Environment Agency

SEPA
Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

The River Basin Management Plan for the Solway Tweed River Basin District 2021 update



Working together to protect and improve our water environment

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How to use this document

The river basin management plan (RBMP) for the Solway Tweed River Basin District sets out a framework for protecting and improving the benefits provided by the water environment. It includes information on the current state of the water environment and the actions needed to bring about improvements, where required. It is an update of the RBMP published in 2015.

This document focuses on how the Scottish Environment Protection Agency (SEPA) and Environment Agency coordinate their work on rivers and estuaries that are close to or are part of the border between Scotland and England. It also provides links to the detailed data on Scottish and English water bodies, the technical data held by the Agencies and the Scotland and England specific documents. Together these form the Solway Tweed River Basin Management Plan. They set out the ambition to achieve a healthy and sustainable water environment and how your actions can help maintain and improve its rivers, lochs, lakes, estuaries, coasts and groundwater.

How to use this document

Information and data on water bodies in the Scottish part of the Solway Tweed can be found in the Water Environment Hub.

The data that has been used to set objectives in the English part of the river basin district can be found in the Solway Tweed section of the Water Environment Hub.

The latest information and data on water bodies in the English part of the Solway Tweed can be accessed in the Catchment Data Explorer.

Current condition of the water environment

The Solway Tweed River Basin District is renowned for the quality of its rivers, lochs, lakes, wetlands, estuaries, coasts and groundwater. They are great natural assets, attracting visitors, contributing to our health and well-being, supporting a rich diversity of wildlife and providing for the sustainable growth of its economy.

Maintaining this resource is vital to this area's continued success and it is critical that we manage the water environment to ensure that the needs of society, economy and wildlife can be met and maintained for future generations.

On a global scale, the environment and the benefits it provides are under threat from the overuse of natural resources, climate change, and biodiversity loss. Our oceans are polluted with waste materials, including plastics. Many species of plants and animals are in decline. The climate emergency means we are facing more frequent and damaging floods, higher temperatures and droughts.

At the same time our population is growing. This growth leads to more homes, workplaces, transport, energy, drinking water and drainage infrastructure and creates huge environmental challenges.

The need for urgent and transformative action to tackle these threats is clear. As we emerge from the shadow of coronavirus (COVID-19), we will have the opportunity to support the transition to green and sustainable economic success. Healthy, natural systems can remove carbon from the atmosphere, contributing to the Net Zero target and helping protect people and wildlife from the worst effects of climate change. The principles of a circular economy (design out waste, keep resources in use and restore the natural environment) that have been developed to ensure we manage finite resources sustainably, apply equally to water. Incorporating these principles into a more systematic approach to water management will provide new solutions to protecting and improving the water environment while providing wider public benefits.

Coordination in the river basin district

The shared vision

SEPA and the Environment Agency have a responsibility to work jointly to protect and where necessary improve the water environment in the Solway Tweed River Basin District. Some waters in the district form part of the boundary between Scotland and England; while some water bodies cross from one country to the other. Joint working on the cross-border waters is important to ensure the water environment is protected and improved. The vision is to achieve this through collaborative working with the land managers, local groups and interested people.

SEPA and the Environment Agency work jointly to ensure consistency in our approach to these rivers by sharing monitoring and classification results. This can be for a small part of the river, or for the whole catchment. The fish populations in the Border Esk, for example, are monitored by the Environment Agency and this data used by SEPA to classify the river. We also exchange data when it is appropriate to help with management decisions, within the context of our own legislative frameworks.

The cross-border nature of the Solway Tweed River Basin District means that both Scottish and English authorities must work together to co-ordinate flood risk. Actions to improve the environment and reduce flood risk need to be coordinated to deliver maximum benefit for both outcomes.

Coordination with partners

Working jointly with partners and the public increases everyone's understanding of the priorities for action and ensuring that proposed improvements are carried out.

