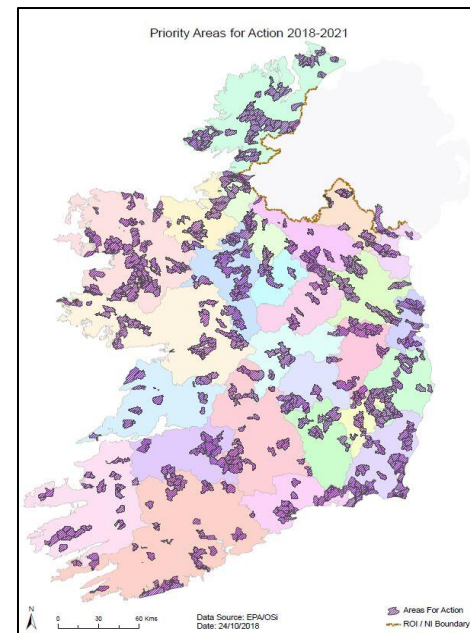


# Signpost Series Webinars

## *Friday 24 July 2020*



**Farmer/Advisor Engagement and Farm  
Specific Plans**  
*Noel Meehan ASSAP Manager*



# Agricultural Sustainability Support and Advisory Programme (ASSAP)

## Farming For Water Quality



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

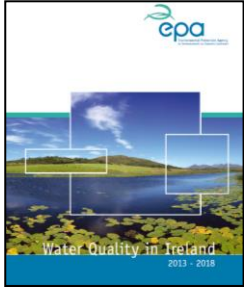


ASSAP Farm Visit Recommendation Sheet								FPA Name Waterbody Code	PAGE 0
6	Farmer first name & surname			ASSAP Adviser Name		Visits 1		DATE F090917 CD0006	
7	Address			Client Number/Co Op No.		2			
8	Eircode		Email	Agricultural Adviser Name		3			
9	Farm Size No Values Only - No N/A VALUES	System	Engaged	In AgriEnv Scheme		4			
10	J								
	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
11	<b>Farmyard Issues</b>								
12	<b>F1</b>	Sloppy Storage							
13	<b>F2</b>	Silage Pits and Effluent Storage							
14	<b>F3</b>	Loose Housing and FYM Storage							
15	<b>F4</b>	Round Bale storage							
16	<b>F5</b>	Dirt yards							
17	<b>F6</b>	Cattle Knife Sharp handling facilities							
18	<b>F7</b>	Clean & Grey Water management							
19	<b>F8</b>	Drain Connection from Yard to Water							
20	<b>F9</b>	Pesticide Storage and handling							
21	<b>F10</b>	Other (Specify)							
22	<b>Land Management Issues</b>								
23	<b>LM1</b>	P Loss Through Overland Flow							
24	<b>LM2</b>	N leaching from Light Soils							
25	<b>LM3</b>	Sediment Loss							
26	<b>LM4</b>	Banking Points & Stream Fencing							
27	<b>LM5</b>	River Bank Erosion							
28	<b>LM6</b>	Drain Cleaning & Maintenance							



