



*River Boyne, Trim, Co. Meath*

# Protecting and Improving Water Quality in Ireland

Environment Ireland  
Conference,  
Croke Park

**Sean Keating,**  
Programme Director,  
Local Authority Waters Programme

02<sup>nd</sup> Oct. 2019

# Running Order

## Improving Water Quality – Initiatives:

- What's driving the LA Waters Programme?
- Who are we and what are we doing?
- Water Framework Directive and River Basin Management Planning

## What's Happening on the Ground?

- A focus on Agriculture
- LAWPRO Catchment Assessment process
- Working with Communities
- Looking Ahead



# What's Driving this Programme?

## EU Water Framework Directive (WFD) 2000

- EU Legal framework to **protect and restore** clean water across Europe by 2027



- **How?** Preparation of **River Basin Management Plans** over three cycles

1st Cycle: 2009-2015 (minimal community engagement)

**2nd Cycle: 2016-2021**

3rd Cycle: 2022-2027

..... **“to achieve good ecological status (good water quality) in all waters”** .....



- 2014 Regulations provided **new role for Local Authorities**

# Local Government Role

2014

- Increased responsibility for Local Government
- Regional coordination of implementing bodies
- Public engagement and catchment assessment responsibilities
- Driving the implementation of mitigation measures at Catchment Level

2015

- 2015 business case for Local Authority Shared Service
- Tipperary Co. Co. & Kilkenny Co. Co. joint lead on Shared Service
- LA Communities Team – coordinate implementing bodies & engage with communities
- Significant input to preparation of 2<sup>nd</sup> River Basin Plan

2017

- 2017 business case for further Shared Service
- LA Catchment Assessment Team – support implementation of RBMP through catchment assessment & referrals to implementing agencies

2018

- Services merged 2018
- **Local Authority Waters Programme** established (Communities Team + Assessment Team)
- Working together to improve water quality

# Structure of LAWPRO



## Communities Team (2016)

- 13 Community Water Officers
- 3 Regional Managers

### KEY ROLE:

**Community engagement** – encouraging communities to value water in their catchment and to participate in actions to **protect water**



## Catchment Team (2018)

- 37 science staff

### KEY ROLE:

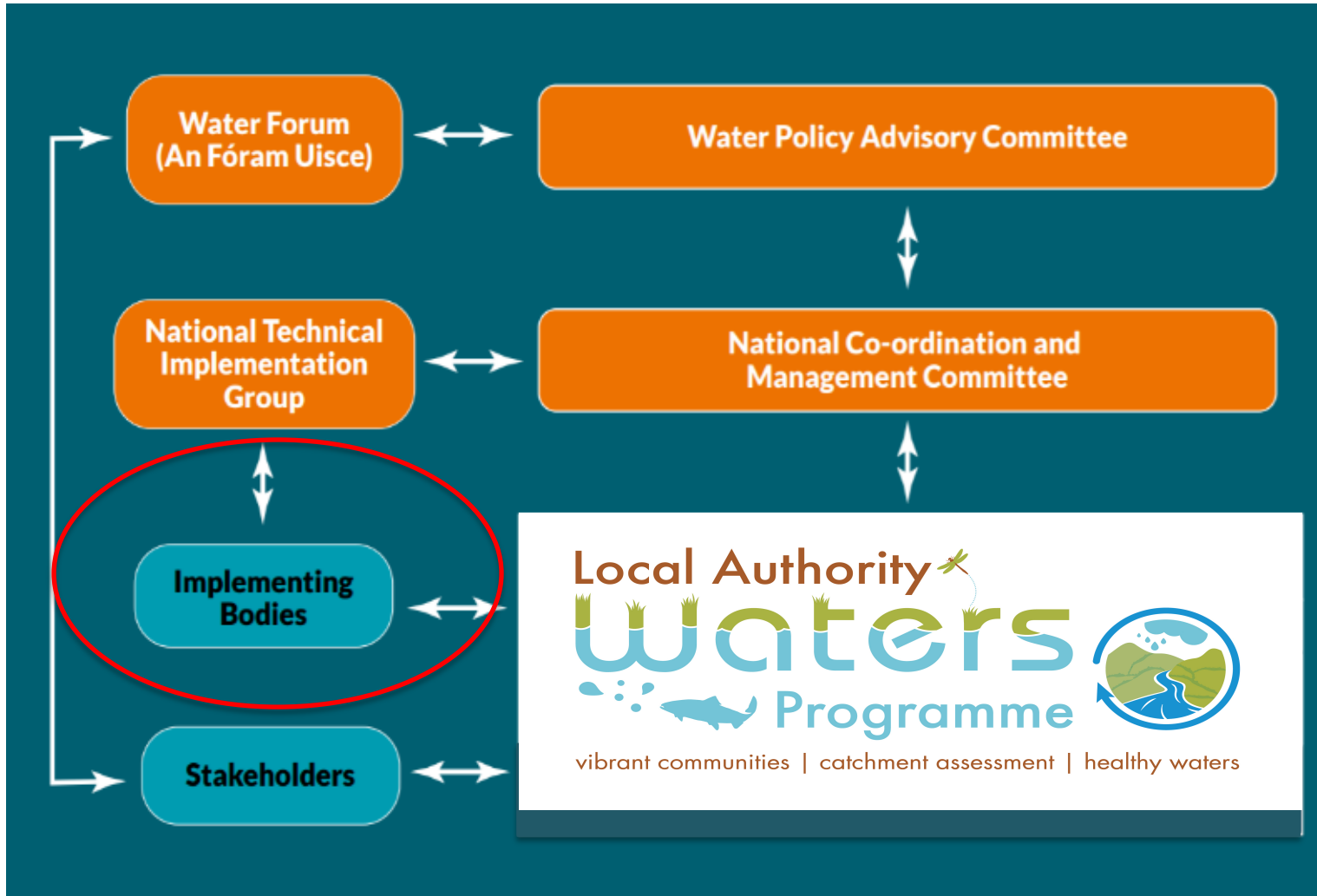
**Scientific assessments** – identify the right measure in the right place to help **improve water quality**

# Programme Essentials



- Total **staff of 60**
- Annual budget of circa **€7 million**
- Supporting EPA and DHPLG
- Working alongside 31 County Councils
- Collaborating with other WFD Implementing Bodies

# Role within Governance Structure



# Sample of the Implementing Bodies



An Roinn Talmhaíochta,  
Bia agus Mara  
Department of Agriculture,  
Food and the Marine



An Roinn Tithíochta,  
Pleanála agus Rialtais Áitiúil  
Department of Housing,  
Planning and Local Government



*Working Together to improve water quality...*



# Water Catchments

WHERE WE LIVE, WORK & PLAY

Properly sited and managed woodlands and forests help to protect water quality.

