

# Water protection good status for all water

David Flynn
Principal Adviser, Water Division

October 2021

# My agenda



Overview of the Water Framework Directive, timelines and the River Basin Management Plan Process

Overview of the **Draft River Basin Management Plan** 2022 to 2027

Discuss the role and importance of a strong local authority sector in the **protection of water status** 

All as a preview to a more detailed water module later in the programme

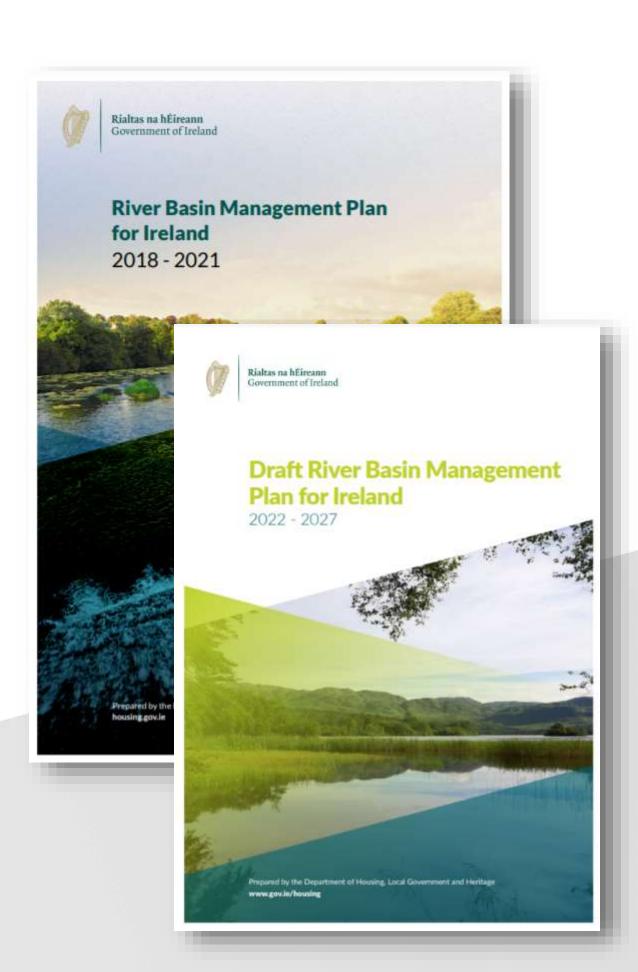
# Well protected, clean water



People, our society, our economy and nature all need clean water in our rivers, lakes, coastal waters, groundwater and bathing areas

Restoration and protection must get equal status: protecting all forms of water; restoring aquatic ecosystems; reducing pollution and ensure sustainable water use

Our programme of measures is designed to protect and restore our natural waters: principally, dealing with pollution from waste water discharges; reducing diffuse nutrient pollution; and restoring free-flowing rivers.



### Water Framework Directive

**Framework approach** – applies to all waters and based on natural management units (river basin/ catchment/ sub-catchment and water bodies): protecting aquatic ecology; habitats; drinking water resources; groundwater and bathing waters etc.

River Basin Management Plans(RBMPs) with Programmes of Measures(PoMs) in continuing six year cycles: Next is 2022 to 2027

- 1. Catchment "characterisation": what are we dealing with and what is the problem?
- 2. Draft RBMP set objectives and programmes
- 3. Implement measures
- 4. Monitor and evaluate
- 5. Report

Public Participation is key (Art.14)

# Water Framework Directive – some key highlights



### **Surface water**

- prevent deterioration of status;
- protect, enhance and restore surface water to good surface water status; and
- protect and enhance all artificial and heavily modified bodies of water to good ecological potential and good surface water chemical status.

### Groundwater

- prevent or limit the input of pollutants and prevent the deterioration of the status;
- protect, enhance and restore to ensure a balance between abstraction and recharge; and
- reverse any significant and sustained upward trend.

