

SEGES Innovation
Water Environment Conference September 5th 2022
Noel Meehan ASSAP Manager



Farming for
Water Quality

SEGES
INNOVATION



Presentation Outline

- What is the ASSAP?
- Advisor Farmer interaction
- Progress to date
- Case Study – Dysart_010 and Lough Ennell
- Look ahead to the 3rd Cycle

What is The ASSAP?

- **Agricultural Sustainability Support and Advisory Programme**
- Focus is on water quality in 190 Priority Areas for Action (PAA)
- Provides free & confidential farm advice and acceptance is voluntary
- Industry, government, farm orgs collaboration
- 36 Advisors - 20 Teagasc, 16 from Dairy Co-ops
- Work in collaboration with Local Authority Waters Programme (LAWPRO)
- LAWPRO – scientific investigation; desk study, chemical, biological, hydro morphology etc. and assess the streams
- Provide referrals to advisors to focus farm visits

Arrabawn

Aurivo

TIPPERARY
COOPERATIVE

dairygold
Golden Valleys, Growing Naturally

Local Authority
Waters
Programme
vibrant communities | catchment assessment | healthy waters

CARBERY

glanbia
ireland

ASSAP



An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage



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

Lakeland
DAIRIES

North Cork
Creameries

KERRY

Dairy
Sustainability
Ireland

teagasc
AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

ASSAP Advisor/Farmer Interaction

- Letter to all landowners followed by farmer information meeting
- Contact farmers in referral area and arrange a visit
- Farm assessment starts at the watercourse/river
- Need to build up relationship quickly with farmer and understanding of farming system
- Assess farm under following:
 - Farmyard management
 - Land management
 - Nutrient management



ASSAP – Farm Assessment Issues

Farm Yard

Land Management

Nutrient Management

Farm Yard		Land Management		Nutrient Management	
F1	Slurry Storage	LM1	P Loss Through Overland Flow	NMP1	Preparation and implementation of NMP
F2	Silage Pits and Effluent Storage	0	0	0	
F3	Loose Housing and FYM Storage	1	1	1	Informing and educating farmers
F4	Round Bale storage	2	2	2	Precision application of nutrients at correct rate
F5	Dirty yards	3	3	3	Use of straight fertilisers
F6	Cattle &/or Sheep handling	4	4	4	Avoid application at high risk times
F7	Clean & Grey Water management	5	5	5	Avoid application at high risk places (CSA's)
F8	Drain Connection from Farmyard	6	6	6	
F9	Pesticide Storage and Diesel/oil tanks	7	7	7	
F10	Other (Specify)	8	8	8	
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ASSAP Farm Assessment Sheet

Catchment Information

PAA Name

Upper Erne

Waterbody Name

ERNE_020

Main Issues Identified

P Loss (Diffuse) Y

N Loss (Diffuse)

Sedimentation Y

Point Source Losses

Pesticides and Toxic Substances

Ammonium

LAWPRO Referral Code 1 E_020 ASSAP_RA08

LAWPRO Referral Code 2

WFD App Code 1

WFD App Code 2

WFD App Code 3

WFD App Code 4

WFD App Code 5

Catchment Region Border

Issues Description

The Erne_020 is a relatively low intensity agricultural catchment with pockets of higher intensity dairy farming. The main issues identified as impacting water quality are diffuse Phosphorus and Sediment losses. This is due to the hilly topography (Drumlins) and low permeability soils that get saturated quickly during periods of rainfall. This in turn causes water to flow over land washing plant available P and sediment into the drainage system.

Waterbody Code

IE_NW_36E010200

Signpost Farm Programme

ASSAP Farm Visit Recommendation Sheet

PAA Name

Upper Erne

Waterbody Code

ERNE_020

Farmer first name & surname

John

Farmer

ASSAP Advisor Name

Ad Visor

Visits 1

31/01/2022

DATE FORMAT DD/MM/YY

Address

Ballymore, Co Cavan

Client Number/Co Op No.

