



# Water resources management plan consultation

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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<http://contactscotland-bsl.org/>

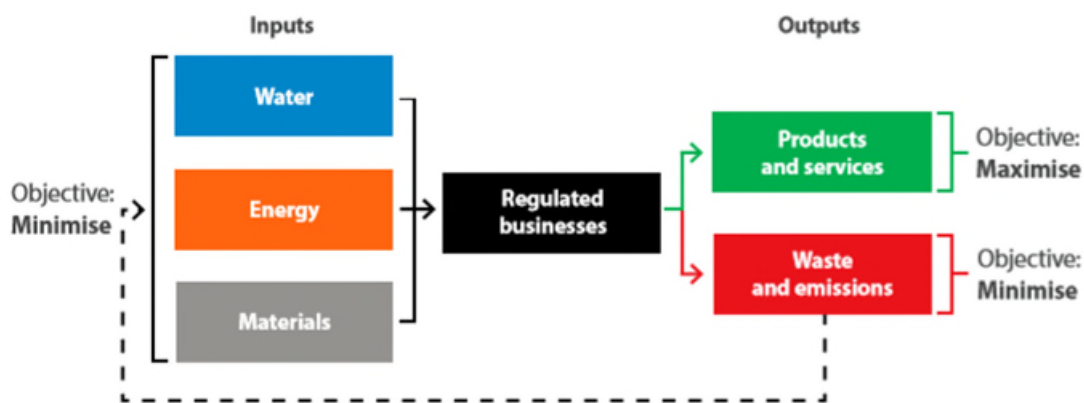
[www.sepa.org.uk](http://www.sepa.org.uk)

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## Overview

Everyday SEPA works to protect and enhance Scotland's environment, helping communities and businesses thrive within the resources of our planet. This is the basis of [One Planet Prosperity – Our Regulatory Strategy](#). This strategy sets out ways we will work in partnership with businesses, through a sector approach, helping them reduce their use of water, energy and materials and minimise waste production.

Environmental flows (Figure 1)



The strategy also sets out the need for SEPA to increasingly help Scotland's society tackle major environmental challenges such as climate change and its consequences, such as the impact on water availability.

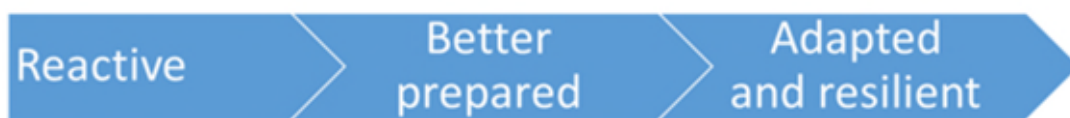
Water in the right place, in the right amount and of the right quality underpins Scotland's society and economy. Our water environment provides us with:

- vital supplies for drinking and food production;
- supports business, industry and tourism;
- maintains places that benefit the health and wellbeing of communities and sustains wildlife.

## Why are we consulting?

Our abstraction licensing system protects the water environment but during past droughts additional actions have been required. These are set out in the [National Water Scarcity Plan](#). These actions were based around the availability of water at the time rather than following contingency plans where alternatives are planned in advance. A more proactive approach is required if we are to increase the resilience of businesses and reduce the pressure on the water environment during droughts. Water management in the future must be fully adapted to face the climate change challenges to come. Scotland will then be able to sustain social and economic success because water is valued and used wisely.

**Figure 2: SEPA's changing approach to managing water scarcity**



To achieve these outcomes, we need some practical actions. These actions will help us move further away from a reactive approach to one which is more adapted to a future climate. The development of these actions must be collaborative. This consultation sets out the actions on water management we believe will help us deliver a more sustainable and resilient use of water. We are seeking your views on whether these are the correct actions and encourage your participation in developing these actions further.

## How to respond to this consultation

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 [WaterScarcity@sepa.org.uk](mailto:WaterScarcity@sepa.org.uk)

Responses should be submitted to us by 12 March 2021.

