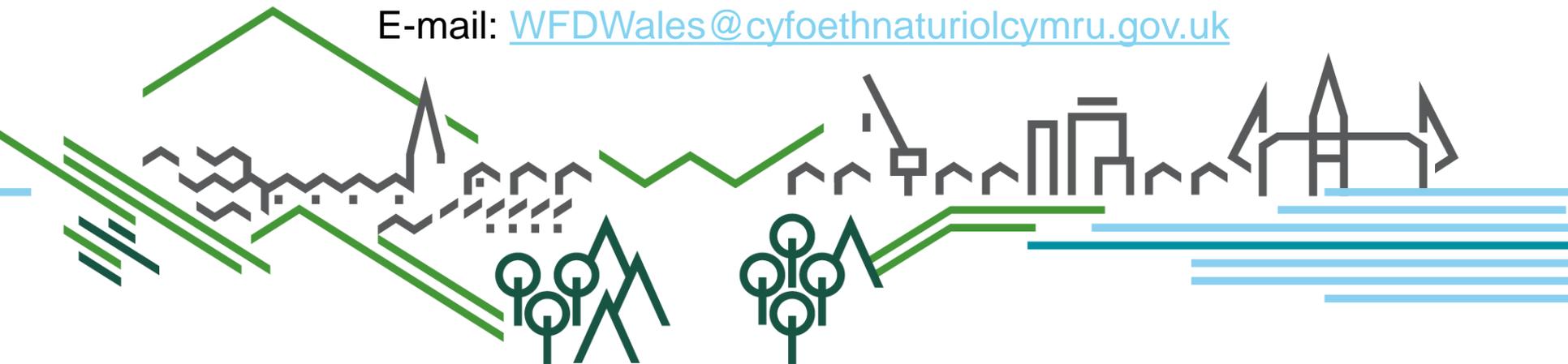


Natural Resources Wales' water evidence needs webinar

22 October 2019

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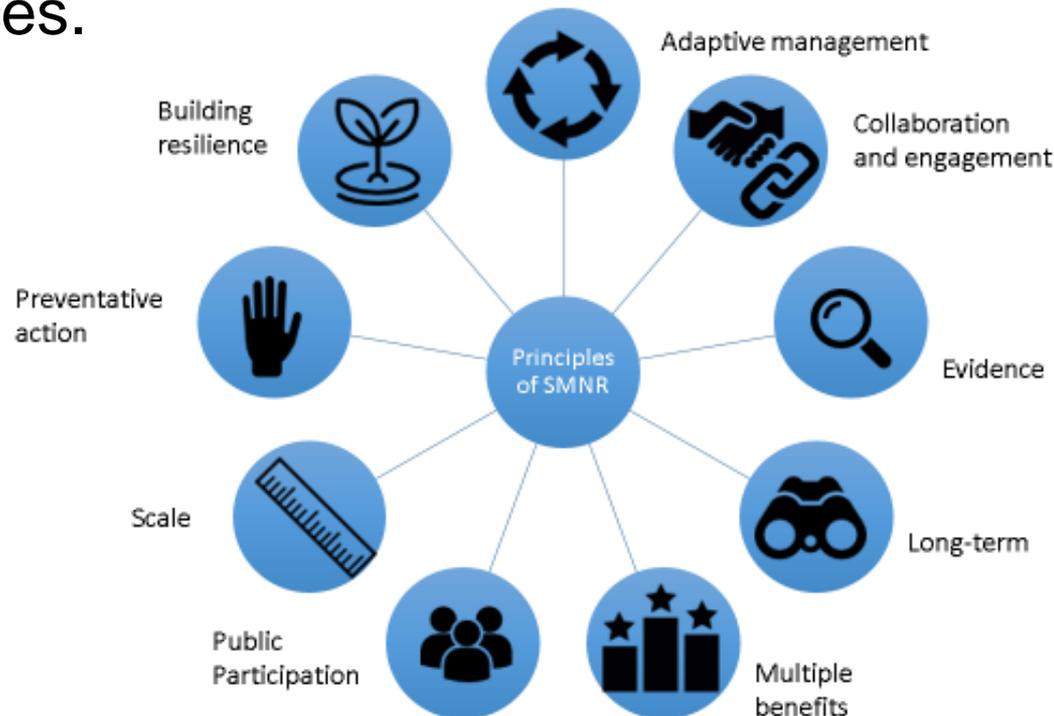
Goals for this session:



- 1. Improve your understanding of Natural Resources Wales vision for sustainable water management*
- 2. Highlight priorities and opportunities for collaborative research*
- 3. Give you the opportunity to shape NRW's approach to collaborative research*

Our purpose

- pursue sustainable management of natural resources in relation to Wales, and
- apply the principles of sustainable management of natural resources.