**Agricultural Pressures**

Good will grow crops and livestock risk to water quality.

Livestock access to watercourses needs to be properly managed.

**Forestry Pressures**

Blue Dot Catchments Programme – protecting and restoring high status waters

**Drinking Water Abstraction**

Clean water sources require less chemical treatment.

Private wells should be properly constructed, sealed and regularly tested.

**Rural Dwelling Pressures**

Domestic waste water treatment systems should be well sited and maintained.

**Urban Run-Off Pressures**

The Green Schools programme raises awareness of water as a valuable resource.

Effective urban waste water treatment protects public health and the environment.

**Waste Water Pressures**

Water quality is defined in terms of five status classes: High, good, moderate, poor and bad.

Share Your story.

Most towns and villages in Ireland have angling clubs. Angling tourism benefits local communities.

Catchment assessments are carried out for the benefit of local communities.

Protecting the water environment now will benefit future generations.

Local Authority Waters Programme

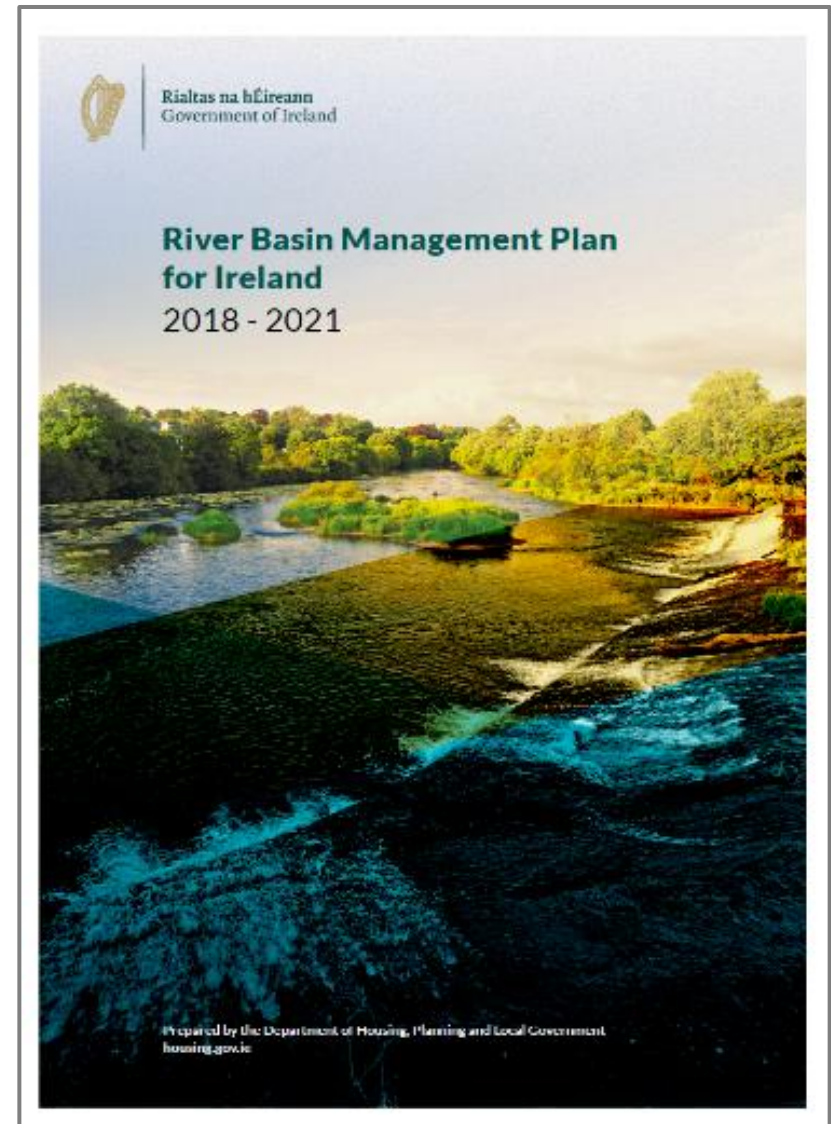
Water conservation | Catchment assessment | Healthy waters

**We all live in a river catchment and what we do impacts on our water quality...**

# River Basin Management Plan 2018 – 2021

## *Positive Things Happening!*

- LA Waters Programme and its collaborative approach
- Community Water Development Fund for Communities
- Special focus on High Status Waters
- Extension of the Local Authority-led Domestic Waste Water Treatment Systems (Septic Tank) grant scheme
- €1.7 billion in waste water infrastructure and projects in 255 urban areas by the end of 2021
- New Agricultural Sustainability Support and Advisory Programme (ASSAP) with 30 Sustainability Advisers



# Addressing Agricultural Pressures

- Agriculture identified as a **significant pressure** in 53% of “at-risk” water bodies
- Improved farm infrastructure in recent decades
- Current issues mainly from **diffuse sources**
- **Dedicated approach** required to tackle (ASSAP Programme)

hments  
WORK & PLAY

## Agricultural Pressures

Good fertiliser management will grow crops and reduce risk to water quality

Livestock access to watercourses needs to be properly managed

Clean water sources require less chemical treatment

Water quality classes: high, poor and bad

Share Your story

CHECK CLEAN DRY



# Agricultural Sustainability Support & Advisory Programme (ASSAP)

- ASSAP – a free farm advisory service
- 20 Teagasc Advisors (50/50 by DAFM & DHPLG)
- 10 Advisors – provided by the Dairy Industry
- Managed by Teagasc Team Leader
- Coordinated by LAWPRO/Teagasc/Dairy Industry



# What are LAWPRO Doing?



## Waters & Communities Team (2016)

- 12 Community Water Officers
- 3 Regional Managers

### KEY ROLE:

**Community engagement** – encouraging communities to value water in their catchment and to participate in actions to **protect water**