**Q1.** What is your name? (optional)

**Q2.** What is your email address? (optional)

**Q3.** What is your interest in our consultation? (optional)

## Background

Scotland's climate is changing. Nine of the 10 warmest years for the UK have occurred since 2002. The [latest climate projections](#) tell us that drought risk is increasing. In the near future, Scottish summers are very likely to become hotter and drier, with an increase in the frequency and severity of droughts<sup>1</sup>. We can never avoid droughts but we can avoid water scarcity.

Water resource management is a cross-cutting issue, affecting many of the sectors we regulate. Since 2006, SEPA has been issuing abstraction licences to guarantee sufficient water remains in rivers, lochs and groundwater to maintain a healthy environment whilst allowing sustainable use of water for people and businesses. Our ongoing monitoring activities ensure that the conditions in the licences we issue will protect the water environment. They also allow us to identify businesses which are not complying with these licence conditions. Making sure water users comply with our existing regulation is an important part of SEPA's regulatory strategy. But we all need to go further if we are to live within the resources of one planet. Water use typically goes hand in hand with energy use (such as pumping) and the transport of materials (such as the leaching of nutrients from soils). As such, actions that minimise water use can be effective in reducing overall resource use. SEPA has developed a [Framework for Water](#) to guide our work with partners and stakeholders to deliver One Planet Prosperity. The Framework for Water sets out the ambitions of transformative 21<sup>st</sup> century water

### What is water scarcity?

In our plan we use two terms to explain a lack of water availability: drought and water scarcity.

A **drought** is an extreme event brought about by a lack of rainfall and may be made worse by high temperatures. It is a natural phenomenon exacerbated by climate change.

**Water scarcity** is the lack of sufficient available water to meet the demands of water usage.

Water scarcity may be made worse by drought but can be minimised by wise water management.

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<sup>1</sup> Met Office UKCP18 predictions for Scotland under high emission scenario

management and how these will be achieved using both sector and place-making approaches.

**Figure 3. The five outcomes of SEPA's Framework for Water**



## What would successful water management look like?

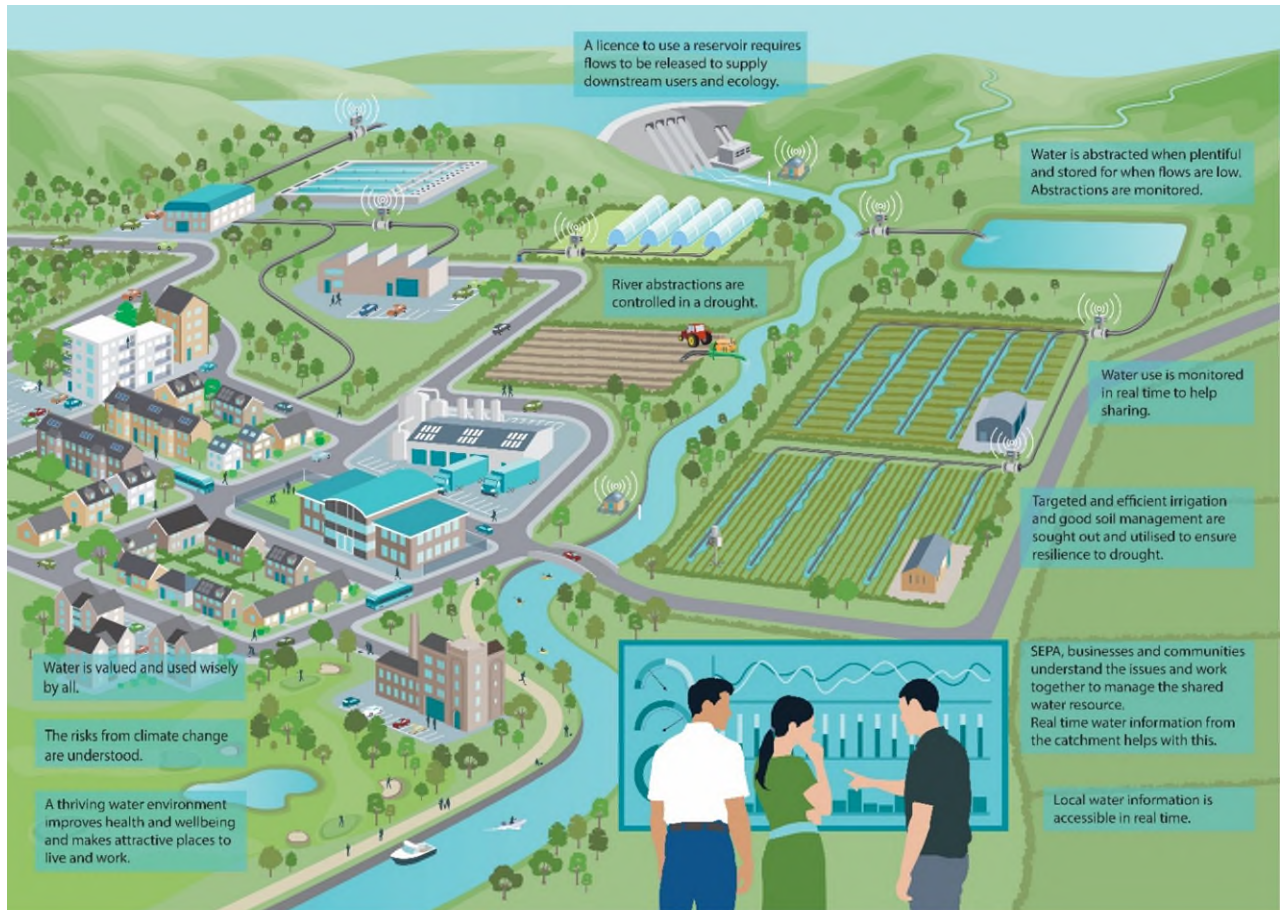
A successful and resilient Scotland is one in which the current and future stresses on our water resource are understood by all. Water will be used wisely and efficiently to meet the needs of our people, businesses and the environment. Water users will understand the value of water and use innovative techniques in a collaborative way to ensure this resource is protected.