### **Protected Areas**

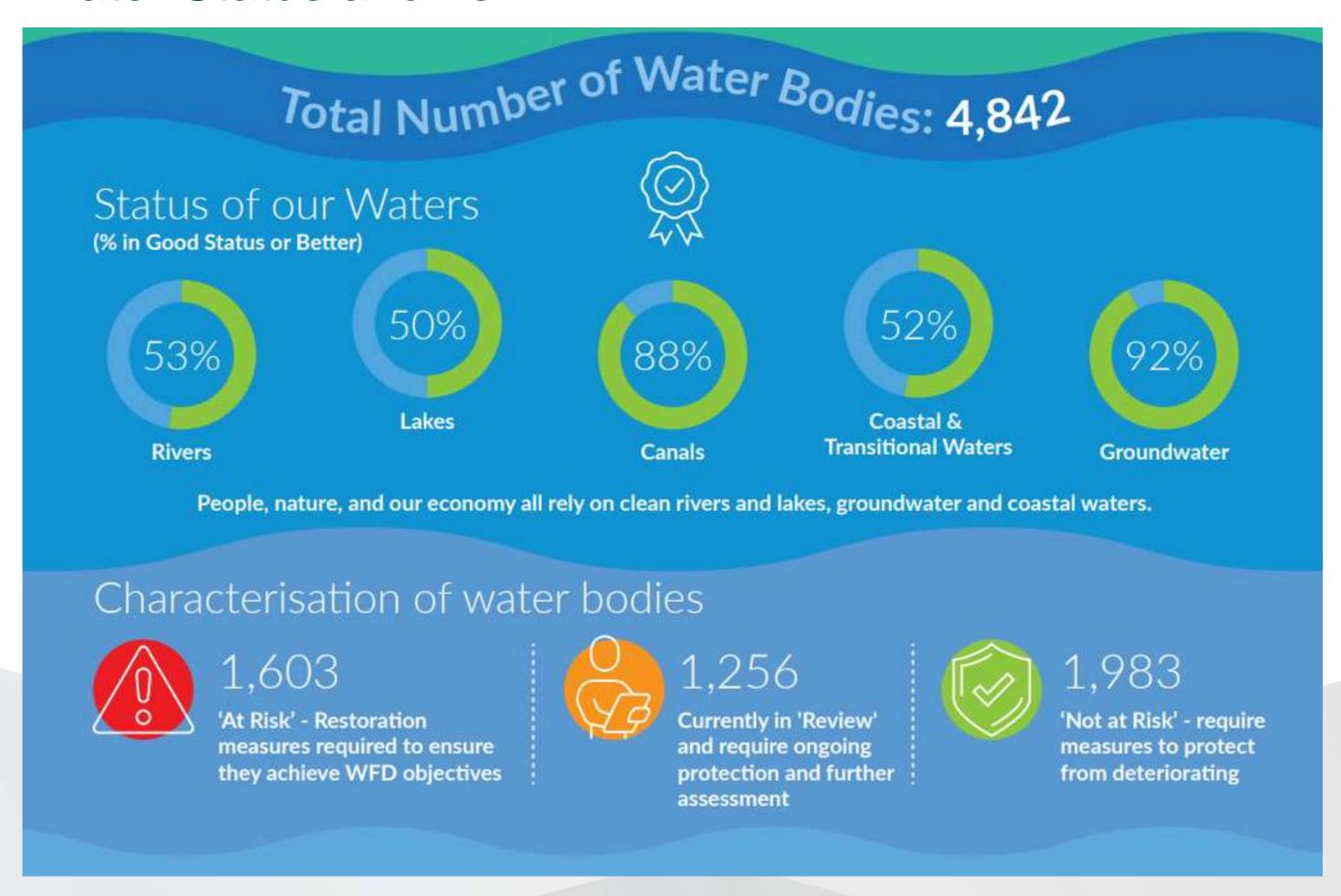
- achieve compliance with any standards and objectives (protected Natura 2000 habitats; drinking water; bathing water; shellfish)

Rivers 2020 Water Changes in biological quality of rivers surveyed in 2019 and 2020 Indicators 345 mproved in biological quality Lakes Rivers 43% 57% Take biological quality 230 89% 56% declined in biological Rivers of sites have satisfactory BOD are in good or high quality 400 Nutrient Trends 2013-2020 values of sites have of sites have of sites have unsatisfactory increasing phosphate concentrations of sites have increasing nitrate concentrations unsatisfactory phosphate concentrations nitrate concentrations of lakes have insatisfactory total phosphorus Estuarine concentrations and Coastal Croundware Riverine inputs of nitrogen and phosphorus increasing since 2012-2014 24% of sites have 35% high nitrate concentrations increase in loads of Phosphorus

