

# The draft river basin management plan for Scotland 2021 - 2027

December 2020

Every day SEPA works to protect and enhance Scotland's environment, helping communities and businesses thrive within the resources of our planet.

We call this **One Planet Prosperity**



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## 1. A plan for Scotland's water environment

Scotland's water environment is one of our most important national assets. It contributes to the health and well-being of our country, supports a rich diversity of wildlife and provides for the sustainable growth of our economy. Scotland is renowned worldwide for the quality of its rivers, lochs, wetlands and seas, and the natural environment attracts millions of visitors every year. Maintaining this resource is vital to Scotland'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. Healthy, natural systems can remove carbon from the atmosphere and help protect people and wildlife from the worst effects of climate change.

Here in Scotland, we are experiencing increasing floods and periods of drought. Recent data show that almost [half of our species are in decline](#)<sup>1</sup>, including iconic species such as the Atlantic salmon. The need for urgent and transformative action to tackle these threats is clear. As we emerge from the shadow of COVID-19, we will have the opportunity to support Scotland's transition to green and sustainable economic success. 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.

This draft river basin management plan (RBMP) sets out a framework for protecting and improving the benefits provided by the water environment across Scotland. We – the Scottish Government, the Scottish Environment Protection Agency (SEPA), responsible authorities and all of Scotland's other public bodies – are responsible for developing and delivering the RBMP actions. We will work closely with businesses, land managers,

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<sup>1</sup> <https://www.nature.scot/sites/default/files/2019-10/State-of-nature-Report-2019-Scotland-full-report.pdf>

voluntary groups and organisations to build strong and effective partnerships that will deliver the ambitious actions set out in this plan. These actions will ensure that Scotland's rivers, lochs, estuaries, coastal areas and groundwater can continue to supply drinking water; support fisheries; offer an essential resource for business and agriculture and serve as a source of recreation that promotes health and wellbeing.

This RBMP builds on previous RBMPs published in 2009 and 2015, setting revised objectives for the period from 2021 to the end of 2027 and providing a strengthened programme of actions for achieving the objectives. 2027 is a significant date in the RBMP process. Over the past two cycles we have been working towards having all feasible and proportionate actions in place by 2027 to achieve good or better condition for Scotland's water environment. We will continue this work in the third cycle to secure sustainable use of the water environment that maximises the benefits a healthy water environment can bring to Scotland's people and businesses.

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## How to respond

You can respond to this consultation [online](#). As our offices are currently closed, please do not mail your response. You can email your responses on the proposal to [rbmp@sepa.org.uk](mailto:rbmp@sepa.org.uk)

Responses should be submitted to us by 22 June 2021.

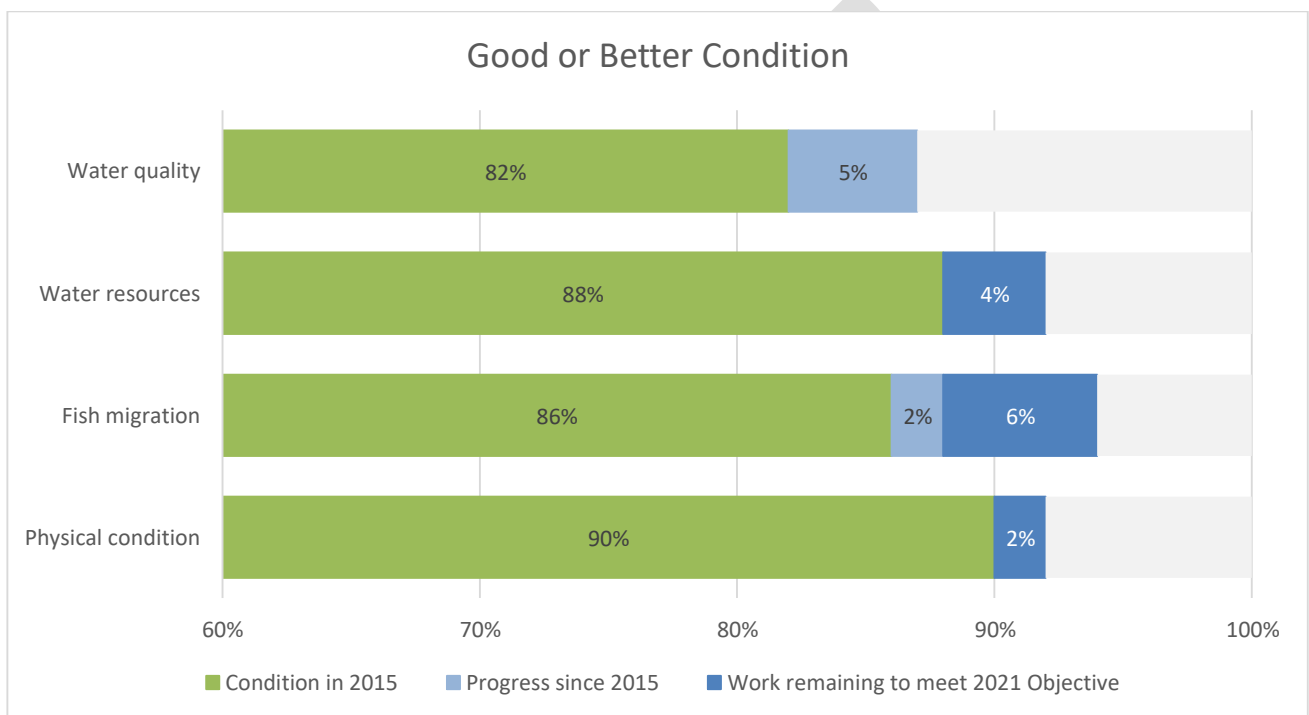
Our data statement is [online](#).

