Environment Services Training Group

LOCAL AUTHORITY CONFERENCE

2024

Strategic Work planning & LA Collaboration

Catchment		Protected Areas							Risk & Obj		Status Drivers										Ecological Status							Area & Fl		Phosphate											Nitrate							Organic	
3rd cycle PAAs	Waterbody Name	DW	BW	SAC	SPA	SF	NSA	Sal	Risk	WQ Obj	Nutrient/ Orga	Phosphorus	Phosphorus on	Sediment	Pesticides impa	Sheep Dip	Physical alter	Changes to	Mine Waste	Other	ES 2009	ES 2012	ES 2015	ES 2018	ES 2021	Status - Long	Recent Drop	WB area HA	River Stream	B'line P (2019-	EQS_P Excee	2016-2021 Phosphat	Stream phos	Waterbody	Waterbody	Waterbody	Comments	PIP P Rank 1-3	PIP P Rank 1-3	V. high and high impact	Herd no's	B'line N (2019-	N Priority 1:	N Priority 2:	N Priority 3:	N Catchment	PIP N Rank 1-3	PIP N Rank 1-3	B'line Am (2019-	B'line BOD (2019-
Greese	BOTHOGE_010	Y							NAR	G											U	H	G	G	G			841															Priority 2		Barrow	492.5	92.9%		
Greese	BOTHOGE_020	Y							NAR	G											G	G	G	G	G			892	0.7					95		Load split d	0%	71.3		52			Priority 1			Barrow	381.8	82.8%		
Greese	BURTOWN STREAM_010	Y							AR	G							Y	Y		Y	U	U	U	U	M			1521						1.1		Load split d	21.0%	119.5	18	57			Priority 2			Barrow	517.1	84.0%		
Greese	GREESE_010	Y							R	G	Y	Y									P	P	P	P	P	Y		970		0.040	Y	Weak improving tr	517.5	349.2	8.4	17.7		2.0%	19.4	1	60	4.3	Priority 1			Barrow	441.1	85.5%	0.037	0.7
Greese	GREESE_020	Y							NAR	G		Y		Y							M	G	G	M	M			2276	0.3	0.027			294.8	180.8	8.3	-5.1		1.0%	136.6	2	76	4.4	Priority 1			Barrow	4072.5	47.1%	0.025	0.7
Greese	GREESE_030	Y							R	G	Y	Y		Y				Y			P	M	M	P	P	Y		2171		0.030		Weak improving tr	518.5	623.8	8.3			17.0%	369.1	17	77	5.7	Priority 1			Barrow	906.9	61.8%	0.075	0.6
Greese	GREESE_040	Y							R	G	Y	Y		Y		Y					P	G	M	M	M			2114	2.2	0.031		Weak inreasing tr	220.8	157.1	8.5	5.2	Load split d	11.0%	232.5	9	87	5.9	Priority 1			Barrow	1034.5	49.0%	0.025	0.8
Greese	GREESE_050	Y							R	G							Y			Y	P	P	M	M	M			994	2.4					1.1		Load split d	5.0%	49.7	2	38			Priority 1			Barrow	474.0	47.7%		
Greese	GREESE_060	Y		Y					NAR	G	Y	Y									M	M	G	M	M			903	2.9	0.042	Y	Stable (2016-21)	3852.6	3852.6	8.3		Load split d	1.0%	54.2	2	36	5.7	Priority 1			Barrow	489.7	54.2%	0.026	0.7
Greese	GRANGECON STREAM_010	Y							R	G	Y	Y									M	G	G	G	G			1742	0.3				368.1	368.1	8.2	1.6		13.0%	226.5	8	56		Priority 1			Barrow	782.7	44.9%		
Rye Water	Jenkinstown stream_010	Y							AR	G	Y	Y									U	U	U	U	M			1121	0.2									44.0%	493.1	39	63			Priority 2			Liffey and D	116.2	1.4%		
Rye Water	RYE WATER_010	Y							AR	G	Y	Y								Y	G	M	M	M	M			3667	0.4	0.041	Y	Strong improving	558.3	538.3	8.2	0.4		38.0%	1393.4	66	122	1.5		Priority 2			Liffey and D	233.5	8.4%	0.036	0.8
Rye Water	RYE WATER_020	Y							AR	G											M	M	P	M	G			1289	0.9									35.0%	451.1	32	41			Priority 2			Liffey and D	133.6	2.6%		
Rye Water	RYE WATER_030	Y							AR	G	Y	Y					Y				M	P	P	M	P	Y		3229	1.3	0.066	Y	Stable (2016-21)	2789.8	2365.0	8.3	-0.8	Combined I	38.0%	1227.0	79	107	1.8		Priority 2			Liffey and D	527.5	0.9%	0.050	1.2
Rye Water	RYE WATER_040	Y							AR	G	Y	Y									P	P	P	P	M	Y		3053	2.8	0.058	Y	Weak improving tr	5103.0	2133.3	8.8	3.0		25.0%	763.2	37	73	1.8		Priority 2			Liffey and D	787.1	3.2%	0.026	1.1
Tolka	DUNBOYNE STREAM_010	Y							AR	G	Y	Y									P	P	M	M	P	Y	Y	1932	0.2	0.087	Y	Strong improving	424.5	424.5	8.2	0.5		40.0%	772.9	33	65	1.3		Priority 2			Liffey and D	135.2	1.8%	0.036	1.3
Tolka	PINKEEN_010	Y							AR	G	Y	Y					Y				M	P	P	P	M	Y		1380	0.1						8.5			27.0%	372.6	24	52			Priority 2			Liffey and D	150.5	3.7%		
Tolka	Powerstown (Dublin)_010	Y							R	G	Y	Y		Y							U	U	U	P	P	Y		849	0.1	0.062	Y		174.0	174.0	8.2	0.9		23.0%	195.4	7	22	1.4		Priority 2			Liffey and D	119.6	2.3%	0.044	1.3
Tolka	TOLKA_010	Y							AR	G	Y	Y		Y							M	P	P	M	P	Y	Y	1731	0.3	0.080	Y	Strong improving	643.4	643.4	8.4	0.9		41.0%	709.6	40	65	1.3		Priority 2			Liffey and D	131.0	1.8%	0.037	1.2
Tolka	TOLKA_020	Y							AR	G		Y					Y				M	P	P	P	M	Y		2568	0.6	0.066	Y	Strong improving	1296.2	648.8	8.3	0.7		35.0%	898.8	52	96	1.4		Priority 2			Liffey and D	102.2	1.0%	0.032	0.8
Tolka	TOLKA_030	Y							AR	G	Y										P	P	B	P	P	Y		1895	1.5	0.082	Y	Weak improving tr	3876.4	1982.1	8.5	4.8	Load split d	2.0%	37.9	1	32	1.6		Priority 2			Liffey and D	143.4	2.3%	0.213	1.3
Tolka	TOLKA_040	Y							AR	G	Y										P	U	P	P	P	Y		1308	1.6	0.084	Y	Weak improving tr	4201.4	324.6	8.2	12.4		2.0%	26.2		2	1.8		Priority 2			Liffey and D	55.7	0.4%	0.083	1.1
Tolka	TOLKA_050	Y							AR	G	Y										P	P	P	P	P	Y		1992	1.8	0.057	Y	Weak improving tr	2789.9	93.5	8.5	-45.8		1.0%	19.9		10	1.8		Priority 2			Liffey and D	21.1	1.1%	0.071	1.6
Ward	WARD_010	Y							R	G											P	U	U	U	P	Y		919	0.1								Load split d	49.0%	450.1	12	30							16.1	1.7%		
Ward	WARD_020	Y							AR	G	Y	Y					Y				P	P	P	M	M	Y		860	0.2	0.089	Y	Stable (2016-21)	504.2	504.2	8.3	0.5	Load split d	37.6%	498.3	14	32	2.7			Priority 3			59.1	8.0%	0.081	1.5
Ward	WARD_030	Y							R	G	Y	Y									P	P	G	M	M	Y		3293	0.7	0.108	Y	Weak improving tr	2420.4	1330.2	8.5	2.3		25.0%	823.3	38	88	2.6			Priority 3			135.7	10.2%	0.054	1.0
Ward	WARD_040	Y							AR	G							Y			Y	P	P	P	P	M	Y	Y	816	1.6	0.128	Y	Stable (2016-21)	6872.4	4252.0	8.2			0.0%	49.0	1	15	3.4			Priority 3			25.9	3.2%	0.028	1.1

Eoin McAleer **(LAWPRO)**

Regional Catchment Manager (Midlands & East)

An Roinn Comhshaoil, Aeráide agus Cumarsáide
Department of the Environment, Climate and Communications

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

LOCAL AUTHORITY Climate Action Training Programme

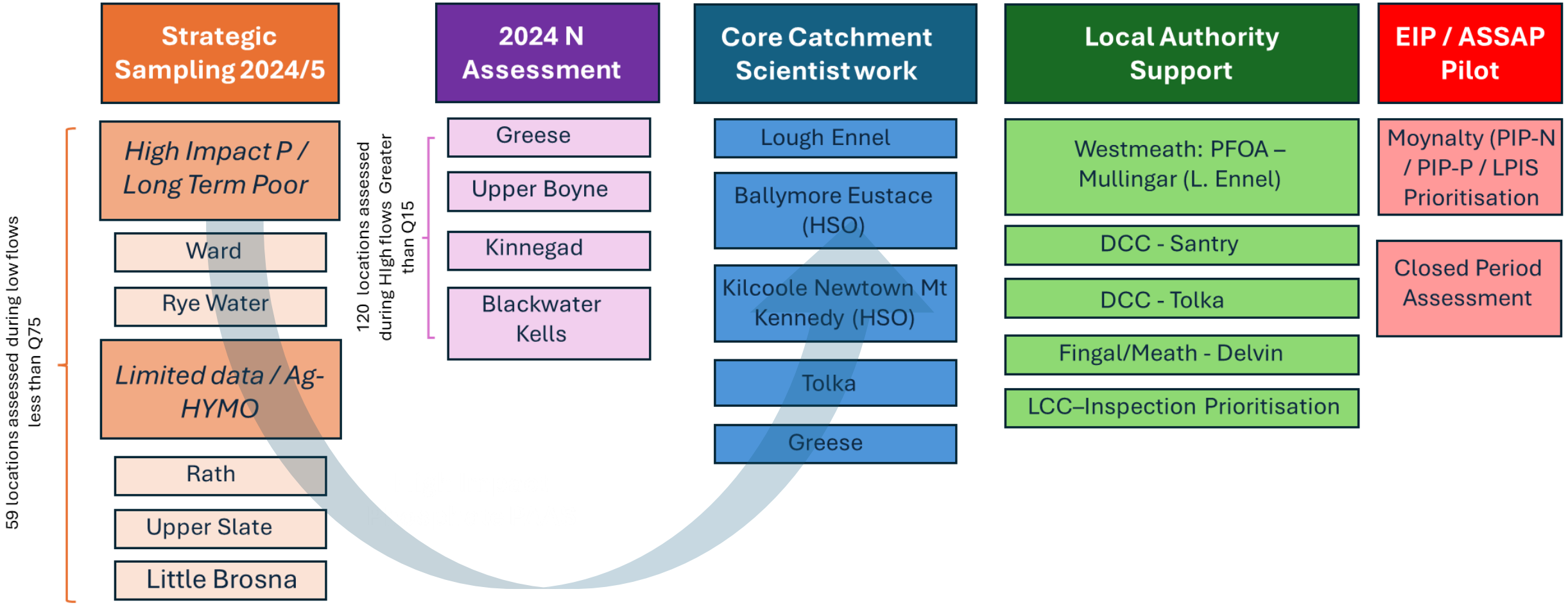
LASNTG Local Authority Services National Training Group

