

# India-UK Water Security Capability Exchange Initiative

## Overview of UK Water Regulation – The Regulatory Cycle

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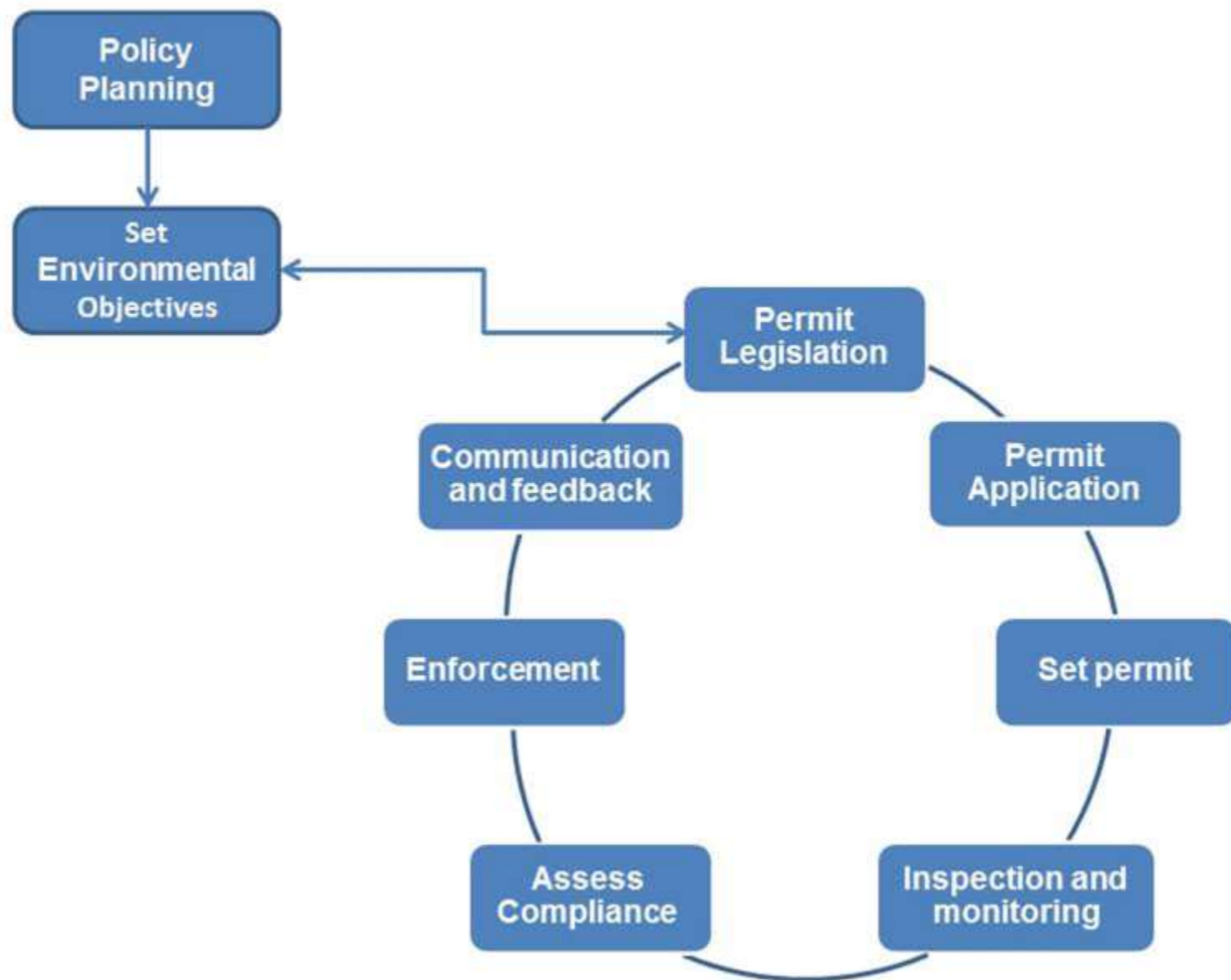


FOUNDATION *for*  
WATER RESEARCH

# Why Environmental Regulation?

- To ensure outcomes.
- To protect human health
- To protect and/or improve the environment
- Create a level playing field for business
- To ensure sustainable use of natural resources

## Permitting Context – Focus on the Regulatory Cycle





# Policies set outcomes in the environment - India



# Who sets environmental outcomes ?

## In UK

- UK Government
- Environment Agency ?
- Local Government?
- Society?
- European Commission ?
- World Health Authority/  
United Nations?

## In India

- Indian Government?
- Ministry of Water Resources?
- Central Pollution Control Board?
- Other Ministries?
- State Government?
- Local Government?
- Society?
- World Health Authority/ United  
Nations?

Think about the gaps and overlaps



# How - Environmental Laws and Regulations



## Environment Act 1995

1995 CHAPTER 25

An Act to provide for the establishment of a body corporate to be known as the Environment Agency and a body corporate to be known as the Scottish Environment Protection Agency; to provide for the transfer of functions, property, rights and liabilities to those bodies and for the conferring of other functions on them; to make provision with respect to contaminated land and abandoned mines; to make further provision in relation to National Parks; to make further provision for the control of pollution, the conservation of natural resources and the conservation or enhancement of the environment; to make provision for imposing obligations on certain persons in respect of certain products or materials; to make provision in relation to fisheries; to make provision for certain enactments to bind the Crown; to make provision with respect to the application of certain enactments in relation to the Isles of Scilly; and for connected purposes.

[19th July 1995]

Be it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

Statute: This is the original version (as it was originally made). This view of legislation is currently only available in its original format.

### STATUTORY INSTRUMENTS

2010 No. 675

## ENVIRONMENTAL PROTECTION, ENGLAND AND WALES

The Environmental Permitting  
(England and Wales) Regulations 2010

Statute: This is the original version (as it was originally made). UK Statutory Instruments are not available in their revised form on this site.

### STATUTORY INSTRUMENTS

2013 No. 390

## ENVIRONMENTAL PROTECTION, ENGLAND AND WALES

The Environmental Permitting (England  
and Wales) (Amendment) Regulations 2013

Made - - - 20th February 2013  
Coming into force in accordance with regulation 2(1)  
to (4)

These Regulations are made in exercise of the powers conferred by sections 2 and 7(9) of, and Schedule 1 to, the Pollution Prevention and Control Act 1999(1).

The Secretary of State, in relation to England, and the Welsh Ministers, in relation to Wales, have in accordance with section 2(4) of the Pollution Prevention and Control Act 1999 consulted(2)—

- (a) the Environment Agency;
- (b) such bodies or persons appearing to them to be representative of the interests of local government, industry, agriculture and small businesses as they consider appropriate; and
- (c) such other bodies or persons as they consider appropriate.

A draft of this instrument has been approved by a resolution of each House of Parliament and by the National Assembly for Wales pursuant to section 2(5) and (9)(4)(3) of that Act.

The Secretary of State in relation to England, and the Welsh Ministers in relation to Wales, make the following Regulations.