Eircode

Email

Agricultural Advisor Name

Farm Size
Ha [Value
Only - No
HA/ACRES
]

40

System

Cattle Other

Engaged

Y

In AgriEnv Scheme

4

Code

Issue

Risk
1=High
2=Med
3=Low

Mitigation Actions

Description of Mitigation Advice

Action
Agreed

Reason for
Not Acting

Visit
1-4

Progress

Farmyard Issues

F1	Slurry Storage							
F2	Silage Pits and Effluent Storage							
F3	Loose Housing and FYM Storage	2	Additional storage for farm wastes required	Install effluent tank to collect seepage from straw bed shed	Agreed		1	Not Started
F4	Round Bale storage	3	Improved management of collection and storage of farm wastes	Due to seepage from bales store on concrete base and collect effluent	Not Agreed	will only make haylage in future	1	
F5	Dirty yards							
F6	Cattle &/or Sheep handling facilities							
F7	Clean & Grey Water management							
F8	Drain Connection from Yard to Water							
F9	Pesticide Storage and handling Diesel/oil tanks							
F10	Other (Specify)							

Land Management Issues

LM1	P Loss Through Overland Flow	1	Management of Critical Source Areas (CSA's)	No outwintering of cattle in area marked A on map	Agreed		1	Ongoing
LM2	N leaching from Light Soils							
LM3	Sediment Loss	1	Riparian Buffers - Fenced/Unfenced	fence off a 3m wide riparian margin from X to Y as marked on map	Agreed		1	Not Started
LM4	Drinking Points & Stream Fencing	1	Prevent livestock access to waters	Close off drinking points 1, 2 and 3 as shown on map and provide alternative water supply	Not Agreed	no alternative water supply available	1	
LM5	River Bank Erosion							
LM6	Drain Cleaning & Maintenance							
LM7	Culverts/River Crossings							
LM8	Drinking Troughs							
LM9	Farm Roads and Gateways and underpass	2	Improved farm road/tracks design and location	Camber road away from drain at location marked B on map	Agreed		1	Commenced
	Unavoidable drainage delivering							

Dear John

Thank you for taking the time to meet with me on my recent visit to your farm. Based on our discussion I include a list of recommendations as agreed with you on the day. Please do not hesitate to contact me about any of the issues outlined. **This is not a complete list of issues on the farm but addresses the most important actions for water quality improvement in the catchment**

Date of farm visit 31/01/2022

The Upper Erne Catchment has been characterised by the Catchments assessment team

The Erne_020 is a relatively low intensity agricultural catchment with pockets of higher intensity dairy farming. three main issues identified as impacting water quality are diffuse Phosphorus and Sediment losses. This is due to the hilly

We recommend that you undertake the following actions to reduce losses from your farm

Issue	Implementation Advice	Risk	Status	Visit	Progress
Loose Housing and FYM Storage	Install effluent tank to collect seepage from straw bed shed	2	Agreed	1	Not Started
P Loss Through Overland Flow	No outwintering of cattle in area marked A on map	1	Agreed	1	Ongoing
Sediment Loss	Fence off a 3m wide riparian margin from X to Y as marked on map	1	Agreed	1	Not Started
Farm Roads and Gateways and Underpass	Camber road away from drain at location marked B on map	2	Agreed	1	Commenced