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

CCMA Cumann Lucht Bainistiochta Contae agus Cathrach
County and City Management Association

epa Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

LAWPRO Regional Workplan (2024/5)

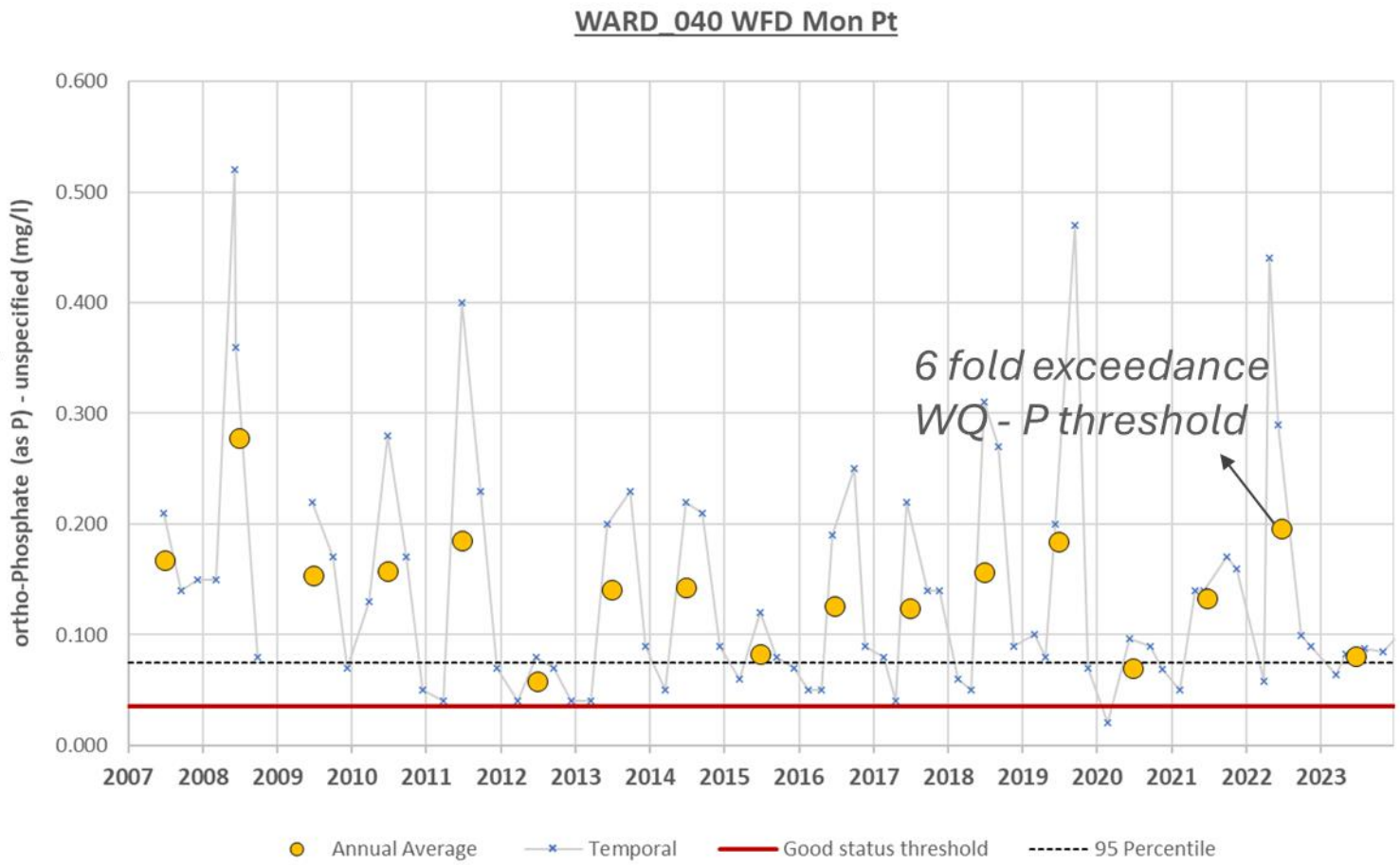


LAWPRO Regional Workplan (2024/5)

Strategic Sampling 2024/5

59 locations assessed during low flows less than Q75

- *High Impact P / Long Term Poor*
  - Ward
  - Rye Water
- *Limited data / Ag-HYMO*
  - Rath
  - Upper Slate
  - Little Brosna

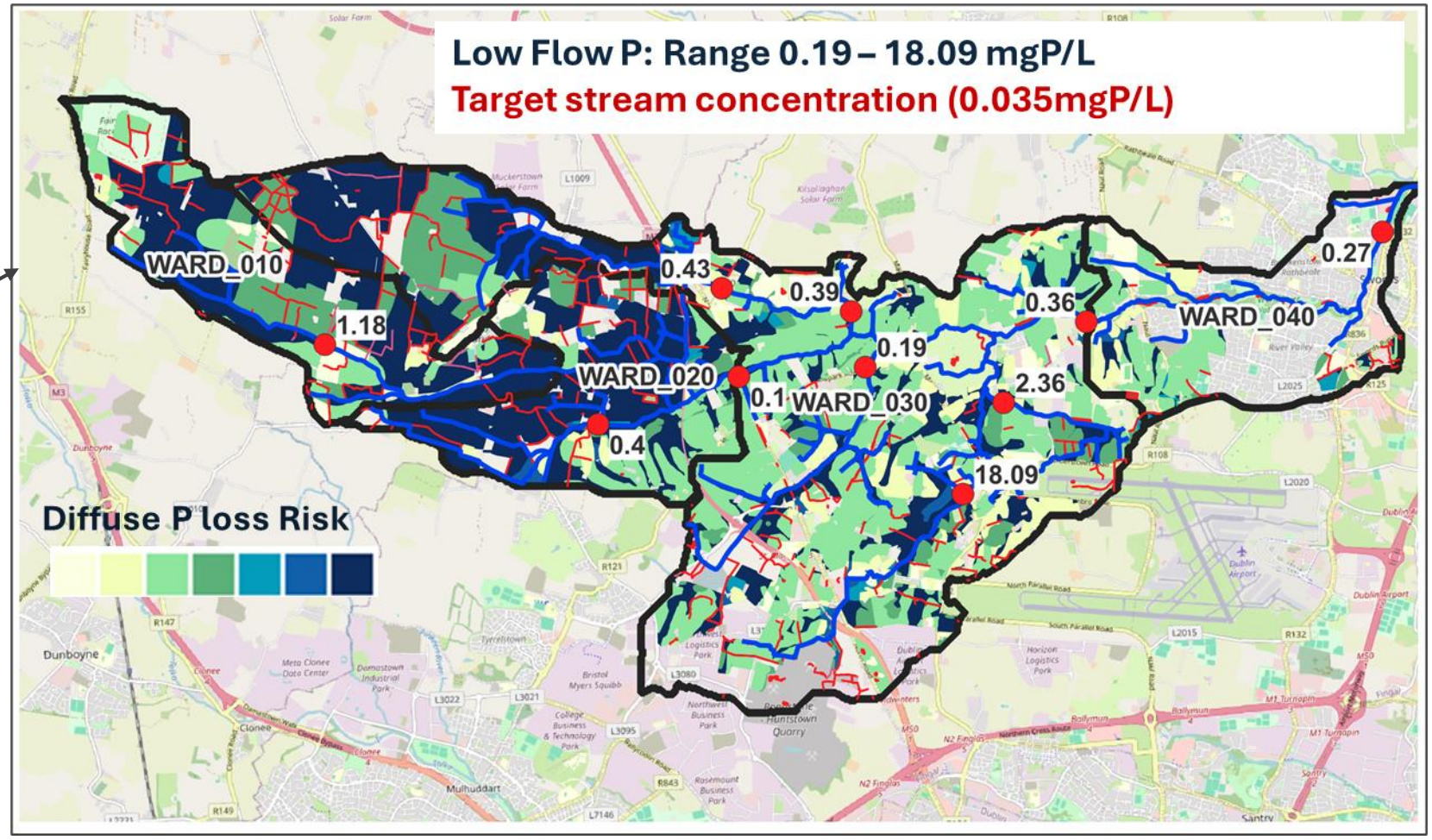


LAWPRO Regional Workplan (2024/5)

Strategic Sampling 2024/5

59 locations assessed during low flows less than Q75

- *High Impact P / Long Term Poor*
  - Ward
  - Rye Water
- *Limited data / Ag-HYMO*
  - Rath
  - Upper Slate
  - Little Brosna

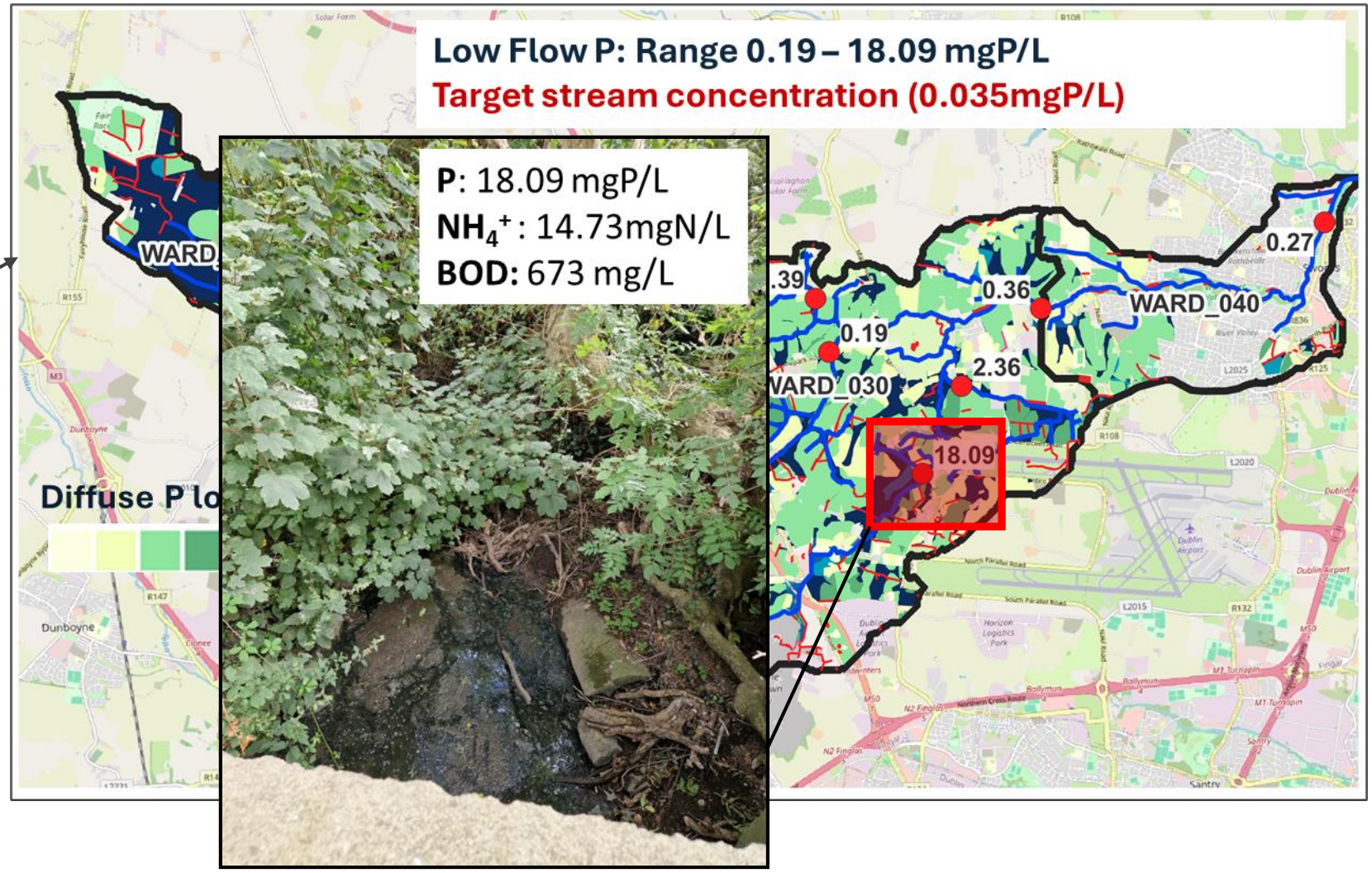


LAWPRO Regional Workplan (2024/5)