# Signpost Series

## *Water Quality Focus*



National Water  
Quality



N and Soil



P and Soil  
Sediment loss



Catchment  
Science



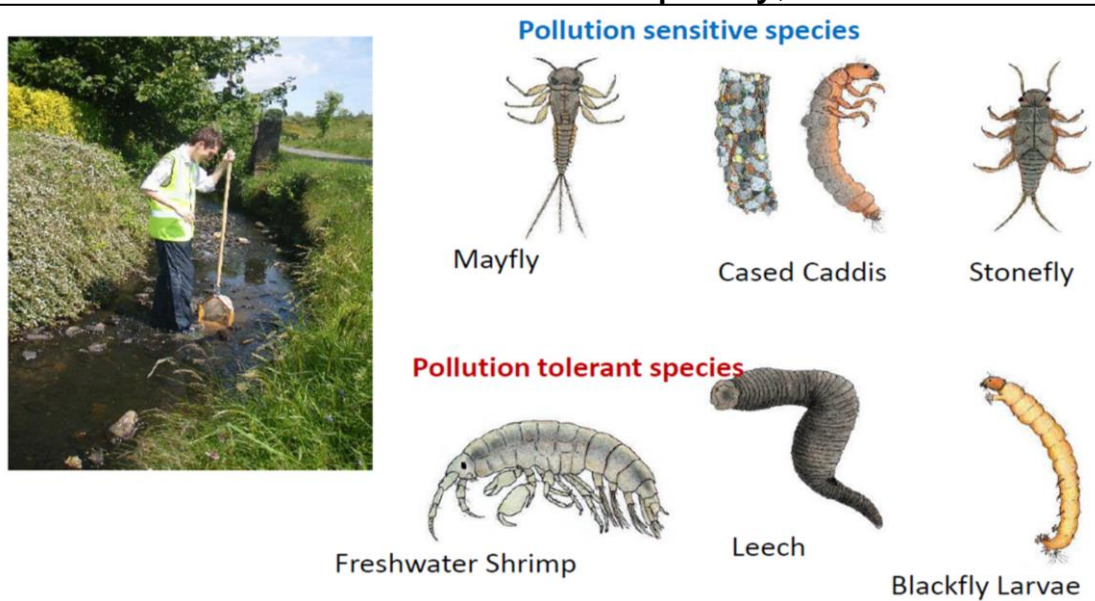
ASSAP Farm Assessment &  
Farm Plan



Optimum  
Fertiliser Use

# Public & Farmer Engagement

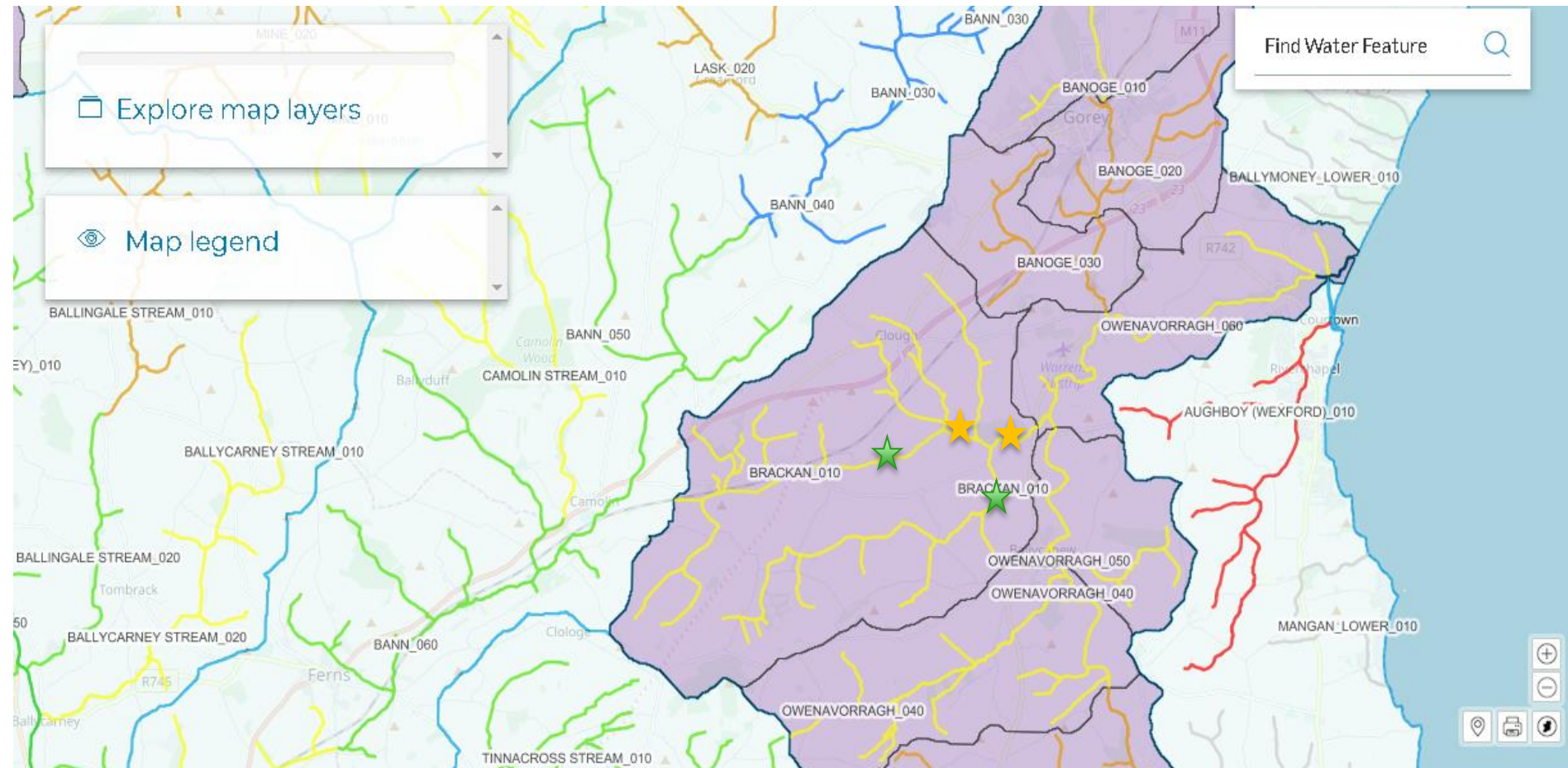
- Public information meeting
- Farmer information meeting
- Provide information on stream water quality, farm assessment, mitigation actions