# Some of the clean up is simple – Apply the Laws

- If the discharges are illegal – stop them and prosecute if they continue!
- Pollution prevention campaigns
- If major discharges with permits in place
- Enforce the permits and then progressively review and tighten

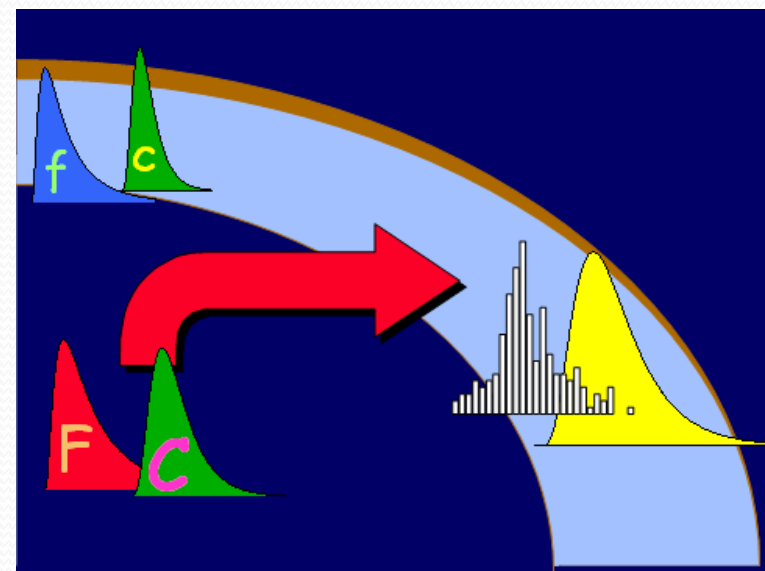
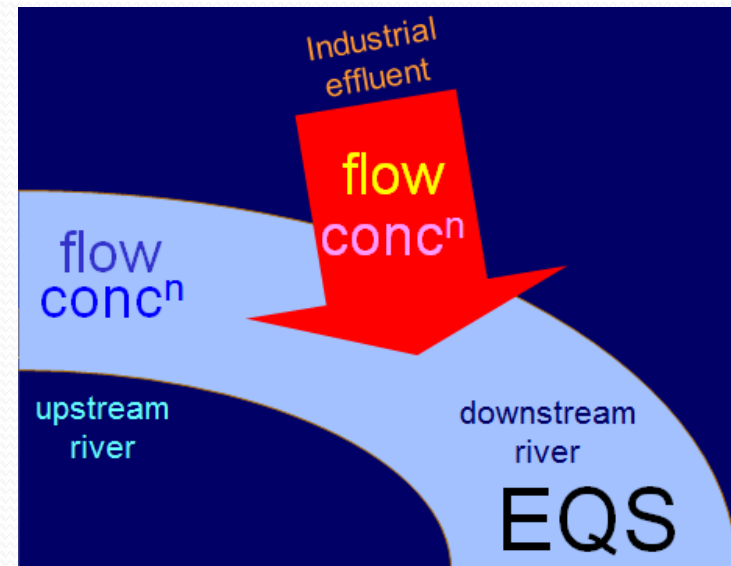
# How do we drive outcomes ?

- Environmental Quality Standards
- Best Available Technology
- No deterioration
- Combined Approach
- Best Practicable Environmental Option (BPEO)
- Enforcement



# Set Permit Conditions to meet Outcomes

- All options are modelled
- Use Mass Balance calculations
- Model impacts on permits and seek to optimise
- We use statistics to set permit limits and ensure environmental standards are met



# The numbers translate into discharge permits

## UK Discharge Permit

CONSENT NO. 1000000000



ENVIRONMENT AGENCY  
WATER RESOURCES DIVISION  
BATH, AVON

### ENVIRONMENT AGENCY

WATER RESOURCES DIVISION

CONSENT NO. 1000000000

PERMIT TO DISCHARGE INTO THE RIVER

Site: Aggravation Quality Scheme  
River: River Ure  
Location: Ag  
River: Ag  
River: Ag

WHEREAS the Agency is desirous of the permit to discharge into the River Ure the effluent of the Aggravation Quality Scheme as described in the Consent No. 1000000000 in the exercise of its powers under the provisions of the Water Resources Act 1989

### PERMIT TO DISCHARGE INTO THE RIVER

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Bath, Avon  
Bath, Avon

CONSENT NO. 1000000000



ENVIRONMENT AGENCY  
WATER RESOURCES DIVISION  
BATH, AVON

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Bath, Avon  
Bath, Avon

PLAN 1000000000



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# Progressive Environmental Improvement

## Abstraction and Discharge – Quantity and Quality



# Enforcement and Sanctions



Environment  
Agency  
Asiantaeth yr  
Amgylchedd

## Enforcement and sanctions statement

Policy 1429\_10 (previously EAS/8001/1/1)

Issued 04/01/11

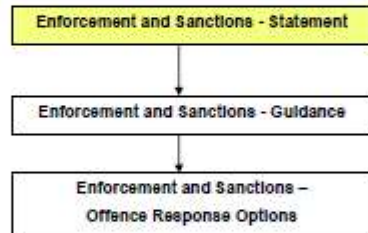
### Statement

This document explains our position on Enforcement and Sanctions. You must read it together with the

- [Enforcement and Sanctions – Guidance](#)
- [Offence Response Options Document](#)

This will give you a complete explanation of our approach to enforcement and sanctioning.

### How the documents work together



### Statement authorisation

Policy sponsor  
Legal Services Director.



Document details



References



Feedback

Contact for queries

Dan Wiley



Environment  
Agency  
Asiantaeth yr  
Amgylchedd

## Enforcement and Sanctions - Guidance

Issued 04/01/2011

### What's this document about?

This document provides guidance on Enforcement and Sanctions and the use of civil and criminal sanctions.

### Who does this apply to?

All staff, when considering whether an enforcement response is necessary to achieve the desired outcome.

### Contents

You should read it in conjunction with the:

- Enforcement and Sanctions – Statement; and
- Offence Response Options

This will give you a complete explanation of our approach to enforcement and sanctioning.