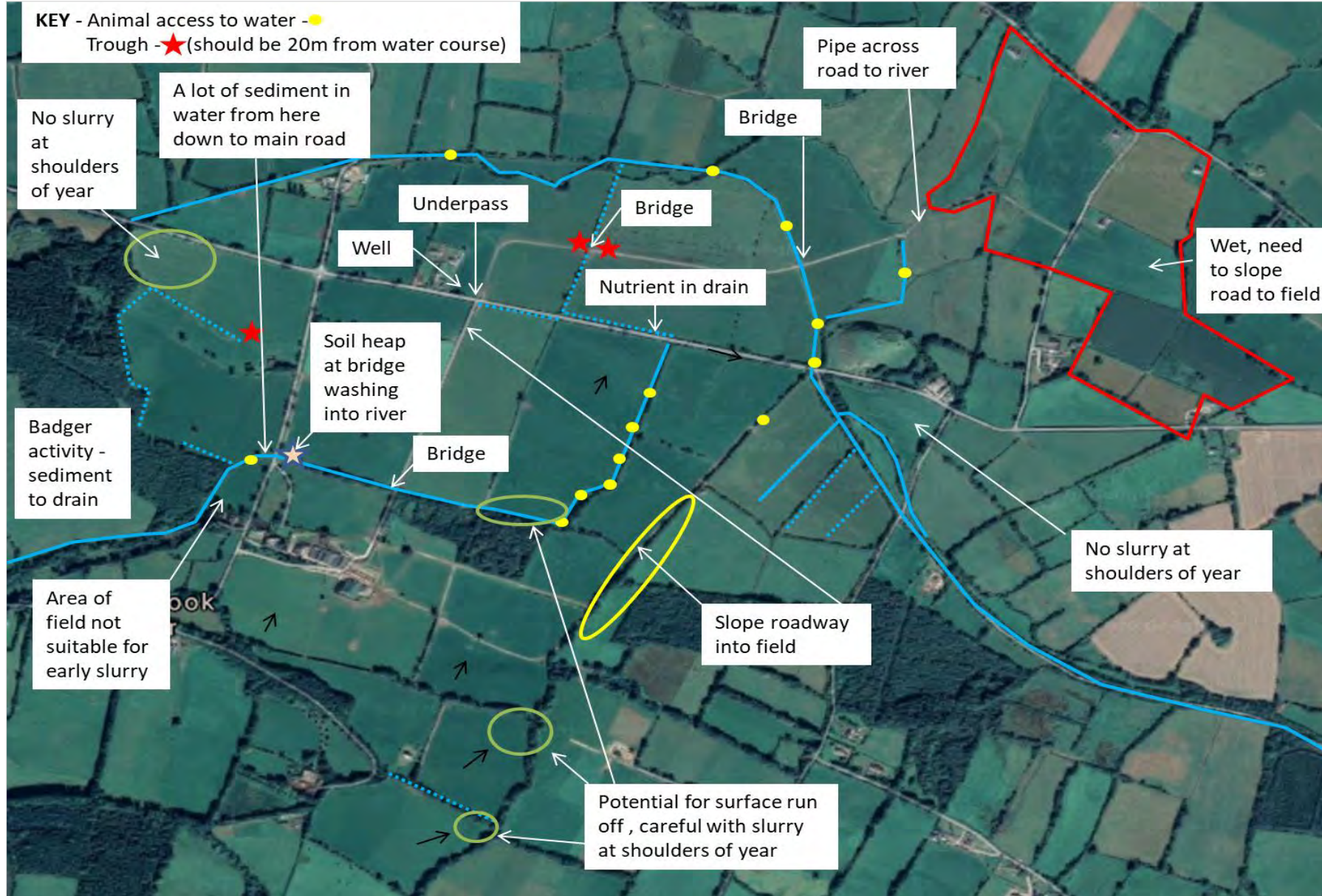
Yours sincerely

Ad Visor

email

Phone

ASSAP Farm Map - example

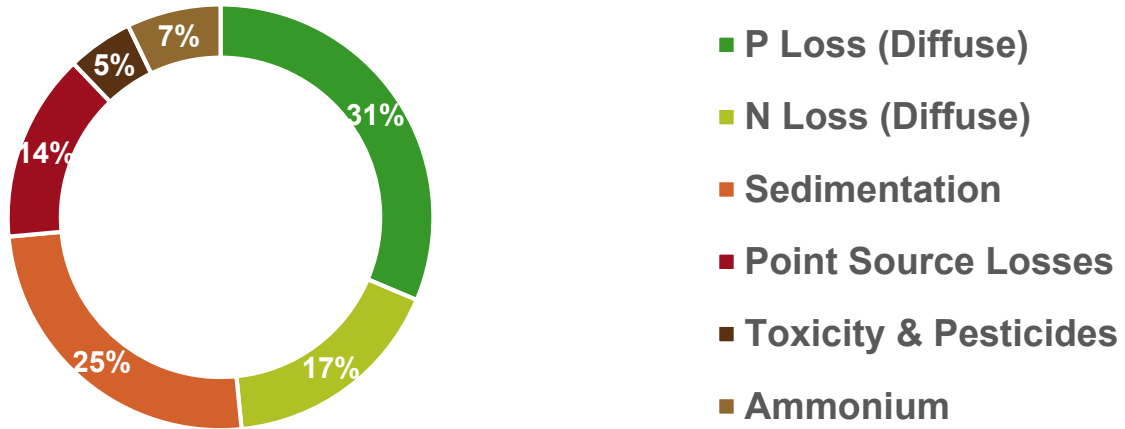


ASSAP to date...