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## 2. Current condition of the water environment

River basin management planning is underpinned by evidence and information so that action is targeted where it can have the greatest impact. To achieve this, SEPA monitors the environment to assess the condition of water quality, water resources, physical condition and fish migration.

Table 1: Current condition of the water environment in Scotland



### Water quality

SEPA monitors water quality to ensure that potentially harmful substances are within safe levels, and that the loss of valuable resources such as soil and nutrients are minimised. Water quality is now in good or better condition in 87% of Scotland’s water environment. This is up from 82% when we published the second RBMPs. The improvement in water quality also demonstrates the success of Scottish Water’s improvement programme and the sustained hard work by all stakeholders to improve rural land management practices and reduce diffuse pollution. SEPA’s priority catchment initiative continues to support land managers to achieve and maintain compliance with regulatory standards and go further where possible. Compliance rates have increased significantly, following our diffuse pollution approach. At the initial farm visit, on average 45 % of farms within priority

catchments were found to be compliant. Following revisit, this has increased to approximately 90% on average in catchments where farms have received multiple revisits. We have already met the improvement objectives we set for water quality in the second RBMPs.

## **Water resources**

Monitoring water resources (the flows and levels of water) indicates how much water is being used and how much is available to serve all its vital functions. This information is essential for managing water efficiently. The amount of surface water and groundwater available varies over time depending on weather events and the seasons. Climate change is influencing these natural variations and is increasing the frequency and severity of droughts. SEPA has been working to improve the quality of its data on the amount of water that is used across industry; for public water supply; and to generate hydropower. The flows and levels in Scotland's water environment are currently at good or better condition in 88% of the places monitored. SEPA will continue to work on reviewing water use licences and requiring improvements where necessary, in particular for irrigation and hydropower, aiming to meet the objectives set for 2021.

## **Fish migration**

SEPA evaluates structures such as weirs, culverts and bridges which can block migratory routes for fish and deny them access to good quality habitat for spawning and rearing. As the condition of rivers improves, suitable habitats for fish extend further along rivers into areas above these manmade barriers. It is important therefore to ease the passage into as many of these stretches of water as possible. Since publication of the second RBMPs 29 barriers to fish migration have been removed or eased. Following investigations and assessments SEPA have discounted 203 barriers that do not need action. However, 152 additional barriers have been identified through field investigation and discussion with stakeholders. When taken together, this now means that 88% of Scotland's waters are at good or better condition for fish migration. This is up from 86% when we published the second RBMPs. SEPA has eight projects at advanced stages of development to remove or ease barriers and will continue to work towards the objectives set for 2021.



## Physical condition

SEPA assesses the physical condition of the water environment to understand the extent and impacts of modifications and structures such as embankments, culverts, and the widening and straightening of rivers. All these activities can affect the benefits Scotland derives from the water environment, such as reduced flood risks, enhanced landscape quality, improved habitats for animals and plants, and health/wellbeing and recreation for people. The physical condition of Scotland's water environment is now at good or better condition in 90% of the places monitored. Since 2015, we have completed five projects to restore the physical condition of rivers and have another 16 in development, including five that are due to be completed before the end of 2021.

