

# Preparing for 3rd cycle draft River Basin Management Plan

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# Outline

- A. Catchment & drainage basins**
- B. River Basin Management Plan (RBMP)**
- C. Types of measures**
- D. SWMI**
- E. Summary & next steps**

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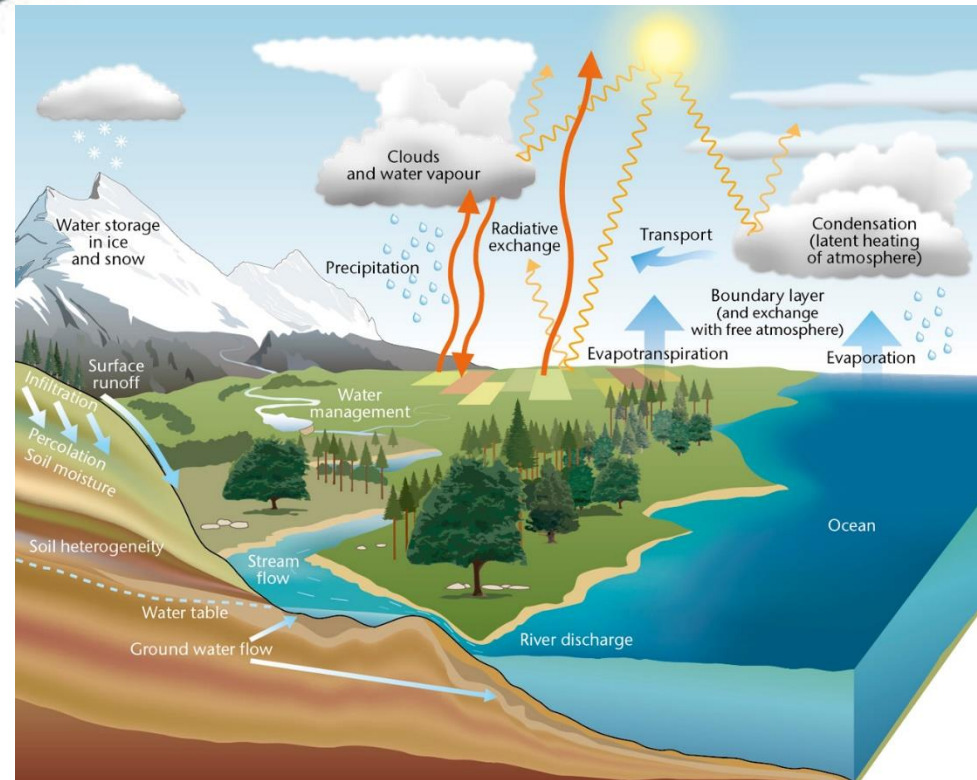
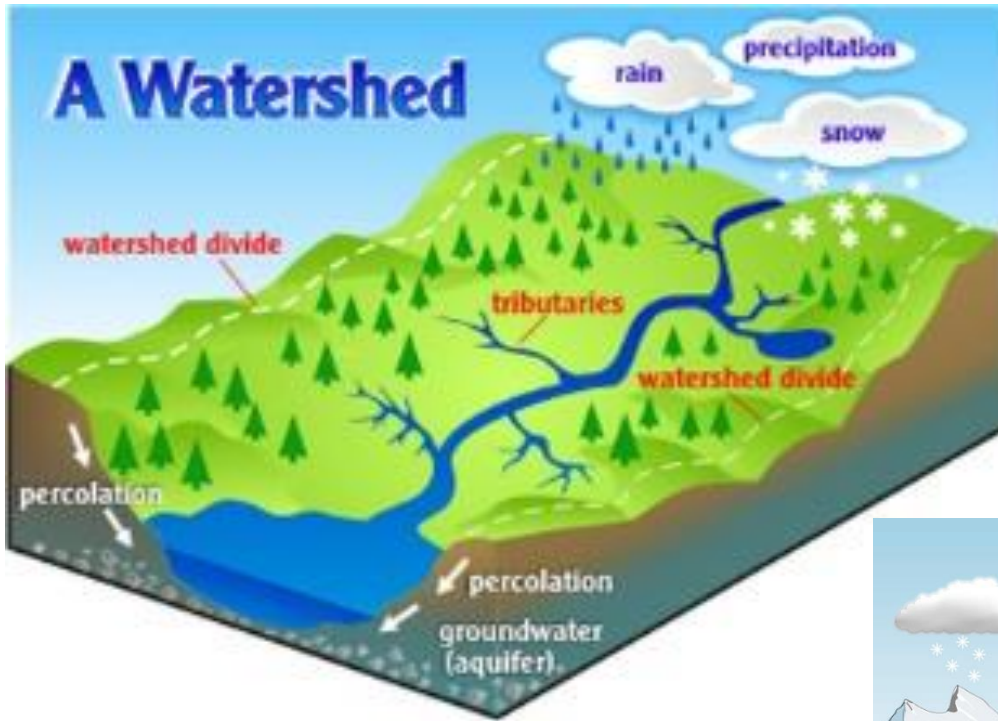
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# Polling question – greatest pressure in your opinion

