

# Defra Science Advisory Council (SAC)

## Minutes of meeting, 10 November 2022

### Actions arising

Action number	Action	Owner
	No actions	

### 1. Welcome and apologies

The Chair welcomed attendees, apologies are recorded in Annex A.

### 2. Water

In 2000, the Water Framework Directive ([WFD](#)) set, for the first time, overall targets for the quality of water in the environment and established a planning framework through River Basin Management Plans (RBMPs). The target set by the European Union in WFD was to restore 100% of water bodies to Good Status by 2027. This requires achieving both Good Ecological Status (GES) and Good Chemical Status (GCS) in the water body. If a water body fails to meet 'Good' in any of the underlying components that comprise GES and GCS, then the water body will not be able to reach overall Good Status. This is understood as the 'one out all out' rule. WFD has brought many benefits and was a significant step forward for integrated action on water quality. The SAC discussed the value of the "one out all out" approach used in WFD.

The SAC discussed the issue of diffuse pollution and the overlap of WFD with Environmental Land Management (ELM). Noting the importance of looking at ELMs in this discussion as these schemes will be significant in improving water quality. The SAC highlighted a potential knowledge gap in the understanding of the impacts of certain chemicals in the water, for example legacy chemicals. The SAC suggested Defra consider the usefulness of data gathered by water companies over the last 20 years on how households value water quality. Defra could also explore the relative value of improving water bodies from poor to moderate versus improving from moderate to good and to what extent direction of travel tells us about progress towards long term goals.

The SAC and Defra discussed the use of systems thinking and spatial targeting in implementing and enforcement of the WFD. Defra shared with the SAC that systems thinking has been explored by themselves and the EA. Defra also informed the SAC that there is evidence to show improvements over the last 30 years in reducing certain chemicals which has led to improved freshwater (macroinvertebrate) species diversity.

### 5. Work plan and any other business

No workplan items were raised and no other business was raised.

## **Annex A: Attendees and apologies**

### **SAC Members**

Louise Heathwaite (Chair)	Marian Scott
Lisa Collins	Rosie Hails
Richard Bardgett	Rowland Kao
Rosie Hails	Susan Owens

### **Defra Chief Scientific Adviser's Office**

Josh Bunce – Chief Scientific Adviser's representative  
SAC Secretariat

### **Devolved administration observers**

### **Defra officials in relation to specific agenda discussion**

Head of water research  
Head of Analysis and Evidence, Floods and Water  
Director for Floods, Water and Emergencies  
EA Deputy Director for Research

### **Defra observers**

Defra UKRI PhD interns

### **Apologies**

Gideon Henderson - Chief Scientific Adviser  
Felix Eigenbrod – SAC member  
Peter Cox – SAC member  
Lin Field – SAC member  
Alistair Carson – Northern Irish Government Observer  
Matthew Williams – Scottish Government Observer  
Caryl Williams – Welsh Government Observer