## Overall condition

Taking these four themes together, alongside assessments of invasive non-native species, SEPA classifies each part of the water environment based on the worst condition of any category. This means that whilst the classification results for each theme above range from 87% to 90% at good or better condition, and with 97% being free from invasive non-native species, the combined classification indicates that 65% of our water environment overall is in good condition or better in 2019. This is an improvement of 2% in overall condition since we published the second RBMPs, and we will continue to make progress towards the 2021 targets in the coming year.

Detailed information on the classification and evidence can be found in the consultation [Spotfire tool](#). SEPA also share these results through the [Water Classification Hub](#). Information on the condition of protected areas can also be found in these tools

Despite the progress we've made, there is still a range of pressures that continue to have an impact on the condition of the water environment. The sections that follow describe our action plan for tackling these during the third RBMP cycle and set out what we expect to achieve.

### 3. Actions for improvement

Scotland's Environment Strategy aims to create a net zero, circular economy that reduces the global impact of our consumption. This is further reflected in SEPA's 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 sections below describe how we will apply these principles in the third river basin management plan. Although we will continue to address the same full range of pressures, for the purposes of this consultation the actions we will take are presented as four main themes:

- action to create healthier and more resilient communities;
- water supply and wastewater;
- sustainable and resilient rural land use;
- removing barriers to fish migration.

This more systemic approach to addressing pressures is required now more than ever. In taking this approach we hope to secure multiple benefits for the environment, economy and society.

#### 3.1 Action to create healthier and more resilient communities

##### What are we aiming to achieve?

The next RBMPs will protect and improve the water environment in the places we live to benefit the health and wellbeing of Scotland's people and communities.

By working with partners to restore rivers and improve how we manage surface water during storms we can create attractive and accessible green river corridors and other spaces within communities that can be used for active travel and recreation to help improve health and well-being. The importance of these areas to society has become particularly apparent during the COVID-19 pandemic, and the increased value people place on open

spaces is likely to be maintained. These actions, targeted at deprived communities, can also support economic regeneration. The restoration of the water environment can help our communities adapt to the changes created by the climate emergency. Actions will be targeted to build resilience to the increased frequency of flooding and higher temperatures.

### **How will we work to deliver these aims?**

We will continue to invest in the [Water Environment Fund](#)<sup>2</sup> and focus it to provide benefits for people and communities. We will build strong and effective partnerships between the public bodies responsible for managing the built environment and the third-party organisations that support our aims. Working with a range of partners and combining funding is essential to deliver ambitious projects that offer a wide range of benefits in an efficient and cost-effective manner. We will look at how we can use data and information to identify opportunities for action and ensure we target our actions in the areas where they will have the greatest impact.

We will ensure strong and effective links between RBMP, flood risk management and land use planning to make the most of our collective efforts.

Through sector planning SEPA will help Scotland influence the development of housing and infrastructure that creates better places, ensures low environmental impact and, therefore, better and more lasting social and economic success. Developments including planning developments, housing, flood schemes and strategic infrastructure all provide opportunities to improve the environment.

As part of its [housing sector plan](#)<sup>3</sup>, SEPA will work with partners to support the creation of high quality, multifunctional blue-green spaces in housing developments. SEPA will encourage adoption of standards such as the Building with [Nature Benchmark](#)<sup>4</sup> to support the sector with the skills and knowledge to achieve this.

Finally, SEPA will work with Scottish Water and local authorities, to trial new and innovative approaches to managing surface water in our towns and cities. Under the Sustainable Growth Agreement between [SEPA and Scottish Water](#)<sup>5</sup>, both organisations are seeking to

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<sup>2</sup> <https://www.sepa.org.uk/environment/water/water-environment-fund/>

<sup>3</sup> <https://sectors.sepa.org.uk/housing-sector-plan/>

<sup>4</sup> [buildingwithnature.org.uk](http://buildingwithnature.org.uk)

<sup>5</sup> <https://www.sepa.org.uk/media/360985/scottish-water-sga.pdf>

maximise the use of blue-green infrastructure to soak-up and manage rainwater and reduce the risk of it flooding our towns and cities.