Document details



Related documents



Feedback

Contact for queries

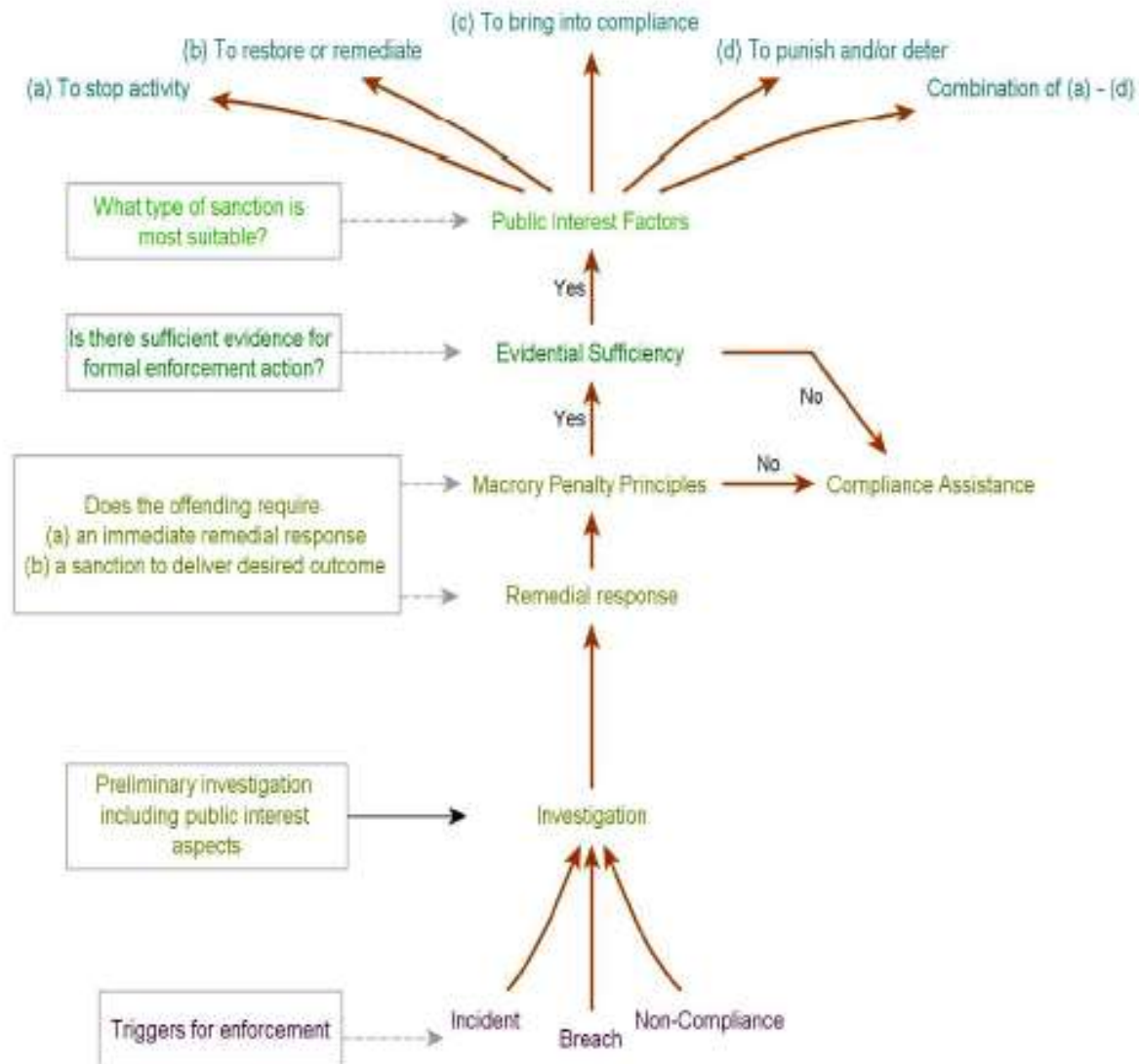
Dan Wiley




# EA Enforcement and Sanctions

## Sanctions decision tree

See below:







# Incident Classification Scheme



Environment Agency  
Asiantaeth yr  
Amgylchedd

## Incidents and their classification: the Common Incident Classification Scheme (CICS)

Operational Instruction 04\_01 Issued 30/09/2011

<b>What is this about?</b>	<p>This document describes what an incident is and the two-tier system we use to classify incidents; the Common Incident Classification Scheme (CICS).</p> <p>The first tier measures our physical response in dealing with the incident. The second tier describes the actual impact the incident has on the environment.</p>	 <p>Document details</p>
 <b>Who does it apply to?</b>	<p>All staff who classify incidents, in order to determine our response ('Competent officers'), and all staff who record the actual environmental impact of the incident, including:</p> <ul style="list-style-type: none"><li>• Environment Management duty officers;</li><li>• Environment Officers, EPR and regulatory officers;</li><li>• RBR-Duty Tactical Managers;</li><li>• Fisheries officers;</li><li>• Drought co-ordinators;</li><li>• Waterways Operations team leaders;</li><li>• Flood Incident Duty Officers;</li><li>• Flood Warning Duty Officers;</li><li>• Operations Delivery Field team leaders and Specialist team members;</li><li>• Flood Incident Management teams.</li></ul> <p><b>Important:</b> The <a href="#">Introduction</a>, <a href="#">CICS Tier 1</a> and <a href="#">CICS Tier 2</a> sections are relevant to all functions. After you are familiar with this section, refer to your relevant functional section:</p> <ul style="list-style-type: none"><li>• <a href="#">Environment Management Incidents</a></li><li>• <a href="#">Fisheries Incidents</a></li><li>• <a href="#">Water Resources Incidents</a></li><li>• <a href="#">Waterways Incidents</a></li><li>• <a href="#">Flood and Coastal Risk Management Incidents</a></li></ul> <p>You can share this document with external organisations, such as water companies, provided you do state that it is only correct at the time of printing.</p>	 <p>Related documents</p>  <p>Feedback</p> <p>Contact for queries <a href="#">ICP- Enquiries@environment-agency.gov.uk</a></p>

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# Set priorities according to risk

You cannot do all of this at once

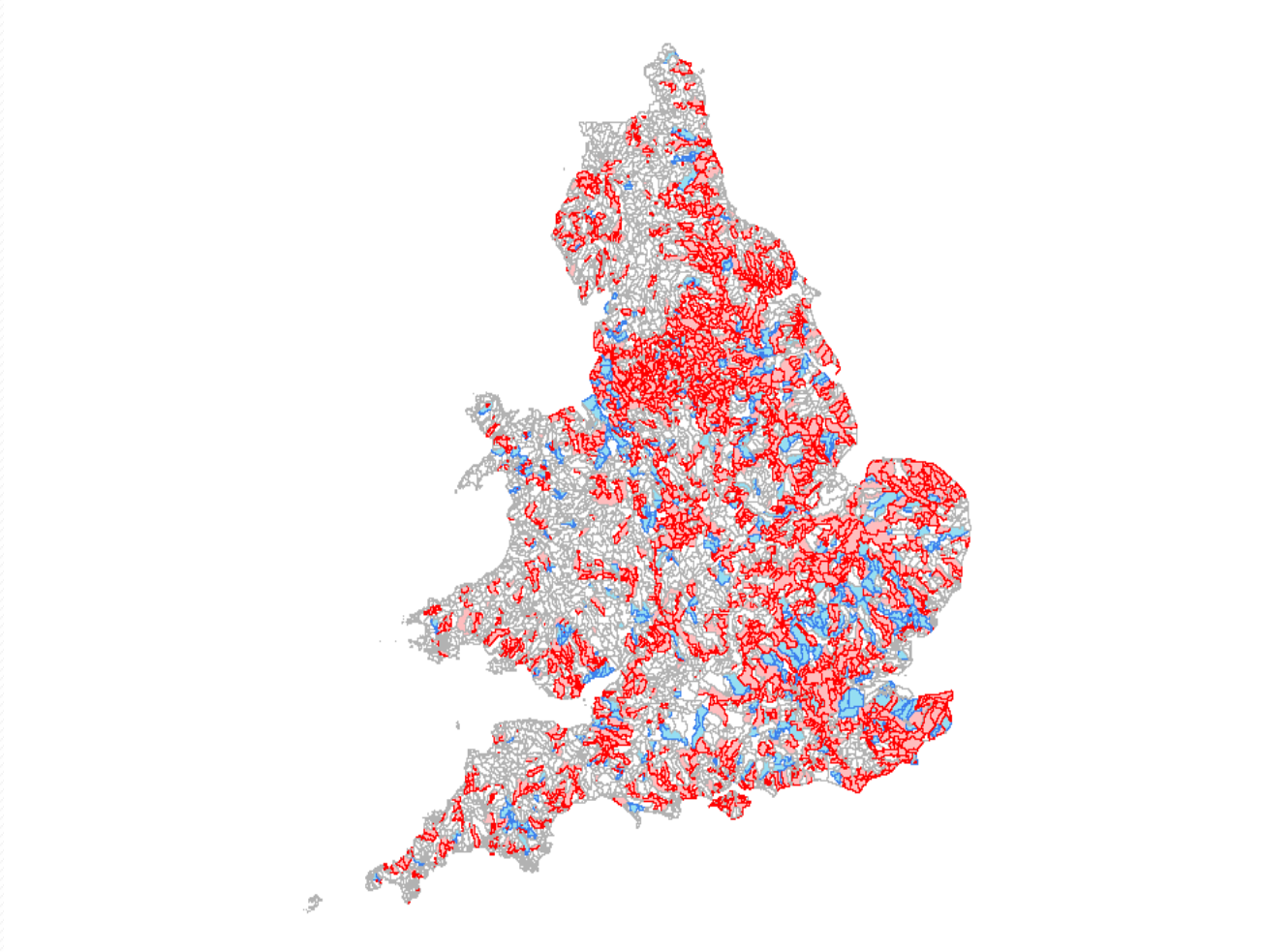
- Risk based permitting
- Risk based monitoring
- Risk-based inspection
- Risk-based enforcement