SEPA is in a powerful position to drive forward this change. The combination of our extensive monitoring and analysis of the water environment and our experience as Scotland's primary water managers gives us a deep understanding of the water environment and the risks to it. Through our sector work we have a route to work with regulated businesses and our communities to build resilient places to work and live in. This plan sets out the steps we will take, using the influence we already have, to develop an approach to water management that not only protects us from water scarcity in a changing climate but helps us reduce our consumption of resources to a level our planet can sustain.



Below is a diagram of an idealised catchment exhibiting the characteristics of resilient and well-adapted water management.

**Figure 4. Idealised catchment diagram**

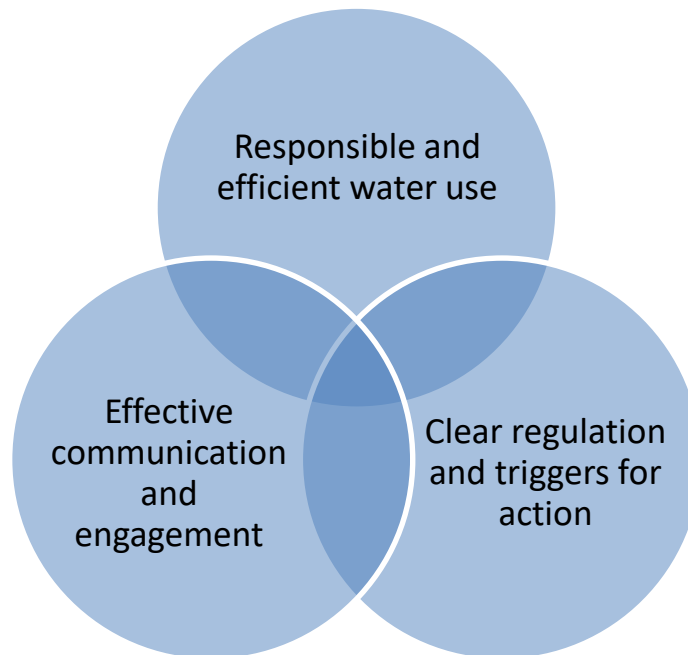




## Actions to achieve resilient water resource management

We recognise that all those who have a stake in Scotland's valuable water resources need to work together to adapt and become more resilient. This plan sets out three main themes that need to be addressed and the key pillars of those themes. For each of the themes we propose actions to address them over the short term (two - three years) and medium term (within five years).