Strategic Sampling 2024/5

59 locations assessed during low flows less than Q75

- *High Impact P / Long Term Poor*
  - Ward
  - Rye Water
- *Limited data / Ag-HYMO*
  - Rath
  - Upper Slate
  - Little Brosna



LAWPRO Regional Workplan (2024/5)

Strategic Sampling 2024/5

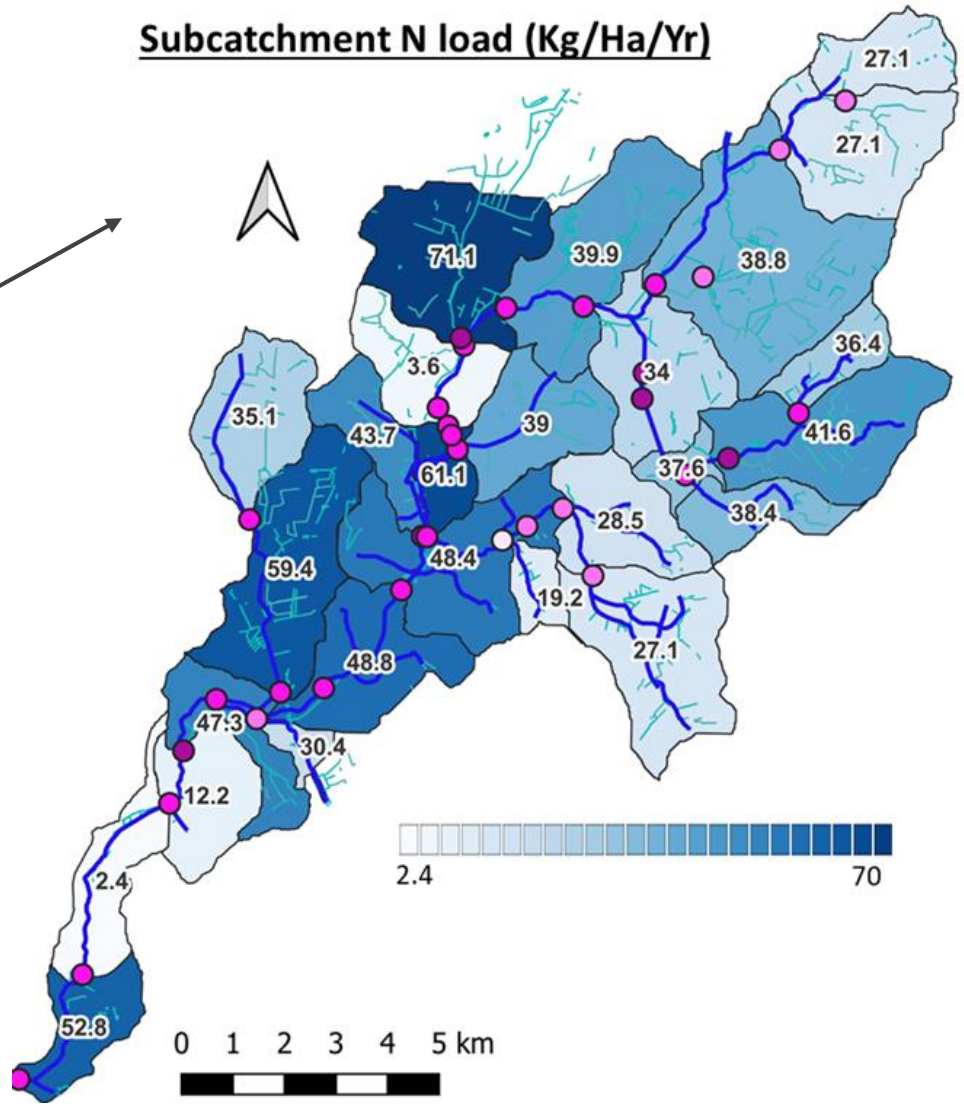
59 locations assessed during low flows less than Q75

- *High Impact P / Long Term Poor*
  - Ward
  - Rye Water
- *Limited data / Ag-HYMO*
  - Rath
  - Upper Slate
  - Little Brosna

2024 N Assessment

120 locations assessed during HIgh flows Greater than Q15

- Greese
- Upper Boyne
- Kinnegad
- Blackwater Kells



LAWPRO Regional Workplan (2024/5)

Strategic Sampling 2024/5

59 locations assessed during low flows less than Q75

- *High Impact P / Long Term Poor*
  - Ward
  - Rye Water
- *Limited data / Ag-HYMO*
  - Rath
  - Upper Slate
  - Little Brosna

2024 N Assessment

120 locations assessed during HIgh flows Greater than Q15

- Greese
- Upper Boyne
- Kinnegad
- Blackwater Kells

Priority 1 Farms (N)

- Each farm >100Ha PIP-N (1-3)
- **12** farms
- **24%** of N riskiest land in catchment

Priority 2 Farms (N)

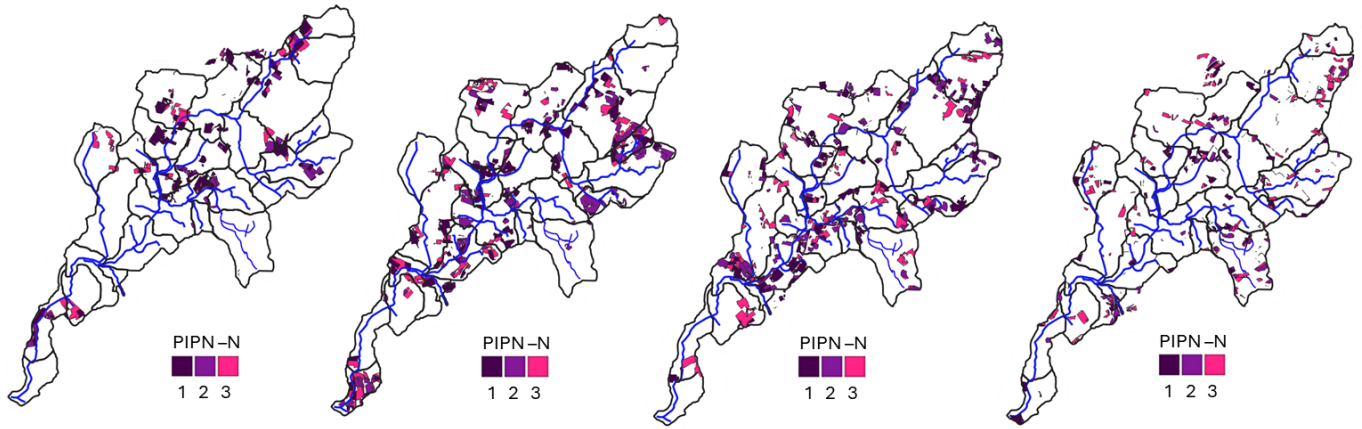
- Each farm 50 to 100Ha PIP-N (1-3)
- **35** farms
- **33%** of N riskiest land in catchment

Priority 3 Farms (N)

- Each farm 20 to 50 Ha PIP-N (1-3)
- **65** farms
- **28%** of N riskiest land in catchment

Priority 3 Farms (N)

- Each farm 1 to 20 Ha PIP-N (1-3)
- **125** farms
- **14%** of N riskiest land in catchment



https://www.youtube.com/watch?v=EI6rbUqm_fo&t=1040s

LAWPRO Regional Workplan (2024/5)

Strategic Sampling 2024/5

59 locations assessed during low flows less than Q75

- *High Impact P / Long Term Poor*
  - Ward
  - Rye Water
- *Limited data / Ag-HYMO*
  - Rath
  - Upper Slate
  - Little Brosna

