Scotland's water environment 2019: A summary and progress report

19 December 2019

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03000 99 66 99

Strathallan House, Castle Business Park, Stirling, FK9 4TZ

1 Introduction

This document supports the development of the third river basin management plans (RBMPs) to be published in 2021 and the information we present covers the whole of Scotland. There are three main parts to the document:

- a description of the current condition of Scotland's water environment;
- an assessment of how we are doing against the targets set in the second RBMPs;
- a summary of the actions we predict to be needed in the third RBMP.

2 Current condition

We divide the water environment into sections known as water bodies, so that we can monitor its condition, put in actions and track them to improve areas that are under pressure.

There are 3652 river, loch, estuary, coastal water and groundwater bodies in Scotland. There are also 1,526 protected areas that are associated with the water environment. These are bathing waters, shellfish waters, areas protected for wildlife conservation or areas used to supply drinking water.

In 2018, mid-way through the second RBMP cycle, a total of 65.7% of Scotland's surface water and groundwater bodies were assessed as being in a good or better condition. This is an improvement on the condition of water bodies reported in 2015 when the second RBMPs were published, and shows we are making progress towards the targets for 2021.

THE ONE OUT ALL OUT PRINCIPLE

The overall target for a water body is made up of many elements. It is the worst value of all the elements used in the assessment that determines the overall status of the water body. This is known as the one–out-all-out principle and means that any individual failing element will drive the overall result. It also means that progress achieved in some elements may be hidden by a lack of progress in others, so the true scale of the improvements made may not be reflected in the overall status. For example if a water body has problems both with a lack of fish passage and water quality then even if the fish barrier issue is improved, the status will still be held down by the poor water quality. Concentrating solely on the overall status would not reflect the progress in fixing the fish barrier problems.

