminating guidance, discussing forthcoming work in the catchment, reducing duplication/streamlining regulation and ensuring cross-border integration
- Explore project to identify, collate and log all information currently available on the hydrogeomorphology of the river system
- Build on knowledge of morphological pressures as per WFD

River Tweed
in Gaelic
is *Abhainn
Thuaidh*





RIVERWORKS - PROGRESS

Targets	Progress	Progress to date by lead partners
<p>Improve knowledge of current and historical riverworks throughout the catchment and their effect on the hydrogeomorphology of the river system</p>		<p>EA, FLAG, NE, SEPA, TForum</p> <ul style="list-style-type: none"> Riverworks GIS layer is now held by SEPA for update and dissemination In England, all works on 'main rivers' must now be registered as part of Land Drainage Consent process In Scotland, all new riverworks are now regulated under CAR, with CAR licences listed on the public register Geomorphological impact assessments are being undertaken as part of preparation for Flood Protection Schemes Studies on Eddleston, Breamish and Bowmont undertaken SEPA have been utilising the MIMAS tool to assess hydrogeomorphological implications of CAR applications
<p>Provide clear advice and guidance for anyone considering riverworks within the Tweed catchment</p>		<p>NE, EA, SEPA, SNH, RTC, TForum</p> <ul style="list-style-type: none"> Members have been raising awareness of the need to notify the relevant authorities of all riverworks, even those outside statutory controls e.g. integral part of NE site visits Best Practice for Riverworks training has been provided by SNH/SEPA and documentation posted on SEPA website 'Gravel Working in Scottish Salmon Rivers' rivers leaflet published on SNH website 2 riverworks awareness raising events held – 1 in England and 1 in Scotland Riverworks leaflet dissemination
<p>Ensure responses to riverworks proposals are transparent and considered in a systematic, integrated way</p>		<p>EA, NE, SBC, SEPA, SNH, RTC, TForum</p> <ul style="list-style-type: none"> CAR now in operation The Riverworks group continues to meet regularly to discuss issues with regulation and site specifics
<p>Develop a network of expertise to inform those considering riverworks and to inform the decisions of the competent authorities where necessary</p>		<p>TForum</p> <ul style="list-style-type: none"> There is now a register of independent fluvio-geomorphological assessors, civil engineers and ecologists who are able to advise on riverworks matters within the Tweed

some progress good progress complete





FLOOD MANAGEMENT

Adopt a catchment-based approach to flood management which helps to protect the people, property and prosperity of the Tweed catchment whilst respecting its physical, ecological and aesthetic qualities

FUTURE PRIORITIES

- Promote natural flood management and increase the resilience of vulnerable sub catchments to withstand more extreme climatic events
- Protect the floodplain from inappropriate development
- Ensure all flood alleviation schemes respect the physical, ecological and aesthetic integrity of the river system and take into account climate change
- Continue to carry out research on the impact of floodplain woodland, and other NFM measures on flood flows to build up evidence base
- Ensure data is shared between organisations where appropriate
- Scottish Borders FLAG to integrate with new Northumberland FLAG where possible/appropriate
- Continue to monitor and disseminate findings at Craik on the efficacy of NFM and the hydrological impact of forestry operations
- Produce/disseminate guidance on NFM
- Help ensure the Floods Directive is integrated into the RBMP and CMP process

The Tweed has inspired writers and poets from Thomas the Rhymer through to Scott and Buchan