There are several catchment partnerships that contribute to the successful delivery of the actions in the shared water bodies. For example, the Tweed Forum was formed in 1991 and aims to protect, enhance and restore the rich natural, built and cultural heritage of the River Tweed and its tributaries in Scotland and England. The forum works at both the strategic level and the project level in order to achieve tangible benefits on the ground.

In 2013, Defra launched the catchment-based approach, to improve the quality of the water environment in England. It embeds collaborative working at a river catchment scale,

bringing a range of partners together to support integrated catchment management. This results in multiple benefits including improvements to water quality, enhanced biodiversity and reduced flood risk.

Catchment partnerships are now active in all the management catchments in England, including the Eden Catchment Partnership, led by Eden Rivers Trust, and the West Cumbria Catchment partnership, that includes the Waver Wampool, led by West Cumbria Rivers Trust.

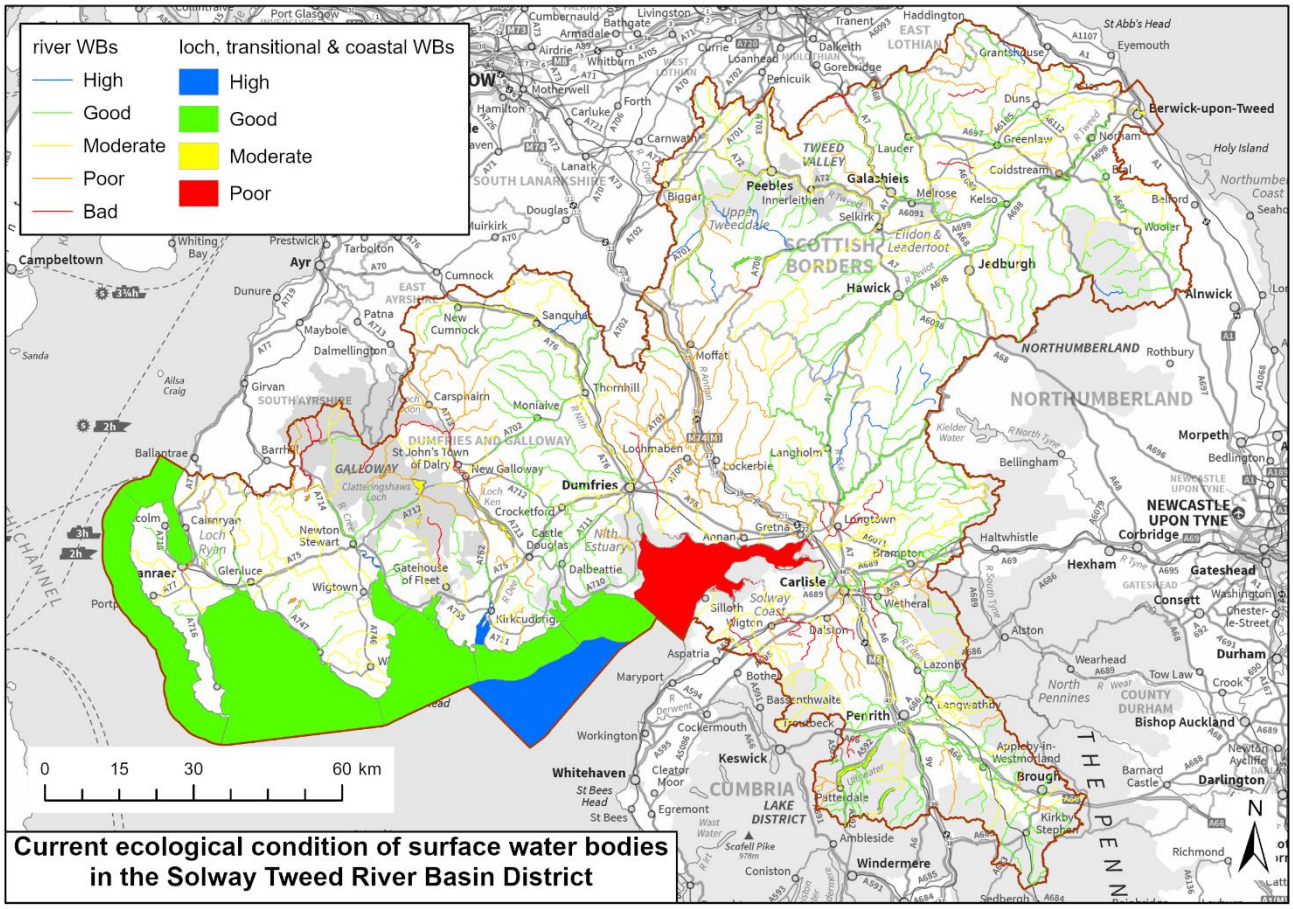
In Scotland, SEPA has adopted a new regulatory strategy, One Planet Prosperity, which aims to deliver environmental protection and improvement in ways that help communities and businesses thrive within the resources of our planet. SEPA uses a sector planning approach to work towards achieving these goals and realise the economic benefits of increased resource efficiency, innovation and resilience. The approach covers many sectors relevant to the Solway Tweed, including forestry and wood processing, crop production, dairy production, livestock, water supply and wastewater management.