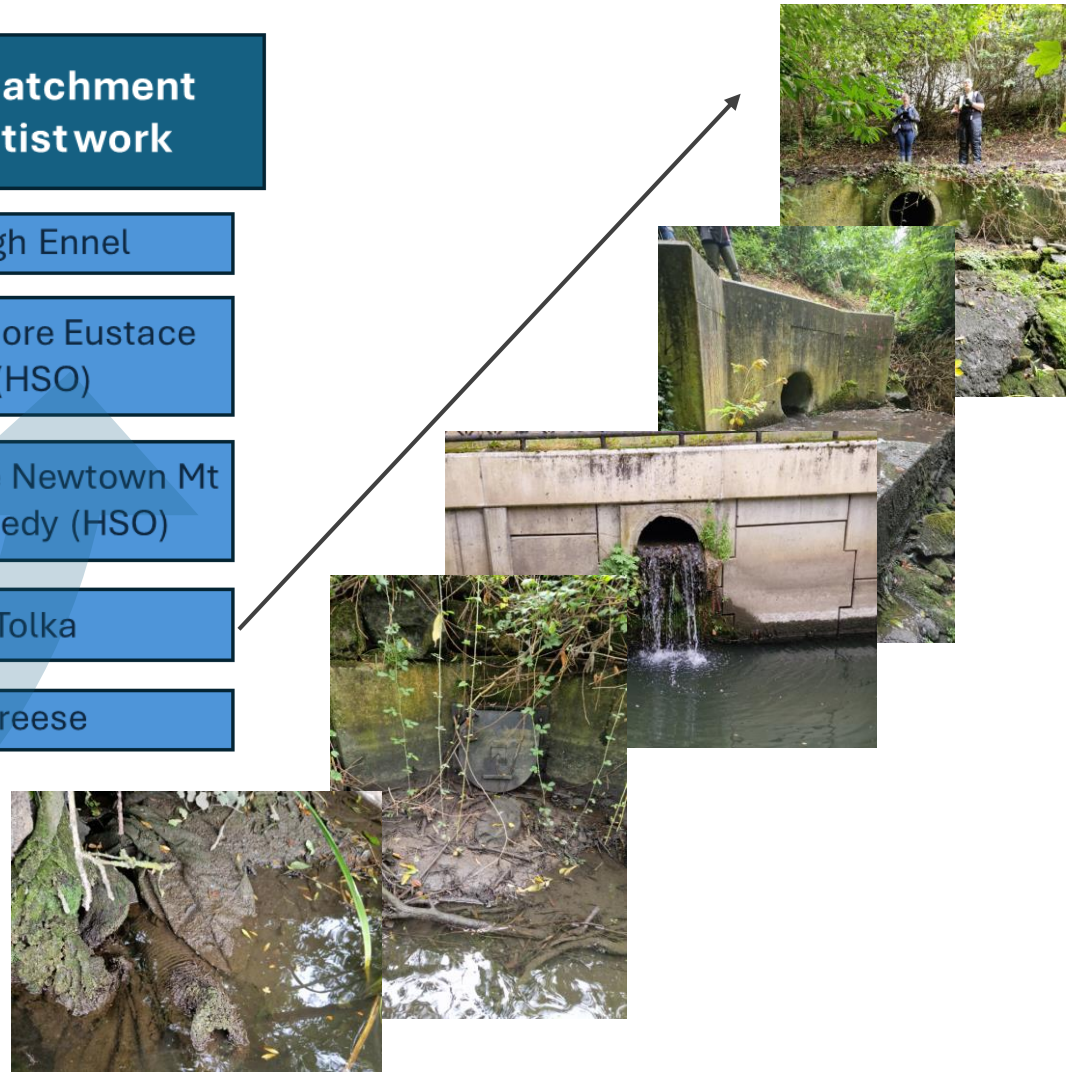
2024 N Assessment

120 locations assessed during HIgh flows Greater than Q15

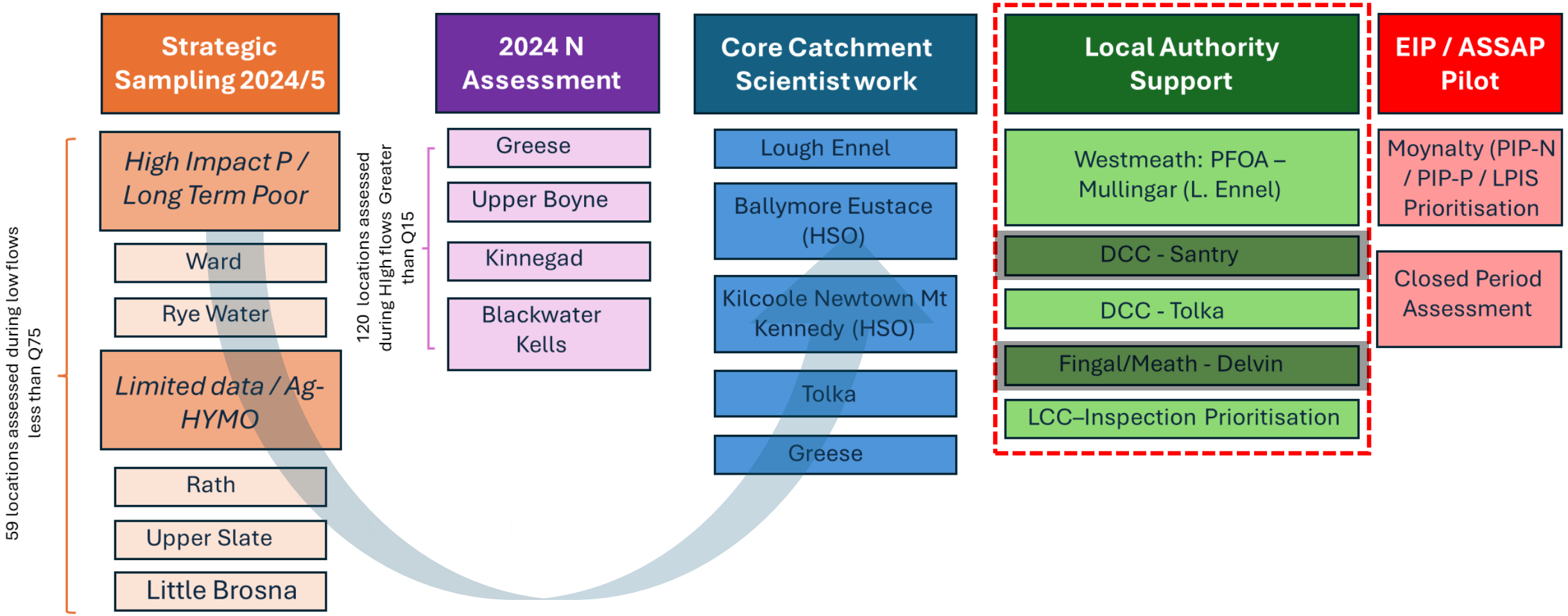
- Greese
- Upper Boyne
- Kinnegad
- Blackwater Kells

Core Catchment Scientist work

- Lough Ennel
- Ballymore Eustace (HSO)
- Kilcoole Newtown Mt Kennedy (HSO)
- Tolka
- Greese



LAWPRO Regional Workplan (2024/5)

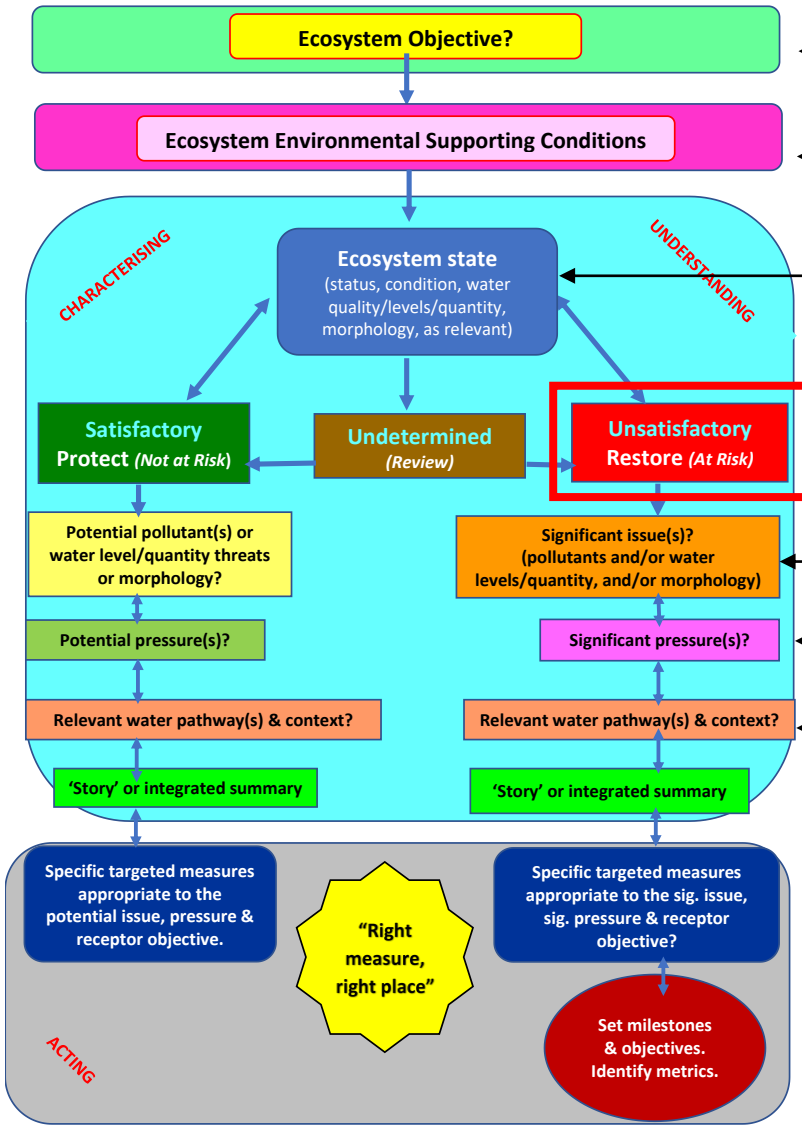


Delvin AFA - Local Authority Collaboration
(Fingal CC/Meath CC/LAWPRO)

- **2nd October 2024** - Team effort between Fingal, Meath & LAWPRO Scientists
- 10 scientists on the ground working together on single day.
- 29 sites assessed during low flow conditions for chemistry & streamflow
- 10 sites assessed for stream biology & hydro-morphology

Delvin AFA - Local Authority Collaboration *(Fingal CC/Meath CC/LAWPRO)*

LAWPRO Toolbox Talk – Regional Operational Committee (2023)



River: Good Ecological Status *(DELVIN_010, DELVIN_020, DELVIN_030, DELVIN_040*

Bathing Water (Balbriggan) - Good

River: Stream Invertebrates @ WFD monitoring points

Bathing Water: Ecoli/Enterococci concentrations @ Bathing water MP.

River: 2 x WBs @ Poor, 2 x WBs @ Moderate **Long term impact – 40 years**

Bathing Water: 2022-23 (12 samples @ Excellent, 4 @ Good, 4 @ Poor

KPI Sites

DELVIN_010: *BR W of Naul*
DELVIN_020: *Br NW of Forty Acres*
DELVIN_030: *Br in Stamullin (South End)*
DELVIN_040: *Br nr Bridgefoot House*

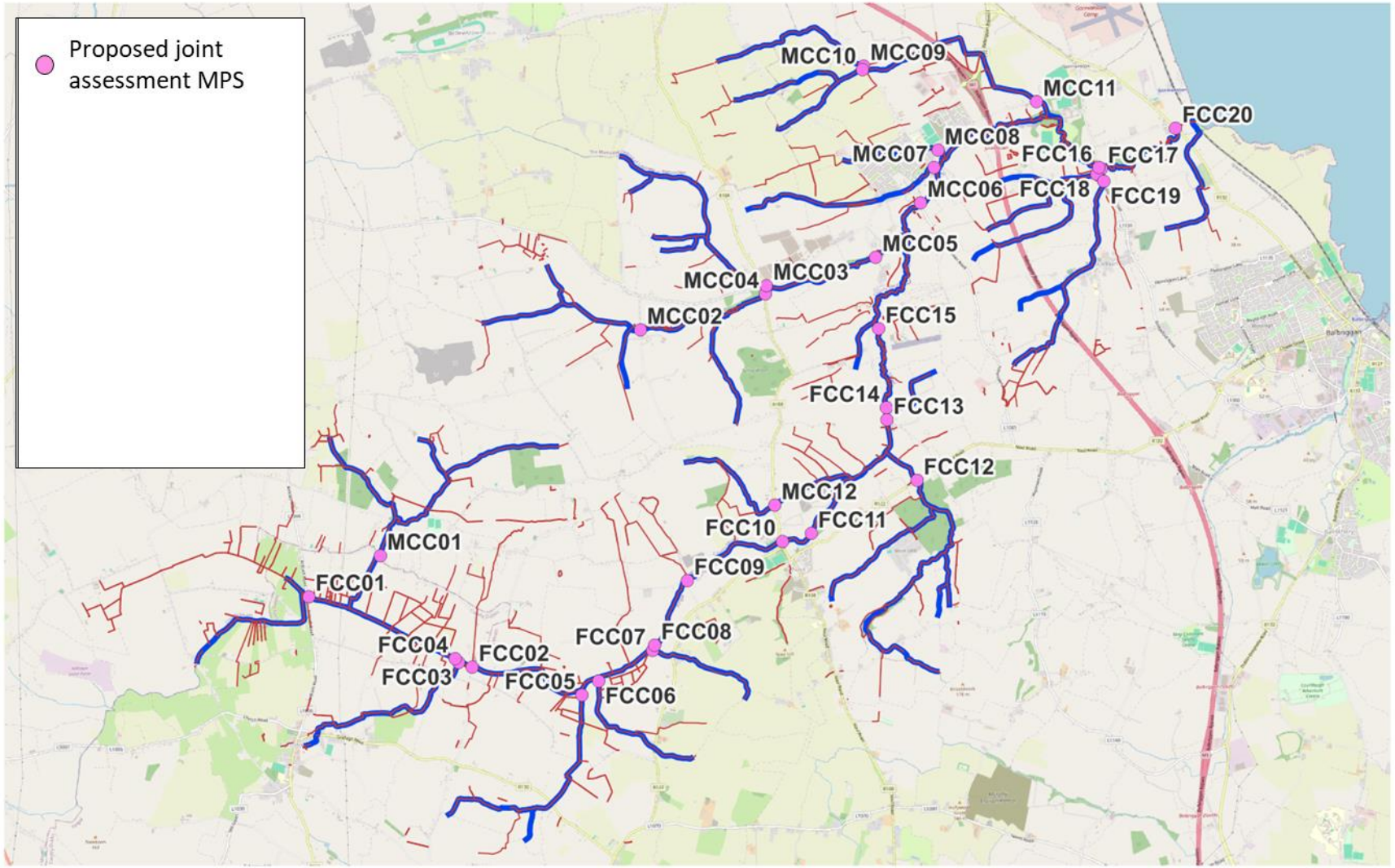
DELVIN_010

- Baseline P (2020-22) – **0.069mgP/L** (2 x 0.035 EQS)
- Baseline Am (2020-22) – 0.042mgN/L (not above 0.065 EQS) – but frequent spikes above 95%, no obvious link of spikes to streamflow.
- Baseline BOD (2020-22) – 1.2 (not above EQS but 10% of samples have concerning values – potential point sources).
- Baseline N: **3.0mgN/L** – *(Above 2.6 estuary EQS, but does not discharge to estuary (Priority 3 N catchment) – unlikely to be the driver of status, but very large peak during 2018 drought could cause issues).*
- *Hydromorphology – Sig issue but not on OPW scheme – LA drainage.*
- *Sediment – likely source given extent of tillage in Catchment –compounds HYMO impact*