**Figure 5. Three main themes**



## Responsible and efficient water use

Key to driving responsible and efficient water use is an improved understanding of the value of water to individuals and businesses. The impacts of climate change are happening and if we all take action now, we will be better placed to withstand future changes to our water resources.

By 2025 the key pillars of a water efficient Scotland would be:

<b>Users are water efficient</b>	All water users only use the water they require and waste none. They take advantage of innovative technologies to achieve this.
<b>Businesses optimise their abstraction</b>	Businesses plan ahead to optimise abstraction when water is plentiful. They uncouple the timing of peak demand from periods of low water availability.
<b>Businesses are adapting to the future</b>	Future changes in water resource availability are taken into account in all aspects of business planning. They have resilient and sustainable water supplies.

For Scotland to be a responsible and water efficient country there are a series of actions required over the short and medium-term.

We expect all water abstractors to fully understand their water needs for the coming years and ensure that their abstraction licence covers those needs. In this way they can ensure compliance with their abstraction permits.

The first line of defence against water scarcity is following good practice of water use all year round. Where possible, water will be stored for use when the demand is high. Inefficient use of water reduces the capacity to support that demand and is particularly acute during drought.

Particularly during drought conditions, we want water users to consider additional steps to prolong the available resource for themselves and others, e.g. irrigating at night to minimise evaporation.

We also expect water users to understand that future water supply will become more variable under a changing climate and that they will plan accordingly.

## **Actions**

### **Short term: two to three years**

- SEPA will work with sectors and support research to identify good practice in efficient water use and share this understanding with Scottish businesses.
- We will explore innovative ways of submitting abstraction data using smart technology to increase the accuracy, allow data to be used in near real time and reduce the burden on abstractors.
- We will work to ensure that all water users consistently submit their abstraction compliance information.

### **Medium term: Five years**

- Through our sector plans, we will assist those who see the benefits of minimising their water use.
- We will work with businesses to help them develop the appropriate level of contingency within their operational plans to minimise the risks caused by drought.
- We will support businesses who factor in climate change into investment and operational decisions to allow them to thrive in the future. This could include making information available to make decisions, exploring flexibility in the licensing and supporting storage of water where appropriate.

**Q4.** Do you agree with the actions proposed to facilitate responsible and efficient water use?

**Q5.** Which of the following options best describes the scale and urgency of these actions to meet the challenge of resilience to water scarcity?

**Q6.** Use the box below to outline any other actions you believe are necessary to help businesses achieve responsible and efficient water use indicating, whether they should be achieved in the short or medium term.

## Clear licences and triggers for action

Being clear on how we regulate provides certainty for business and allows them to plan for future opportunities. We also believe such clarity is important for operating an equitable regulatory system.

By 2025 our regulatory regime should mean that:

<b>Users take responsibility to manage their resources</b>	All licensed abstractors are proactively managing their water use. This will help to ensure all users get a fair allocation of the water resource.
<b>Our regulatory approach promotes flexible water use</b>	Our approach to charges and licence conditions will support innovative and sustainable water management that best meet the needs of business and the environment.
<b>Scotland's water policy supports drought resilience</b>	We will work with the Scottish Government and others to ensure the regulatory and policy framework supports drought resilience in an uncertain climate.

There are a number of actions required to clarify our short term regulatory position which will give us a solid regulatory platform to look for a more flexible framework in the future.

The [National Water Scarcity Plan](#) sets out a range of steps we take and expect all water users to take to minimise the impacts of prolonged dry periods on their business and the environment. The actions gradually escalate as conditions worsen to avoid unnecessary impacts on water users.