Which pressure do you feel poses the greatest risk to the water environment in the next WFD cycle? Please select one:

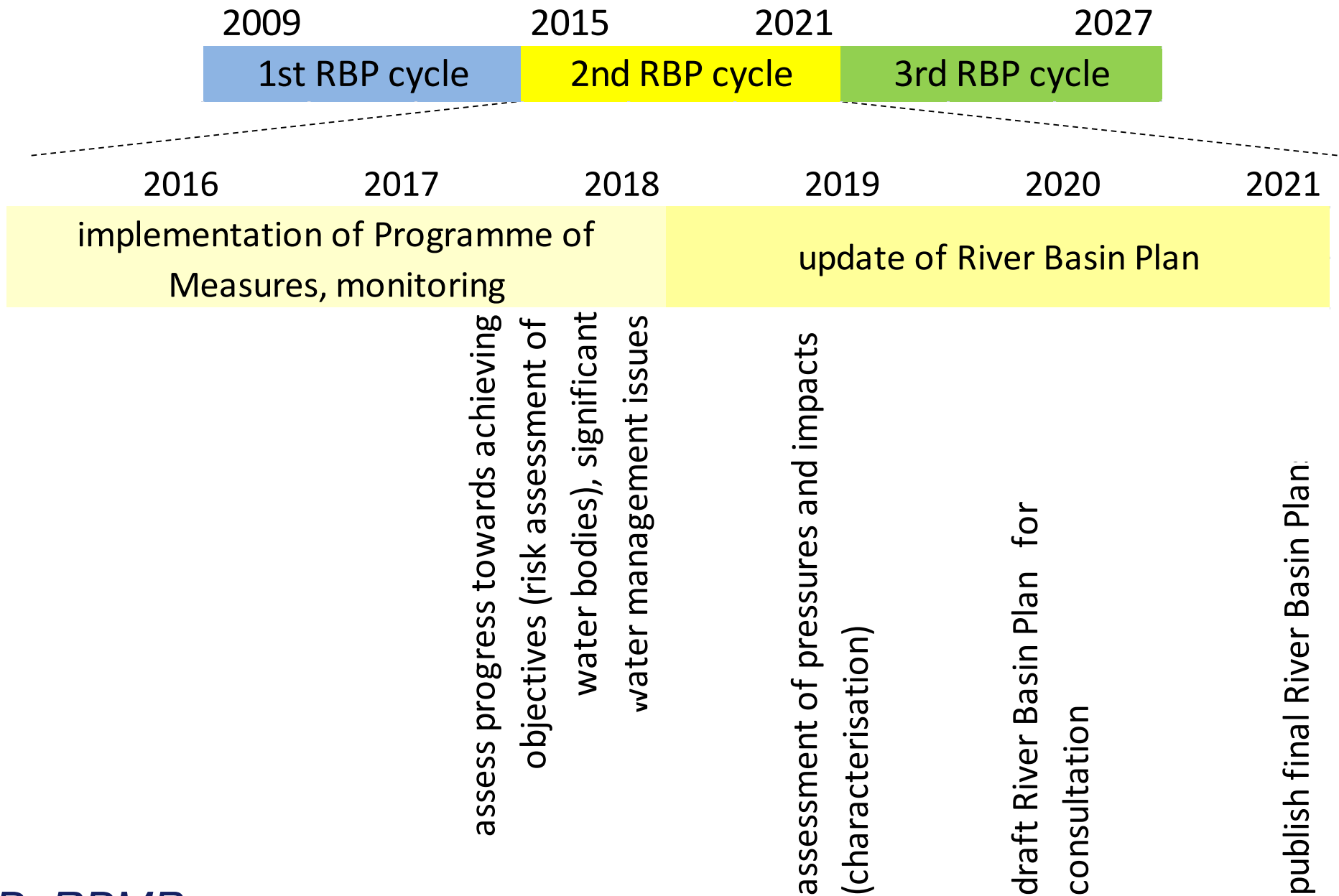
- A. Nutrient loss from agriculture
- B. Urban wastewater/ sewage
- C. Impacts from forestry
- D. Habitat modification
- E. Climate change