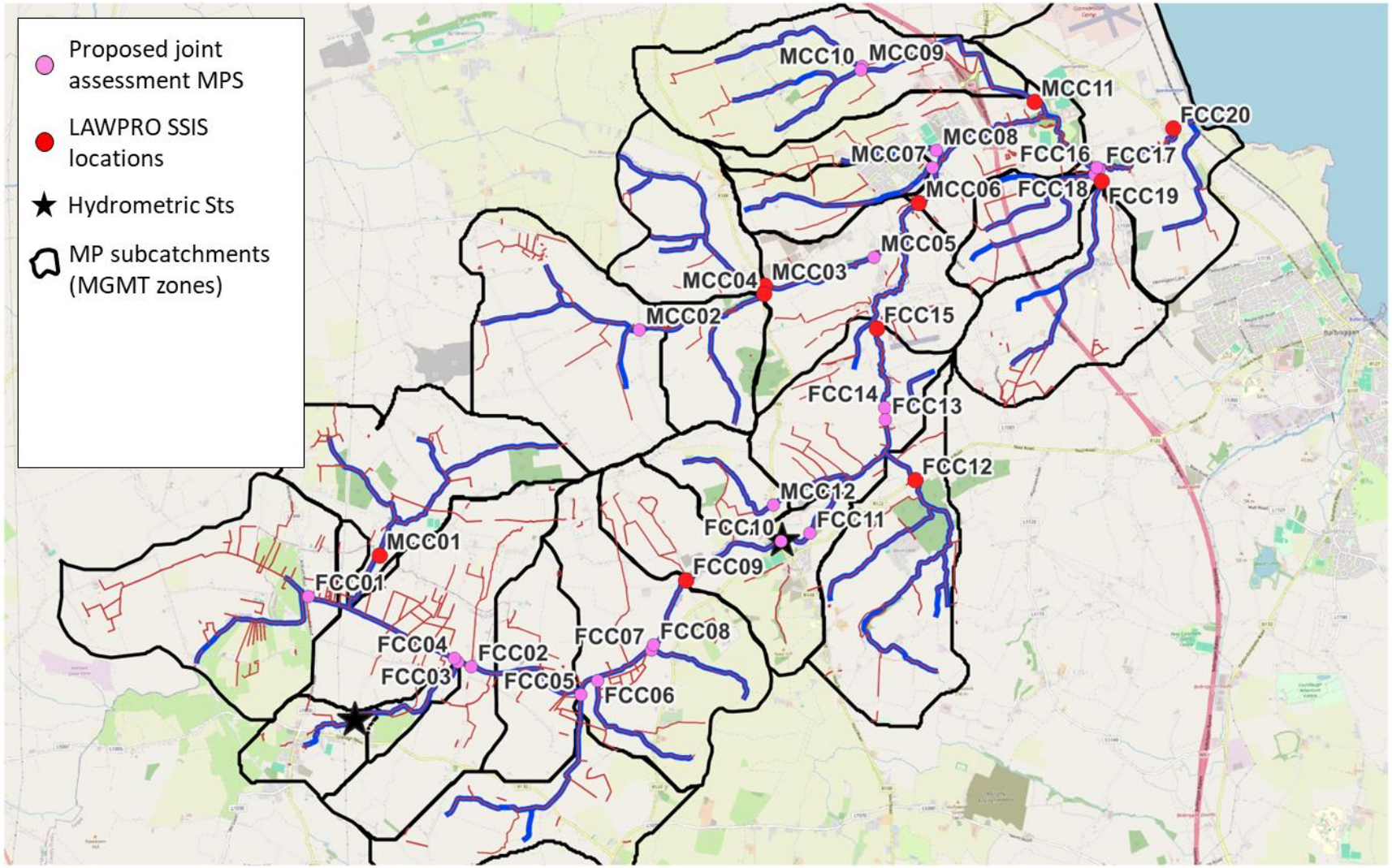
P sources - Agriculture on PD – High PIP farms. CSAs & GAP
- Tillage on PD soils – source of P binded to sediment
- Domestic WW – focus on high risk from Sanicose

Ammonium & BOD sources (mitigate peaks) – DWW, Farmyards, CoA

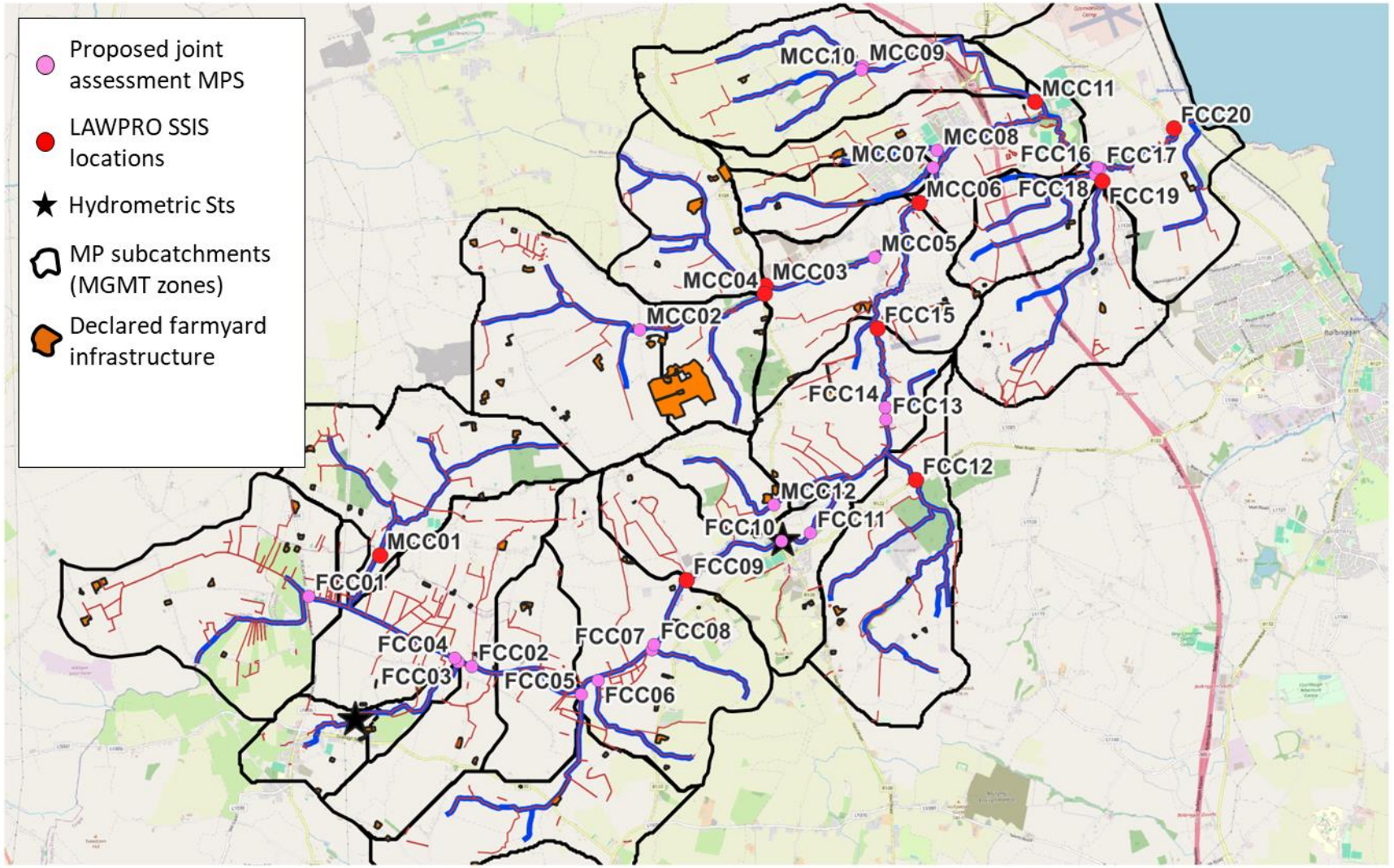
Delvin AFA - Local Authority Collaboration
(SAMPLE SITES)



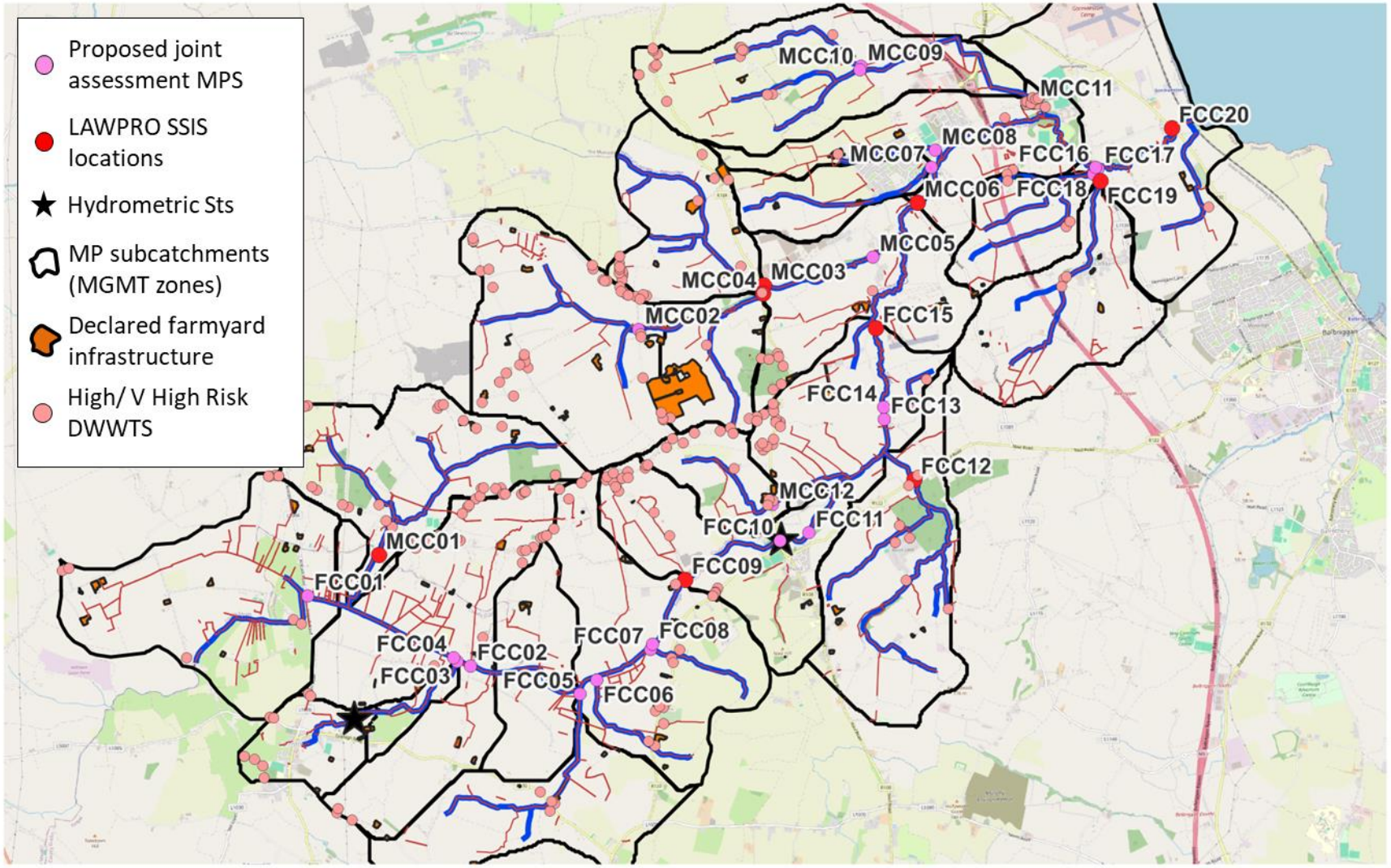
Delvin AFA - Local Authority Collaboration
(MANAGEMENT ZONES)