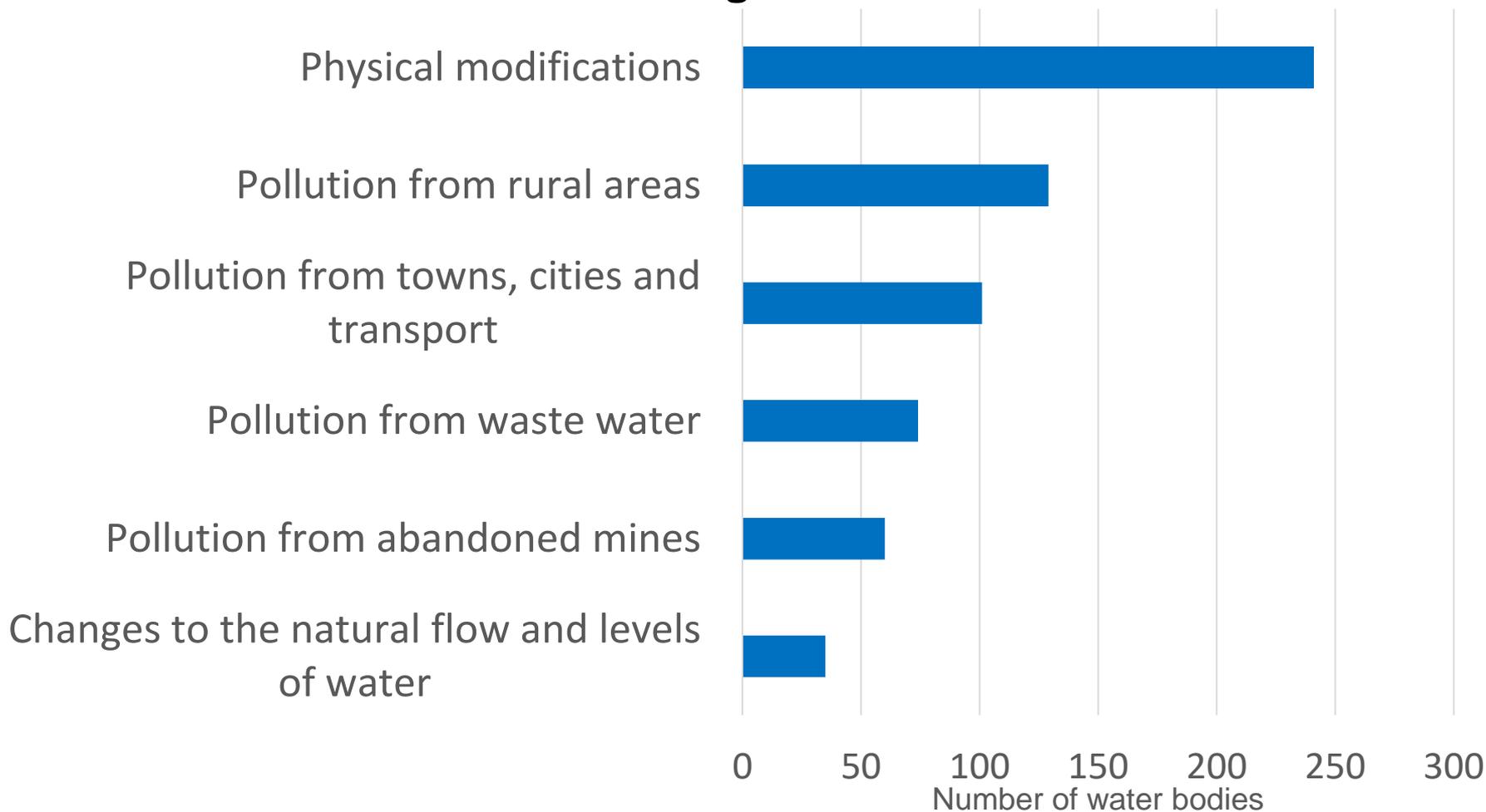
Our remit in water management

- Water Resources Act, Water Industry Act, Environmental Permitting Regulations...
- Water Framework Directive, Bathing Waters Directive, Nitrates Directive...
- Manager for Welsh Government Woodland estate, flood risk management, incident response...

What are the strategic issues for water? Challenges & Choices consultation 2019



Wales Reasons for Not Achieving WFD Good Status



Challenges & Choices consultation 2019

Issues & emerging risks

- Water availability
- persistent and bioaccumulative chemicals
- micro plastics
- Invasive Non Native Species



State of Natural Resources Report (SoNaRR 2)



- The state and trends of natural resources and ecosystem extent and condition
- Assessment of the extent to which SMNR is being achieved
- Inform the identification of national risks, priorities and opportunities for SMNR.
- Interim report due for release Dec 2019. Will contain key messages (challenges & opportunities).
- Final report published Dec 2020

SoNaRR2: key challenges for water



1) Tackling the high number of artificial modifications of water courses in Wales