# What is a catchment & River Basin District?



*A. Catchment*

# River Basin Planning cycle



# Draft River Basin Management Plan

review of  
measures

classification  
update

protected  
areas

setting of  
objectives

prioritize water bodies/  
catchment for actions;  
identify measures (PoM)



follows from SWMI

# Draft River Basin Management Plan

review of  
measures

classification  
update

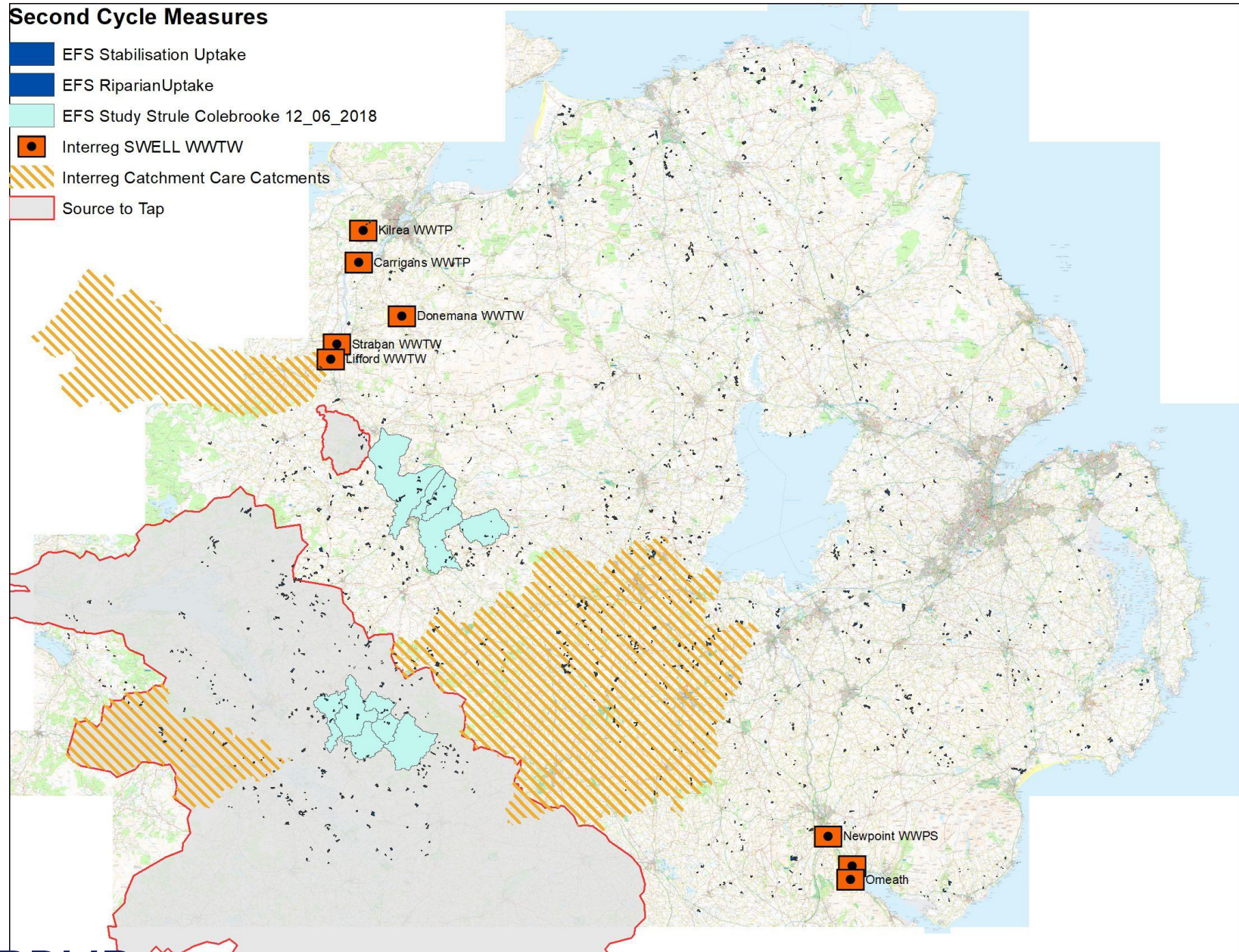
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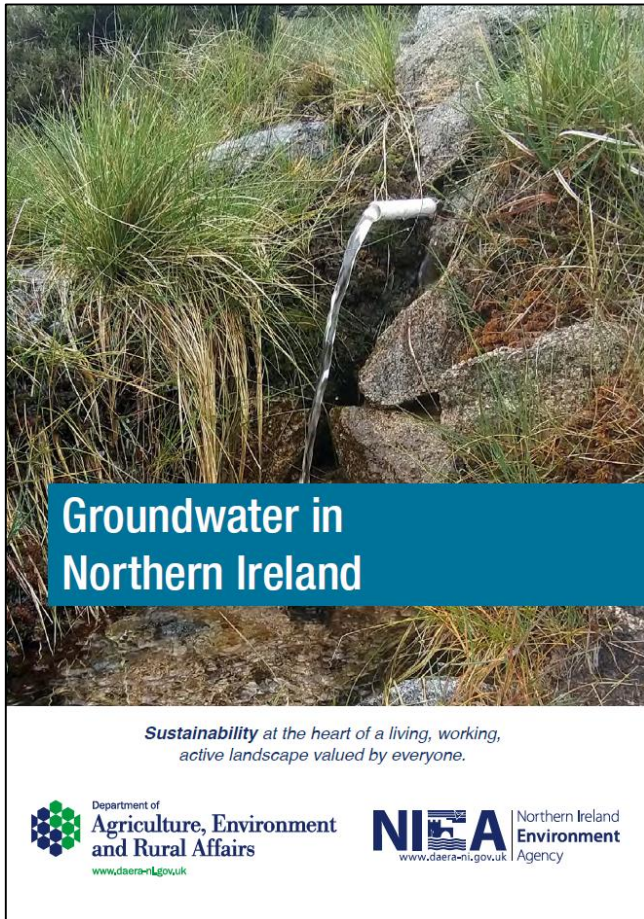
← follows from SWMI

# Second cycle measures





# Groundwater awareness leaflet



Leaflet available on DAERA website:

<https://www.daera-ni.gov.uk/publications/groundwater-northern-ireland>

# Classification update

review of  
measures

classification  
update

protected  
areas

setting of  
objectives

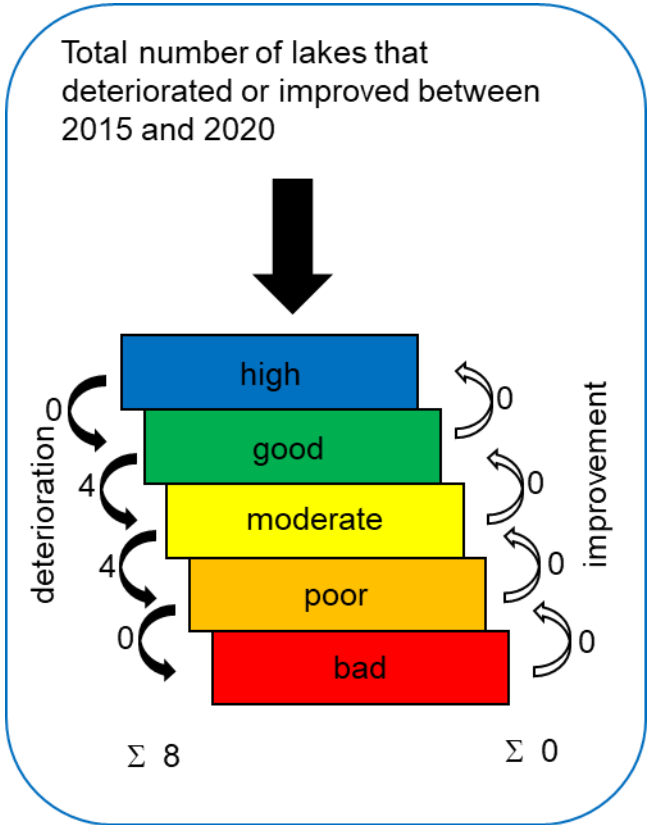
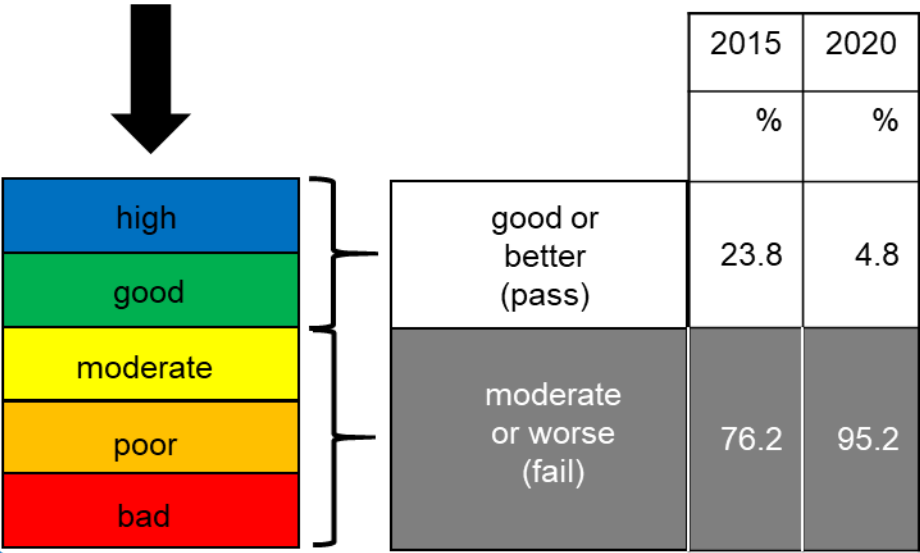
prioritize water bodies/  
catchment for actions;  
identify measures (PoM)



follows from SWMI

# Lake water bodies

- 21 lake water bodies are classified
  - results are expressed in 5 status classes (high to bad)
- Percentage of water bodies that passed or failed



# Setting of objectives

review of  
measures

classification  
update

protected  
areas

setting of  
objectives

prioritize water bodies/  
catchment for actions;  
identify measures (PoM)