- Total farm assessments 31 July 2022 : 3143
- Total follow up farm visits : 755
- Farmers Meetings : 142
- PAA's ASSAP active in : 124
- Farmer engagement : 96%
- Farmer agreement on proposed measures : 93%
- Average issues identified per farm : 5

ASSAP – 31 July 2022

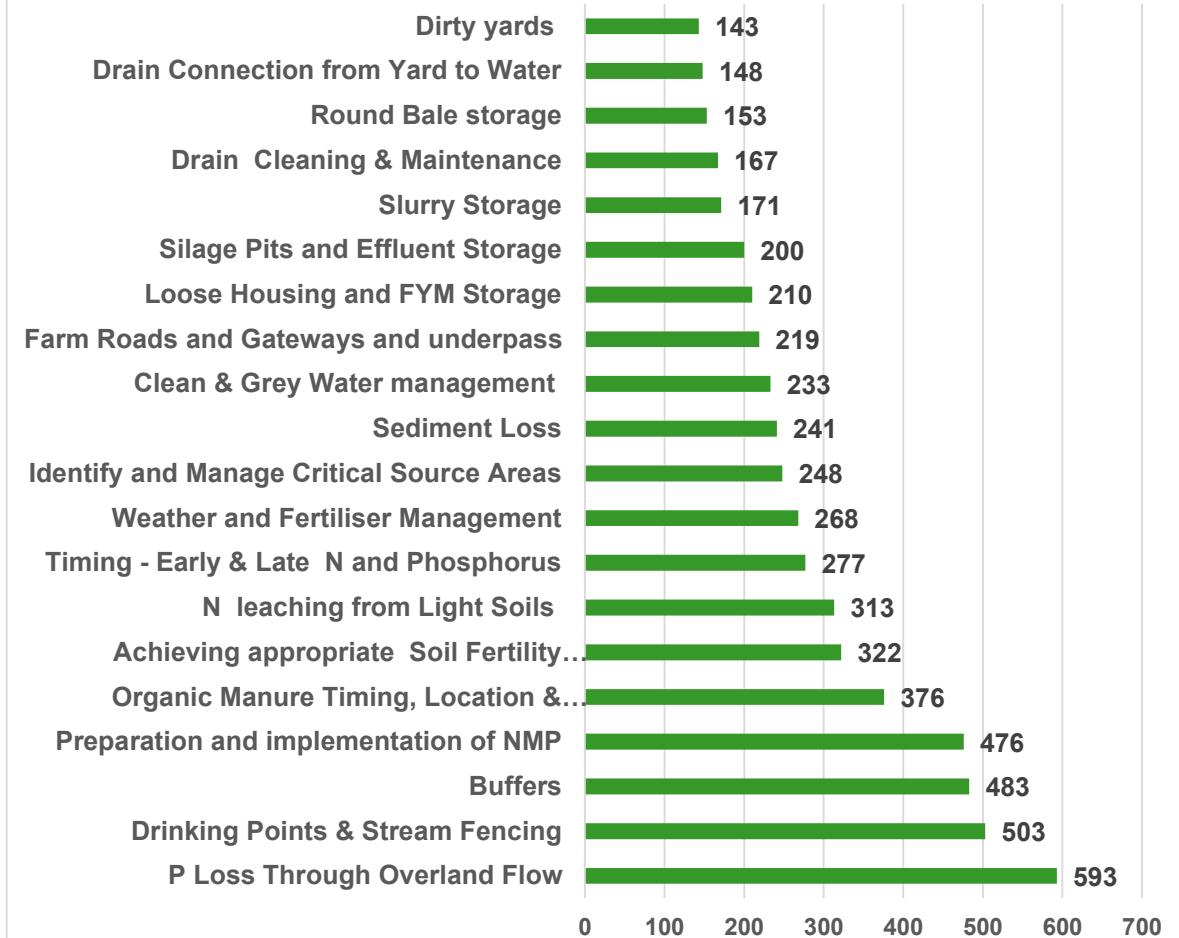
PAA Pressures



Farming Enterprise Assessed

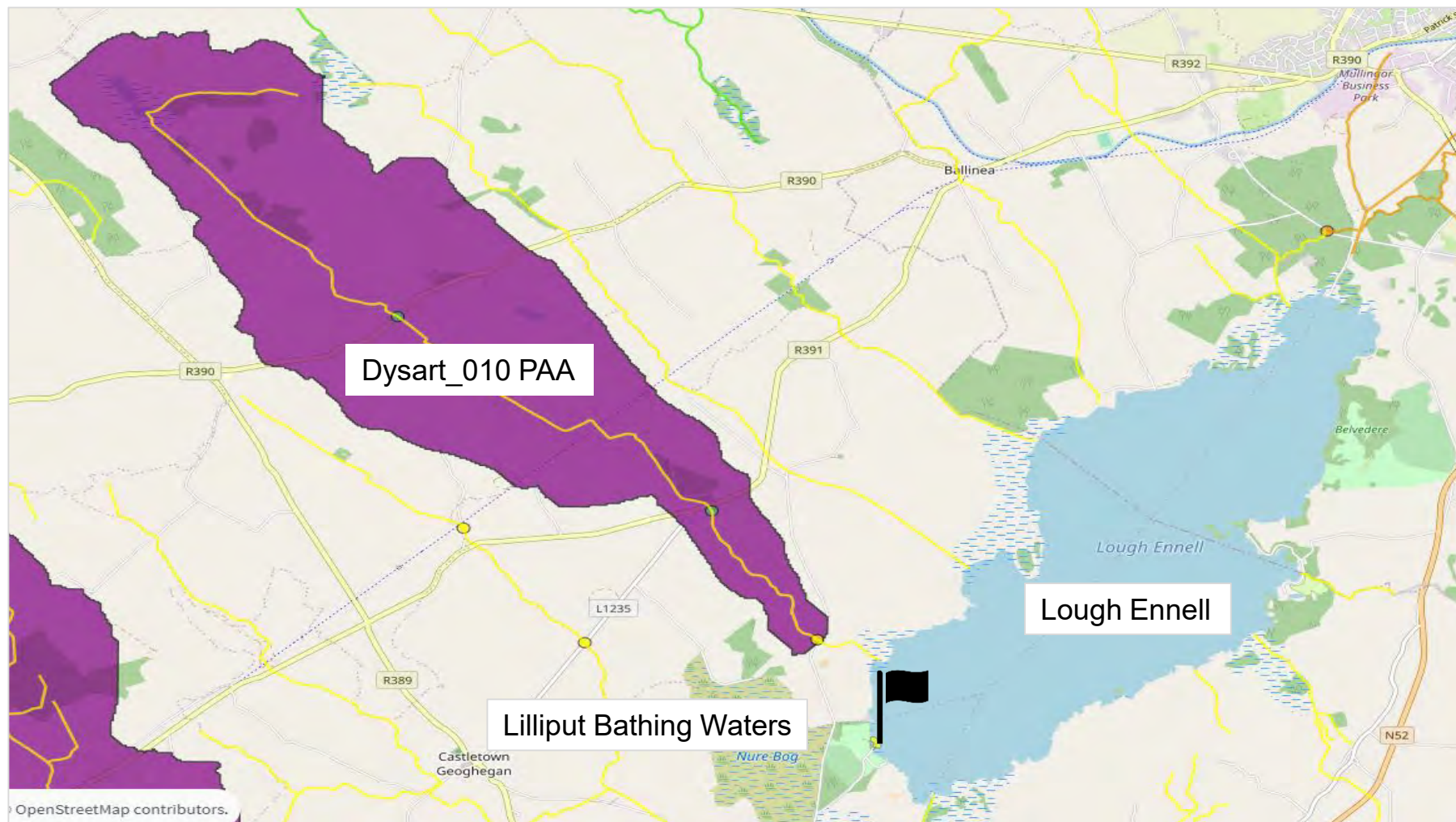


High Risk – 20 most frequent issues



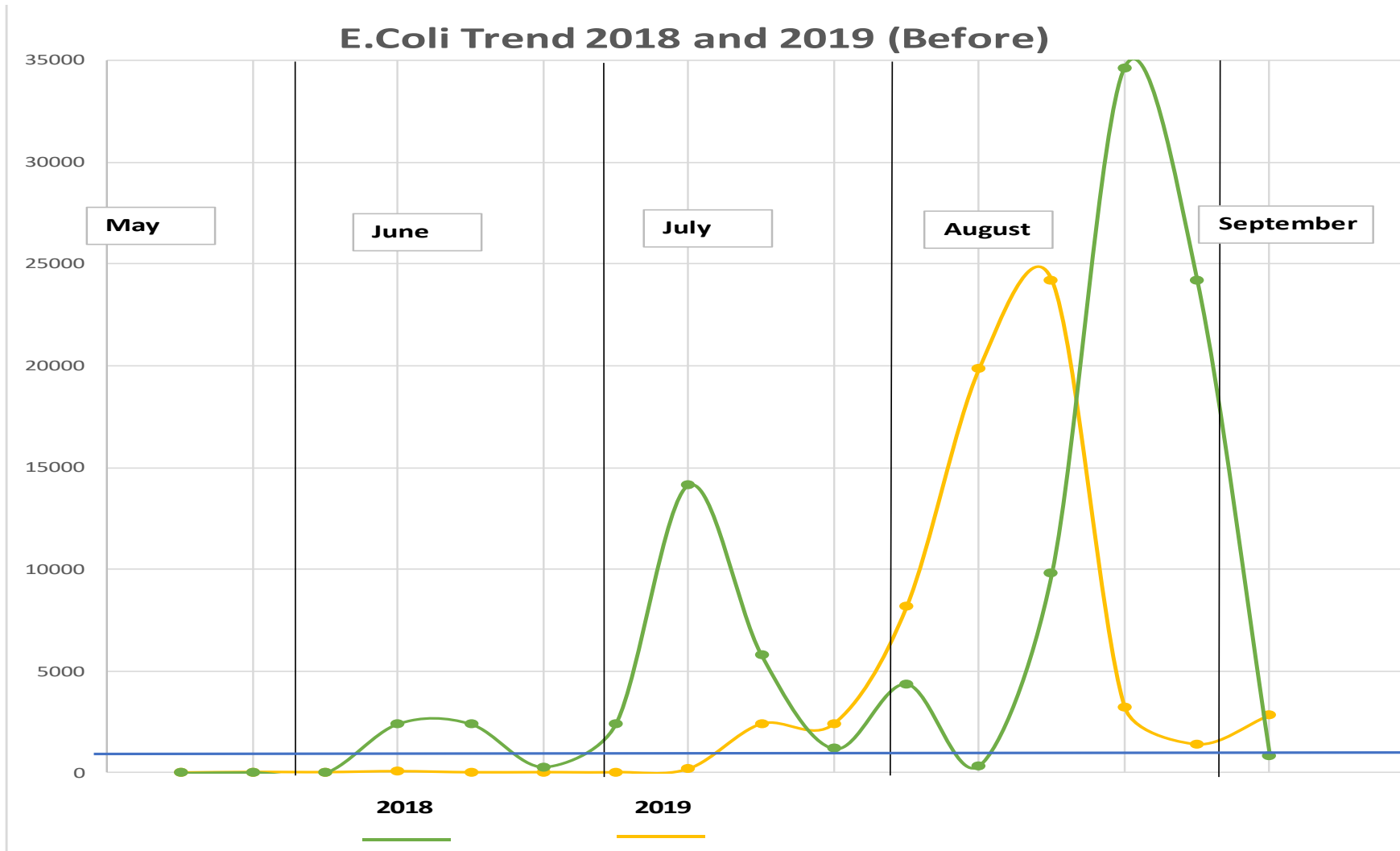
Case Study: Dysart_010 & Lough Ennell

- Pathogen losses from agriculture in Dysart_010 impacting on Lough Ennell bathing waters
- Diffuse phosphorus and sediment losses also impacting



Case Study: Dysart_010 & Lough Ennell

- Lilliput E.coli trend in 2018 and 2019



Blue line indicates 'Sufficient'
water quality.