Set Priorities

Risk-based intervention to ensure outcomes

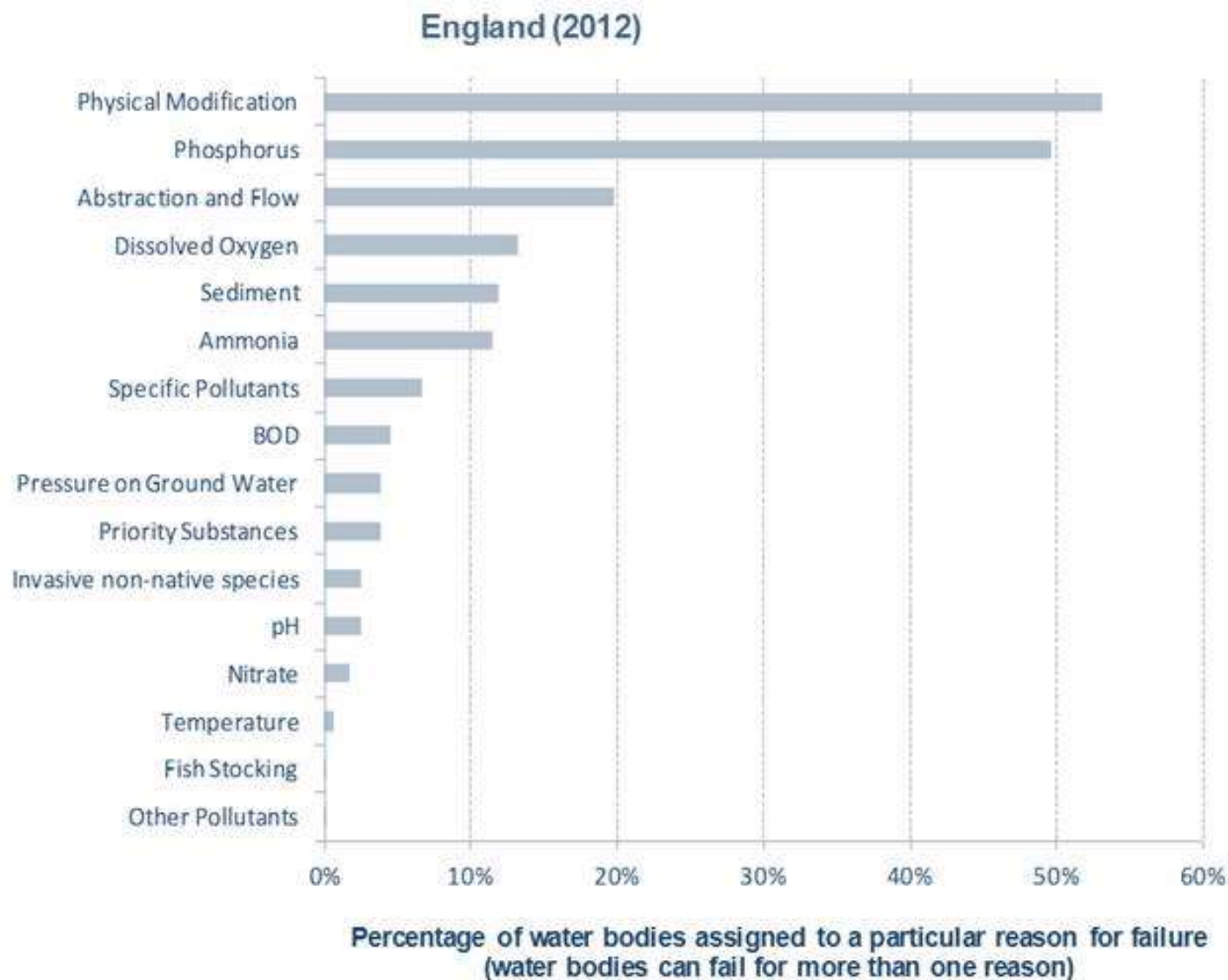
# A risk based analysis

UK locations showing failure against  
Water Framework Directive Standards





# UK Reasons for failure from Environment Agency's Database



# Public Availability of Environmental Information

## What's in my backyard – Internet programme



### Interactive Maps

#### Choose a topic



Risk of  
Flooding  
from Rivers  
and Sea



Risk of  
Flooding  
from  
Reservoirs



Flood  
Warning  
Areas



River and  
Sea Levels



River Quality



Bathing Water  
Quality



Groundwater



Environment  
Agency Offices



Landfill



Pollution



Air  
Pollution



River Basin  
Management  
Plans -  
Rivers



River Basin  
Management  
Plans -  
Lakes



River Basin  
Management  
Plans - Coastal  
Waters



River Basin  
Management  
Plans -  
Estuarine



River Basin  
Management  
Plans -  
Groundwater

#### Advanced data search

Search for the data behind the maps for a more detailed analysis of your area. For example, find the worst polluters or healthiest rivers over the past five years.

# Public Availability of Environmental Information

## What's in my backyard – Internet programme

Enter a postcode or place name:

Other topics for this area...

