

# Water Framework Directive Objective Setting and Measures

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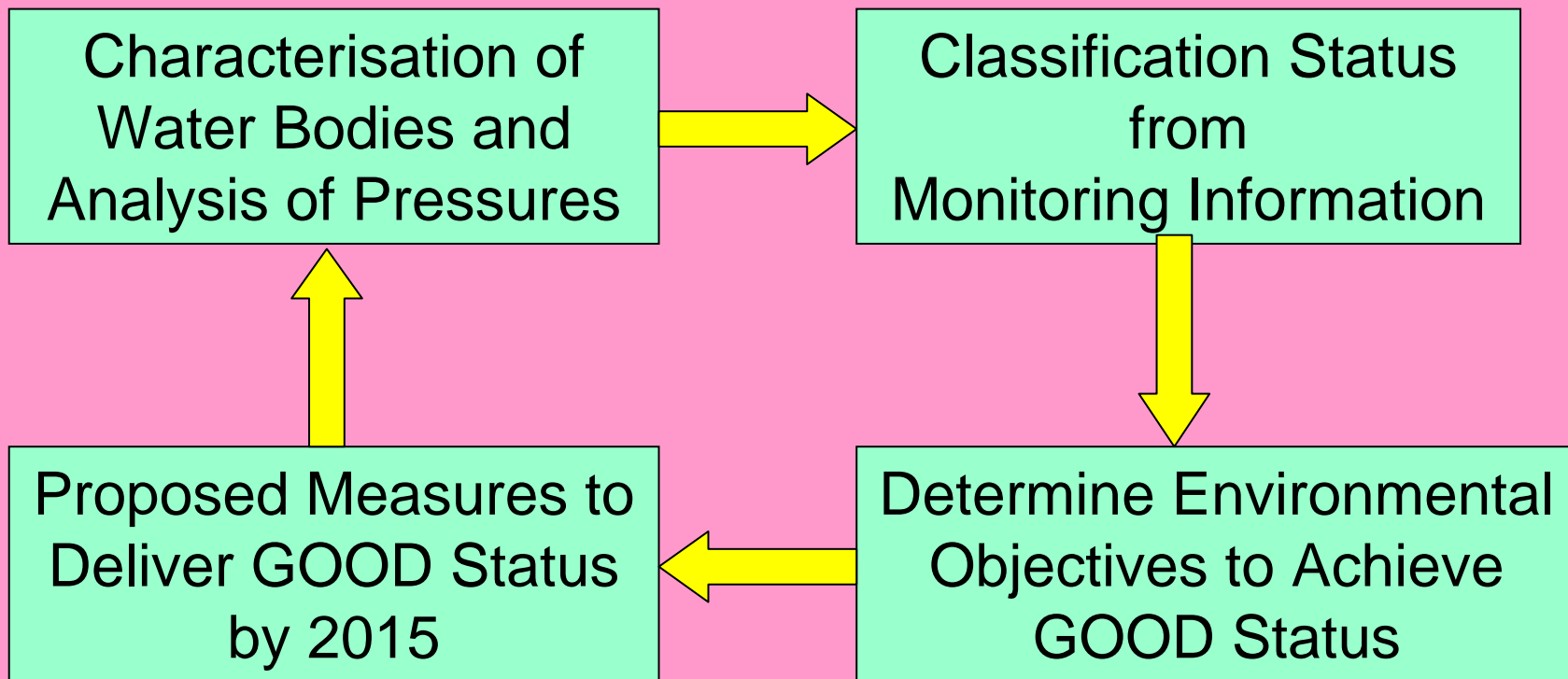
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# Where Objectives sit within the Water Framework Directive

## Water Framework Directive



# The Main Environmental Objectives under WFD

- The default objective for all waters should be Good Status by 2015.
- There shall be no deterioration in status.
- Achievement of standards and objectives to meet protected area requirements.
- Reversal of any significant upward trend of pollutants in groundwater.
- Progressive reduction of pollution by priority substances and phase out of hazardous substances and prevention/limitation of pollutants in groundwater