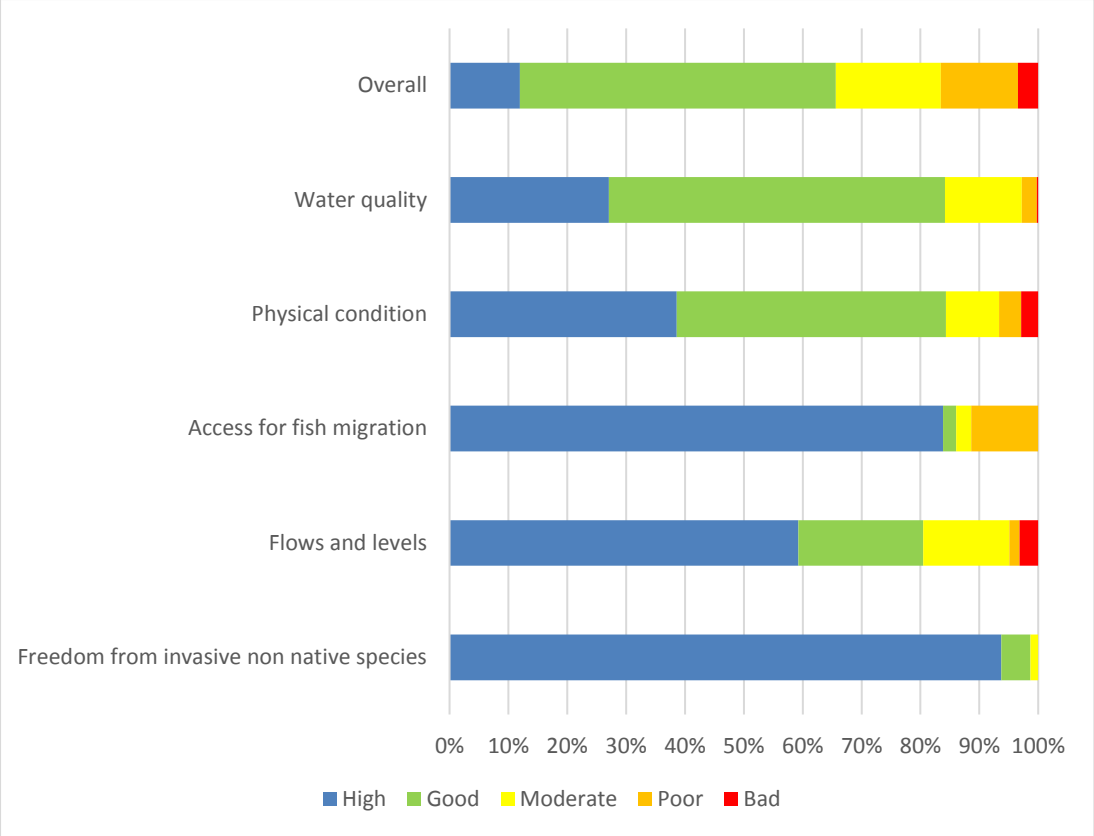

Figure 1. Current condition of the water environment in Scotland in 2018

3 Progress against the targets set in the second RBMPs

At the end of 2015 we published the second RBMPs for protecting and improving Scotland's water environment. The plans set targets for two river basin planning cycles, 2015 - 2021 and 2021 - 2027. This part of the report describes how we are doing since those plans were published.

By 2021 we expect 2,153 actions to be completed. This is expected to result in 1,064 water bodies meeting their overall 2021 target and 94 water bodies having made progress towards their targets.

We can also see how these improvements are reflected in the number of water bodies predicted to meet their environmental improvement targets in 14 categories shown in Figure 2.

We have improved the quality and quantity of our monitoring so that we are more confident in our assessments and for 536 water bodies we now know that our original estimate of the problems were overstated. For these water bodies actions are not in fact necessary.

We continue to work with partners to increase the quality and quantity of information on the condition of and pressures on the water environment. We now have a much better understanding of the nature and scale of the issues and are in a better position to make decisions and prioritise actions to address the problems. One outcome of this work is that we have found new pressures affecting 570 water bodies. We have already fixed pressures on 135 of these with a further 302 being completed by 2021.The remainder are on track to be fixed by 2027.

Overall this means that 71.2% of water bodies are expected to be at good or better condition by 2021 compared with 63.5% at good or better condition at the start of the second RBMP cycle.

You can see each of these categories in more detail by going to the interactive tool.

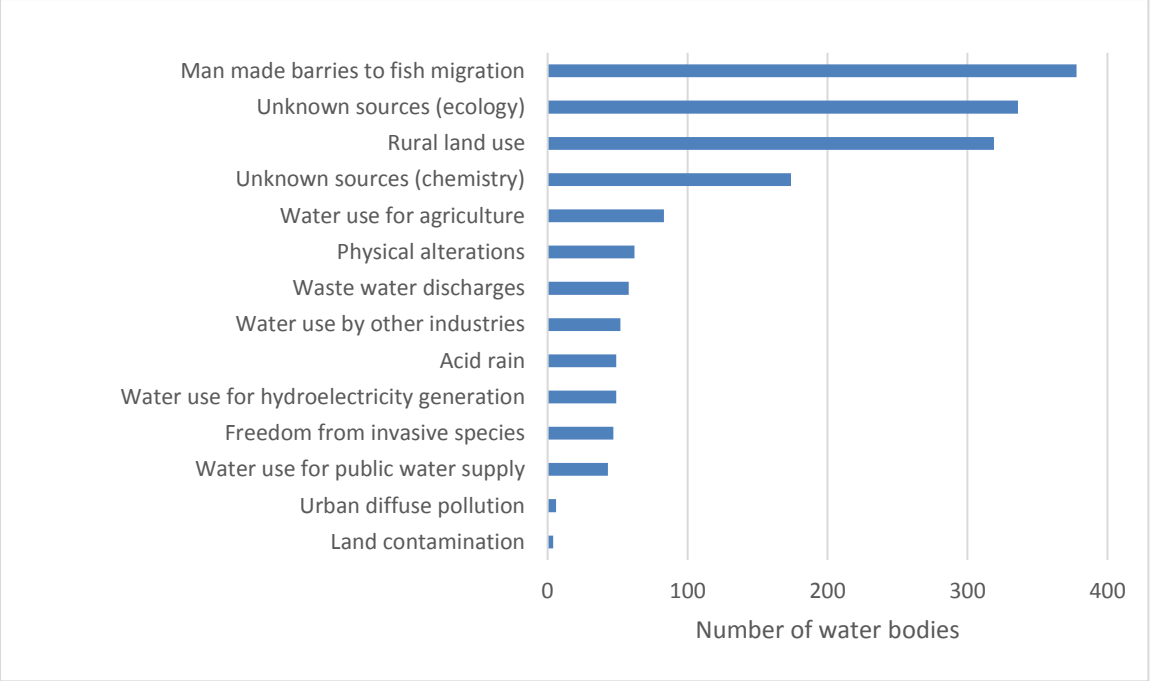

Figure 2. Environmental objectives expected to be completed by 2021

*Water use by other industries includes the flows and levels pressures from mining and quarrying, whisky production, water transport (canals) and chemical manufacturing among others.