Map legend

☐ ☒ Industrial Pollution ⓘ

Fuel & Power

Metal

Mineral

Chemical

Waste

Water

Radioactive

Associated

Other

Not Classified

☐ ☒ Industrial Operator Scores (OPRA) ⓘ

★ Permitted Sites


☐ ☒ Pollution Incidents ⓘ

▲ Major

▲ Significant

Map of X: 357,683; Y: 355,134 at scale 1:5,000,003

Text



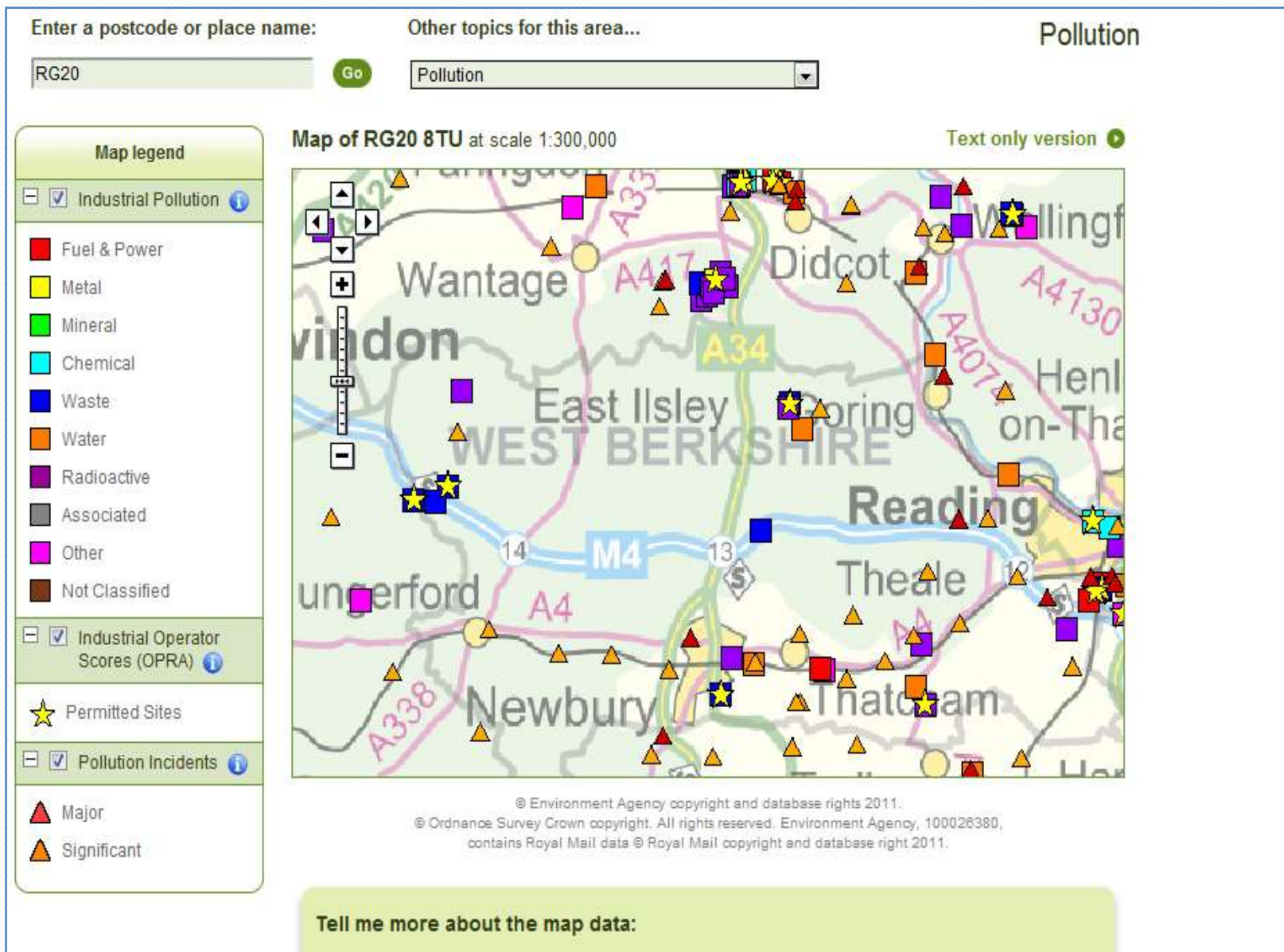
© Environment Agency copyright and database rights 2011.  
© Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 10002638  
contains Royal Mail data © Royal Mail copyright and database right 2011.

Tell me more about the map data:



# Public Availability of Environmental Information

## What's in my backyard – Internet programme





# Apply Modern Regulation Principles

A 21st Century approach to regulation

The Environment Agency



Traditional regulation has achieved much. But the nature of **regulation** has to change to keep pace with changes in the economy and society. We are further developing our approach to regulation to improve and protect the environment. This approach is focused on **outcomes** and is **risk-based**. We communicate it clearly and **consistently**. We call this '**modern regulation**' and this booklet explains what it means and why it will make a difference.