# How does it work?

- LAWPRO assess stream – desk study, chemical, biological, hydro morphology, stream walks etc.



# Farm Assessment Sheet

Catchment Name	Owenavorragh
Catchment ID	Brackan_010
Main Issues Identified	
P Loss (Diffuse)	Y
N Loss (Difuse)	
Sedimentation	Y
Point Source Losses	

## Issues Description

The scientific assessment of the Owenvarragh PAA indicates that there is a diffuse loss of Phosphorus to the stream and also some sedimentation of the stream as a result of overland flow of water due to the poorly draining nature of the soil.



# What Causes Diffuse P & Sediment Loss?

1. Most losses from low permeability soils
2. Heavy rainfall leads to overland flow of water
3. P binds tightly to soil particles/sediment
4. P and soil sediment washed off into drains & streams





# Farm Assessment Sheet

## ASSAP Farm Visit Recommendation Sheet

PAA Name

Owenavorragh

Waterbody Code

Brackan\_010

Farmer first name & surname	John Farmer			ASSAP Advisor Name	Noel Meehan	Visits	1	22/07/2020	DATE FORMAT DD/MM/YY
Address	Ballytown, Co Wexford			Client Number/Co Op No.		2			
Eircode				Agricultural Advisor Name	Pat Murphy	3			
Farm Size Ha [Value Only]	50	System	Cattle Breeding	Engaged	Y	4			
				In AgriEnv Scheme	N				

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
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### Farmyard Issues

F1	Slurry Storage							
F2	Silage Pits and Effluent Storage							
F3	Loose Housing and FYM Storage							
F4	Round Bale storage							
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							
F10	Diesel/oil tanks							
F10	Other (Specify)							

### Land Management Issues

LM1	P Loss Through Overland Flow	1	Riparian Buffers - Fenced/Unfenced Management of Critical Source Areas (CSA's)	Fence off 2.5m wide strip beside stream in far field as per map, maintain annually. No supplementary feeding in CSA marked on map	Agreed		1	Not Started
LM2	N leaching from Light Soils							
LM3	Sediment Loss	1	Establish field boundaries and hedges in field grass buffers	Plant a hedge to trap sediment as indicated on map Put in sediment trap as indicated on map	Agreed		1	Ongoing
LM4	Drinking Points & Stream Fencing							
LM5	River Bank Erosion							
LM6	Drain Cleaning & Maintenance							
LM7	Culverts/River Crossings							

# Farm Assessment Sheet

Code	Issue	Risk 1=High 2=Med 3=Low	Mitigation Actions	Description of Mitigation Advice
<b>F9</b>	Pesticide Storage and handling Diesel/oil tanks			
<b>F10</b>	Other (Specify)			