What is the current state of the water environment?

Monitoring the water environment allows understanding of the impact of pollution and other pressures. Sharing this information openly through data tools provides everyone with the opportunity to review it and to see how their individual actions can contribute towards safeguarding this valuable resource.

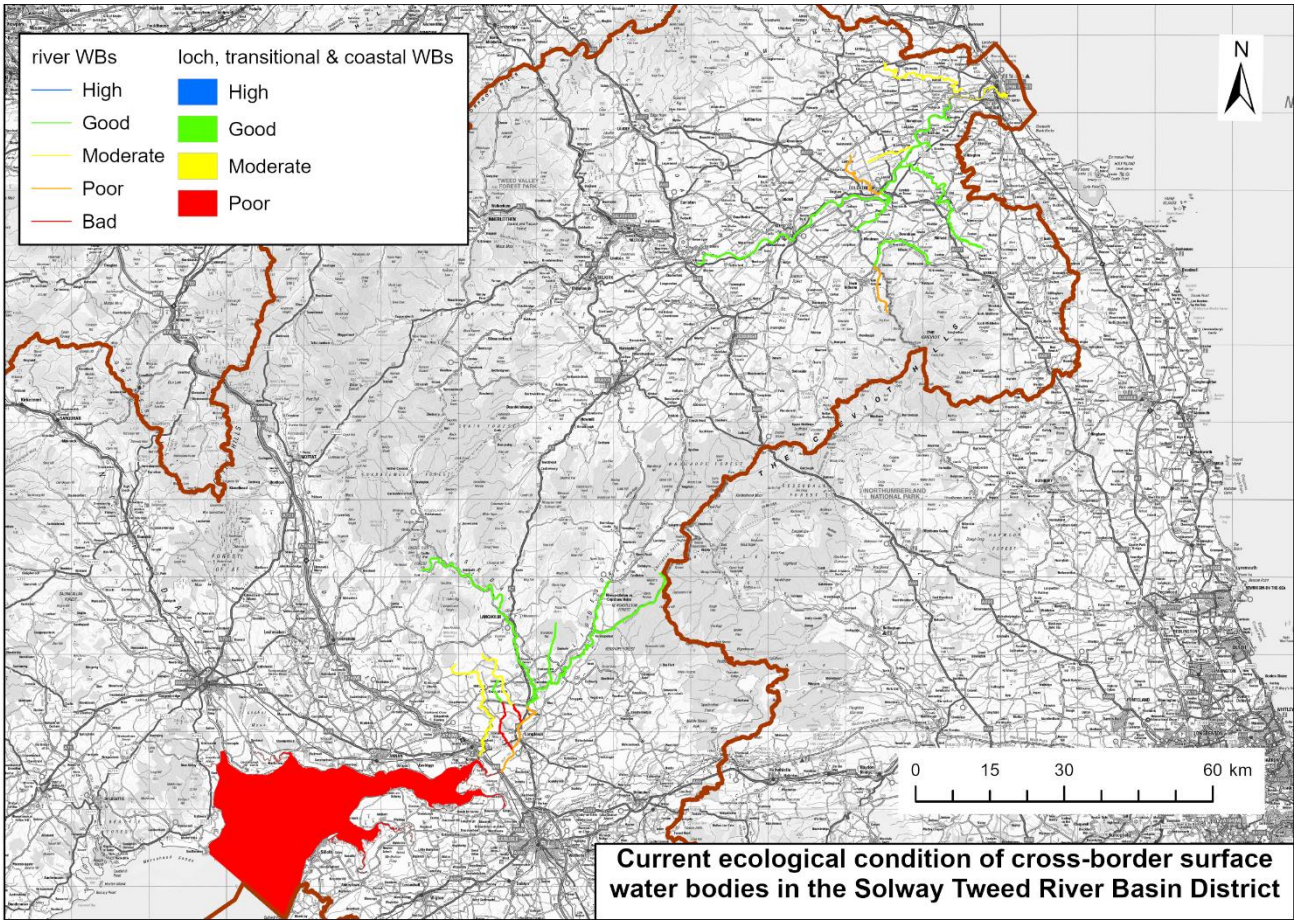
Currently 45% of the surface water bodies in the Solway Tweed are at good or better ecological condition.