← follows from SWMI

# Identifying measures (PoM)

review of  
measures

classification  
update

protected  
areas

setting of  
objectives

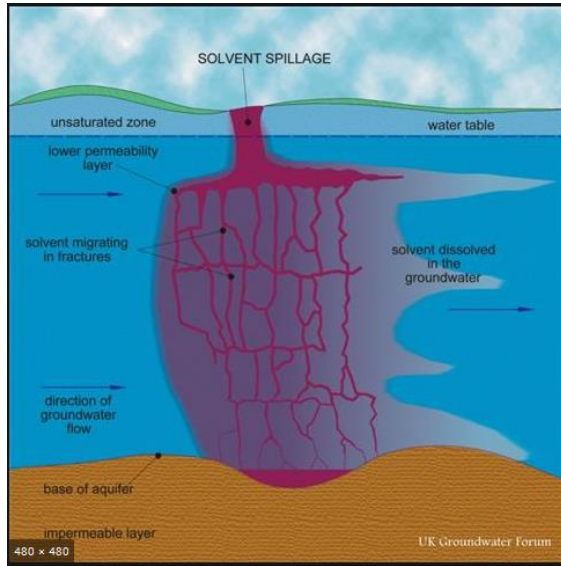
prioritize water bodies/  
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identify measures (PoM)



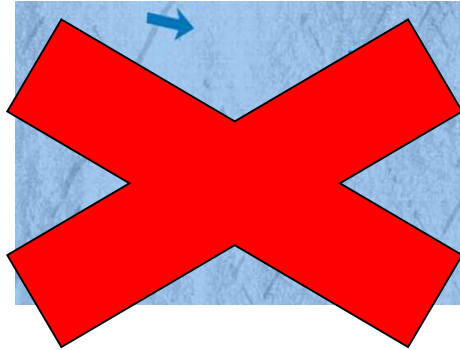
follows from SWMI

# Source-pathway-receptor model

source



pathway



receptor



*C. Types of Measures*

# It's not enough to tackle pathways

## Livestock dominate P flows in NI food system

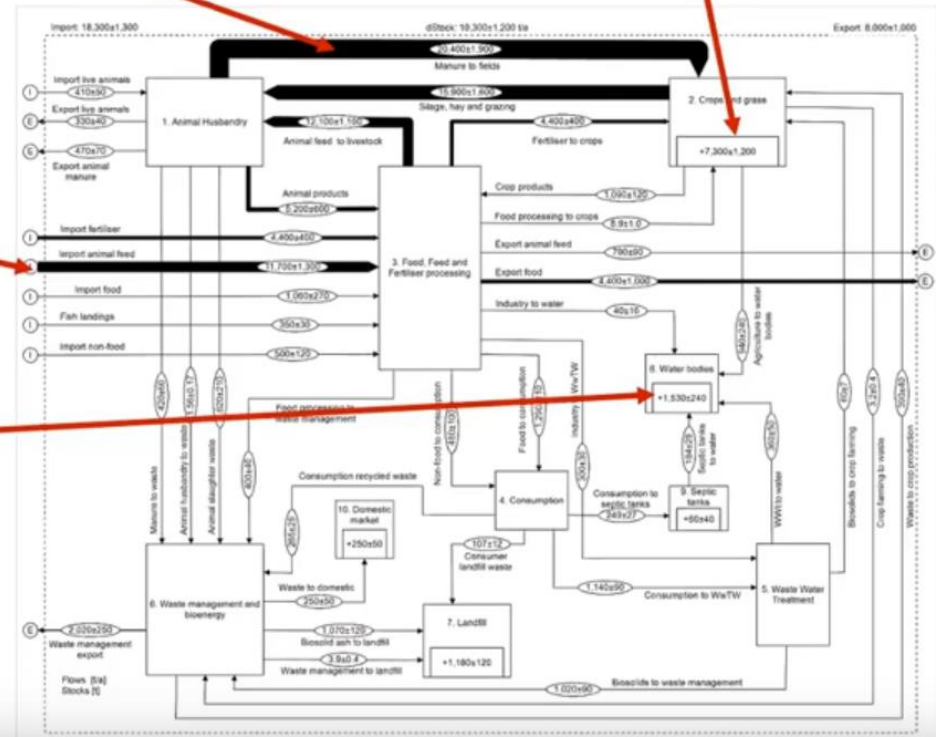
Livestock manure P is by far the largest internal P flow (81% of all soil P inputs)