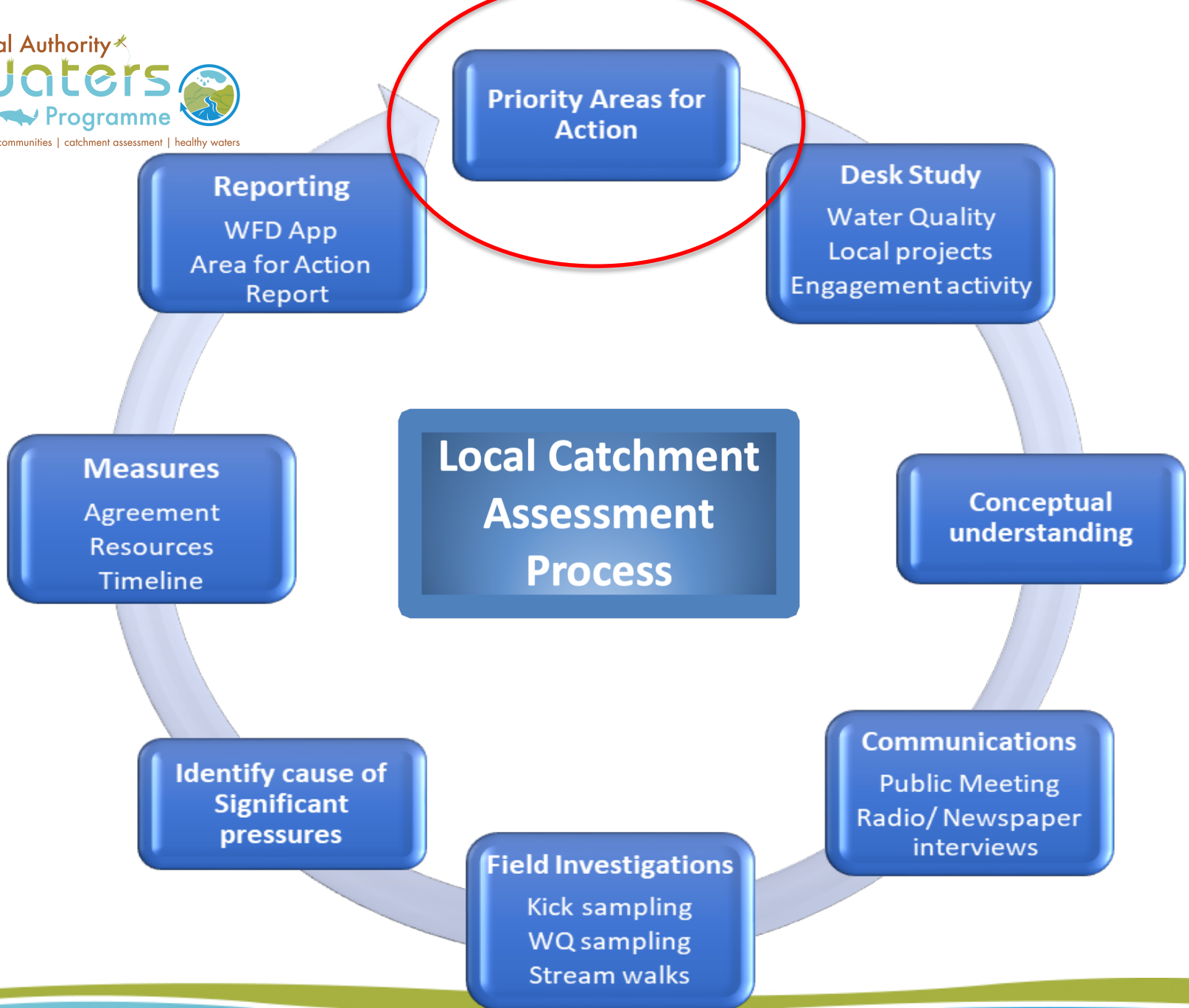
## Catchment Assessment Team (2018)