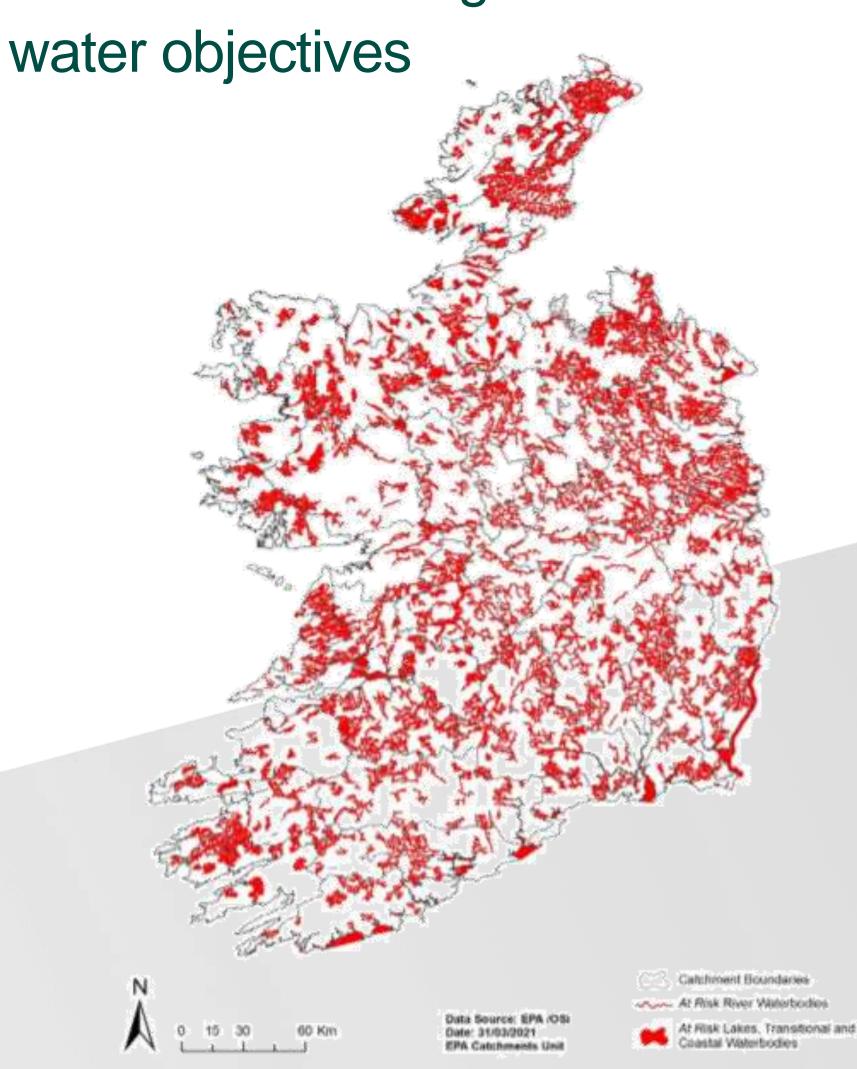
increase in loads of Nitrogen

### The status of our water is at risk

### Water Status and risk



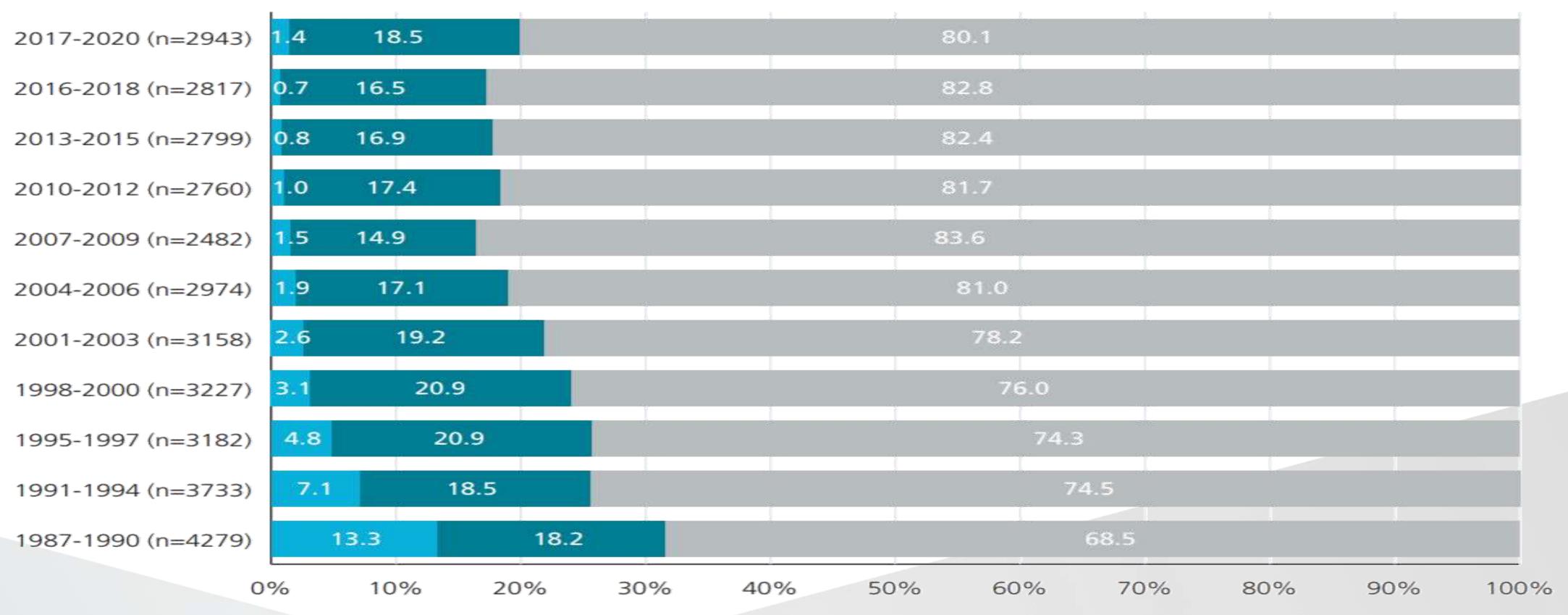
Risk of not meeting surface



# Of real concern: we're losing our most pristine water



#### **High Quality River Sites**



#### Percentage of monitored river sites

# Water Quality: our most significant pressures



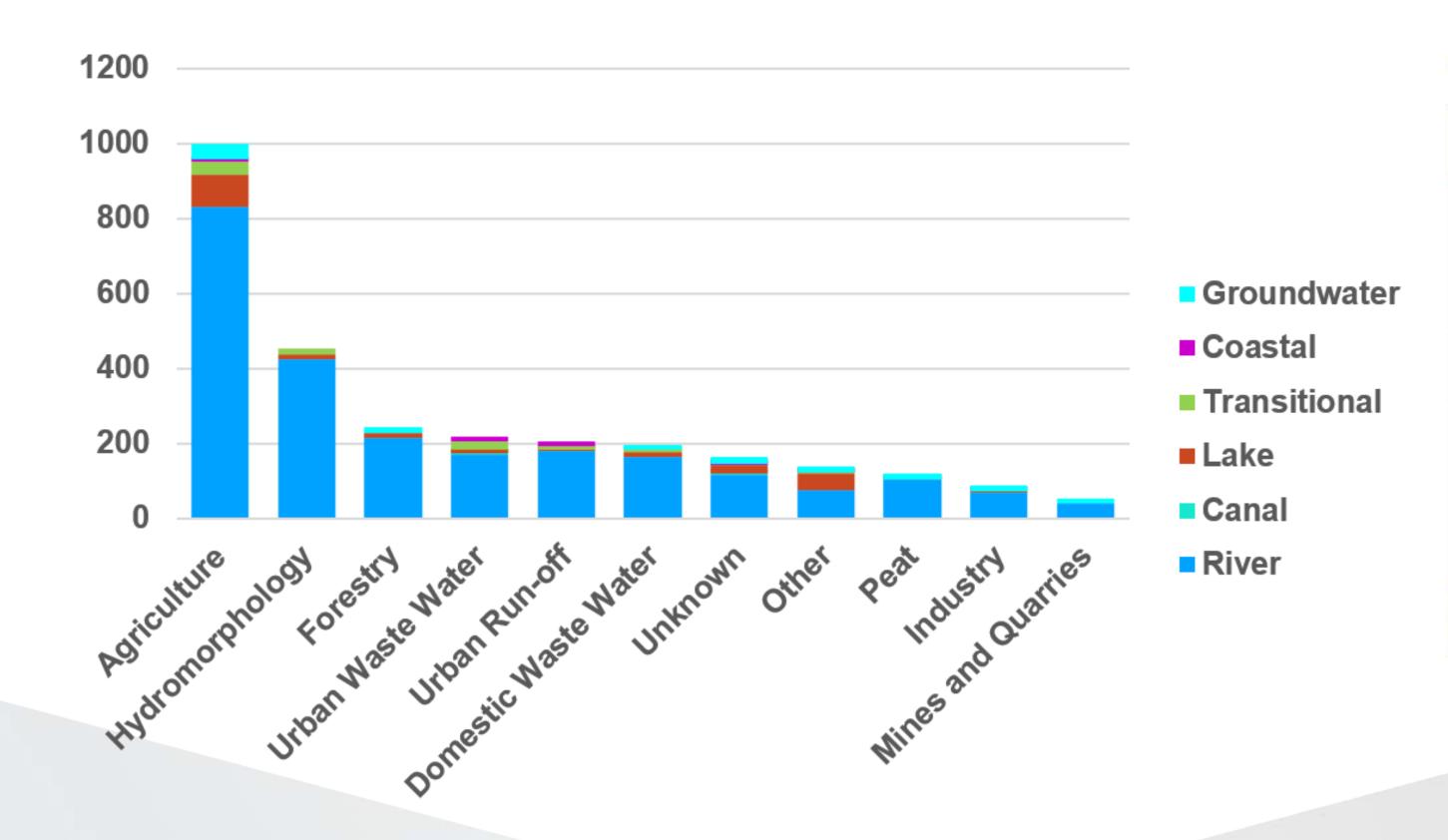


Table 6. Number of waterbodies in each waterbody type per significant pressure category.

Significant pressure category	Waterbody Type							
	River	Canal	Lake	Transitional	Coastal	Groundwater	Total	
Agriculture	831		84	35	6	44	1,000	
Hydromorphology	424		14	4			442	
Forestry	215		14			4	233	
Urban Waste Water	172	1	10	22	3		208	
Urban Run-off	179		3	11	3		196	
Domestic Waste Water	163		13	6		6	188	
Unknown	118	1	22	2	3	18	164	
Other*	75		45	2	1	16	139	
Peat	103		2			1	106	
Industry	70		1			18	89	
Mines and Quarries	41					4	45	
<b>Total Significant Pressures</b>	2,391	2	208	82	16	111	2,810	
*Includes a range of other small	ler pressur	es such as	aquacultu	e, historically poll	uted sites ar	d invasive species.		

# River Basin Management Plan – guiding principles



1. An increased level of ambition: the draft third cycle plan sets a higher level of ambition in response to water quality trends.

2. Integrated Catchment Management: local catchment management plans will be put in place in the next cycle for each of the 46 catchments including ongoing public participation and engagement at a local and regional level in the next and future cycles.

 Multiple benefits: Many of the measures needed to protect and improve water quality can also deliver benefits for biodiversity and climate change.

# River Basin Management Plan – areas of focus



# Continue to provide strong investment in urban and rural water services A high quality, compliant water and waste water system that supports national development.