Excess manure production and use is the main cause of soil P surplus (8.5 kg/ha)

Livestock feed = 64% of total NI food system P imports

Significant P losses to waterbodies (62% from agriculture)

NI has too much P in its food system driven by livestock feed demand



Source: AFBI RePhokKUs project

# P losses to water environment

	input P [t]	output P [t]	other information
wastewater treatment works	1,440 (WWTW) 51 % Population 16 % Detergent 12 % Plumbo-solvency	1,400 71 % Incineration 25 % Lost to water 4 % Recycled to land	360 t of P lost to water - 24 % of overall load
septic tanks	249 (Septic Tanks) 64 % Population 21 % Detergent 15 % Plumbo-solvency	249 74 % Lost to water 26 % Retained in Septic tanks	184 t lost to water - 12 % of overall load
			<b>Σ 36 %</b>



# Polling question – agricultural pressures

For agricultural pressures, are resources better focussed on source or pathway control? Please select one:

- A. Source – (Nutrient content of feed/ fertilizers; nutrient planning)
- B. Pathway – (investment in clean/ dirty water separation; buffer strips)
- C. Both, but emphasis on source
- D. Both, but emphasis on pathway

# Significant Water Management Issues

agriculture

urban/ sewage  
pressures

drinking water:  
chemicals, pesticides

fisheries

forestry

emerging issues

# Summary of responses

agriculture

urban/ sewer pressures

drinking water chemicals, |

fisheries

forestry

emerging is

- Nutrient management system on farms
  - holistic management including fertilizer, manure, AD digestate, land spreading
  - nutrient cap for catchments
  - reduce surplus nutrients (N, P) in food system
  - soil analysis for all farms
  - address nutrient imbalance through the use of emerging industrial and/ or farm scale technologies
  - reduce runoff by identifying area prone to higher runoff (Lidar)
  - riparian buffer strips with trees/ hedges/ wildflowers to intercept runoff
  - weather apps for slurry spreading
- fencing to prevent access of livestock to water bodies - sediment control
- better regulation on usage of pesticides
- right policy mix: incentives, regulation, checks, effective enforcement
- link future funding to environmental outcomes

# Summary of responses

agriculture

urban/ sewage pressures

drinking water:  
chemicals, pesticides

fisheries

forestry

emerging issues

- monitoring of all discharges from WWTW and P removal
- development of ecosystem model to assess catchment source apportionment and to consent discharges taking into account receiving environment; review compliance model
- capital investment in water infrastructure as per PC21
- address out of sewer flooding
- address misconnections
- sustainable (urban) drainage through Strategic Drainage Infrastructure Plan
- wetlands, reed beds
- incentives for rain water harvesting + efficient use of water, green roofs
- Research impact of hotspot areas of domestic discharges and private Wastewater Treatment systems

# Polling question – sewage pressures

Which sewage pressures should be prioritized in your opinion? Please select one:

- A. Fixing misconnections
- B. Upgrade of large WWTW
- C. Upgrades of small rural WWTW
- D. Septic tanks

# Summary of responses

agriculture

urban/ sewage pressures

drinking water:  
chemicals, pesticides

fisheries

forestry

emerging issues

- reduce pesticides input through right application (especially in Drinking Water Protected Areas)
- persistent chemicals
- sheep dip, 'pour-on' alternatives
- cypermethrin – partnership approach similar to Water Catchment Partnership
- monitoring resources for the public – citizen science
- future regulation of pharmaceutical industry/ pharmaceutical innovation
- antimicrobials
- use of antibiotics on farms
- microplastics