*Stane Gardens is an urban river restoration project set within the Shotts community in North Lanarkshire. The area has been blighted by historic industry. The restoration of the river and the creation of the parkland provide the local community with access to good quality greenspace bringing benefits to health and wellbeing. The work was funded by the Water Environment Fund and North Lanarkshire Council.*

### **What we will deliver in the third RBMP cycle**

We have identified 40 potential new river restoration projects in Scotland's towns and cities in addition to 16 already in development. Projects have been identified for the communities that could benefit most, using the following criteria and a combination of opportunity mapping and input from partner organisations:

- Scottish Index of Multiple Deprivation (SIMD);
- regeneration and development plans;
- opportunities for active travel;
- river and surface water flood risk;
- vacant and derelict land.

The potential projects are highlighted in the consultation [Spotfire tool](#). We would like to hear from partners who have an interest in working with SEPA and others to develop these or other, new river restoration projects. SEPA is looking for partners to lead and part-fund projects that benefit people and communities and deliver the aims outlined above.

## 3.2 Water supply and wastewater

### What are we aiming to achieve?

The public water supply and wastewater treatment system represents one of the largest industrial processes in Scotland. The industry has dramatically reduced its environmental footprint over the past few decades but there still exists significant potential for delivering further environmental and social benefits.

In a water-rich country like Scotland, it is easy to take water supply and wastewater treatment for granted. However, climate change is affecting demand on water, water availability, raw water quality and risk of sewer and surface flooding in towns. Population growth is compounding these problems in some areas. While we must address these challenges, we must also consider the sector's greenhouse gas emissions and ensure efforts and investments are future-proof, wherever possible. Both 2018 and 2020 saw extreme drought conditions affecting water, which will be repeated if we don't take action to change the way we use water in Scotland.

Our aim is to help Scotland create a truly circular economy for its water supply and wastewater sector. Under this vision:

- water is being used wisely and efficiently, and not wasted, helping ensure Scotland can reliably meet its water needs in a changing climate and protect its natural environment.
- towns and cities are using nature-based, blue-green solutions to absorb and safely convey rainwater. This helps strengthen their resilience to the intense downpours they will face more frequently under climate change, keeps rainwater out of sewers so minimising the risk of pollution, and creates fantastic places for people to live and work.
- the sector has minimised its use of energy and materials and is converting sewage and other wastes into valuable resources.

### How will we work to deliver these aims?

We will take a whole systems approach to managing the environmental impact of Scotland's water supply and wastewater infrastructure. This will include:

- looking at sustainable land management to protect raw water quality;

- working with communities and businesses to reduce water usage and to promote water efficiency;
- working with the private sector and communities to minimise the inputs of harmful chemicals and other materials to wastewater systems;
- encouraging and supporting heat recovery from the sewer network;
- managing surface water generated by intense rainfall before it enters the sewer network;
- maximising the recovery of valuable resources from the waste produced by wastewater treatment works.

To do this we are developing strong and effective partnerships between SEPA, Scottish Water, local authorities, the manufacturing sector, land managers, local communities and others (including Private Finance Initiative (PFI) operators). It will also require new and innovative approaches to the design and operation of water supply and wastewater infrastructure.

As part of SEPA’s housing sector plan, SEPA will aim to help the sector reduce, recycle and reuse water throughout the supply chain and lifecycle of homes. SEPA will help those operating in the housing sector to reduce the use of water and design homes to make use of non-potable water where appropriate rather than rely solely on potable water that has been treated to make it fit for drinking.

We will work across Scottish Government, the Drinking Water Quality Regulator, local authorities, SEPA and other partners to ensure communities, small businesses and the environment are benefiting from well performing and reliable private water supply and wastewater systems.

**What we will deliver in the third RBMP cycle?**

<p>Public water supply and wastewater</p>	<p>SEPA will work with Scottish Water and PFI operators to:</p> <ul style="list-style-type: none"> <li>• Deliver improvement as required at 50 wastewater treatment works to address impacts from water quality.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Delivery improvement as required at 54 unsatisfactory intermittent sewage discharges to address impacts from water quality (other unsatisfactory intermittent discharges will also be improved to address sewage-related litter pollution).</li> <li>• Deliver improvement as required at four locations to improve fish migration.</li> <li>• Deliver improvement as required at 10 locations to address impacts on flows and levels.</li> <li>• Deliver improvement at two protected areas.</li> </ul>
Private water supply and wastewater	SEPA will develop guidance for developers and households to help them install and transition to more sustainable water supplies and wastewater treatment systems while protecting the water environment.