- 35 science staff

### KEY ROLE:

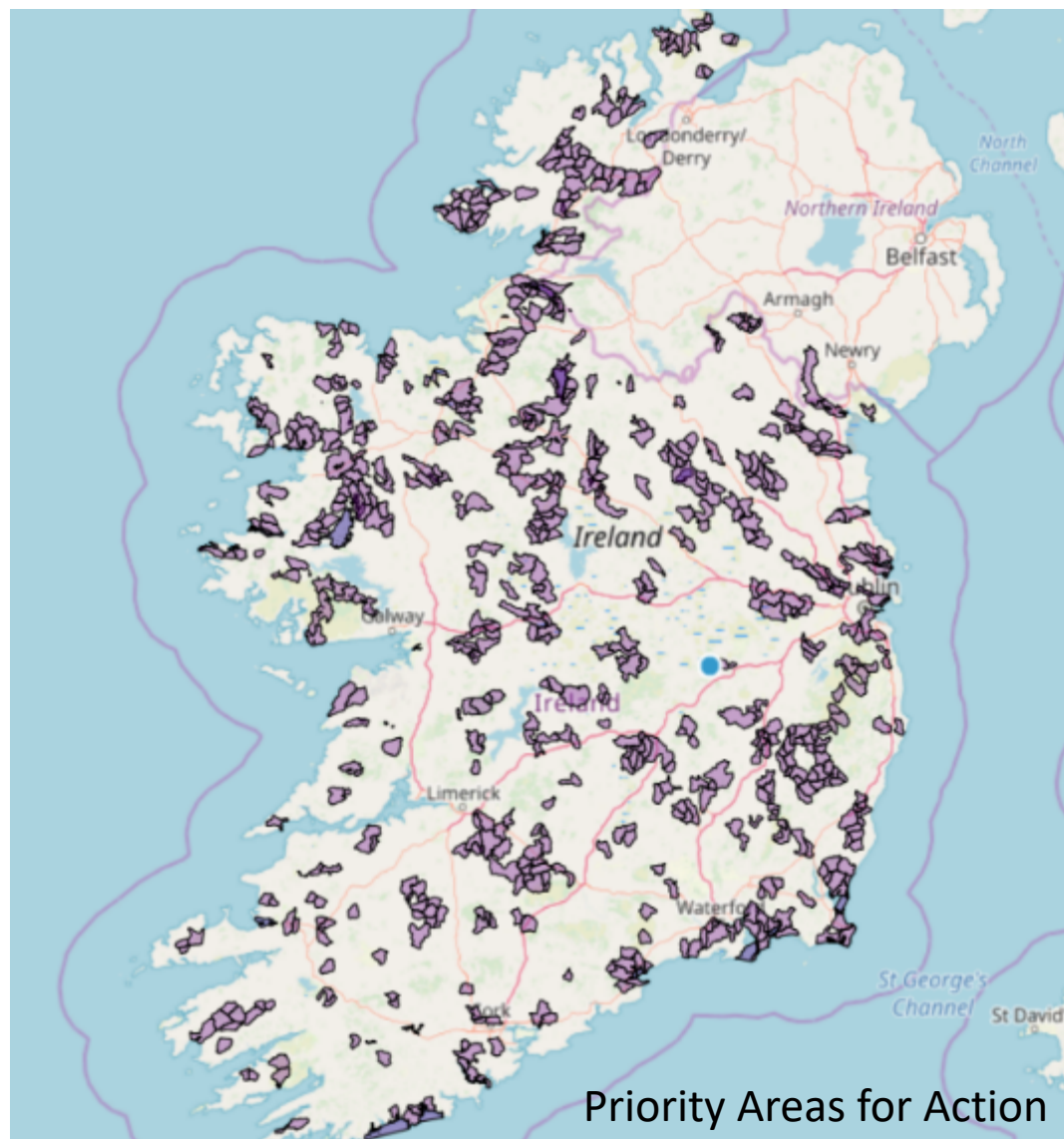
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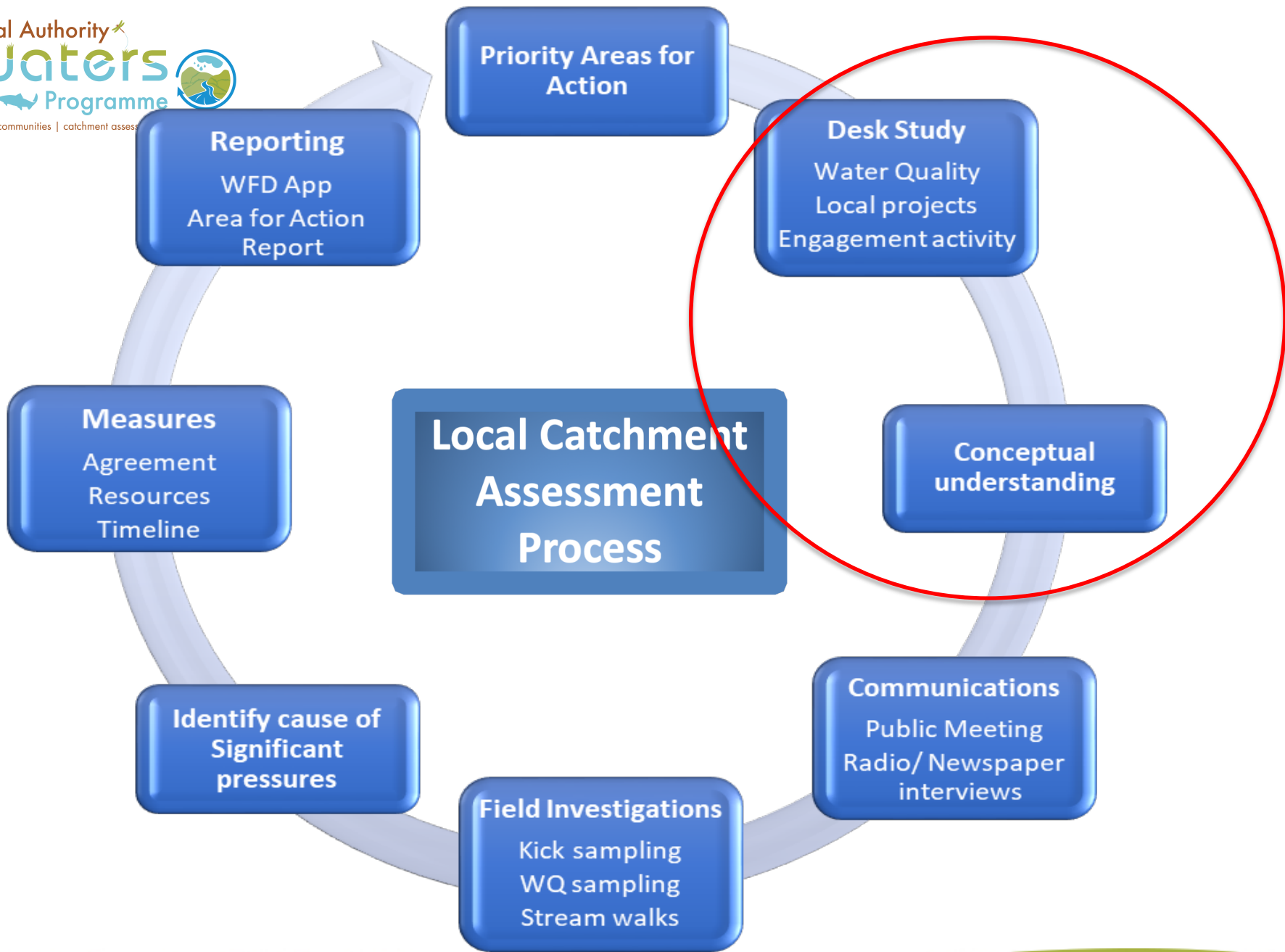




## Priority Areas for Action (PAA's)

- 190 PAA's selected for Local Catchment Assessment
- Built on EPA **evidence**
- All 31 Local Authorities involved
- Relevant public agencies involved