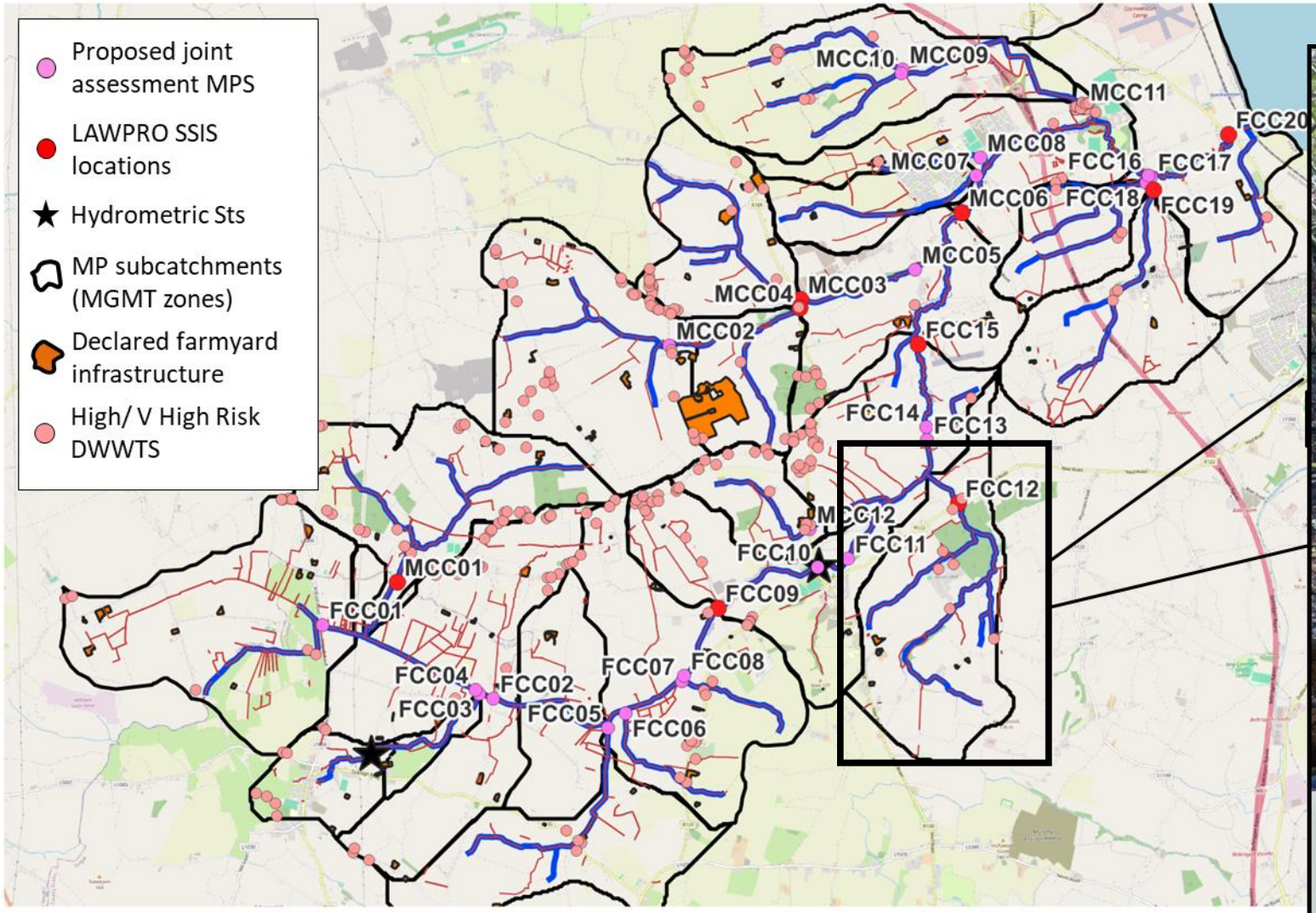
Delvin AFA - Local Authority Collaboration
(POINT SOURCE - FARMYARDS)



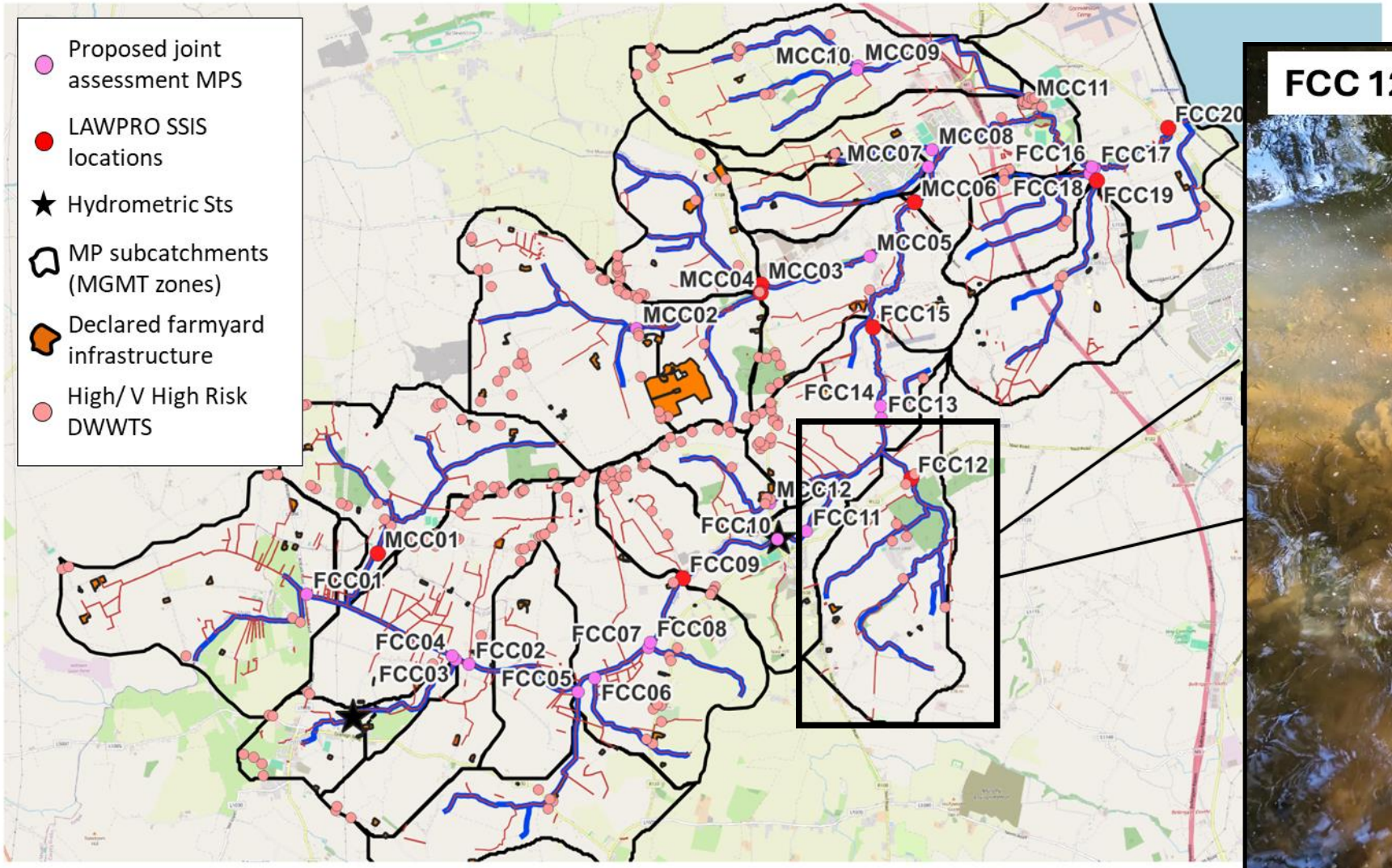
Delvin AFA - Local Authority Collaboration
(POINT SOURCE – Domestic WW)



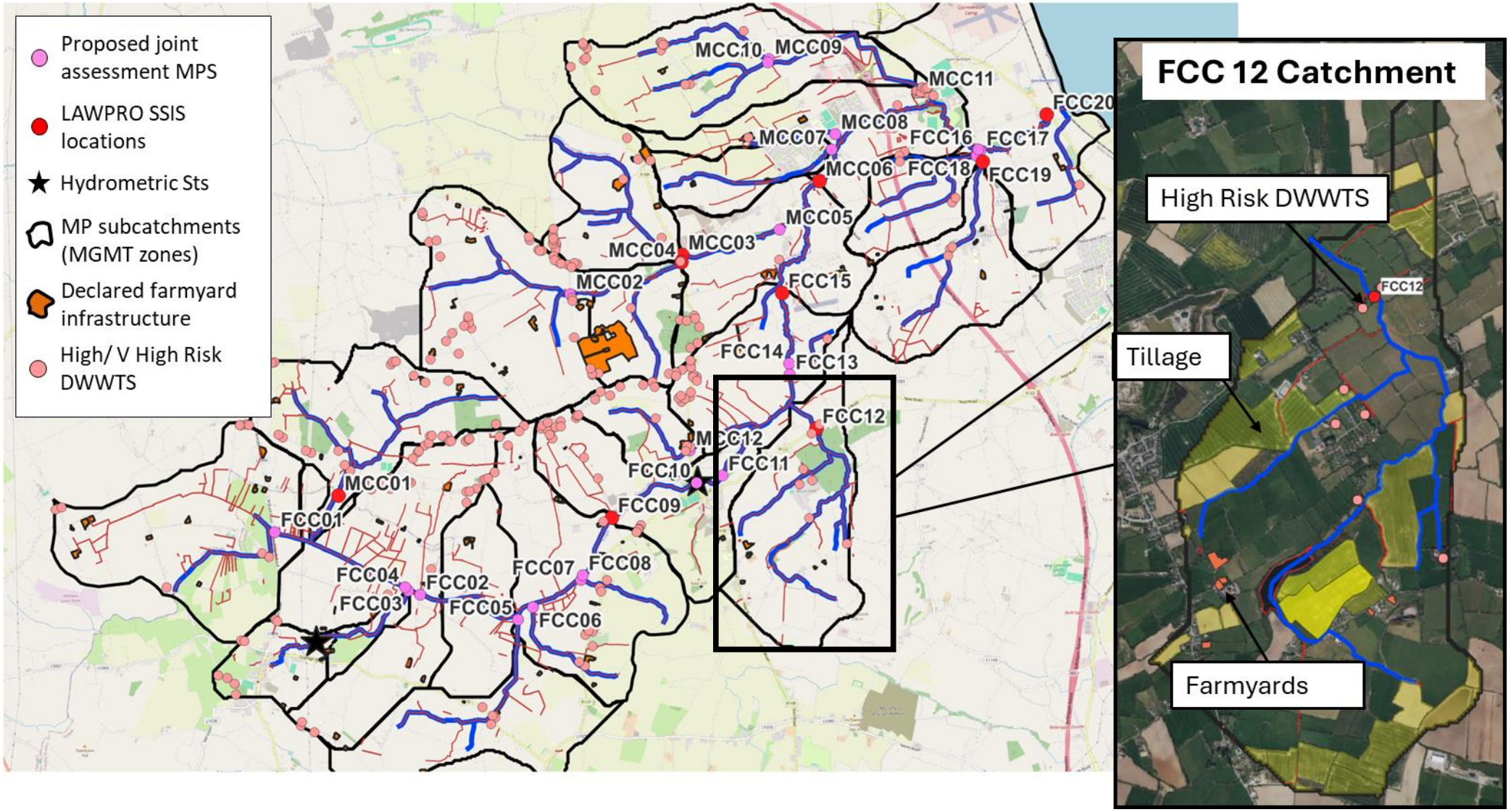
Delvin AFA - Local Authority Collaboration
(MANAGEMENT ZONE EVIDENCE BASE)