We gained valuable experience in managing droughts during 2018 and in 2020 and we now want to clarify how extreme events will be dealt with. To provide certainty for businesses and ensure the environment is protected during extreme drought conditions, SEPA proposes to include a drought condition in abstraction licences. This will ensure our water

environment does not sustain long-term damage due to abstraction during droughts. This is common in other countries with well-developed water permitting systems. The level at which action would be taken is no different to the National Water Scarcity Plan. The mechanism for how it happens will change. See supporting document, [Criteria used to protect the environment and water users during drought conditions](#), for more information for more information.

We want to utilise the scope for a flexible approach to water regulation and use in Scotland to suit our changing climate. Information provided by water users improves our understanding of water use in Scotland and allows our permits to be more flexible. This could allow greater abstraction when supplies are plentiful.

With the adoption of smart technology, SEPA and businesses will be able to monitor and manage resources in real time.

We want to implement this change to develop a more proactive approach to water management.

## **Actions**

### **Short term: two to three years**

- All abstractors are compliant with their licence.
- Unauthorised activities are dealt with promptly and effectively.
- The [National Water Scarcity Plan](#) (annex 3) has been amended to ensure Significant Water Scarcity aligns with the proposed drought condition criteria in abstraction licences.
- We will change licences and update them with the drought condition referred to in the supporting document.

### **Medium term: five years**

- We will explore opportunities within our licensing process to encourage and incentivise increased abstraction when supplies are plentiful.
- We will explore how our charging scheme can further encourage more sustainable use of water.

**Q7.** Do you agree with the actions proposed to improve our regulatory approach in the short and medium term?

**Q8.** Which of the following options best describes the scale and urgency of these actions?

**Q9.** We need everybody to be able to comply with the new drought condition. What support would help you manage the resource and comply with the condition?

**Q10.** We are aware that informal water sharing and the practice of artificially increasing river flows (where groundwater or water from off-line storage is fed into rivers for re-abstraction downstream) already takes place to prolong the available resource. What else could be done to facilitate such good practice?

**Q11.** We want to better understand what barriers are stopping adaptation both in the short and medium term and work together to reduce these.



## Effective communication and engagement

We want water users to work together to manage their resources more effectively in the future. By communicating clear and accurate information on drought risk, SEPA will assist timely decision-making by businesses working together to protect their water resource.

By 2025 we want Scotland to be in a position where:

<b>Water is valued</b>	The mind set has changed to understand that water is a valuable resource and is not always available in the right place at the right time.
<b>The impacts of climate change are well understood</b>	Scotland's future water resource availability is mapped and communicated so action can be taken now.
<b>Users and communities work together</b>	Successful water management requires engagement and collaboration to benefit from the available resource.

The climate emergency is a major risk, and behavioural change is needed urgently to put Scotland on the front foot. The climate change projections show that the risk of drought is increasing.

As we help businesses increasingly understand the future water availability, they will put in place contingency plans in the short term to deal with an unreliable water supply and adapt to continue to thrive in the future.

Working with the water sector, we will explore complementary methods of getting information to users early. We already work well with trade associations who help us communicate with their members.

## Actions

### Short term: two to three years

- We will learn lessons from other more water-stressed countries on how to manage the increasingly variable water resource.
- We will share this information to allow users to benefit from efficient techniques, reduce energy use and minimise the impacts of drought.
- We will explore the opportunities to use new technologies to communicate drought risk in a simple and timely way.
- We will build on the website, weekly reports, partnership working, social media and campaigns to communicate better.

### Medium term: five years

- SEPA will use its evidence to influence the national conversation about the future impacts of droughts in Scotland.
- SEPA will communicate the latest climate change projections at a catchment scale so that water users can understand the risk ahead and take these risks on board when making business decisions.
- Where appropriate, SEPA will encourage water users to collaborate within their catchments to schedule abstractions and share the resource.

**Q12.** Do you agree with the actions proposed to facilitate effective communication and engagement?

**Q13.** Which of the following options best describes the scale and urgency of these actions?

**Q14.** We already use a range of methods to communicate during water scarcity periods (e.g. website, weekly reports, direct e-mails, trade associations, social media, media campaigns). Which of these do you find most useful and what other methods would be helpful?

**Q15.** Use the box below to outline any other actions you believe are necessary to facilitate effective communication and engagement indicating whether they should be achieved in the short or medium term.