## Land Management Issues

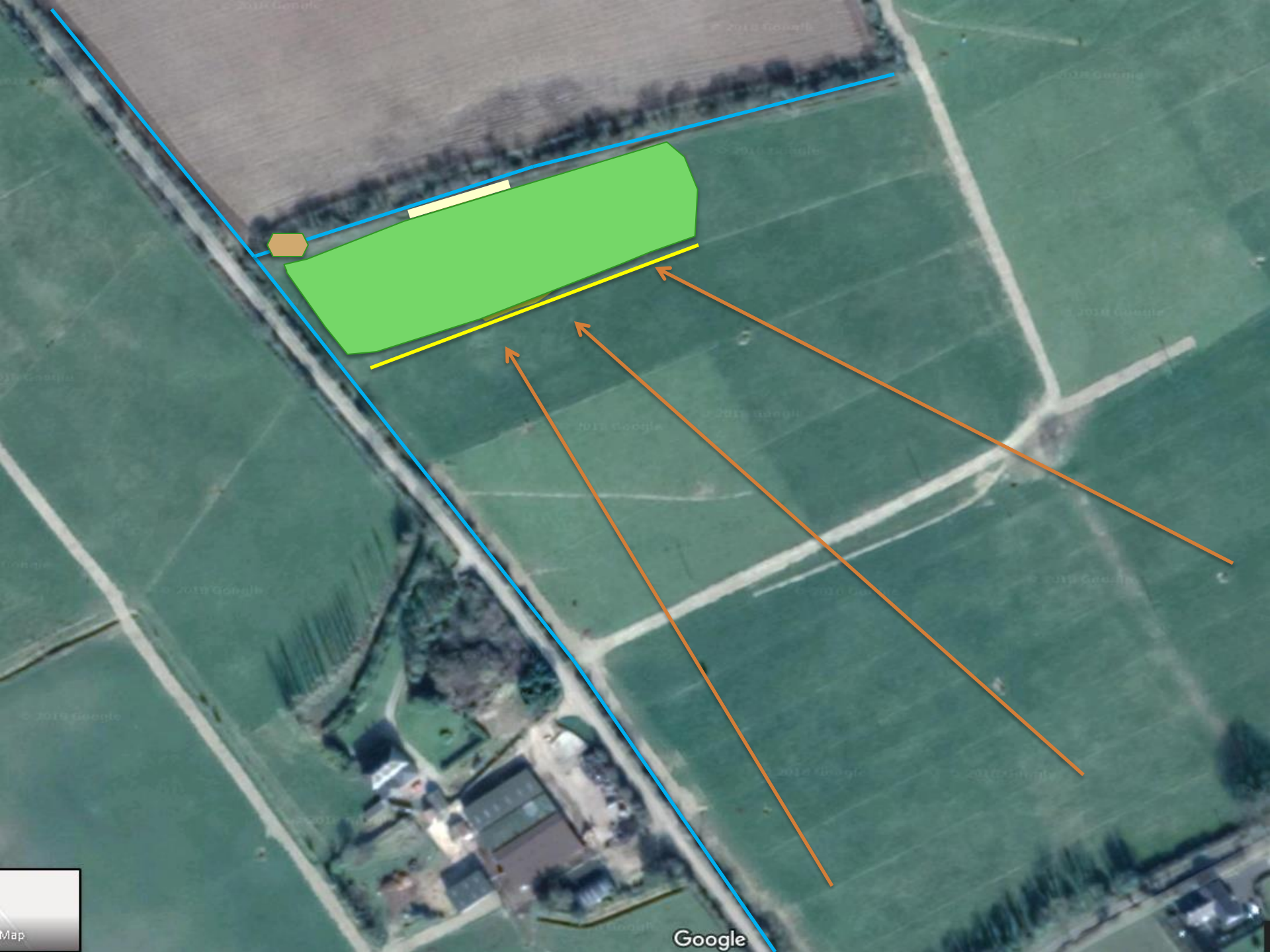
<b>LM1</b>	P Loss Through Overland Flow	<b>1</b>	Riparian Buffers - Fenced/Unfenced Management of Critical Source Areas (CSA's)	Fence off 2.5m wide strip beside stream in far field as per map, maintain annually. No supplementary feeding in CSA marked on map
<b>LM2</b>	N leaching from Light Soils			
<b>LM3</b>	Sediment Loss	<b>1</b>	Establish field boundaries and hedges In field grass buffers	Plant a hedge to trap sediment as indicated on map Put in sediment trap as indicated on map
<b>LM4</b>	Drinking Points & Stream Fencing			
<b>LM5</b>	River Bank Erosion			
<b>LM6</b>	Drain Cleaning & Maintenance			
<b>LM7</b>	Culverts/River Crossings			
<b>LM8</b>	Drinking Troughs			
<b>LM9</b>	Farm Roads and Gateways and			