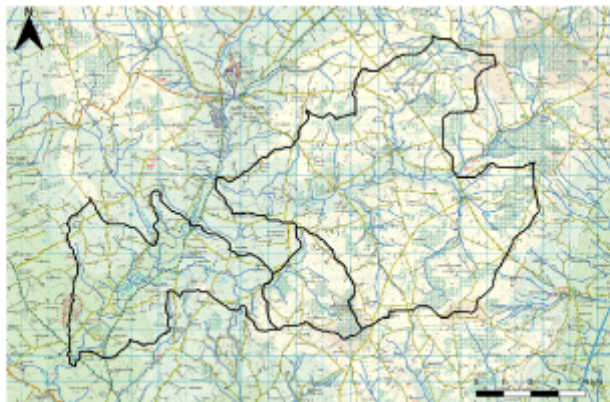






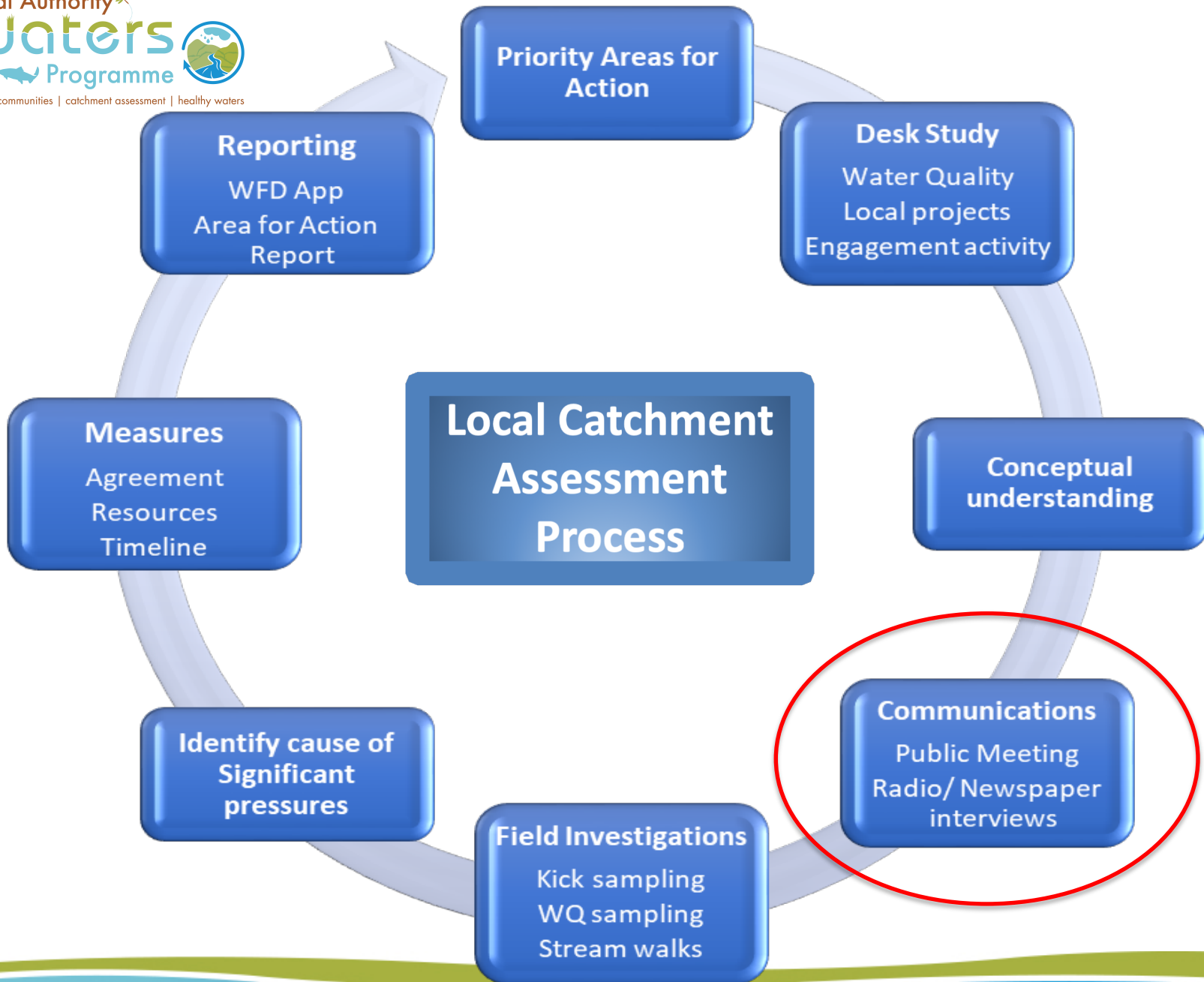
# PAA Desk Top Study

**Desk Study**  
**Dinin Priority Area for Action**



Sinéad Barrett  
Version 1

- Receptor Information and assessment
- Significant Pressures
- Pathway Information and Analysis



# PAA Public Meetings



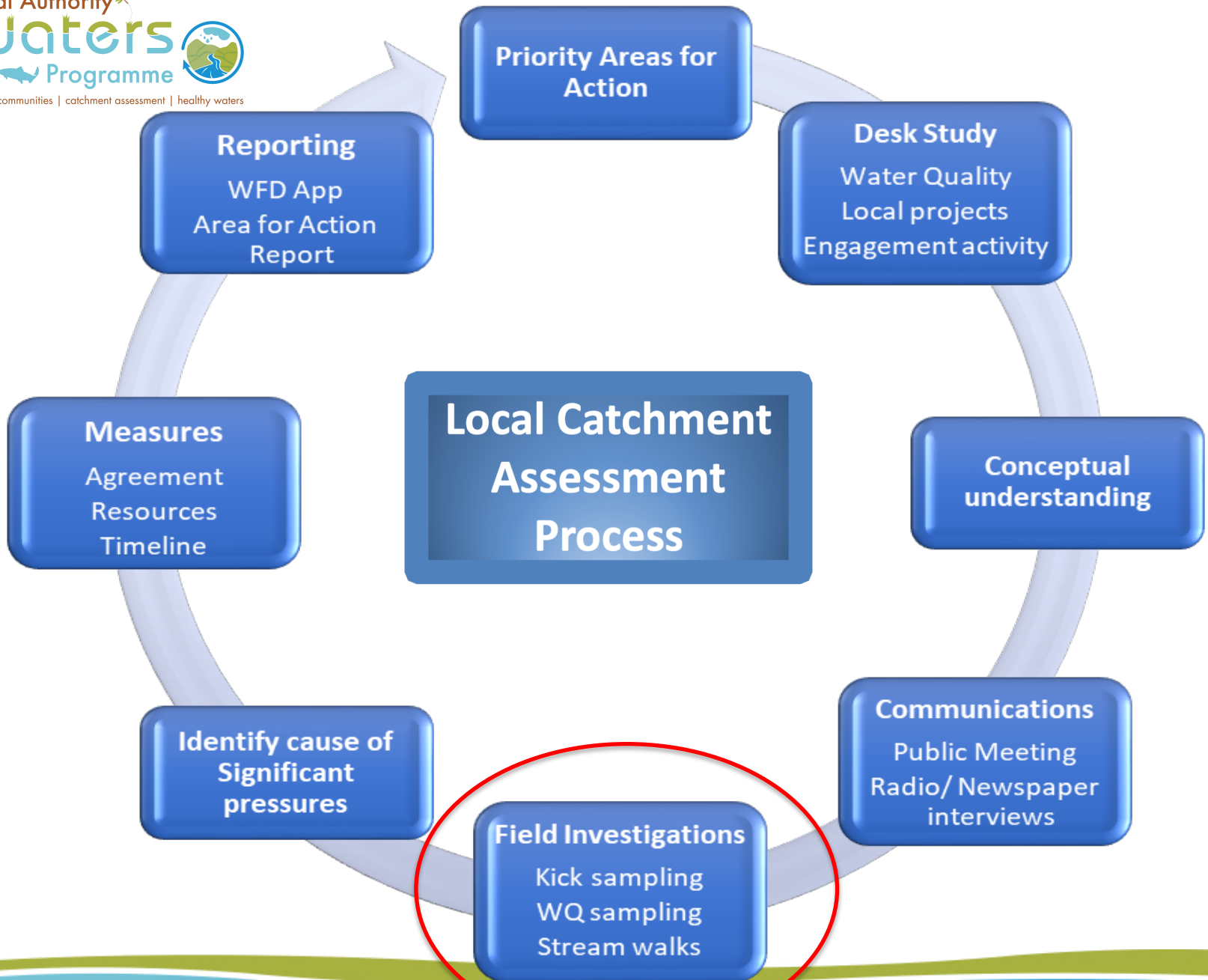
## Owvane Meeting Attendees – Sectoral Representation