2) Pollution from agriculture, metal mines and waste water

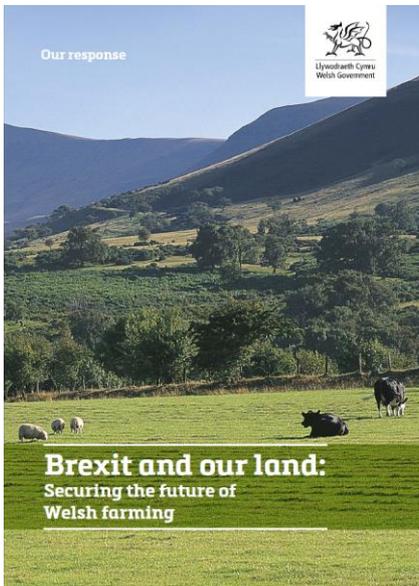
3) The impact of climate change on the freshwater environment



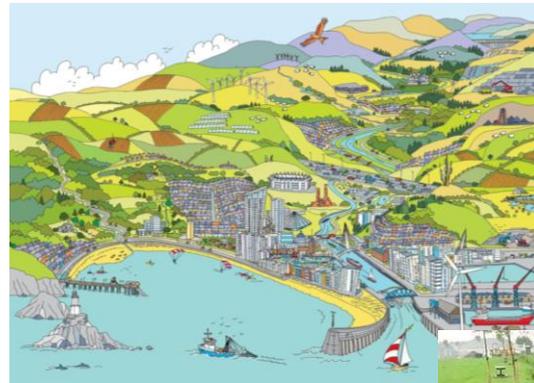
4) How to reduce water use?

SoNaRR2: key opportunities for water

1) Sustainable land management incentives and regulation to tackle rural pollution



2) Integrated catchment management



3) Sustainable drainage and nature-based solutions in rural and urban areas



SoNaRR 2 – some key evidence needs

Impacts of new and emerging chemicals and substances, such as neonicotinoid pesticides, nanoparticles and pharmaceuticals, on water quality and ecology.

Understanding the impacts of climate change on water and the vulnerability of ecosystems, water dependent habitats and species

Assessment of lake data – we have the data available, but some work will be required to analyse and present appropriately for SoNaRR2.

Need to improve our modelling of water resource availability for people and the environment based on the data we currently have.

Draft water evidence needs

How can we work collaboratively to deliver sustainable water management?

- water resources
- land management
- water quality
- monitoring
- ecosystems



Water Resources



‘We are responsible for securing the proper use of water resources in Wales and making sure there is enough water available for all needs including the environment and people’



To achieve this, we need to understand

- how much water is there available and what are the pressures
- what are the future water use needs
- how best to allocate our water resources and protect the environment

Land Management



Land management needs based upon exploring alternative means of draining sites, viewing surface water as a valuable resource



Understanding the effectiveness of alternative methods of managing lightly contaminated water

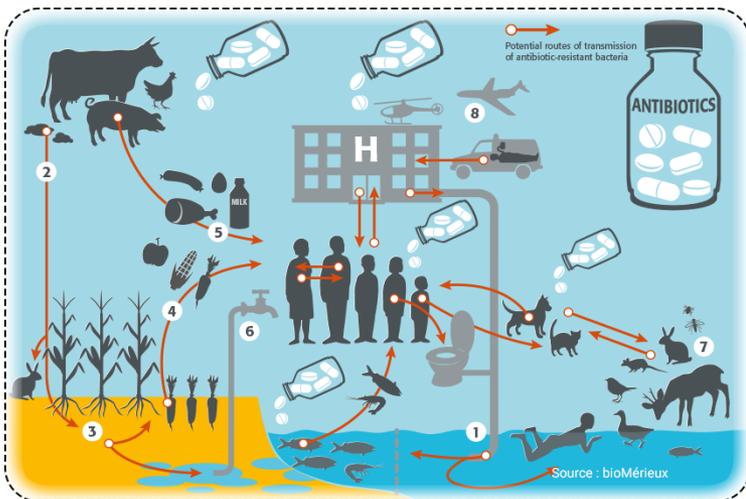


The wider benefits of alternative approaches to drainage management



Assessing the soil nutrient capacity within catchments and their availability to receive nutrients

Water Quality



- diffuse pollution
- chemicals and anti-microbial resistance
- predictive models

Monitoring



- new and low cost techniques
- geomorphology
- litter and plastics



Ecosystems



- detailed, repeat surveys
- range of taxa
- multiple sites

- link between pollution source and ecology
- source apportionment

Questions

What opportunities are there to meet our needs?

What are your views on priorities or gaps in knowledge?

What do you think about our current evidence needs document? Is this level of information useful and do you have views on how it can be improved?

How do you think we can best engage with others to deliver collaborative evidence projects?

For more information

- See NRW Website and Water Watch Wales
- Vital Nature (published 2018)
- Challenges and Choices Consultation (closes 22 December)
- E-mail: WFDWales@cyfoethnaturiolcymru.gov.uk

Next steps

- Interim report for SoNaRR2 (published December 2019)
- Area Statements published (Spring 2020)
- Consultation on draft River Basin Management Plans (opens 22 June 2020)
- SoNaRR2 (published December 2020)