Photo courtesy of Victoria Ogilvy



FLOOD MANAGEMENT - PROGRESS

Targets	Progress	Progress to date by lead partners
Identify the different groups involved in and affected by flood management in the catchment and develop suitable methods to educate and raise awareness		EA, FLAG, SEPA <ul style="list-style-type: none"> Raising awareness of the Floodline service, using the Floodline Pack, Roadshow, website, leaflets etc SBC Emergency Assistance to the Public leaflet is now available Scottish Flood Forum promotes self-help and advance preparation
Improve cross border communication and coordination of flood management issues		EA, FLAG, SBC <ul style="list-style-type: none"> Cross-border membership of Scottish Borders FLAG is encouraged
Protect the floodplain from inappropriate development		EA, NE, NCC, SBC, SEPA <ul style="list-style-type: none"> Structure Plans clearly identify flood risk areas and include policies to control development using indicative flood risk maps developed by SEPA and the EA
Pursue opportunities for floodplain restoration		BFT, EA, NE, SBC SEPA, TForum <ul style="list-style-type: none"> SBC Flood Protection Schemes now include NFM options Scottish Borders Woodland Strategy added to Structure Plan - promotes the role of trees and forests in flood risk management TWRP in process of reconnecting over 175ha of floodplain via breaching or abandonment of ca. 11km of flood defence Craik NFM project has restored Borthwick Water riparian/floodplain woodland Revision of FCS design plans has highlighted areas for planting FCS Locational Premium in Woodland Grants has created 500 ha of native and riparian woodland
Ensure all flood alleviation schemes respect the physical, ecological and aesthetic integrity of the river system		EA, SBC, SEPA <ul style="list-style-type: none"> All EA schemes are now scrutinised and external schemes are subject to rigorous review Preparation of Scottish Flood Protection Schemes will include a rigorous assessment framework
Ensure all new developments take into account their potential impact on the frequency and intensity of flood events		EA, SBC, SEPA <ul style="list-style-type: none"> SUDS promoted for all new developments Scottish Borders Structure Plan 2010/2011 presumes against development with unmanageable flood risk Amended Local Plan requires developers to assess flow impacts/flood risk for new developments
Improve knowledge on the effect of riparian and floodplain woodland on flood flows		EA, SBC, TForum <ul style="list-style-type: none"> Craik NFM project is investigating the effect of riparian/floodplain woodland on flood flows

FLOOD MANAGEMENT

some progress good progress complete

TOURISM & RECREATION

Promote the sustainable development of river-related tourism and recreational activities to accommodate a variety of interests

FUTURE PRIORITIES

- Raise awareness of the risk posed by recreation in the spread/introduction of non native species
- Develop local path network outside major settlements (Innerleithen 09/10; Earlston 11/12; West Linton, Chirside 10/11; Lauder 11/12; Newtown St Boswells, St Boswells 12/13)
- Work with nature based tourism companies to further promote Tweed

The Tweed catchment represents around 15% of all spawning water available to Atlantic Salmon in Scotland





TOURISM & RECREATION - PROGRESS

Targets	Progress	Progress to date by lead partners
Promote responsible access by all river users		<p>RTC, SBC, TFoundation, VS</p> <ul style="list-style-type: none"> Members have been encouraging adoption of the RTCs Tweed Angling Codes Members have been encouraging adoption of the National Canoeists Code of Conduct (developed by the Scottish Canoe Association) when promoting water sports Members have been promoting the Scottish Outdoor Access Code A working group was set up to represent a variety of local users and deliver a "River Users Guide" covering access and recreational issues in and around the river
Promote tourist and recreational activities based in and around the Tweed and its tributaries, which aid the sustainability of the local economy		<p>EA, NE, RTC, TForum, TFoundation, VS</p> <ul style="list-style-type: none"> Habitat and interpretation improvements at the Fenton Centre (www.fentoncentre.com) Projects delivered as part of the Tweed Rivers Heritage Project and Tweed Interpretation Strategy e.g. Osprey Watching and Salmon Viewing Centre Work has been ongoing to improve the brown trout and coarse fishing resource Members have been promoting the Tweed as a world class angling destination using various media
Encourage the enhancement and expansion of the access network in and around the Tweed and its tributaries where it does not come into conflict with other objectives set out in the CMP		<p>Access Forum</p> <ul style="list-style-type: none"> The Local Path Network has been developed in most major settlements incl. Peebles, Hawick, Selkirk, Melrose, Galashiels, Duns, Coldstream, Jedburgh, Kelso, Newcastleton and East Berwickshire