More information can be found on individual water bodies in the Water Environment Hub.



Map 1: current ecological condition of surface water bodies

The cross-border catchments of Tweed and the Esk and the smaller cross border water bodies such as the Sark and the Till are made up of 149 surface water bodies out of the total 561 for the whole of the Solway Tweed River Basin District. Of these waterbodies 57% are at good or better ecological condition.



Map 2: current ecological condition of water bodies that cross or are close to the national boundary

There have been changes to how we assess and classify the water bodies since the last update to the plan in 2015. In Scotland, SEPA has collected new data and changed our approach to how we assess morphology pressures, including the designation of heavily modified water bodies. Information on this can be found in the appendices section of the Water Environment Hub.

Differences between chemical status classification results can be seen in cross-border catchments for ubiquitous persistent, bioaccumulative and toxic chemicals (uPBTs) and in particular polybrominated diphenyl ethers and mercury. These differences are due to the evidence that is available. SEPA and the Environment Agency work closely together on chemicals classification. Each organisation has developed an approach that makes best use of the available evidence. Whilst the approaches to classification may differ, the measures applied to reduce uPBTs in the water environment are broadly comparable across Scotland and England and are driven from national legislation. Monitoring the

reduction of these chemicals in the environment will continue to ensure that measures are appropriate.

More information on this for England can be found in the chemicals section of the River Basin Planning Process Overview (Solway Tweed River Basin District in England). Scottish information on persistent chemicals can be found in the Water Environment Hub.

Groundwater classification results are based on the quantity, quality and retention of water in aquifers and every groundwater body is classified for quantitative and chemical status.

94% of groundwater in the Solway Tweed River Basin District meets good quantitative condition and 87.5% good chemical condition.

Together the overall percentage of surface waters and groundwater reaching good condition or (for surface water only) better is 50%.

There are many areas where the water environment is especially valued, these areas are known as protected areas and their uses are given particular legal protection. These include bathing waters; nature conservation sites, such as rivers important for Atlantic salmon; catchments where water is abstracted to supply drinking water, and areas important for growing and harvesting shellfish. There are 58 protected areas in the Solway Tweed River Basin District. The majority of the protected areas continue to meet their objectives. However, the Solway Estuary Special Protection Area is currently at moderate condition.

You can find information on protected areas in Scotland in the Water Environment Hub and for England in the River Basin Planning Process Overview (Solway Tweed River Basin District in England).

