

# Demonstrating Groundwater Benefits

Dr Camille Bann - Principal Economist

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# Outline

Policy Drivers

Challenges

Current Research

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## Policy Drivers

Water Framework Directive

75% at risk from diffuse pollution

25% at risk from abstraction

24% urban diffuse

15% pollution from mines

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## Policy Drivers

Remediating contaminated land /  
groundwater

Groundwater Pollution Prevention

Groundwater Vulnerability Project

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# Challenges

Scale

Scientific uncertainties

Economic uncertainties

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# Environment Agency Study

Specification of groundwater benefits

Literature Review

Framework for groundwater benefits

Option value

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## Benefits

Water supply (public / industrial)

Recharge to surface waters

Sink for atmospheric carbon

Dilution of contaminants and nutrients

Soil stability maintenance

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# Literature Review - Preliminary Findings

Not many studies in the UK

Benefits Transfer limited

More UK studies on surface water

What can we attribute to groundwater?

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## Treatment Costs

£754 million to water industry 1975-2004

Future capital investment cost £15-36million  
per year

source UKWIR, 2003

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