“Unknown sources” covers impacts arising from multiple sources, as well as those where we do not currently have sufficient evidence to assign a cause.

4 What is left to do in the third cycle?

Over the third RBMP cycle between 2021 and 2027, we estimate that 1,484 actions will be needed to bring a further 813 water bodies up to the required standard. This cycle is particularly important because Scottish Ministers expect all remaining environmental targets to be met by the end of 2027.

Figure 3 shows where we predict that actions will be needed between 2021 and 2027 to achieve Ministers' targets. Many of these issues were always scheduled for actions in the third RBMP cycle with completion dates between 2021 and 2027. You can find more detail on each of these categories by using the interactive tool.

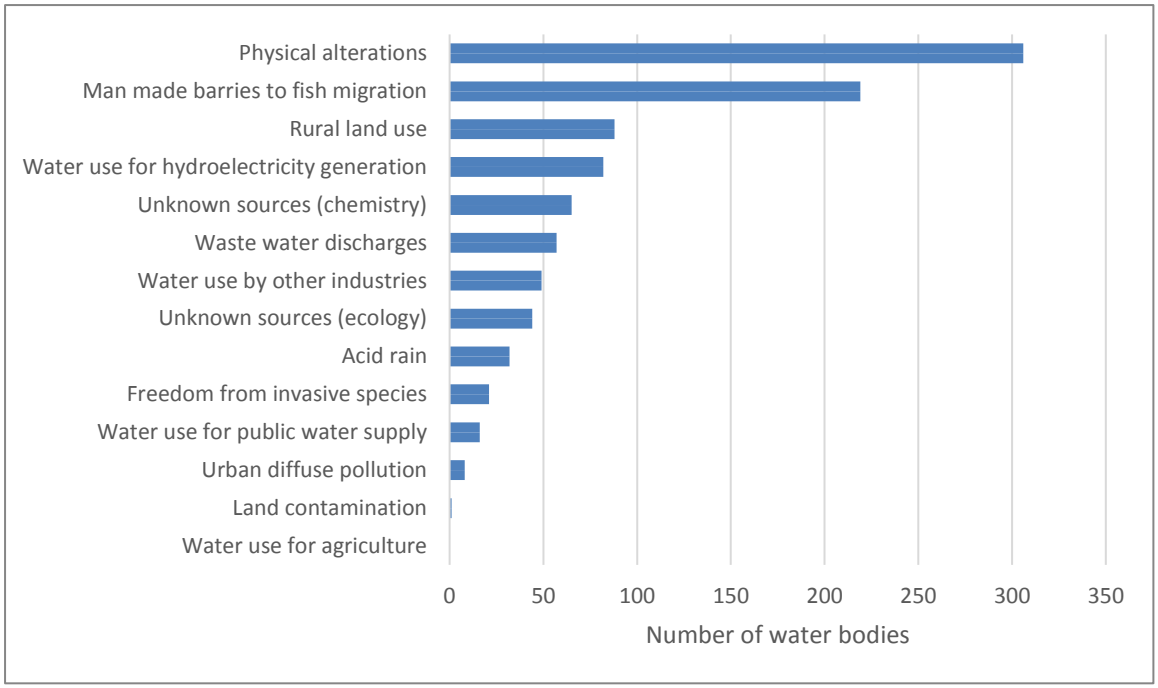

Figure 3: the actions which are predicted to be needed between 2021 and 2027 in order for environmental targets to be met.

*Water use by other industries includes the flows and levels pressures from mining and quarrying, whisky production, water transport (canals) and chemical manufacturing among others.

"Unknown sources" covers impacts arising from multiple sources, as well as those where we do not currently have sufficient evidence to assign a cause.

Agricultural irrigation has no actions for the third cycle because these are predicted to have been addressed by 2021.