Progress since 2015

Monitoring shows that the water environment in the Solway Tweed River Basin District has remained stable with the improvements in condition being offset by newly identified downgrades.

For more information on progress please refer to the Water Environment Hub.

Issues in the Solway Tweed River Basin District

SEPA and the Environment Agency use monitoring and classification information to identify water bodies that are failing to meet good condition or where there is a trend which suggest that the condition of the water body is deteriorating. The reasons for the failure are investigated and we presented these as part of the Challenges Facing our Water Environment report in 2019.

Issues impacting on cross-border water bodies

Below are the issues that are impacting cross-border water bodies. For information on issues impacting water bodies in the Solway Tweed River Basin District which are not discussed here, such as acidification in the Galloway catchments, please refer to the relevant information for Scotland in the Water Environment Hub or for England in the River Basin Planning Process Overview (Solway Tweed River Basin District in England).

Issues impacting joint water bodies are:

- Pollution from agriculture and rural land management
- Changes to water levels and flows
- Modifications to physical condition, including man-made barriers to fish migration
- Invasive non-native species

Measures to bring about improvements in cross-border water bodies

Partnership working with farmers and land-managers

The way land is managed and used provides a significant positive contribution to the Solway Tweed River Basin District by putting food on our tables, producing timber and offering opportunities for recreation. It also affects water, air, soils and climate because of the interdependent nature of these systems.

Partnership working with farmers, land managers, advisory services and water companies (United Utilities and Scottish Water) has improved compliance with the relevant legislation and adoption of good practices to reduce pollution and environmental impacts. SEPA will continue with a focused approach in diffuse pollution priority catchments, which includes the Tweed catchment, ensuring compliance with environmental legislation to help achieve water quality objectives and improve bathing water quality. This work also promotes a circular economy by minimising nutrient and soil loss and saving farmers money.

The Waver Wampool catchment (which feeds into the Solway estuary, in Cumbria) has been selected to be part of the Sustainable Farming Incentive pilot for Defra's new schemes that reward the delivery of environmental benefits. These future schemes will use public money to reward farmers and land managers for delivering environmentally sustainable actions, such as clean and plentiful water, thriving plants and wildlife and a reduced risk of harm from environmental hazards such as flooding and drought.

The test and trial in the Waver Wampool catchment will explore co-designing spatial prioritisation of public goods to determine which public goods might be best delivered, how those public goods could be delivered through individual land management plans and how to best encourage collaboration of land managers to deliver public goods across multiple land holdings.

The Solway Estuary does not meet good ecological status due to elevated nutrient levels. The Environment Agency is leading on a study into the issues in both the Solway and Tweed Estuaries to better understand the causes of the nutrient levels and how best to manage them.

Sustainable management of water resources

Demand for water to irrigate crops is expected to increase as our climate changes and rainfall decreases at certain times of the year. Rivers affected by agricultural irrigation typically have multiple abstractions within a river catchment. Under these circumstances, it is important that irrigators work together to manage the available water resources in an equitable manner. On the River Till, the Environment Agency is currently in the process of incorporating previously exempt surface water abstractions into the regulatory regime, ensuring the demand for water is within sustainable limits. In Scotland, SEPA is working with farmers to review water use licences and support management of water resources in parts of the Tweed catchment.

Restoring rivers and removing man-made barriers to fish migration

For thousands of years rivers, lochs, lakes, estuaries and the coast have been physically modified to support farming, industry, transport, including shipping, and by building places to live. Some of those physical changes are still essential. They help to protect from flooding and support the supply of drinking water and the production of the food. Other changes have helped create the iconic landscapes and architecture we value. But as rivers have been diverted, covered, or straightened, it has also damaged the environment. The legacy of structures and other changes means many rivers and waterways do not provide healthy habitats for wildlife.

SEPA and the Environment Agency are jointly investigating barriers to fish migration in the Border Esk to identify priorities for action.