### 3.3 Sustainable and resilient rural land use and management

#### What we are aiming to achieve?

The way we use and manage our land provides a significant positive contribution to Scotland: putting food on our tables, producing timber and offering opportunities for recreation. The way land is managed to provide all these benefits affects water, air, soils and climate because of the interdependent nature of these systems. We want Scotland's land to be used and managed in a way that secures sustainable and long-term improvements to our water environment and supports our response to the climate emergency and biodiversity crisis.

Climate change will mean a reduction in the number of days land is suitable for working, more pressure on irrigation to maintain crop yields and an increase in the frequency and severity of floods. We need to prepare for this now to ensure that the production of food is resilient to these changes. Rural land management also has a major influence on

Scotland's greenhouse gas emissions. Agriculture is a key source of greenhouse gas emissions while forestry is a net carbon sink. Peatlands and other wetlands also store large amounts of carbon, and effective land management can minimise soil disruption and carbon release.

Moving towards a circular economy in the rural environment requires storing and using water more efficiently, protecting soil and reusing and recycling nutrients where possible. Applying only the amount and type of nutrients that plants need, in the right place at the right time, improves nutrient efficiency, avoids waste and reduces costs.

Land management that uses resources more efficiently: adapts and is more resilient to climate change, reduces its carbon footprint, and restores natural capital will contribute to protecting and improving the water environment. The impacts of droughts and floods will be reduced, wildlife dependent on rivers and wetlands will be protected and the loss of nutrients, soils and other material from land to water, where it can cause harm, will be minimised.

### **How will we work to achieve these aims?**

River basin management planning does not operate in isolation. The Environment Strategy creates an overarching framework for all of Scotland's environmental strategies and plans<sup>6</sup>. Many of these include outcomes that will affect and be affected by river basin management planning and they all need to work together to achieve their goals. For example, work likely to be carried out under the Climate Change Plan to create new Regional Land Use Partnerships, will identify where actions can be taken to help achieve climate change targets. River basin management planning needs to complement this and work to target actions in areas of mutual benefit.

SEPA's rural sector plans are key to delivering the actions required to protect and improve the water environment. The sector plans already include aspirations and actions to make better use of resources, reduce waste and emissions (including GHG emissions), protect water, air and soil quality, and ensure resilience to the impacts of climate change. These plans will be used to promote a partnership approach to achieve sustainable land

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<sup>6</sup> including River Basin Management Planning, the Climate Change Plan, the Biodiversity Strategy, the Flood Risk Management Strategy, Scotland's Forestry Strategy, the Salmon strategy, the Cleaner Air for Scotland Strategy and the Scottish Soils Framework.



management. This will involve supporting initiatives such as the Farm Advisory Service, Farming for a Better Climate, Farming and Water Scotland, Forestry and Water Scotland as well as industry and business led initiatives such as the Landscape Enterprise Networks and the Voluntary Initiative. Supporting innovation and seeking opportunities to engage with and support landscape scale initiatives (e.g. The £1 Billion Challenge, Borderlands Initiative) will be vital to achieving our objectives in the third RBMP, as will supporting and working with catchment initiatives at the local and regional level.

### **Working with land managers to ensure compliance with legislation**

SEPA will continue with a focused approach in diffuse pollution priority catchments to drive 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 current approach to tackling diffuse pollution, involving catchment-based farm visits, has been successful in building a strong working relationship between the agricultural sectors and SEPA. These sectors have made substantial progress in improving their practices, and compliance has increased significantly since the initiative started in 2010. This partnership work is backed up by strong regulatory support and will continue to play an important part in delivering improvements for the third RBMP. During the third RBMP cycle, we will begin work in the final ten identified priority catchments (building on the 47 where work is ongoing or due to begin by the end of the second RBMP cycle).

Where required, SEPA will take enforcement action to ensure compliance with the environmental legislation. This may include the use of new enforcement tools, which have become available to SEPA to drive compliance and achieve environmental improvements.

Compliance in the forestry sector will also be assessed through a planned programme of SEPA inspections. This will start under the Argyll Initiative, which will involve detailed audit inspections of forestry production and the water environment to ensure compliance with good forestry practices. Results will be shared with all organisations working in Argyll to drive improved compliance across the sector. This approach will be rolled out in a phased manner across Scotland during the third RBMP and will be supported by a programme of campaign work. Wider work with the forestry sector will be focussed on delivering the aims,

objectives and targets set within the Scotland Forestry Strategy 2019-2029 and associated Implementation Plan 2020-2022.