**Delivering for the environment**

A 21st Century approach to regulation

# Modern Regulation

## Our model of modern regulation



# Modern Regulation

What modern regulation looks like



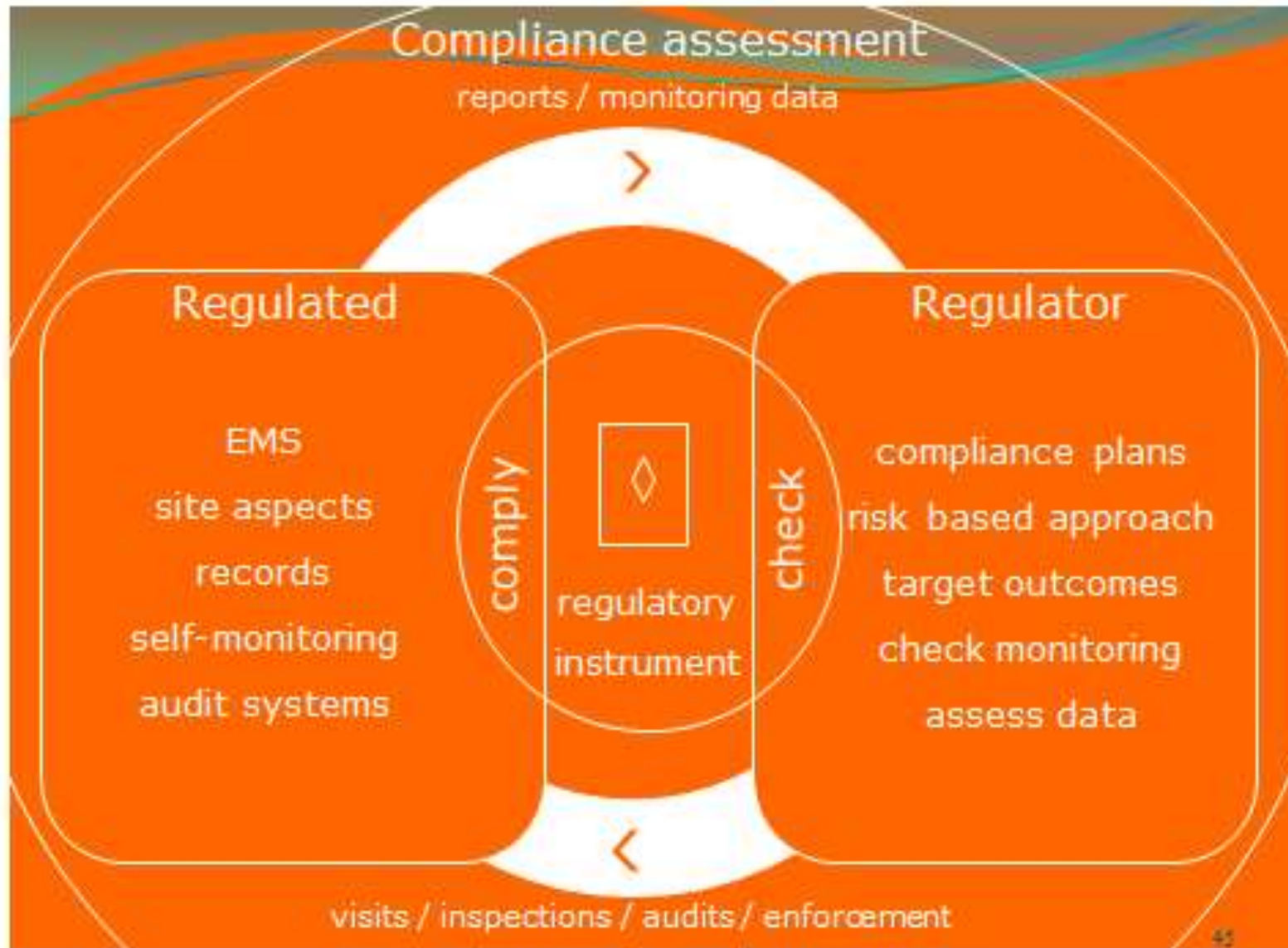
# Modern Regulation

## The different regulatory approaches





# Modern Regulation

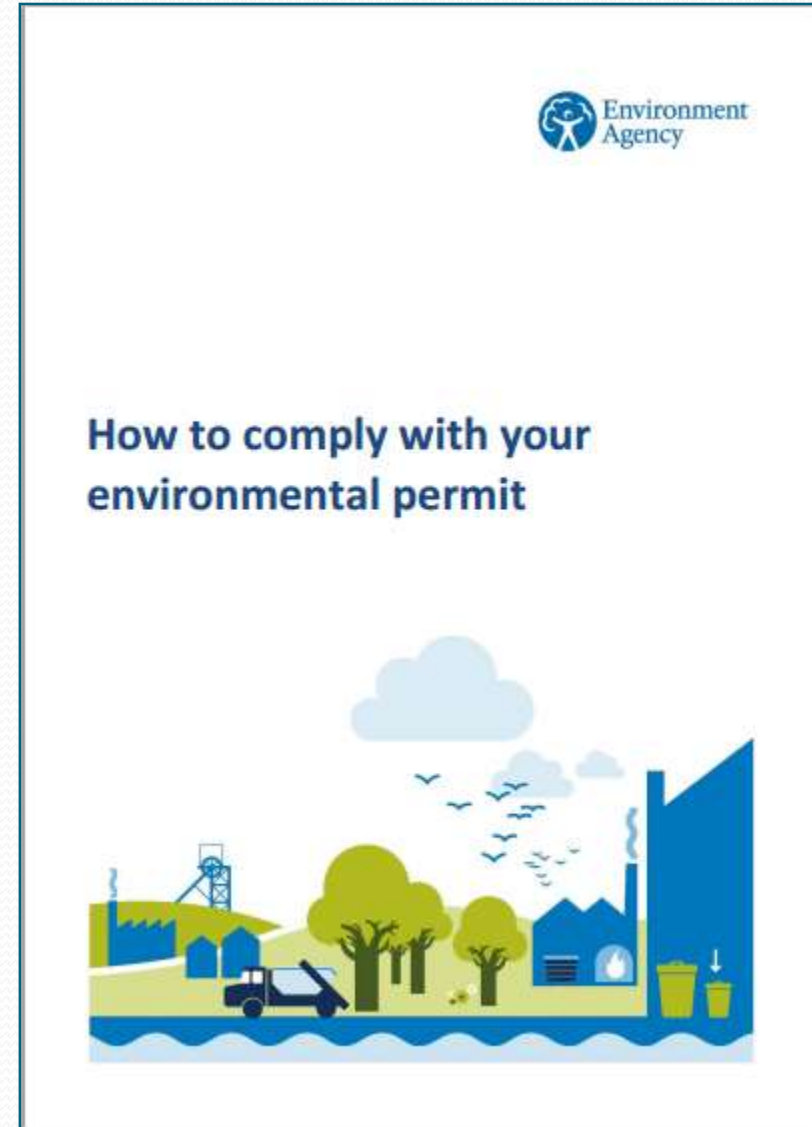


# Build a Regulatory Toolbox



# Environmental Permitting – New UK Regulations

- Modern Regulation being implemented via an Environmental Permitting regime
- New Regulations in force
- Guidance available
- Progressively rolling out across all sectors
- Links are
- <http://www.environment-agency.gov.uk/business/topics/permitting/default.aspx>



# Progressive Environmental Improvement

## Possible Approach

Consolidate and set water environment improvement programme

Year 1	Year 5	Year 10	Year 15+
Consolidate existing quality and flow standards and increase monitoring	Maintain or increase environmental flow; Reduce pollution by significantly	Move to 'River Needs' standards based on flow and chemistry	Instigate and implement biological standards equivalent to EUWFD