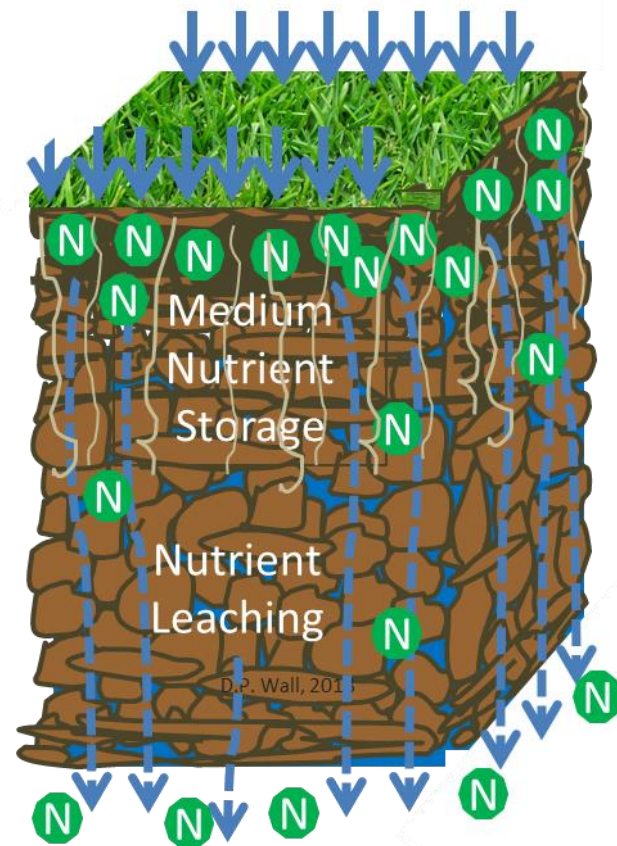






# What Causes Diffuse N Loss?

1. Most N losses from free draining soils
2. N does not bind tightly to soil
3. Leaching occurs where more N applied than plant needs
4. Excess N is leached by rain to waters





# Farm Assessment Sheet

## ASSAP Farm Visit Recommendation Sheet

PAA Name

Waterbody Code

<b>Farmer first name &amp; surname</b>		John Farmer		<b>ASSAP Advisor Name</b>		Noel Meehan		<b>Visits</b>	<b>1</b>	<b>22/07/2020</b>	<b>DATE</b>
<b>Address</b>		Ballytown, Co Wexford		<b>Client Number/Co Op No.</b>				<b>2</b>			
<b>Eircode</b>				<b>Email</b>				<b>3</b>			
<b>Ha [Value</b>		50		<b>Engaged</b>		Y		<b>4</b>			
<b>System</b>		Cattle Breeding		<b>In AgriEnv Scheme</b>		N					
<b>Code</b>	<b>Issue</b>	<b>Risk</b> 1=High 2=Med 3=Low	<b>Mitigation Actions</b>	<b>Description of Mitigation Advice</b>			<b>Action Agreed</b>	<b>Reason for Not Acting</b>	<b>Visits 1-4</b>		
<b>NMP1</b>	Preparation and implementation of NMP	<b>2</b>	Informing and educating farmers	Talk to your advisor on how best to implement your NMP			Agreed		1		
<b>NMP2</b>	Achieving appropriate Soil Fertility (Lime P&K)										
<b>NMP3</b>	Identify and Manage Critical Source Areas										
<b>NMP4</b>	Organic Manure Timing, Location & Method	<b>1</b>	Avoid application at high risk places (CSA's) Avoid application at high risk times Precision application of nutrients at correct	To reduce N losses it is crucial to apply fertiliser at the correct rates, correct time and correct locations			Agreed		1		
<b>NMP5</b>	Recorded Import/Export Organic Manures										
<b>NMP6</b>	Timing - Early & Late N and Phosphorus										
<b>NMP7</b>	Fertiliser Rates	<b>1</b>	Informing and educating farmers	Follow application rates as per your NMP			Agreed		1		
<b>NMP8</b>	Correct Management of High OM soils										
<b>NMP9</b>	Sloped Fields										
<b>NMP10</b>	Chemical Fertiliser Spreading										
<b>NMP11</b>	Weather and Fertiliser Management	<b>1</b>	Avoid application at high risk places (CSA's) Avoid application at high risk times Informing and educating farmers	Weather influences nutrient loss and all fertiliser applications should be applied when suitable weather conditions prevail - appropriate soil moisture deficit and soil temperature			Agreed		1		
<b>NMP12</b>	Fertiliser Type										
<b>NMP13</b>	Other Specify										