# Summary of responses

agriculture

urban/ sewage pressures

drinking water: chemicals, pesticides

fisheries + abstractions

forestry

emerging issues

- address pollution – impact of microplastics and pharmaceuticals
- fines for pollution
- salmon management plans
- don't just concentrate on salmon
- check of hydroschemes if fish passes are operating satisfactorily
- remove livestock access to waterways upstream of spawning beds
- concern of stocking with poor fish species diversity
- review of abstractions from salmonid rivers
- review of abstraction
- handling of river cleaning operations

# Summary of responses

agriculture

urban/ sewage pressures

drinking water: chemicals, pesticides

fisheries

forestry

emerging issues

- method statement for felling and extraction for pollution prevention – consultation with stakeholder ahead of planned activity
- planting of native broadleaves
- restoration of peatland habitats – tree removal through open habitat restoration plan
- impact of wild conifers spreading and impacting on protected sites
- where agricultural land used for flood prevention, this should only happen with full agreement of landowner and sufficient financial compensation



# E. Summary & next steps

- due to holistic approach of WFD regulations, the plan is complex
- measures need to tackle the source of pollutants, not just the pathway
- End of EU transition period:  
The Water (Amendment) (Northern Ireland) (EU Exit) Regulations 2019 ensure that the Water Framework Directive (as transposed) and the various supporting pieces of water legislation continue to operate in Northern Ireland after 1 January 2021.
- Draft River Basin Management Plan: will be published for public consultation by 31 March 2021
- Initial scoping work on a NI Fisheries Bill will start in early 2021.

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# Future departmental work



## Value added

- See complete picture
- Minimise unintended consequences
- Measure combined impact
- Target long term funding
- Public message/ buy-in
- Drive behavioural change

Link existing and future strategies, policies and actions that can deliver for climate, environment and sustainable growth.

- KEY:**
- People living and working
  - Main Challenges
  - Main Contributors
  - Green Growth

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# Links

- Interreg projects:
  - SWIM project: <https://swimproject.eu/>
  - SWELL: <https://swellproject.com/>
  - Source-to-Tap: <https://www.sourcetotap.eu/>
  - CatchmentCARE: <https://www.catchmentcare.eu/>
- Groundwater awareness leaflet  
<https://www.daera-ni.gov.uk/publications/groundwater-northern-ireland>
- AFBI RePhoKUs project:  
<https://www.afbini.gov.uk/publications/rephokus-report-oct-2020>  
<https://youtu.be/N91tu6Q8nFM>

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# Open consultations relating to water (1)

- Living with Water in Belfast Consultation:  
<https://www.infrastructure-ni.gov.uk/consultations/living-water-belfast-consultation>  
closing date: 29 January 2021
- Consultation on the development of fisheries management measures for Marine Protected Areas (MPAs) and establishment of Scallop enhancement sites in the Northern Ireland inshore region  
<https://www.daera-ni.gov.uk/consultations/consultation-development-fisheries-management-measures-marine-protected-areas-mpas-and-establishment>  
closing date: 22 February 2021

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# Open consultations relating to water (2)

- Sustainable Use of Pesticides: Draft National Action Plan  
<https://www.daera-ni.gov.uk/consultations/sustainable-use-pesticides-draft-national-action-plan>  
closing date: 26 February 2021

For other DAERA consultations, please check the consultations webpage:

<https://www.daera-ni.gov.uk/consultations>

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# Water Framework Directive Stakeholder Webinar 2020

A graphic for a webinar. The background is a close-up, top-down view of water with green algae or moss. A black, torn-edge banner across the top contains the text 'WATER FRAMEWORK STAKEHOLDER WEBINAR' in a light green, sans-serif font. Below the banner is a light blue square frame containing three white wavy lines representing water. Similar wavy lines are also visible on the left and right sides of the frame.

WATER FRAMEWORK STAKEHOLDER WEBINAR

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