Anything above this line is
'Poor'

Dysart_010 ASSAP Farmer Engagement & Mitigation Actions

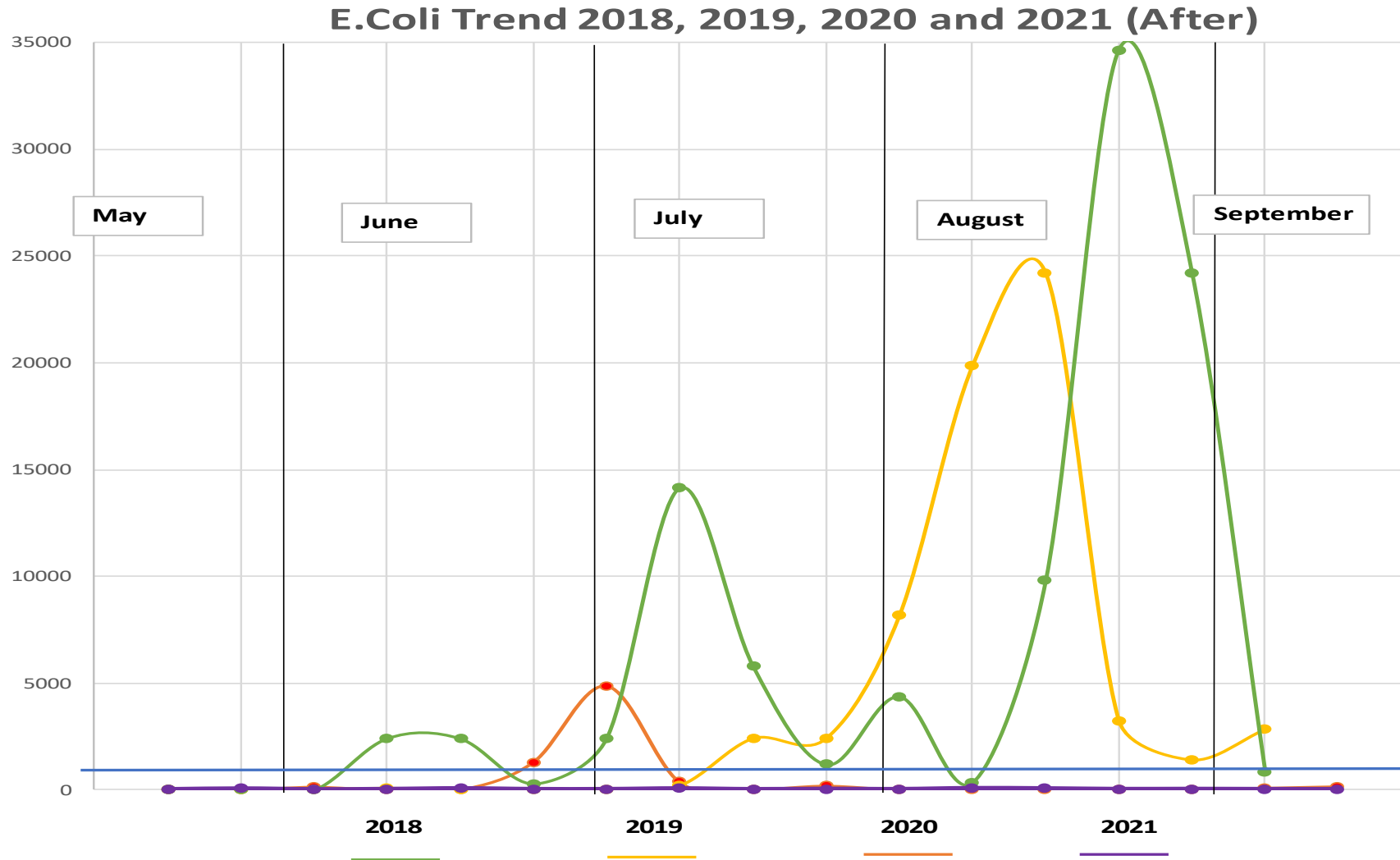
- ASSAP advisors visited 23 farms based on LAWPRO referrals
 - 19 Beef farms
 - 4 dairy farms
- Issues identified - diffuse P and sediment losses
 - Surface runoff leading to P and sediment losses on poorly draining land
 - Cattle access to watercourse for drinking
 - Drainage maintenance
- Mitigation advice – regulatory compliance
 - Adherence to buffer zones
 - Compliance with fertiliser limits
 - Compliance with organic manure storage and closed periods
- Mitigation advice – voluntary actions
 - Riparian margins and management of critical source areas
 - Prevention of cattle access to waters and alternative drinking supplies
 - Farmer education and information on drainage maintenance