### **Take a spatial approach to prioritising action**

Actions to tackle diffuse pollution can also benefit other areas of environmental concern and are more likely to be achieved when considered in this wider context. We propose to approach the objectives for the third RBMP to maximise these opportunities. We are using spatial mapping to identify areas where actions can achieve the best range of outcomes. This will focus action in specific places and help tailor the type of action that is required.

SEPA will use this spatial approach by overlaying information on water quality, areas at risk of soil degradation, areas at risk of flooding, land use information and status of designated sites (e.g. bathing waters, or biodiversity priorities) to develop opportunity maps. The results will be made available to land managers, advisors, and other organisations to help identify relevant locations for actions, inform decision making and promote sustainable land management. SEPA will also use information on flows and sediment in rivers to identify areas where light touch intervention would allow natural processes to self-restore the physical condition of rivers. Identifying opportunities for riparian tree planting will be a particularly important part of this work and could realise many multiple benefits for biodiversity and fisheries, while mitigating flooding and erosion.

### **Actions to promote the sustainable use of water**

We expect to see a greater demand for water to irrigate crops as our climate changes and rainfall decreases at certain times of the year. The amount of water abstracted for agriculture already has a significant impact on Scotland's water environment and we do not think that our current approach towards managing abstractions will be suitable for the future. We are therefore proposing new measures in this river basin management plan that are intended to prevent the deterioration of and drive improvements in the condition of our rivers in agricultural areas.

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. This means staggering abstractions to reduce peaks and constructing lagoons to store water so there is more available during dry weather. Each abstractor must use water as efficiently as possible and

the obligation not to waste any water underpins the effective management of the water that is available to farmers. Informal management agreements are in place in many catchments and we will promote this approach elsewhere. We will also work to influence agricultural support schemes available for the construction of irrigation lagoons. This work will help the sector comply with new hands-off flow conditions which will be added to licences during reviews carried out in the remainder of the second RBMP cycle.

SEPA will also develop a system of gauging stations at the lower end of these catchments where there are multiple abstractions for irrigation and where the coordination of abstraction times is possible. The sensors will record water levels and flow in the river. SEPA intends to make this information available to farmers in real time so that they can use it, in addition to readily available information such as from soil moisture sensors and rainfall gauges, to help make judgements on when to abstract. On-line scheduling tools will also be provided that can help farmers make best use of what water is available during water scarcity situations while ensuring the environment is protected.

Under drought conditions, the likelihood of SEPA intervening will depend upon how well farmers manage their water resources. We believe the combination of technology, responsibility and cooperation will allow operators to maximise the value of their water resources and avoid the necessity of regulatory action by SEPA.

We want to work with farmers to develop this approach, help those currently using informal management plans and encourage others to take a similar approach to managing our water resources. We see this as one of our contributions to the development of a sustainable Scottish food industry.

During the third RBMP cycle, SEPA will work with farmers to review licences for irrigation where the water demand currently exceeds the available water resources.

We understand that good relationships and communication between all those involved in rural land management are key to achieving the aims set out above. We will continue to invest time and effort into building those relationships and finding new and innovative ways of raising awareness of regulatory requirements and sharing good practice.

### 3.4 Removing man-made barriers to fish migration

#### What are we aiming to achieve?

Migratory fish species, in particular Atlantic salmon and sea trout are iconic species for Scotland. They provide a valuable cultural and recreational amenity and the fisheries they support are an important part of Scotland's rural economy. Migratory fish are facing significant challenges from a number of pressures, including the effects of climate change, with droughts and higher temperatures threatening their survival. There is an urgent need to support these populations and build resilience where possible to counter these effects. Addressing man-made barriers to migration is a cost-effective, reliable and relatively fast way to achieve this. In many urban areas of central Scotland, where water quality has greatly improved in recent decades, barriers to fish migration are now the main factor preventing fisheries fulfilling their potential.

Barrier removal or easement can be achieved by the full or partial removal of the structure, or by installation of a fish pass or other means of easement. Our understanding of delivering this work has significantly improved over the last two cycles of river basin management planning.



*Impassable weir on the Gotter Water, Renfrewshire, part of the River Clyde catchment. Using the Water Environment Fund, SEPA removed the barrier to fish migration in 2019 opening up to 9km of habitat to salmon and sea trout.*

#### How we are going to build on what we have achieved?

Most fish barrier projects involve significant engineering challenges. It takes about three to four years to scope the options, design, and complete a project. Each step requires

specialist technical expertise, so capacity needs to be considered. The process can also be expensive so we must be mindful of cost. For some industries even a small number of actions could impose severe financial burden. Some organisations may be responsible for a large number of fish barriers, and the removal of these will need to be phased.