some progress  good progress  complete 

TOURISM



CMP DELIVERY & DEVELOPMENT

Ensure the delivery and development of the Tweed CMP

FUTURE PRIORITIES

- Continue to improve the flow of information to and from members, the public and policy makers and across the Border
- Continue to review the CMP at appropriate intervals
- Continue to provide a 'Neutral Space' to exchange information and ideas
- Continue 'honest broker role' to defuse potential conflicts
- Promote integration, coordination and cooperation in policy and project delivery, especially with the River Basin Planning process
- Continue to identify improved ways of working and adding value; maximising the efficient use of resources and ensure the right measures are implemented in the priority areas
- Pool resources and secure funding
- Continue to encourage others to take action or where necessary take direct action
- Continue to facilitate action that delivers multiple objectives (e.g. WFD, Habitats, Floods Directive) and promote the role of ecosystem services
- Build the concept of resilience into all our practical work, to enable the catchment and associated livelihoods to adapt to and withstand more extreme climatic events

The Tweed salmon fishery contributes £18million and 500 jobs to the local community



Photo courtesy of Victoria Ogilvy



CMP DELIVERY & DEVELOPMENT - PROGRESS

Targets	Progress	Progress to date by lead partners
Ensure opportunities for ongoing involvement and engagement with the CMP		TForum <ul style="list-style-type: none"> • Holding regular meetings of stakeholders, both general Forum and specialist sub-groups • Wide dissemination of information relating to the CMP using a variety of media, including the TForum web page • The Review process has engaged stakeholdership in reshaping the CMP for the next cycle of implementation • The 2005 review of progress was published in an attractive summary document
Develop a learning approach to the decision-making, development and delivery of the CMP		TForum <ul style="list-style-type: none"> • Have improved the skills base and capacity amongst stakeholder groups by disseminating information e.g. on legislative changes, training opportunities, best practice guides etc • Dedicated TForum working groups have been formed to take forward issues relating to riverworks, water resources and wetland and riparian habitats
Address the fragmented, sectoral approach to water resource management in the Tweed catchment		TForum <ul style="list-style-type: none"> • Cross-border nature of Tweed is central to the Forum's existence and is reflected in all Forum activities and group membership • Have facilitated collective consideration and response to all policy consultation documents relating to the river and its management, particularly highlighting the need for a cross border approach • Have ensured integration with Tweed AAG and associated RBMP processes
Review the CMP		TForum <ul style="list-style-type: none"> • Review carried out in 2005 (www.tweedforum.com/cmp) • Have prioritised those actions set out in the action table of the CMP and taken forward as work programmes
Secure resources to deliver activities identified in the action plan		All CMP partners <ul style="list-style-type: none"> • Many CMP actions have been delivered through facilitation and dedicated fundraising during 2005/09 implementation phase

some progress good progress complete



GLOSSARY:

Area Advisory Group	AAG
Collaborative Action Coordinator	CAC
Catchment Abstraction Management Strategy	CAMS
Catchment Sensitive Farming	CSF
Controlled Activities Regulations	CAR
Constructed Farm Wetland	CFW
Catchment Management Plan	CMP
European Union LIFE+ programme	EU LIFE
Exploring Your Environment	EYE
Flood Liaison Advisory Group (Scottish Borders).....	FLAG (SB)
Geographical Information System	GIS
General Binding Rules	GBRs
Local Biodiversity Action Plan	LBAP
Morphological Impact Assessment System	MIMAS
Natural Flood Management	NFM
Rivers and Fisheries Trusts of Scotland	RAFTS
River Basin Management Plan(ning)	RBMP
River Habitat Survey	RHS
Special Area of Conservation	SAC
Scotland's Environmental and Rural Services	SEARS
Scottish Rural Development Programme.....	SRDP
Site of Special Scientific Interest	SSSI
Sustainable Urban Drainage Systems	SUDS
Till Wetland Restoration Project.....	TWRP
Water Framework Directive	WFD