Delvin AFA - Local Authority Collaboration
(MANAGEMENT ZONE EVIDENCE BASE)



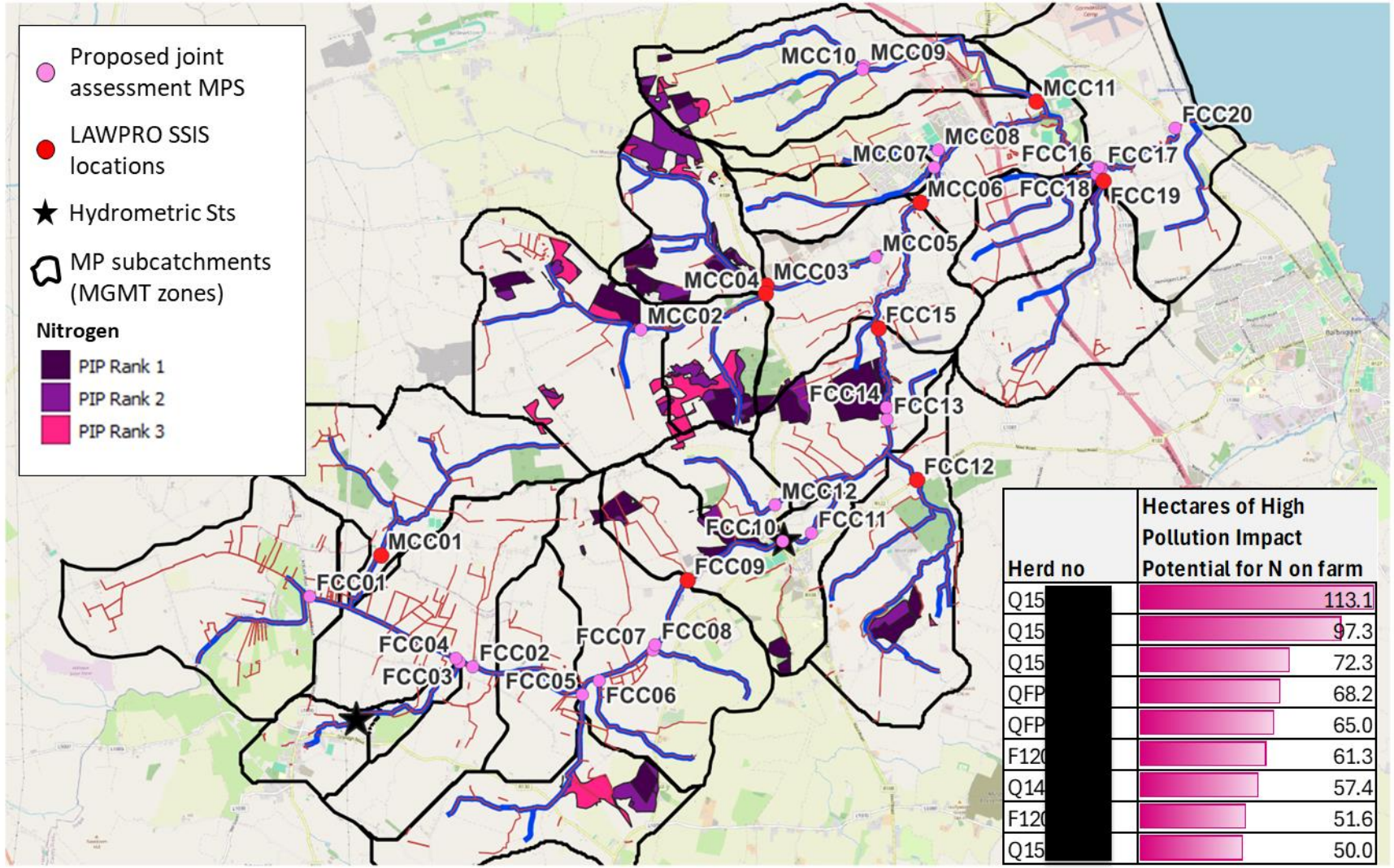
Delvin AFA - Local Authority Collaboration
(MANAGEMENT ZONE EVIDENCE BASE)



Delvin AFA - Local Authority Collaboration
(DIFFUSE NITRATE PRIORITISATION)

Priority 1 Nitrogen Impact farms

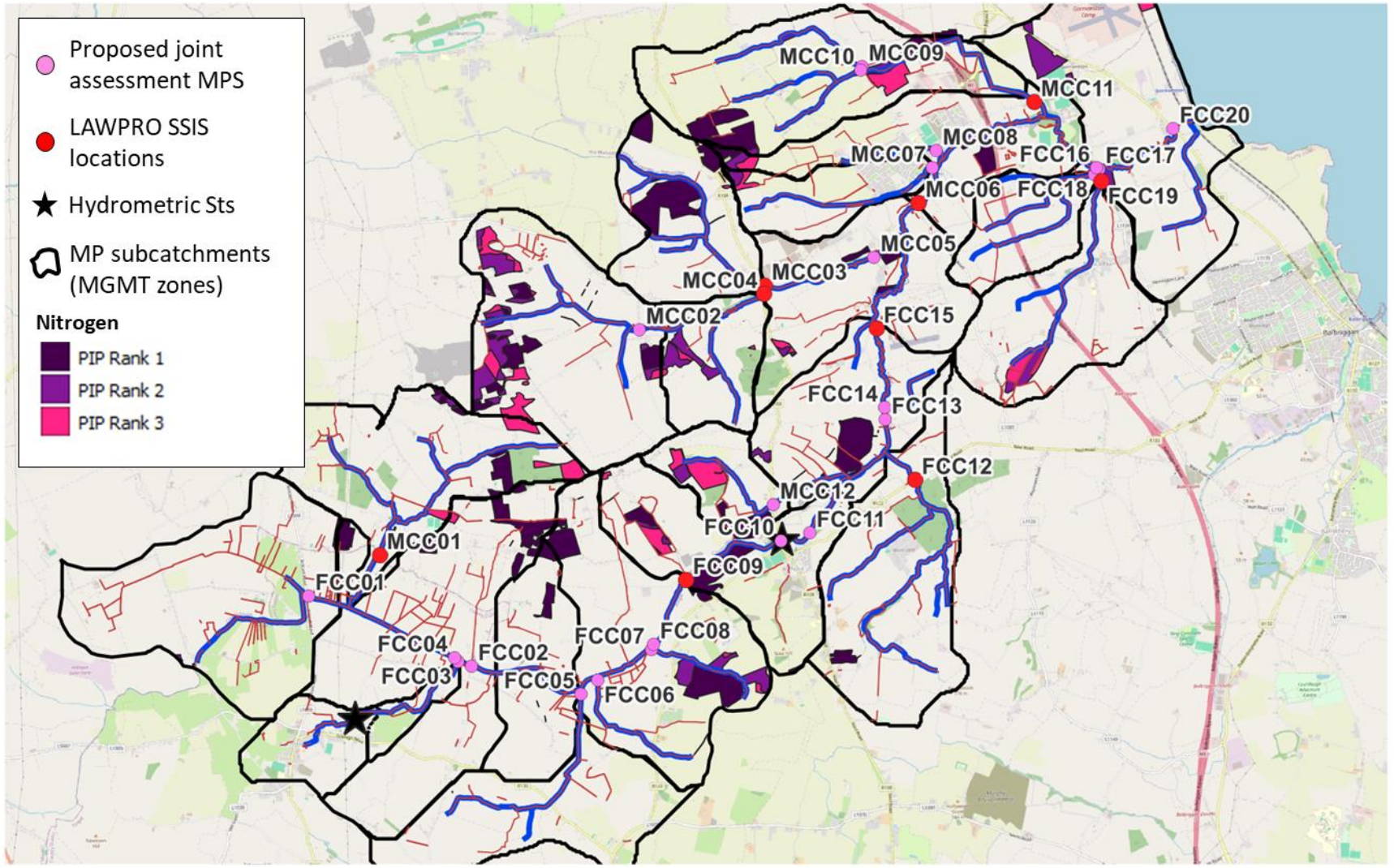
- **9** farms
- **30%** of all High PIP-N land in the Catchment



Delvin AFA - Local Authority Collaboration
(DIFFUSE NITRATE PRIORITISATION)

Priority 2 Nitrogen Impact farms

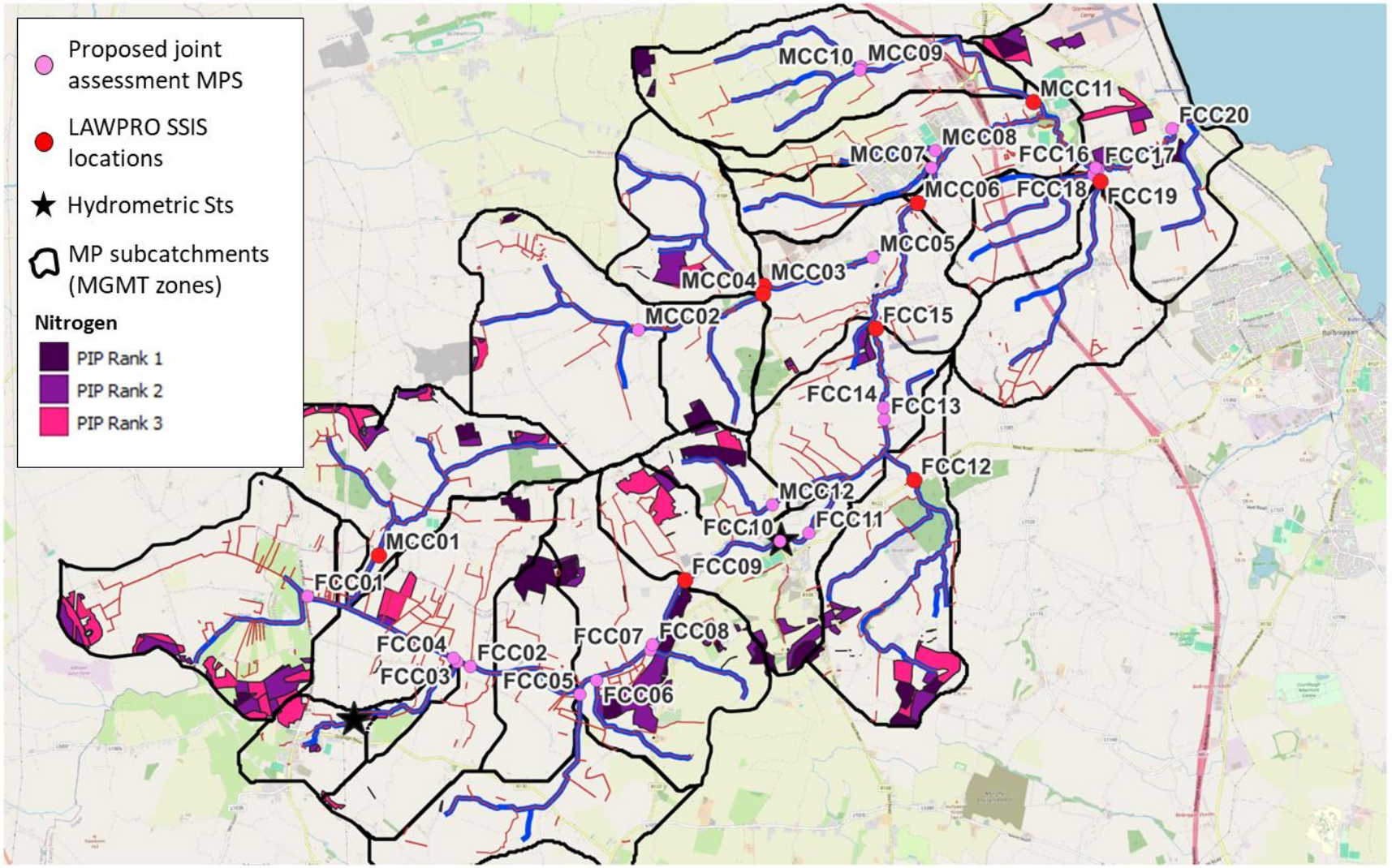
- **17** farms
- **31%** of all High PIP-N land in the Catchment