Taking these factors into consideration, during the third river basin management plan (2021 – 2027) we are aiming to remove or ease 262 impassable man-made barriers. Delivery will be phased to take into account cost and organisational capacity. A catchment approach is needed on river systems with multiple barriers and different delivery mechanisms and this will require planning and engagement with stakeholders and owners.

For 32 barriers, we are proposing to set less stringent objectives based on disproportionate costs. It is possible that some of the barriers planned for removal during the third RBMP cycle may end up falling into this category as we work with owners, operators and stakeholders to understand more about the costs and benefits of removing barriers.

Details of plans for the removal or easement of impassable manmade barriers to fish migration are available on the consultation [Spotfire tool](#).

### 3.5 Summary of other actions to protect and improve the water environment

The following table provides a list of other significant actions designed to protect and improve the water environment in Scotland. The list is not exhaustive and further details are available in the consultation [Spotfire tool](#).

Area/sector	Summary of action
Preventing deterioration in the quality of the water environment	New and existing discharges, abstractions, impoundments and engineering works in the water environment are authorised through the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR). This provides for three levels of authorisation: General Binding Rules, Registrations and Licences. SEPA administers registrations and licences under CAR and receives approximately

	<p>4000 applications each year for new activities or changes to existing activities.</p> <p>SEPA will continue to protect the water environment from deterioration through the application of these regulations.</p>
Hydropower	<p>During the third RBMP SEPA will finalise its review of licences for 34 hydropower schemes to deliver improvements in flows and levels and fish passage. These cover a range of sizes from large storage operations to smaller run-of-river schemes. This builds on the work during the second RBMP cycle where SEPA worked with hydropower operators to understand better the extent of the impacts associated with their schemes and gathered data to improve confidence in SEPA's assessment. Work has begun reviewing a number of these schemes and will complete before the end of 2021, reducing the total number to be actioned included in the third cycle.</p>
Distilling	<p>SEPA will work with a number of distilleries to reduce the impact of their operations on the water environment, including abstractions, waste water discharges and barriers to fish migration.</p> <p>The Scotch Whisky Sector is committed to achieving the RBMP measures assigned to it and working with SEPA to understand the best means to achieve these works.</p>
Aquaculture	<p>Through the sector approach, SEPA is implementing a new strengthened regulatory approach for finfish aquaculture to protect the marine environment. The aim is to work with the sector to drive sustainable production.</p> <p>We have simplified the regulatory landscape by moving responsibility for wellboat discharges from Marine Scotland to SEPA through CAR. Scottish Government is finalising the development of a new spatial framework for managing sea lice interactions between farmed and wild fish, and a consultation is expected early in 2021.</p>