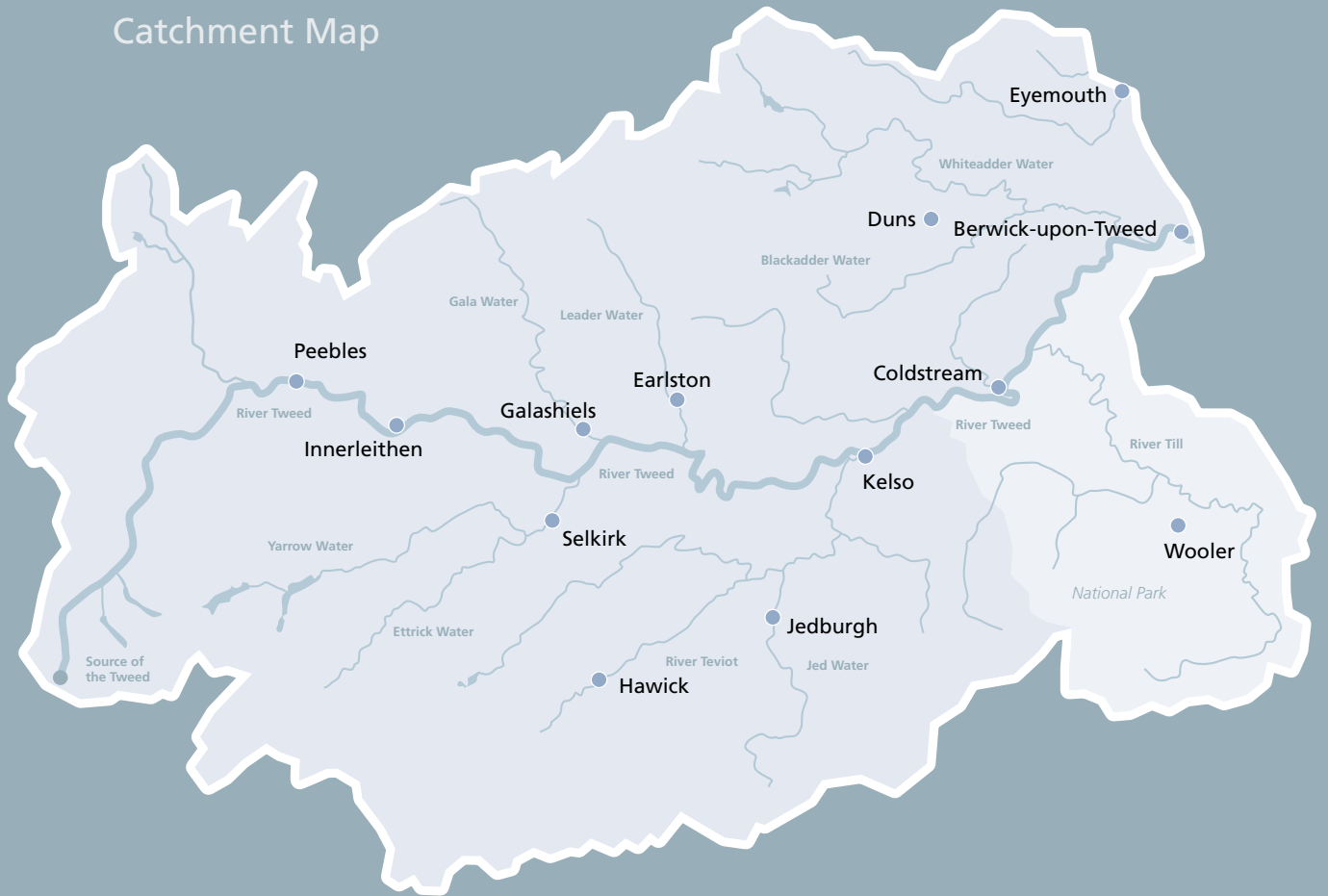
If you would like to be involved or find out more about the Plan, please contact Tweed Forum:
www.tweedforum.com/contact