LAWPRO	4
ASSAP (Teagasc & Kerry)	2
Limerick CCC	1
Teagasc	1
Private Agricultural Planner	1
IFA	2
West Limerick Resources	1
Ballyhahill LDC	6
Abha Bhan Fishing Club	3
Local Residents	10
Local Farmers	13
Askeaton Community Council	1
Not signed in	5-10
<b>Total</b>	<b>50-55</b>

# ASSAP Farmer Meetings

- **On-farm** meetings (following-on from public meetings)
- **Presentation** from Teagasc Advisors and Catchment Assessment Team
- **Demonstration** via kick samples





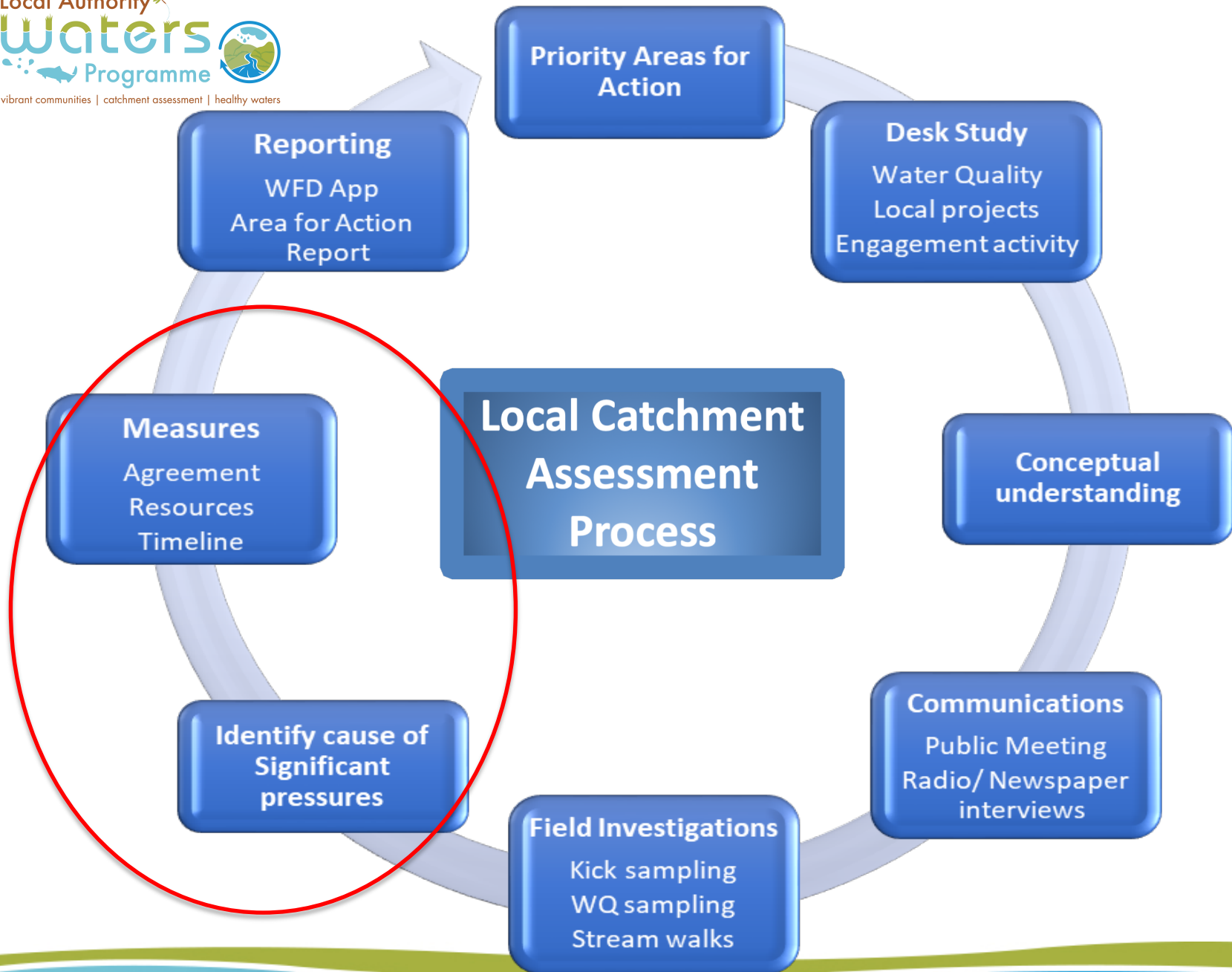
# Field Investigations

Working to identify why water quality is below “good” status:



- Sampling upstream and downstream of potential pressures





# Referrals to Implementing Bodies

## Sample of Implementing Bodies



## Sample ASSAP Referral

Proposed Agricultural Measures		
Measure category	Description	Comments
Source Control	Riparian Buffers – Fenced	Preventing livestock access to the stream and planting along the stream bank to reduce bank erosion.
	Prevent livestock access to waters	
	Establish vegetative buffer using suitable plant species	
Pathway Interception	Establish vegetation on banks with suitable species eg. willow, whitethorn etc	Provision of buffers of sufficient width excluding livestock, appropriate design of farm roadways to minimise potential pathways
Mobilisation Control	Sow specific grass mixtures	Adopt min till approach to reseed, avoid excavation works or activities that result in exposed soil. Re-seeding to be carried out with attention to soil type, topography, time of year, re-seeding method, buffer strips and proximity to water bodies and implemented to reduce sediment run off
	Informing and educating farmers	
	Appropriate land reclamation management	
	Educate and encourage behavioural change in the use of all herbicides	



**But...  
Science on its own will not  
succeed...**



**We need to work with local  
communities...!**



# Waters & Communities Team

## *Bottom up approach*

- **Working together** with Local Authorities, other agencies and stakeholders
- **Address lack of awareness** on water issues
- **Promote public participation** and community engagement
- Promote and **support Rivers Trusts** – e.g. River Moy Trust Co. Mayo
- **Support community action** to manage and protect our local waters



# Supports Offered by the Communities Team....

The Communities Team **supports local communities** to manage our local waterbodies by offering....