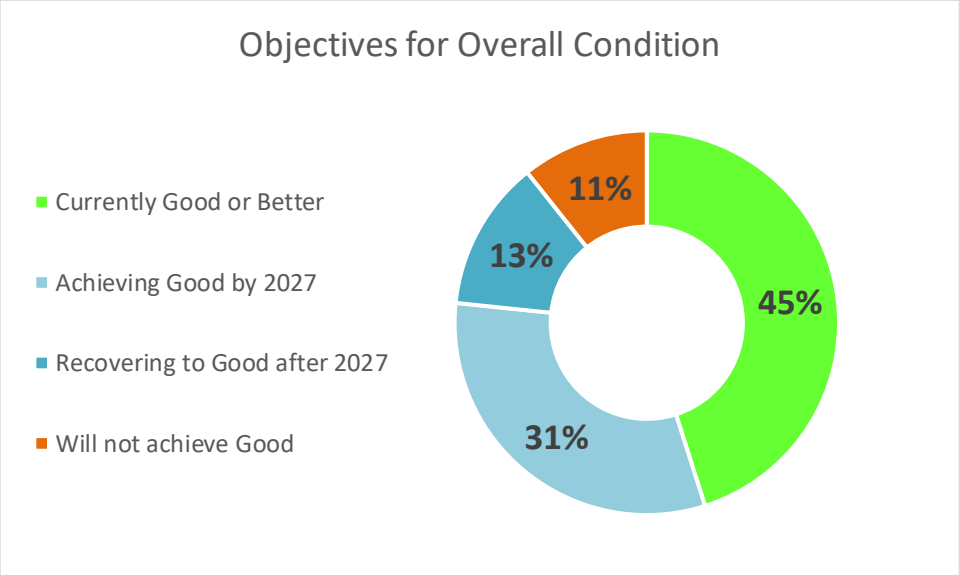
Controlling invasive non-native species

An invasive non-native species is an animal or plant introduced, either deliberately or accidentally, into a place where it does not belong. They can ‘hitch hike’ a ride on goods or other animals or even travel in the ballast of ships. Not all non-native species are damaging; for instance, non-native food crops can have huge benefits. A species only becomes ‘invasive’ if it has negative effects on the environment. Global trade, tourism and transport increase the problem world-wide. The problem is increasing every year.

Partners such as the Solway Firth Partnership and Tweed Forum have set out objectives for the sites that they oversee. The best practice manual developed by the Tweed Forum has been published and shared across all fishery trusts.

Summary of Objectives

Across the whole Solway Tweed River Basin District the actions planned for the period from 2021 to 2027 are expected to achieve good ecological condition by 2027 in 172 of the 302 surface water bodies that are not currently at good ecological condition.



Pressures on a further 69 water bodies in the Scottish part of the river basin district will be addressed and they will be in the process of recovering to a good ecological condition after 2027. In the English part of the river basin district all but one of the water bodies have an objective of good ecological condition, but with low confidence of meeting this objective by 2027. This is either because there is uncertainty of the specific locations that will benefit from some of the funded measures or that additional measures will be needed.

More information about these objectives can be found in the Water Environment Hub and the River Basin Planning Process Overview (Solway Tweed River Basin District in England).

Achievement of these objectives would also safeguard the quality of drinking water sources in drinking water protected areas and achieve improvement objectives for bathing waters, shellfish waters and the waters on which protected areas for the conservation of internationally important wildlife and habitats depend.

More information about the objectives for protected areas can be found in the Water Environment Hub for Scotland and the River Basin Planning Process Overview (Solway Tweed River Basin District in England) for England.

This third river basin plan sets out an ambitious programme of work for protecting and improving the water environment. The actions described and the systematic approach planned will help tackle the climate emergency and biodiversity crisis, creating healthier and more resilient communities and a more sustainable and resilient rural economy. The objectives set out in this plan can only be delivered by working together and in partnership to deliver its aims.