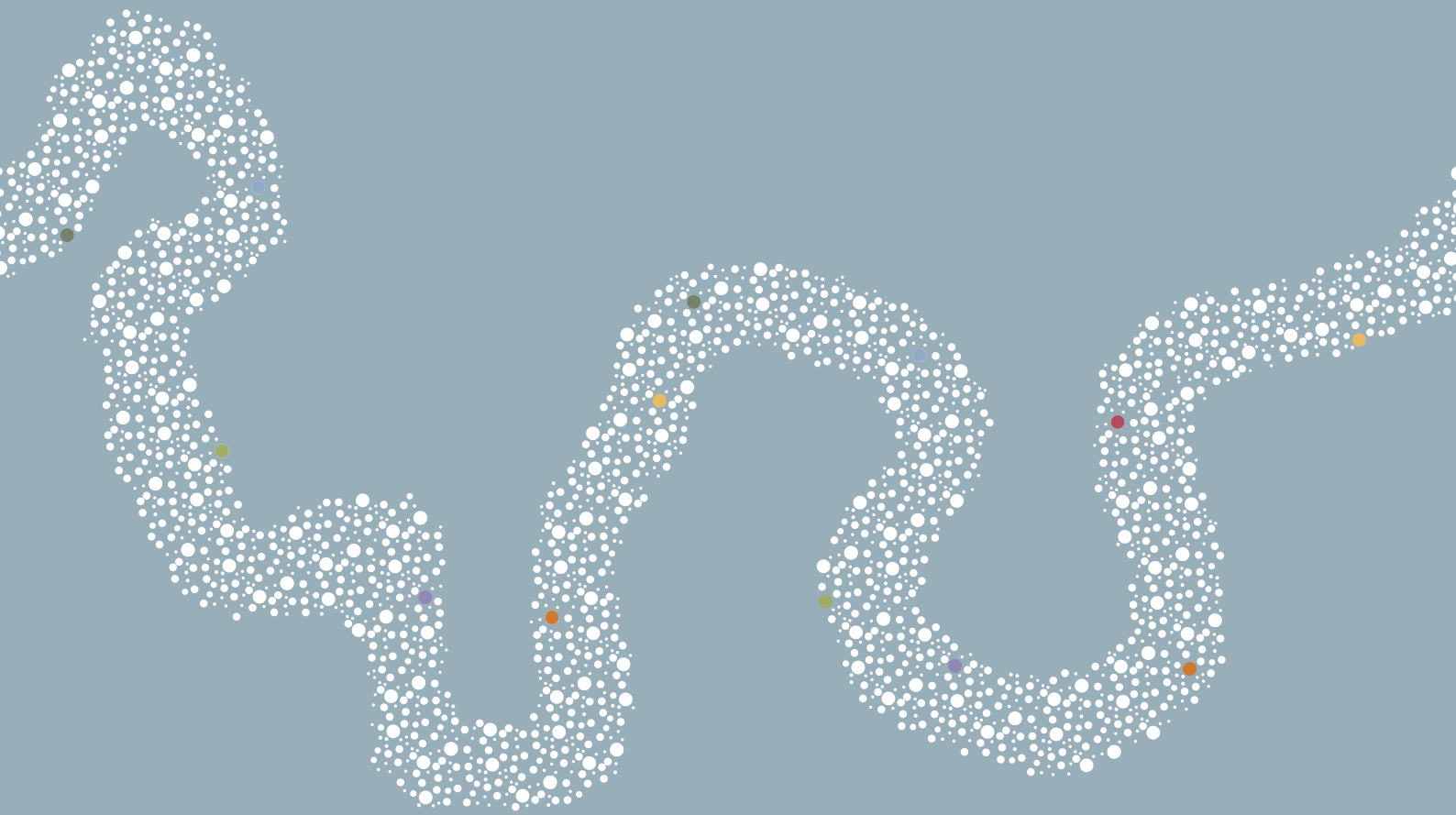


Scottish Natural Heritage
All of nature for all of Scotland

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Catchment Map





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