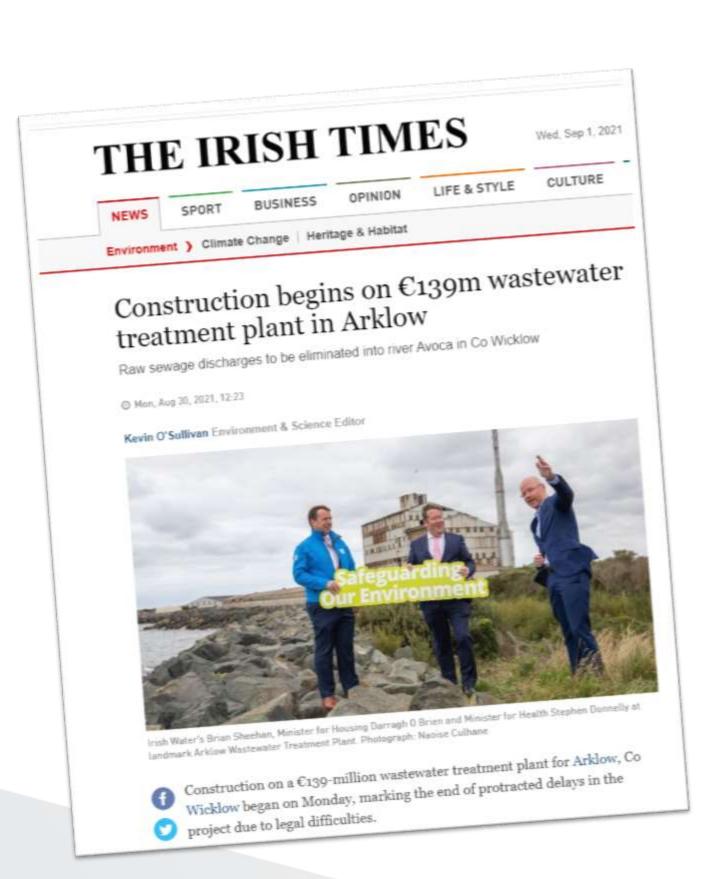
Effective programme of measures that protect our rivers, estuaries, lakes, and groundwater

### Completing the work of legal and institutional transformation

Modernising and consolidating our legal framework; further enhancing governance arrangements; review and resource the role of our local authorities and LAWPRO

# Programme of Measures





### **Waste Water**

- Continued and increased investment in Irish Water and in rural water services under the revised National Development Plan.
- Address urban waste water infringement case moving to full compliance.
- Of 172 large urban areas 28 were non-compliant in 2017; this fell to 19 in 2019 and down again to 12 in 2020.

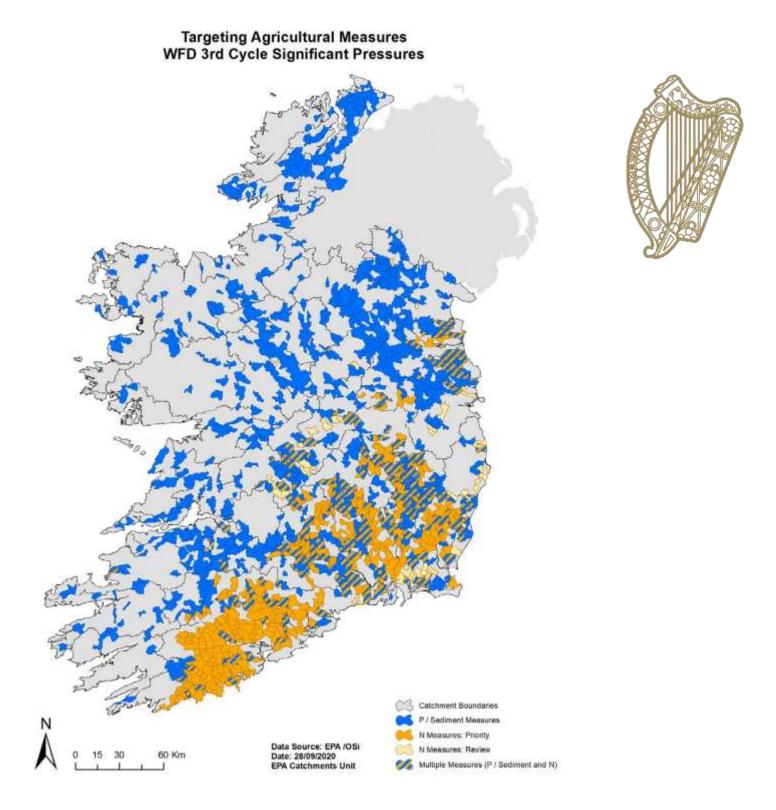
# **Programme of Measures**

## **Agriculture**

### **Enhanced and expanded ASSAP Service**

New Nitrates Action Programme considerations

- Implementing tighter controls on nitrogen inputs
- Establishment of a chemical fertiliser register
- Improved enforcement and compliance of the regulations



Implementation of the new **CAP green architecture** and refocus on rewarding the delivery of environmental outcomes:

- Enhanced water protection in conditionality (GEAC; Eco-schemes and AECM)
- Move towards Results Based Scheme for delivering outcomes in AECM
- Focus on delivering the 'right measure in the right place' and multiple benefits

Waters of LIFE – EU LIFE Integrated Project

# Agriculture measures for nitrate

(thanks to EPA for slide details)

#### Issue

Waterbodies and drinking water impacted by excess nitrate.