# Progressive tightening of permit standards

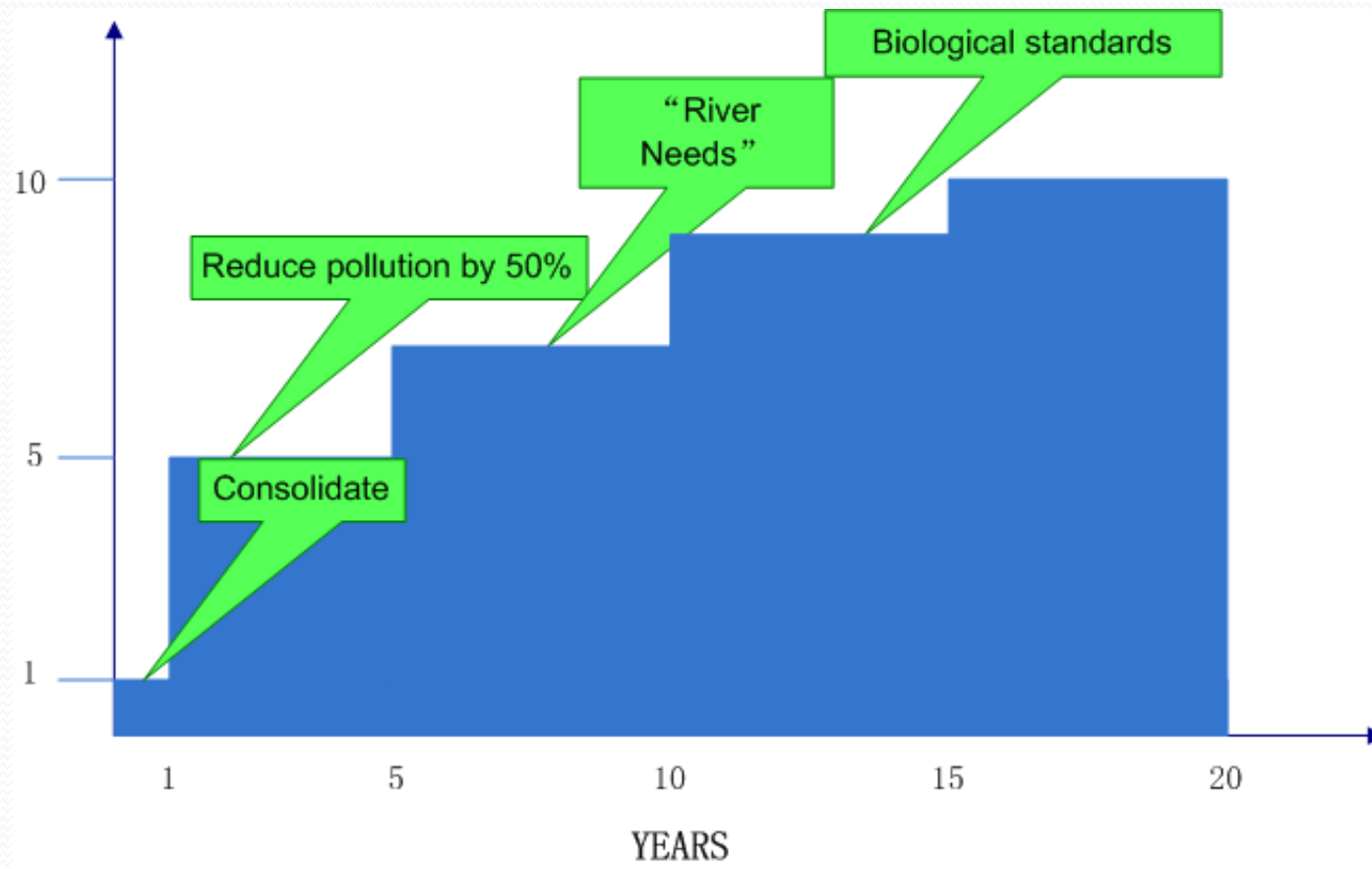
## Possible Approach

### Consolidate and tighten permit conditions

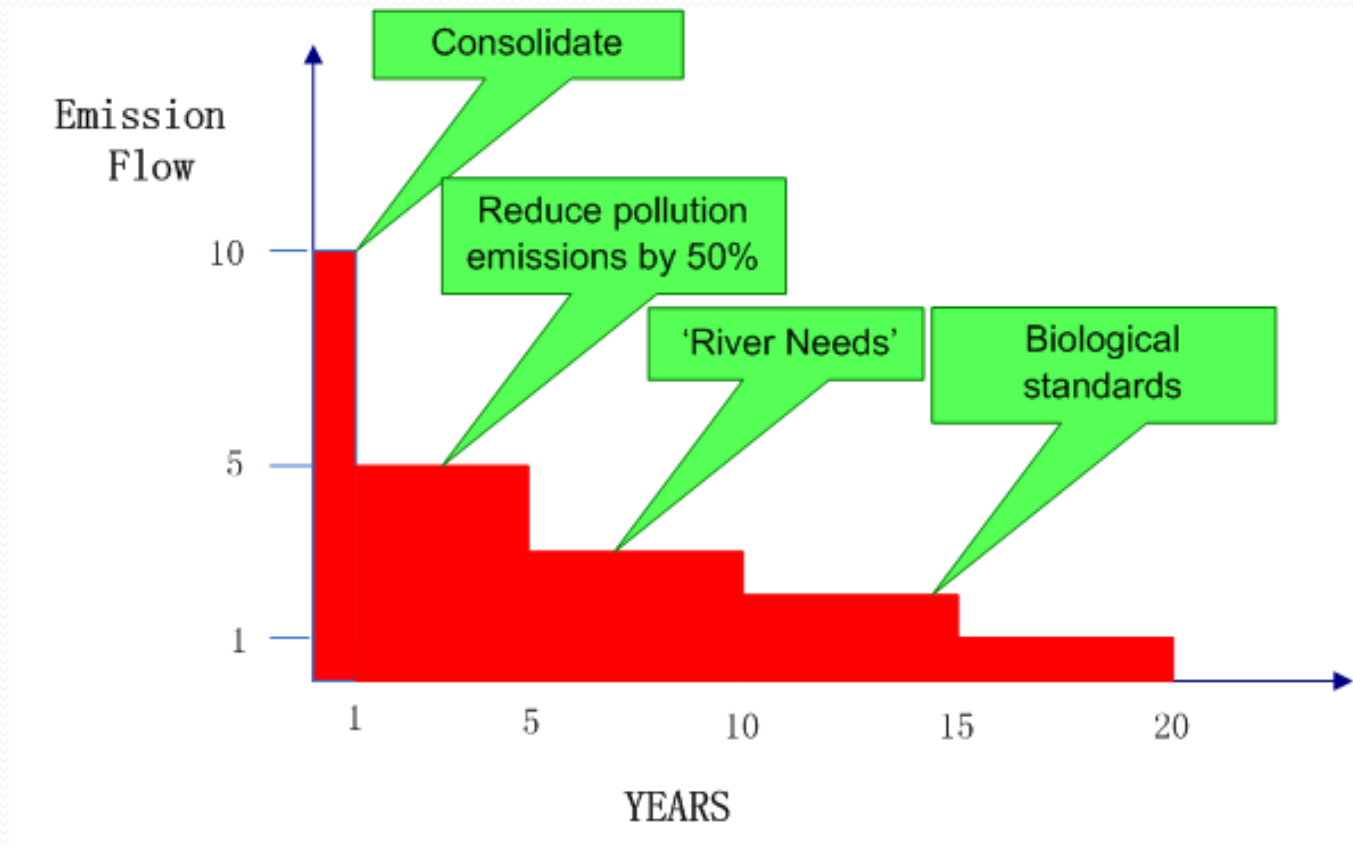
Year 1	Year 5	Year 10	Year 15+
Consolidate permits and ensure legal compliance with existing standards	Tighten Permit conditions to reduce pollution emissions by 50%. Reduce water abstraction and increase water efficiency	Further tighten permit conditions to allow attainment of 'River Needs' standards based on flow and chemistry	Progressive and incremental tightening to facilitate biological standards equivalent to EUWFD in the river