# Example: North West IRBD – NI portion

STATUS	Invertebrates	Macrophytes	Fish	Final Biology	DO	SRP	pH	Temp	Final Phys/chem
High	15	98	1	8	145	116	179	171	97
Good	88	56	0	90	22	64		12	65
Moderate	54	10	3	59	11	1	4	0	21
Poor	22	0	0	22	2	1	0	0	0
Bad	4	0	0	4	2	0	0	0	0
Limited	9	28	188	9	10	10	9	9	9
<b>Total</b>	<u>192</u>	<u>192</u>	<u>192</u>	<u>192</u>	<u>192</u>	<u>192</u>	<u>192</u>	<u>192</u>	<u>192</u>

# Example: North West IRBD continued..

STATUS	Ammonia	Other SPs	Final SPs	NS SHARE morph	Final Ecology	Chemical Status	SURFACE WATER STATUS
High	179	0	174		2	6	2
Good	2	6	8		91	0	91
Moderate	0	0	0	3	67	0	67
Poor	0	0	0		22	0	22
Bad	0	0	0		4	0	4
Limited	11	186	10		6	186	6
<b>Total</b>	<u>192</u>	<u>192</u>	<u>192</u>	<u>3</u>	<u>192</u>	<u>192</u>	<u>192</u>

# RIVER BODY STATUS

River Basin District	High	Good	Moderate	Poor	Bad
North West	1%	47.4%	34.9%	11.5%	2.1%
Neagh Bann	0%	24.5%	46.2%	16.5%	5.2%
North East	0%	9%	46.8%	22.5%	7.2%



# Summary of River Water Body Status - NI

<b>STATUS</b>	<b>PERCENTAGE</b>
<b>HIGH</b>	<b>0.4</b>
<b>GOOD</b>	<b>29.3</b>
<b>MODERATE</b>	<b>42.6</b>
<b>POOR</b>	<b>15.8</b>
<b>BAD</b>	<b>4.5</b>
<b>LIMITED INFO</b>	<b>7.4</b>



Overly complicated approaches won't work!

Must keep it simple!

Keep in mind its an environmental directive not an economics directive



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# Rules for Objective Setting

- Rule 1: Where a water body is at **moderate** status in **2008** the objective for **2015** is **good** status.
- Rule 2: Where a water body is at **poor** status in **2008** the objective for **2015** is **moderate** status and the objective for **2021** is **good** status.
- Rule 3: Where a water body is at **bad** status in **2008**, the objective for **2015** is **moderate** status, the objective for **2021** is **moderate** or **good** status and the objective for **2027** is **good** status.

# SUMMARY OF OBJECTIVES

<b>STATUS</b>	<b>2008</b>	<b>2015</b>	<b>2021</b>	<b>2027</b>
<b>High</b>	<b>0.5%</b>	<b>&gt;0.5%?</b>	<b>&gt;0.5%?</b>	<b>&gt;0.5%?</b>
<b>Good</b>	<b>31.7%</b>	<b>77.5%</b>	<b>94.6%</b>	<b>99.5%</b>
<b>Moderate</b>	<b>45.8%</b>	<b>22.0%</b>	<b>4.9%</b>	<b>0%</b>
<b>Poor</b>	<b>17.1%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Bad</b>	<b>4.9%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
<b>Totals</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

High  
certainty

Medium  
certainty

Low  
certainty

Uncertainty  
not an issue  
– **prioritise**

Action to prevent  
deterioration  
Prioritise for  
monitoring &

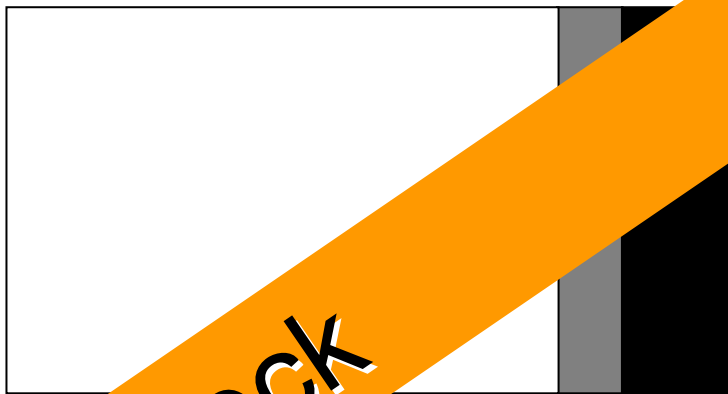
Continue to  
monitor, assess  
and review

Is there really an  
adverse impact?