Nitrate trends are increasing.

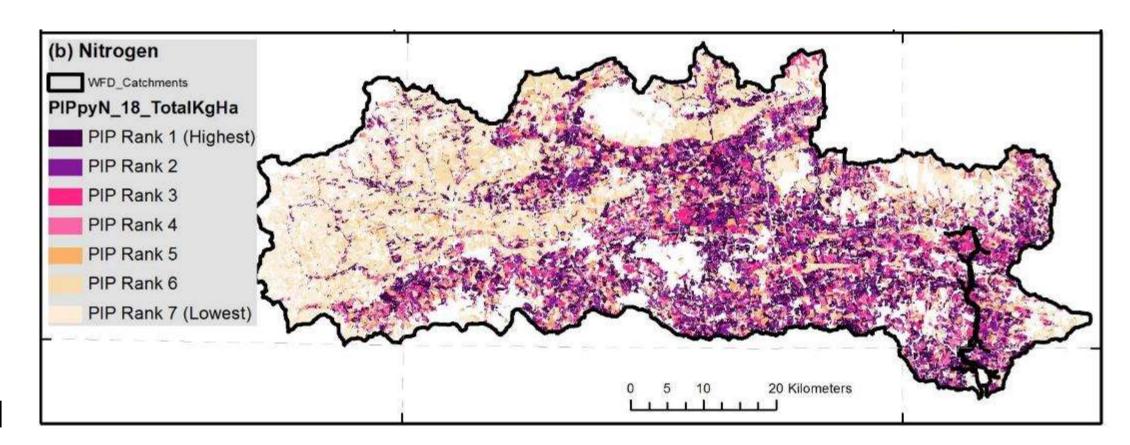
### **Targeting** Action

Critical Source Area maps developed.

Nitrate losses from farms are highest in South and SE

Source control measures.

New Nitrates Action Programme













Co-benefit Ammonia, GHG reductions and Water.

# Agriculture measures for phosphorus

(thanks to EPA for slide details)

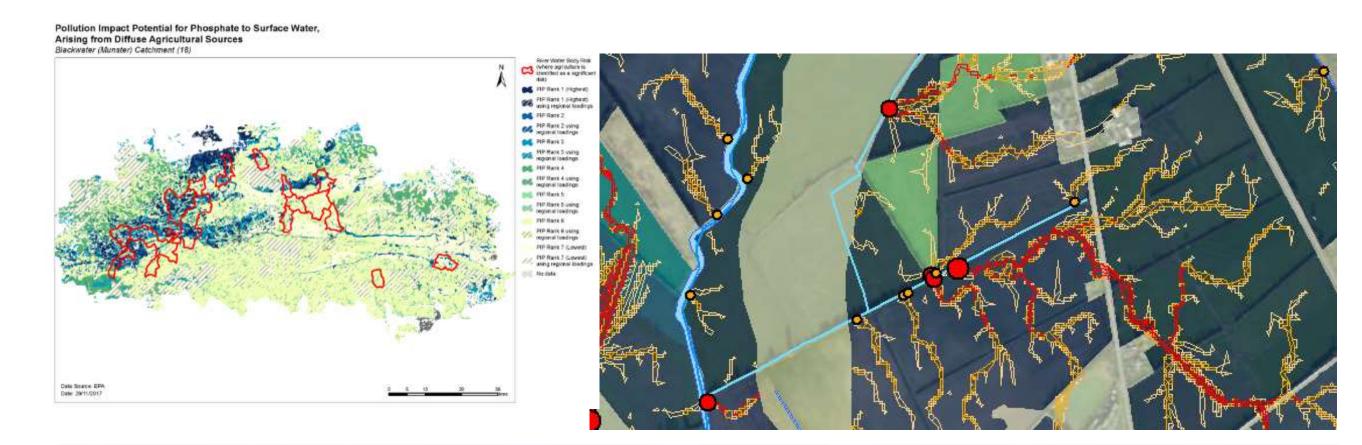
Issue

waters impacted by excess phosphorus

### **Targeting** Action

Critical source area maps

Possible that measures can be micro-targeted to river bank areas that need pathway interceptions measures.