# River Quality Objectives are progressively improved according to an Environmental Improvement Programme

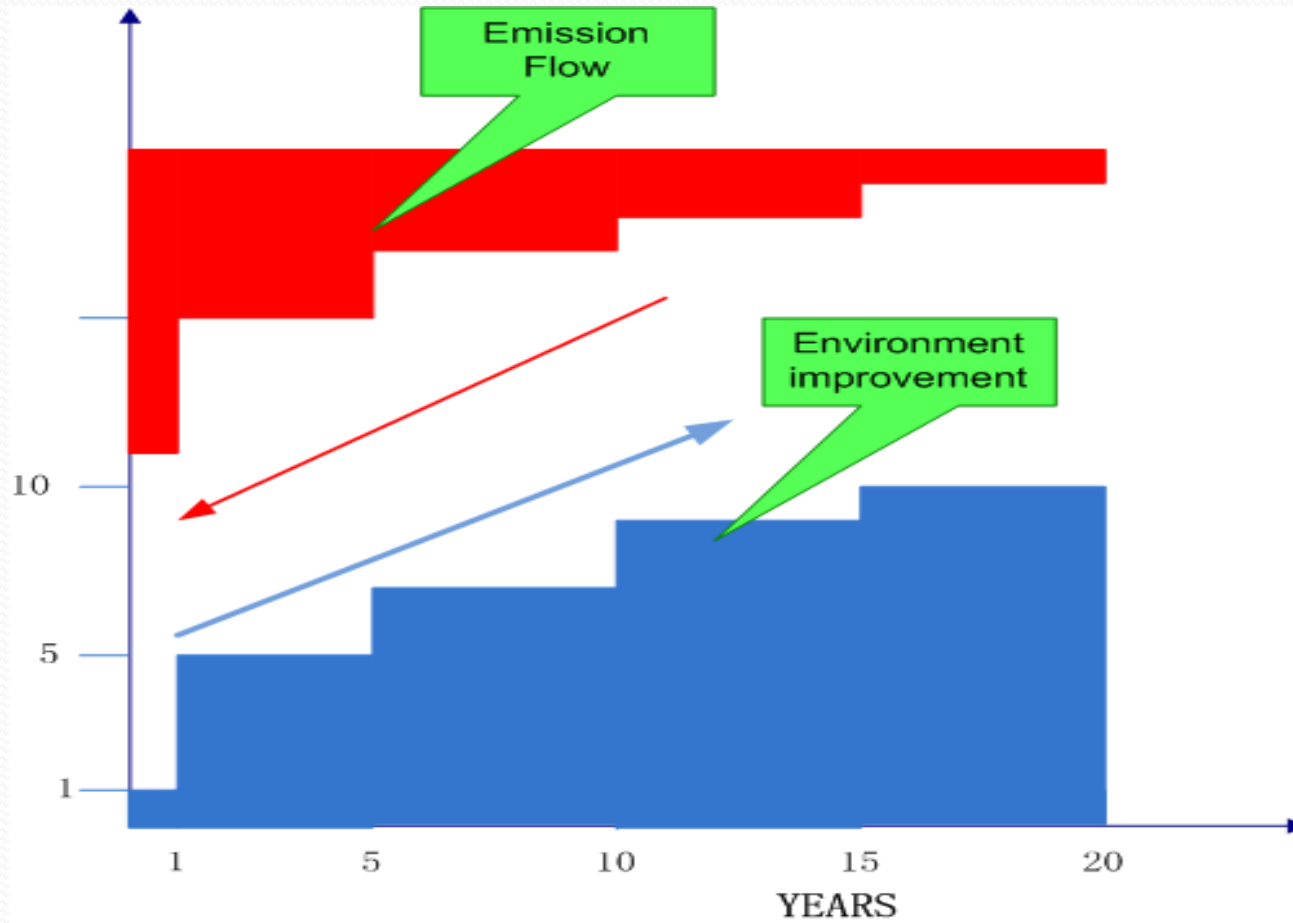
-This could be linked to the Action Plan for Pollution and control of Water Pollution



# Permit standards are progressively tightened



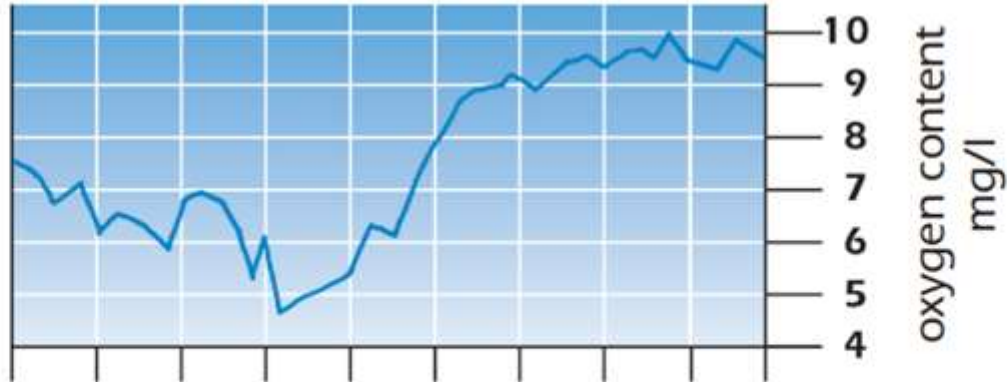
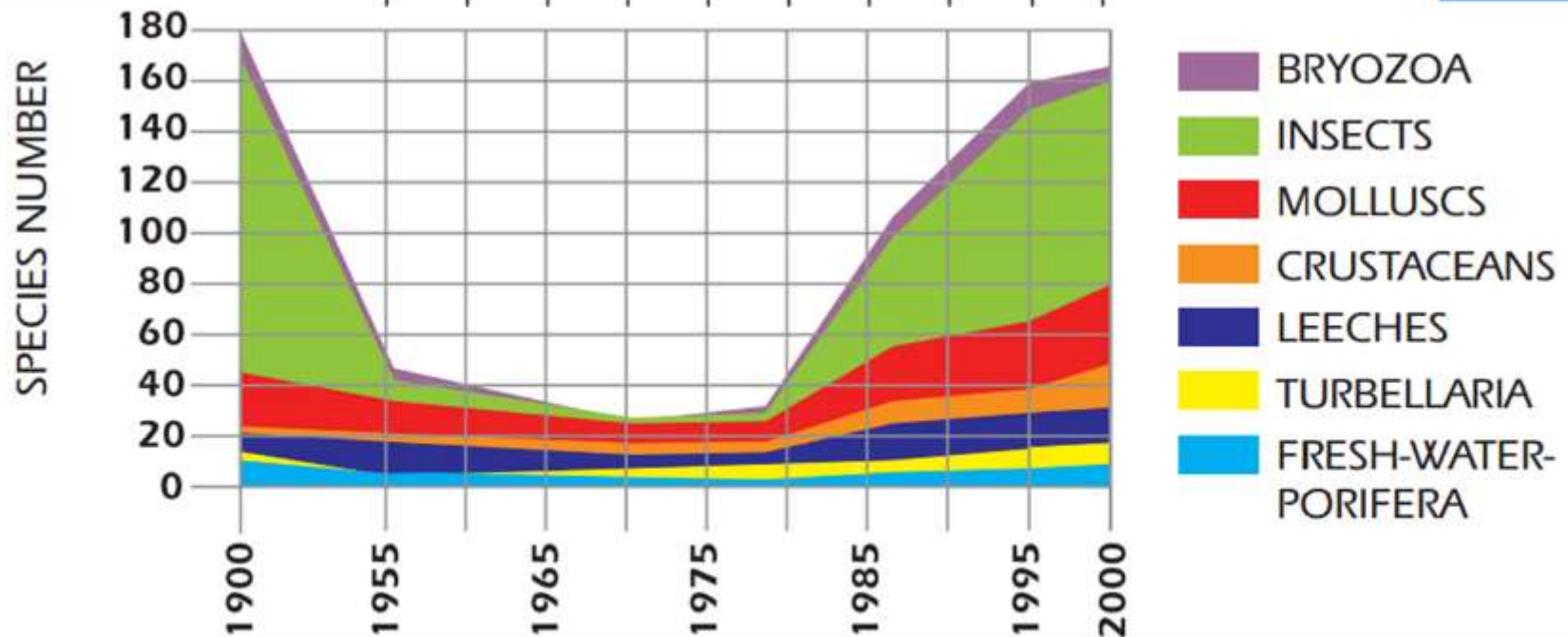
# Permits drive water resource Improvement Programmes





# River Rhine Clean-up 1900 – 2000

## Invertebrates



Species number of invertebrates in connection with the oxygen content of the Rhine

# REGULATION FOR WATER QUALITY

How to safeguard the water environment



Free to download at  
<http://www.fwr.org/WQreg/>

Or hard copy from  
Foundation for Water  
Research