# Working with Communities: Funding Support

Applications Received by Project Type – Open Call



- The Community Water Development Fund supports community initiatives
- Protect & improve water quality through local action
- **€180,000 grant aid (annually)**
- 151 applications in 2019
- 105 groups awarded funding
- Unsuccessful groups assisted to find alternative funding

# Examples of Locally Funded Projects



**River Clean-Up Days**



**Wildlife information signage erected along River Walk**



**Guided River Walks**



**Invasive Species Control**

Credit: Ballymore Eustace Trout and Salmon Anglers Association, Co. Kildare

# Examples of Locally Funded Projects

Before: Litter Pollution

After: No More Litter!



Community  
 Involvement  
 & Planning



Broadmeadow River  
 Family Fun Day

Community  
 River Clean-Up's

Litter  
 Control

Ashbourne,  
 Co. Meath

Riverbank  
 Enhancement

Riverbank  
 Landscaping

Wildlife  
 Habitats

Insect Hotel  
 Construction



Before: Broadmeadow Riverbank

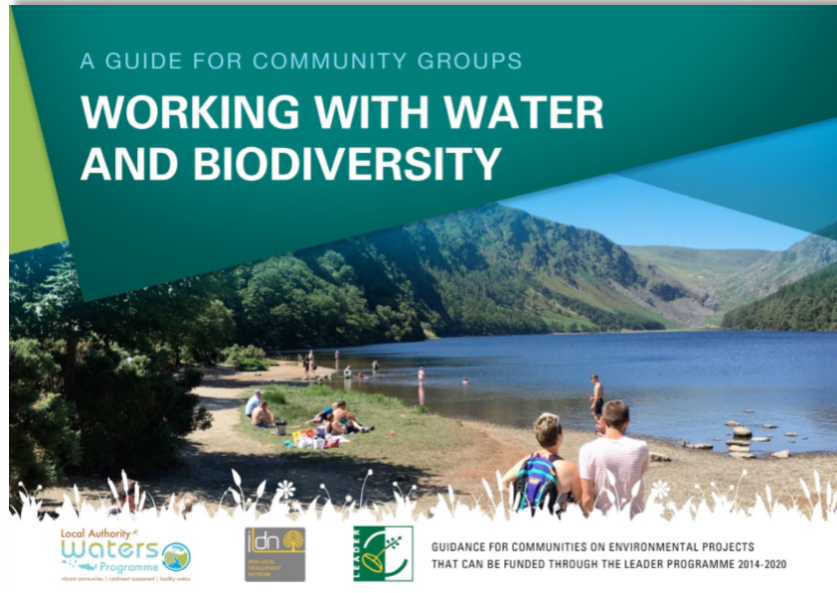


After: Broadmeadow Riverbank

# Working with Communities to Leverage more Funding & Promote Citizen Science

A GUIDE FOR COMMUNITY GROUPS

## WORKING WITH WATER AND BIODIVERSITY



GUIDANCE FOR COMMUNITIES ON ENVIRONMENTAL PROJECTS THAT CAN BE FUNDED THROUGH THE LEADER PROGRAMME 2014-2020

Agree a national standard for **Citizen Science** monitoring using aquatic macroinvertebrates in the ROI in support of the RBMP



## CITIZEN SCIENCE

**Citizen science** is an emerging field that puts the citizen to the centre of the science. Large scale surveys can take place if enough suitably trained and qualified citizens get involved. For years citizens have been involved in the recording of bird census data. More recently with the establishment of the National Data Biodiversity Centre ([www.biodiversityireland.ie](http://www.biodiversityireland.ie)), a network of citizen recorders has been established across the country for a range of species. In support of these recorders, there are online Apps where the information can be recorded and stored in data repositories.

Citizen science in water quality monitoring is an emerging field. Citizens can be trained in the "reading of a catchment", using waterbugs to establish water body health and how to conduct water body safaris, where sources of pollution can be detected.

Small scale citizen science projects can be facilitated through training. However larger scale citizen science projects, which need expert involvement and access to equipment and databases require larger budgets and therefore once off training may not be sufficient. A more significant project budget may be required.

### CITIZEN SCIENCE

- Recording wildlife or habitat/issues through a network of trained volunteers
- Engages people with biodiversity and water
- Generates valuable scientific data

WORKING FOR BETTER WATER QUALITY



# Working with Communities

**Water Heritage Day**  
Sunday, 25th August, 2019

**Water Heritage Day**  
August 2019...

**PASTIMES | PAST TIMES**  
Connecting Communities and Catchments

For further information, visit  
[www.watersandcommunities.ie](http://www.watersandcommunities.ie)  
@watersandcommunities @watersprogramme



River walks



River Clean-Up's



Canal walks



Family Fun Days



Heritage Walks



Biodiversity Talks



# Working with Communities to Address Water Quality

## Investigative Assessment (Field survey)



### Urban Point Source Pollution Study Ashbourne

W River, Ashbourne  
Investigative Assessment

Ashbourne Tidy Towns Committee

## Actions Needed from Others

- Investigation into Ashbourne misconnections – normally led by Local Authority
- Inspections of Ashbourne trade connections (Section 16) – normally led by Local Authority
- Action regarding upstream issues at Ratoath pumping station – issue for Irish Water
- Study into removal of weir to improve fish passage – normally led by Inland Fisheries Ireland, but ownership of weir TBC

11



## Actions that Tidy Towns can lead/support

- River Clean Up
  - Removal of litter & clean up in dry flow
  - Needs to be an ongoing effort
- Examine opportunities for improved river access
- Public awareness campaign for river, esp. misconnections (e.g. Mersey Rivers Trust Easter Hunt)