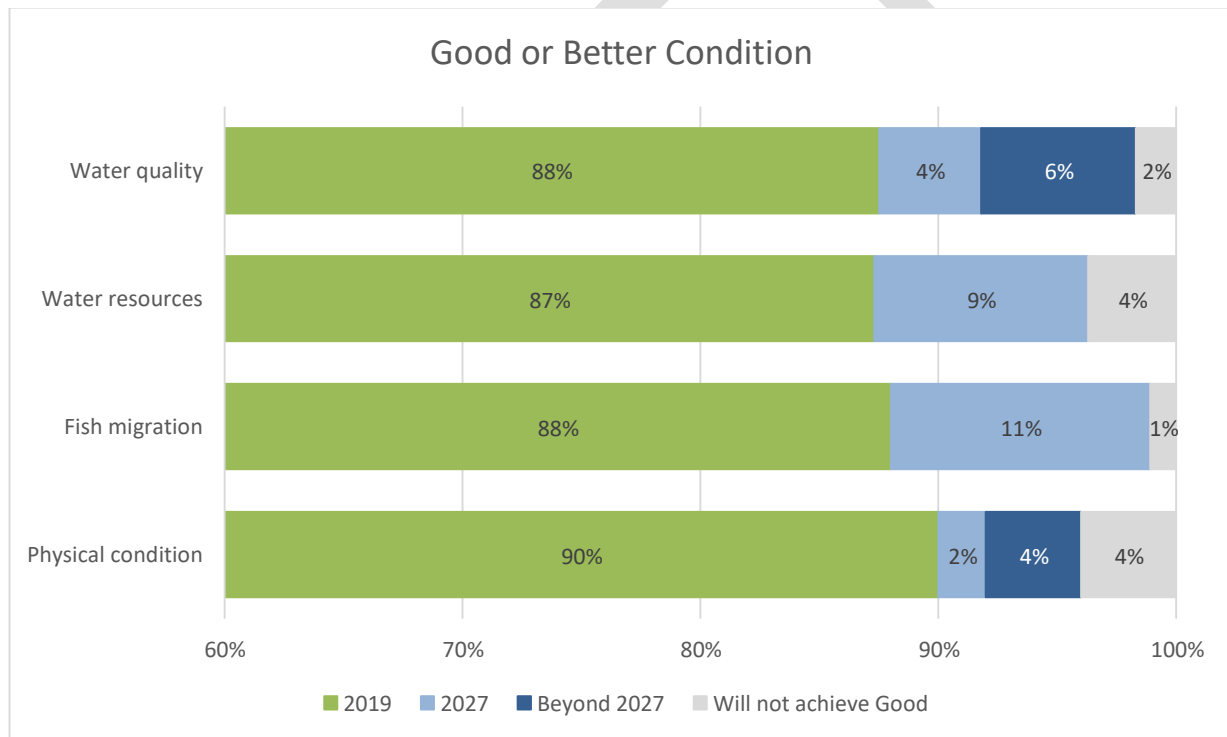
Bathing waters	Following significant investment and improvements in the first two cycles of river basin management planning, 94% of Scotland's designated bathing waters now meet 'sufficient' or better environmental water quality standards, and more bathing waters are now rated as 'excellent'. During the third cycle we plan to continue to apply measures to protect bathing waters aiming to achieve further good or excellent classifications, avoiding deterioration and implementing plans to ensure that no locations suffer five consecutive poor water quality classifications.
Shellfish waters	SEPA has worked with Food Standards Scotland (FSS), to improve the use of data in Shellfish Water Protection Area (SWPA) classification, and with the Scottish Government to develop a water quality improvement framework for shellfish growers. The aim is to target efforts within SWPAs, in consultation with the sector, to focus on prioritised Shellfish Production Areas that require improvements to help secure a consistent FSS 'A' class.
Wildlife conservation areas	Many of the actions set out in section three will benefit protected areas for wildlife conservation. The consultation <a href="#">Spotfire tool</a> provides details on objectives and actions for protected areas.
Invasive non-native species	Scotland has relatively few downgrades for invasive non-native species in the water environment. However, the water environment is at risk from the spread of invasive species. It is not technically feasible to eradicate aquatic invasive species where they are established, therefore our efforts in the third cycle will be to prevent their introduction and spread to other parts of the water environment.

## 4. Summary of our objectives for Scotland

### What we expect to achieve overall

In section 2 we described the current condition of the water environment in Scotland. We expect the actions planned and set out in section 3, to result in 81% of the water environment being in a good or better condition by 2027 and 90% in the long-term once natural conditions have recovered. In figure 2 we have illustrated what we expect to achieve by 2027 and beyond under the four themes of water quality, water resources, fish migration and physical condition.<sup>7</sup>

Table 2: Summary of objectives for Scotland



The actions to address rural diffuse pollution and improve wastewater infrastructure will aim to contribute to an overall improvement in water quality from 88% in 2019 to 98% in the long-term. Work to manage irrigation, water use for hydropower generation and investment in public water supply will mean a nine percentage point uplift in the condition of Scotland's

<sup>7</sup> The reasons why parts of the water environment will not achieve good (referred to as less stringent objectives) are set out in the consultation [Spotfire tool](#). In addition, parts of the water environment are designated as heavily modified or artificial water bodies. The reasons for these designations are also set out in the [Spotfire tool](#).



water resources to 96% in 2027. Action to tackle man-made barriers to fish migration and modifications to physical condition aim to see improvements to 99% at good or better condition for fish migration by 2027 and 97% at good or better condition for physical condition in the long-term.

This draft third river basin plan sets out an ambitious programme of work for protecting and improving the water environment in Scotland. The actions described and the systematic approach planned will help Scotland tackle the climate emergency and biodiversity crisis, creating healthier and more resilient communities and a more sustainable and resilient rural economy. We will only be able to deliver on the objectives set out in this plan by working together and we look forward to hearing your views.

DRAFT