Co-benefit Biodiversity and water.

# **Programme of Measures**



## <u>Hydromorphology – Free flowing rivers</u>

Establishment of a national restoration programme

- 2,000 to 7,000 structures potentially requiring removal or modification
- Align with Biodiversity Strategy target (potentially 950km nationally)
- Projects at Parteen, Shannon and at Annacotty, Mulkear

A new control regime for the protection of waters

- Strengthening of controls on engineering works in or close to water
- New controls on barriers and drainage activity
- Abstractions Bill in Autumn 2021

# Local authority and protection of water



### Restoration and protection are equal requirements

Success in restoration has been overshadowed by overall net decline: need for a greater focus on the protection of water quality

Causes include pollution; land development and changes in land use

- 1. Inspection / monitoring of regulations and compliance assurance activities (GAP Regulations, Water Pollution Acts).
- 2. Development plans and planning decisions have a key role in the prior assessment of new development and changes in existing land use.
- 3. Water sensitive urban realm design: natural-based solutions and regional/local rainwater management schemes in addition to project-level solutions

# Local authority water protection activities (abridged)

### **Local Authority Water Programme (LAWPRO)**

- Catchment assessment and referrals
- Community work: awareness; build capacity; support training and citizen science

### Inspection and investigation

- Water pollution incident and complaint investigation
- Farm inspection Nitrates Action and the Good Agricultural Practice Regs
- Septic tanks inspections

### Monitoring

- Monitoring and protection of bathing waters (incl. misconnection investigation etc.)
- Water monitoring and hydrometrics (WFD and other)

### **Spatial planning and Consent processes**

- Section 4 discharge licencing under Water Pollution Acts
- Planning assessment and consent process
- County and local area development plans
- Management of surface water networks and integration of Blue/Green Infrastructure
- Flood protection, prevention and mitigation

### **Drinking water protection**



# Local authority development consent process



The planning system plays a critical role in the achievement of WFD environmental objectives.

A planning authority needs to consider the WFD during the making of development plans as well as to **ensure** any project granted does not imperil WFD objectives. Case law shows Member States **must say no to any project that will compromise the achievement of WFD objectives:** unless a derogation provided for at Article 4(7) has been granted.

### See especially;

- Article 3(1) of the European Communities (Water Policy) Regulations 2003
- Part 1, Section 1A and Part II, Section 10 of the Planning and Development Act 2000, as amended

WFD water status assessments (and protection of water status in the consent assessment and decision making process) is increasingly a feature of judicial review applications.

Key question: Is the proposed plan, scheme or development project relevant to the significant pressures identified in the proximate or connected water bodies? Will plan, scheme or development project jeopardise the WFD Objectives

#### **Major WFD-related CJEU cases:**

C-461/13(Weser), C-346/14 (the Schwarze Slum) C-535/18 (North Rhine Westphalia) Case C559/19 (Doñana)

# Water Sensitive Urban Design

<u>Urban runoff pressures on water quality</u>: direct surface water discharges to water and storm water overflows from combined sewers.

- micro-pollutant; micro-plastics; biological; pathogenic and nutrient load
- Soil sealing and increased rainfall intensity are exacerbating the risk to water quality

Action: Develop recommendations for an implementation strategy for nature based Sustainable Urban Drainage Systems on a national scale.

Action: Provide interim guidance documentation to the Local and Planning Authorities on measures to be implemented to support the delivery of a greater focus on nature based solutions in advance of a national implementation strategy.









Slides: Fran Igoe, LAWPRO

# Thanks & acknowledgements for material included:



- Colleagues in Department of Housing, Local Government and Heritage
- Environmental Protection Agency, Catchments Unit
- Local Authority Waters Programme (LAWPRO)
- Department of Agriculture Nitrates Team
- Teagasc