Delvin AFA - Local Authority Collaboration
(DIFFUSE NITRATE PRIORITISATION)

Priority 3 Nitrogen Impact farms

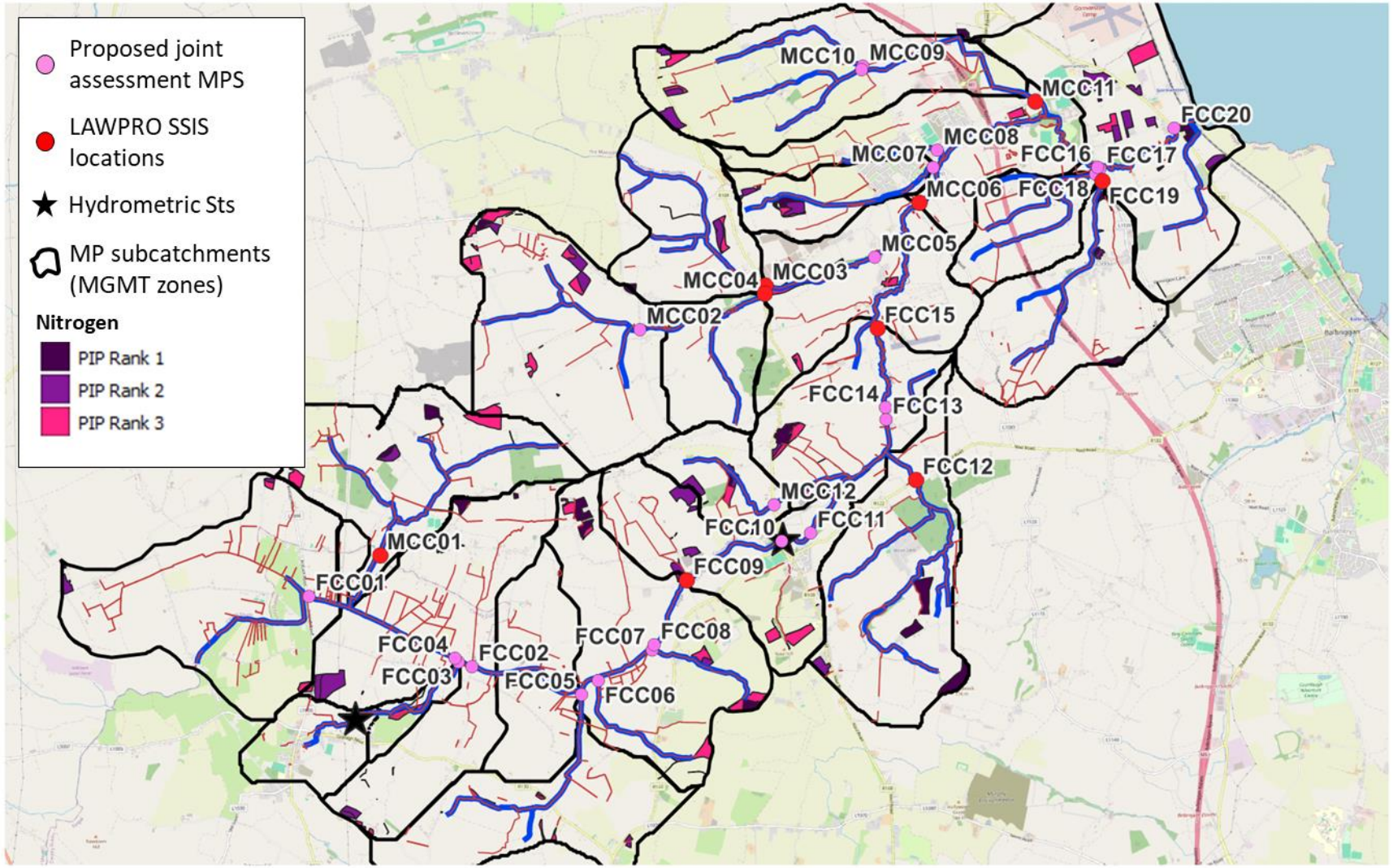
- **31** farms
- **26%** of all High PIP-N land in the Catchment



Delvin AFA - Local Authority Collaboration
(DIFFUSE NITRATE PRIORITISATION)

Priority 4 Nitrogen Impact farms

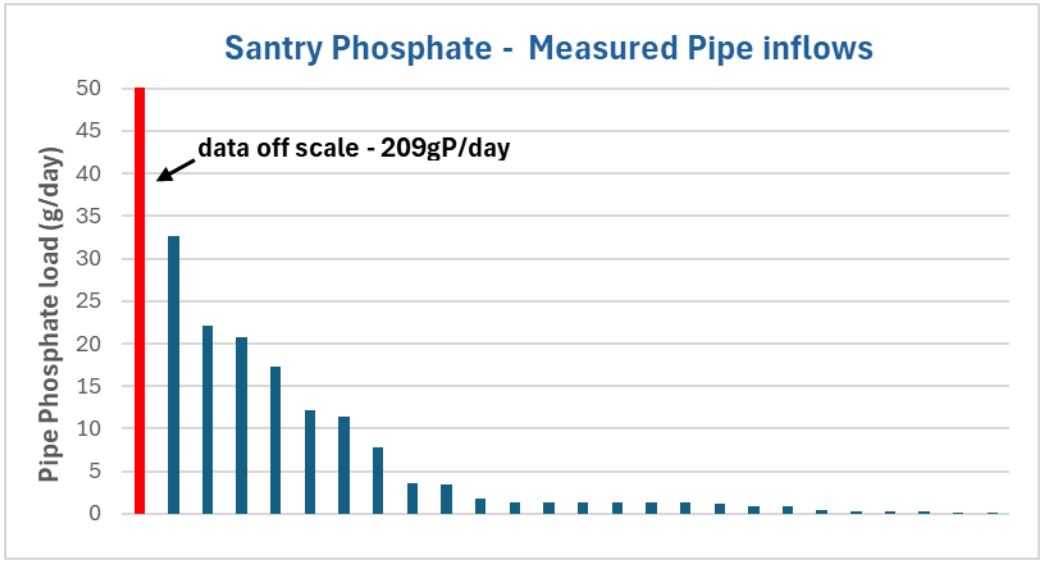
- **54** farms
- **13%** of all High PIP-N land in the Catchment

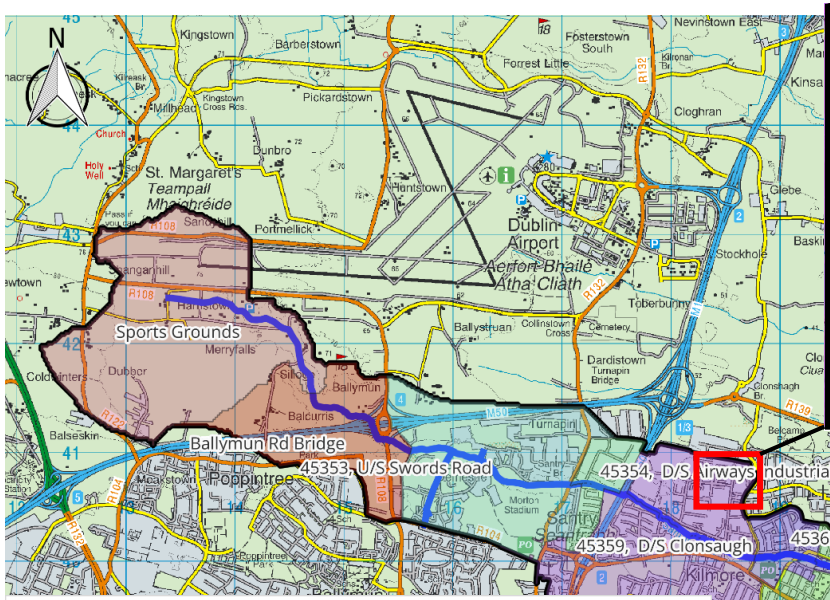


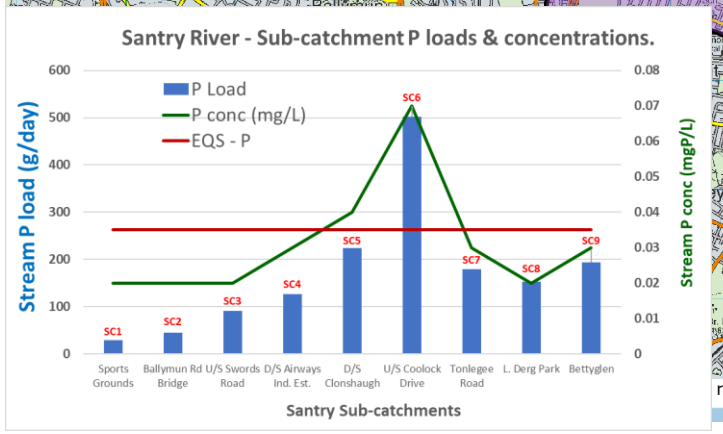
Santry AFA - Local Authority Collaboration
(Dublin CC/Fingal CC/LAWPRO)

- **April 2023** - Team effort between DCC, Fingal & LAWPRO Scientists
- 20 scientists on the ground working together on single day.
- 56 (incl. 12 Stream locations) sites assessed during low to average flow conditions
- 44 pipe inflows confirmed – flows and chemistry collected.

Santry AFA - Local Authority Collaboration
(Dublin CC/Fingal CC/LAWPRO)







rights reserved. Licence number: CYAL50346523

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

Synopsis

- Simple characterisation using CSM framework.
- Data driven Regional Workplan.
- Supporting N & P tools – *easily adaptable to inform farm inspection strategy.*
- Catchment Management zone approach
- LAWPRO Shared Service.

Environment Services Training Group

LOCAL AUTHORITY CONFERENCE

2024

WELCOME….