ASSAP – Mitigation Actions



Case Study: Dysart_010 & Lough Ennell

- Lilliput E.coli Trend from 2018 to 2021 – 2021 data below threshold

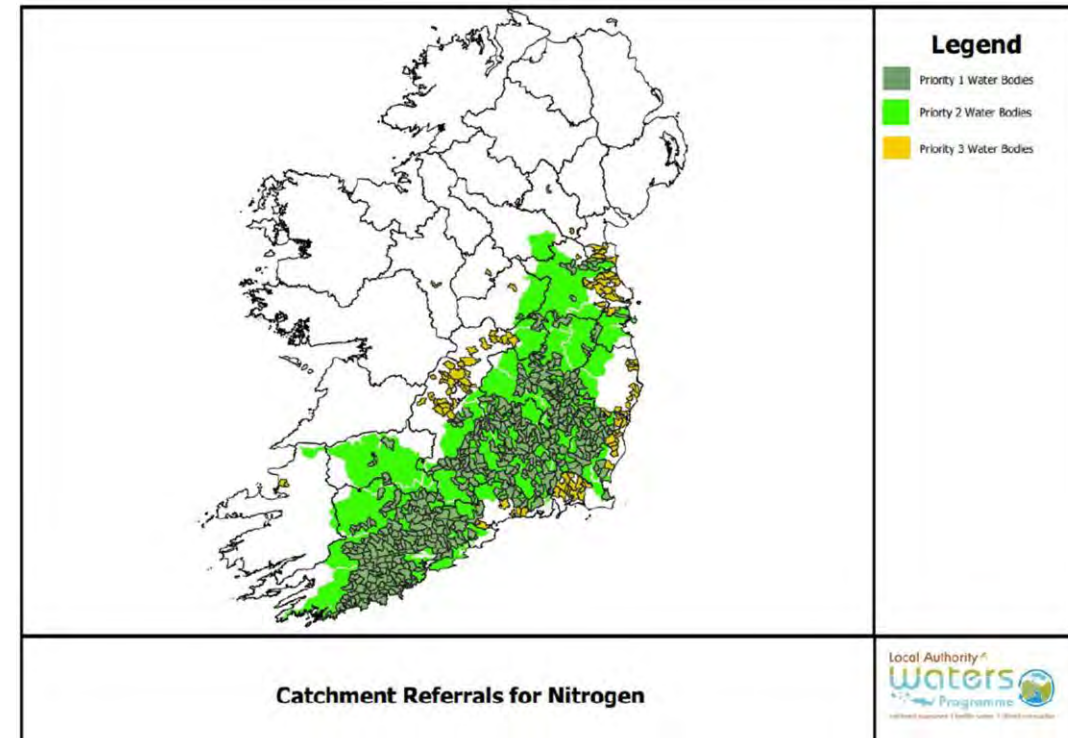


Blue line indicates 'Sufficient'
water quality.

Anything above this line is
'Poor'

ASSAP – RBMP 3rd Cycle

- Implementation of mitigation actions key to realising WQ improvements
- Government have announced funding for a Water Quality EIP - €60 million over 5 years
- This EIP will provide funding to farmers to implement measures to mitigate the impacts of agriculture on water quality
- Catchment referrals for nitrogen – innovative new approach to tackling diffuse N loss problem
- Catchment referrals for phosphorus?
- Strengthened GAP Regulations
- Expand use of EPA PIP maps - ACRES
- Development of advisory tools – Farm Sustainability Planner
- National Agricultural Inspections Programme



Thank you



Questions?