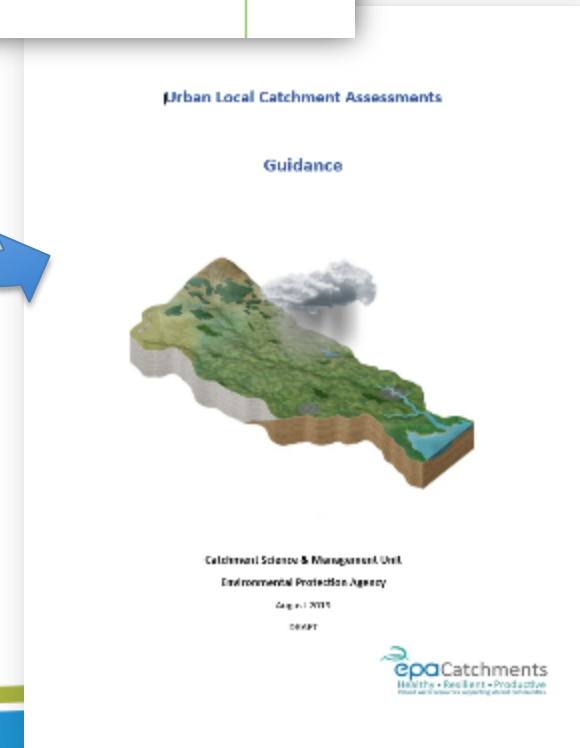
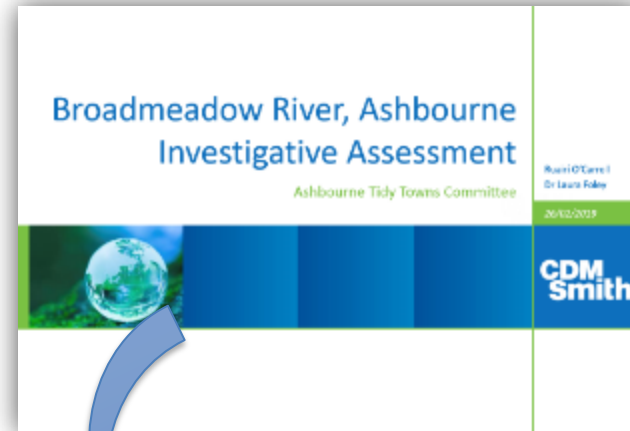
### LAWPRO Funded Study



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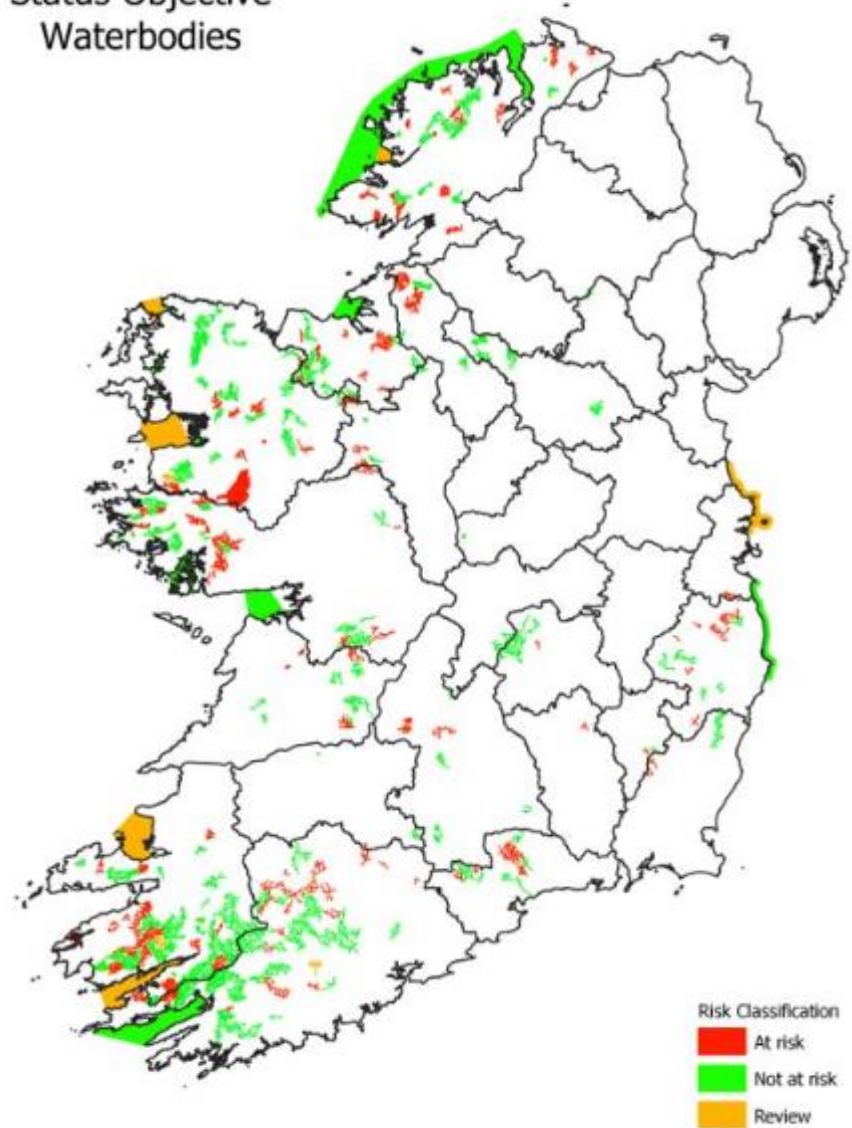
# Communities Influencing the National Approach

- Ashbourne's Urban Point Source Pollution study now influencing national approach to addressing urban pressures
- LAWPRO & EPA using the Ashbourne study to develop **Urban Local Catchment Assessment Guidance**



## Other Significant Activities:

- High Status Network
- Feed into all levels of Governance Structure
- Advance preparations for 3<sup>rd</sup> cycle (2022 – 2027)



# Conclusions

- Significant body of work underway
- Success depends on Waters Programme working with individual councils and implementing bodies and communities
- Early days, but results are beginning to emerge



- Programme will be reviewed at all levels as part of preparation for 3rd Cycle Plan

# What's Good for Water Quality.... Is good for our Climate



**Thank You...**