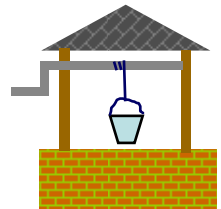
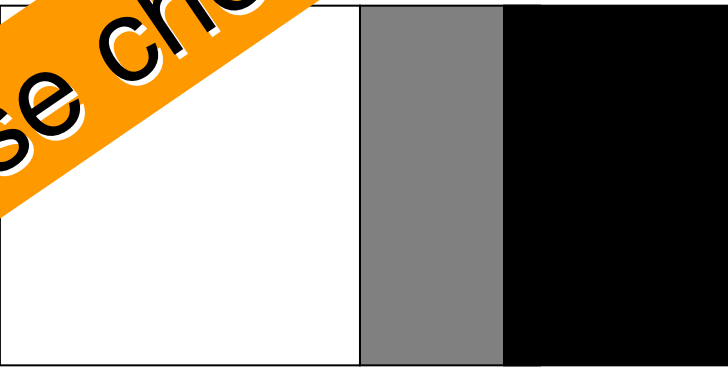
measures

# Break down the problem

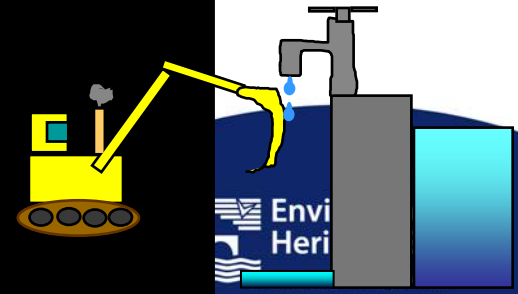
Water quality



Water resources



Biological



Work out what improvements will be delivered by existing measures – before spending time on exemptions

# Process of filling the gap between current status and target status for each pressure/status component

Measures that may happen as a result of the River Basin District Planning process

Measures and trends that will happen

- Target Status

- Current Status



**Pre-WFD national and EU  
measures**

**UWWTD; Habitats Directive;  
CAP; etc**

**Existing local initiatives**

**Fisheries management projects;  
etc**



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# Planning Assumptions

- Point Source Pollution
- Diffuse Source Pollution
- Chemical pollution
- Water resources
- Physical modifications



# Point Sources - Summary

<b>Legislation / Control Activity</b>	<b>Environmental Improvement / Protection</b>
NI Water Order 1999	Makes Pollution of water an offence
NIW Capital work Prog., UWWTD plus additional nutrient removal at WWTW between 2 -10,000 PE	Reduce phosphorus, ammonia and organic loading
NIW Area drainage schemes	Reduce phosphorus, ammonia and organic loading
Review of Industrial Consents	Regulate discharges to meet (WFD) requirements

# Diffuse Pollution – Rural

<b>Legislation / Control Activity</b>	<b>Environmental Improvement / Protection</b>
NI Water Order 1999	Makes Pollution of water an offence
Additional controls on septic tanks e.g. replacement/upgrade programme	Reduce nutrient loss and organic loading
Nitrate Action Programme + Phosphorus Regs, Farm Nutrient Management Scheme	Improved Manure storage, reduce nutrient loss – by how much???
NI Countryside Management Scheme, Best Practice Scheme	Environmentally friendly farming, reduce nutrient & sediment run off
Forest and Water Guidelines, Best Practice Scheme	Environmentally friendly forestry, reduce nutrient & sediment run off
Use of SUDS in drainage schemes	Reduce phosphorus, dangerous subs. and organic loading

# Physical Modifications

<b>Legislation / Control Activity</b>	<b>Environmental Improvement / Protection</b>
NI Countryside Management Scheme	Environmentally friendly farming practices – river bank protection
Salmon Management Plans & Habitat Improvement Schemes	Sustainable habitat improvements
Area Plans & Planning Policy Statements	Sustainable development, avoiding flood plains, controls on non mains sewerage, etc
Drainage Order	Protection of designated rivers

# Funding for Further Improvements

- Not possible to make assumptions about new funding in the draft plan
- Need to consider how funding priorities for the next Programme for Government are dealt with in River Basin Plans
- Active debate across Europe on this issue

# Summary

- Status Classification will be refined in 2009
- Simple approach to setting objectives in draft plan
- Propose to use generalised planning assumptions
- Objectives will have to be refined in 2009 and each planning cycle