# Farm Assessment Sheet

Code	Issue	Risk 1=High 2=Med 3=Low	Mitigation Actions	Description of Mitigation Advice
<b>NMP1</b>	Preparation and implementation of NMP	<b>2</b>	Informing and educating farmers	Talk to your advisor on how best to implement your NMP
<b>NMP2</b>	Achieving appropriate Soil Fertility (Lime P&K)			
<b>NMP3</b>	Identify and Manage Critical Source Areas			
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<b>NMP6</b>	Timing - Early & Late N and Phosphorus			
<b>NMP7</b>	Fertiliser Rates	<b>1</b>	Informing and educating farmers	Follow application rates as per your NMP
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<b>NMP12</b>	Fertiliser Type			
<b>NMP13</b>	Other Specify			

# N Mitigation Measures

## ■ Right Rate of Application

- Apply in accordance with crop requirement
- Accurate spreading equipment

## ■ Right Product

- Protected Urea, LESS Slurry

## ■ Right Timing

- Apply when plants are actively growing
- Spring & Summer vs. Autumn applications
- Weather
- Need to improve N use efficiency ~ 25% currently

## ■ Right Location

- Suitable fields & crops

## ■ Tillage

- Green cover/catch crops , timing of sowing important to improve effectiveness
- Spring cultivation (crops & re-seeding) reduces nitrate leaching







AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

# Farm Assessment Farm Plan

Head Office

Oak Park

Carlow

Tel: 053 9170200

Dear John Farmer

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** 22/07/2020

**The Owenavorragh Catchment has been characterised by the Catchments assessment team**

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

Issue	Implementation Advice
Preparation and implementation of NMP	Talk to your advisor on how best to implement your NMP
Organic Manure Timing, Location & Method	To reduce N losses it is crucial to apply fertiliser at the correct rates, correct time and correct locations
Fertiliser Rates	Follow application rates as per your NMP
Weather and Fertiliser Management	Weather impacts nutrient loss and all fertiliser applications should be applied when suitable weather conditions prevail

Yours sincerely

Noel Meehan



AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

### ASSAP Area based Mitigation Actions

-  Establish/Preserve Wetland - 0.1Ha
-  Riparian Margin 2.5m wide 200m long
-  Off line bunds/In Stream Diversion 0.1 Ha
-  Woodland Planting 0.26Ha
-  In field grass buffer 270m long 4m wide
-  Hedgerow Planting 105m
-  Critical Source Area 0.22Ha
-  Run Off Attenuation Feature 85m long
-  Constructed Wetland 0.61 ha
-  Constructed Wetland 0.57 Ha
-  Constructed Wetland 0.51 Ha







# Summary

Challenge to get measures implemented  
and maintained on farm

Collaborative, Voluntary, Non-regulatory



Need uniform message from all  
advisors/industry

Thank you to all farmers  
working with ASSAP!



# Thank You

## Questions?

- <https://www.teagasc.ie/publications/2020/assap-interim-report-1.php>
- <https://www.teagasc.ie/environment/water-quality/farming-for-water-quality-assap/>
- <https://www.teagasc.ie/environment/climate-change/the-signpost-series-webinars/>