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Natural Environment Policy Division

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10 June 2025

Dear Sir / Madam,

New Harmonica, Neagh-Bann Catchment Infographic

Minister Muir has requested that the attached New Harmonica, Neagh-Bann Catchment Infographic be deposited in the Assembly Library.

Grateful if you can progress.

Yours faithfully,

Brian Ervine

Brian Ervine
Head of Branch
Environmental Farming Branch

If you are deaf or have a hearing difficulty you can contact the Department via the Next Generation Text Relay Service by dialling 18001 + telephone number.

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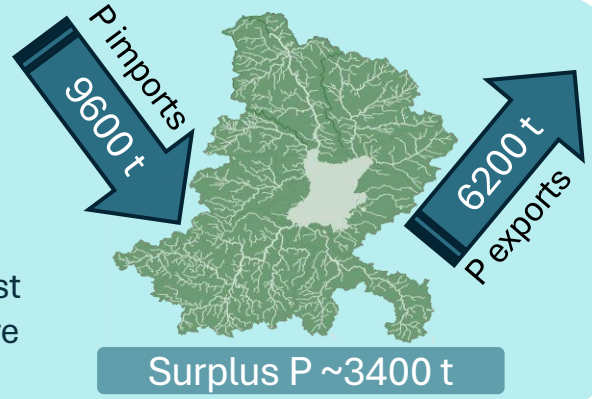
NEW Harmonica

https://newharmonica.eu/

Within the Neagh-Bann catchment NEW Harmonica modelling used SLAM, a geospatial approach, to apportion phosphorus (P) losses to water between the main sectors and Material Flow Analysis to calculate mass flows of P.

Material Flow Analysis estimates that annually there are around 3,400 tonnes of surplus phosphorus in the Lough Neagh catchment, predominantly from cattle slurry.

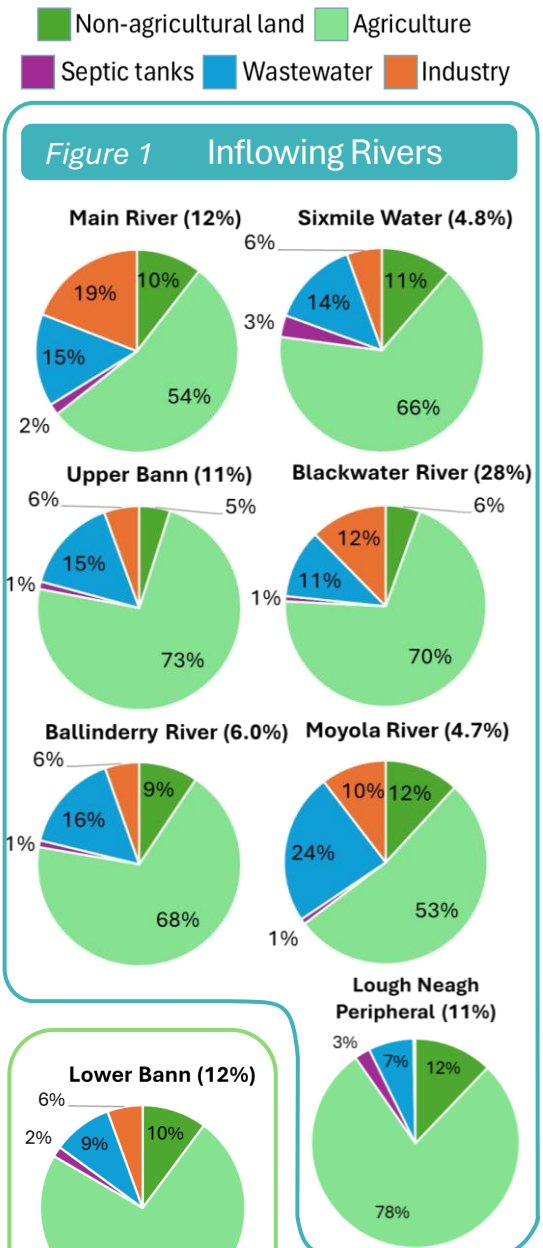
Imports of P include animal feed and chemical fertilisers, exports are mainly via food produce. Most of the P surplus is accumulating in soils, from where it can be lost to water.



Source apportionment modelling of P inputs to Lough Neagh (the inflowing rivers + direct inputs) indicates 61% from agriculture, 29% from networked wastewater (sewage + industry), 1.3% from septic tanks & 9% from non-agricultural sources. Inputs vary across the inflowing rivers (Table 1 & Figure 1).

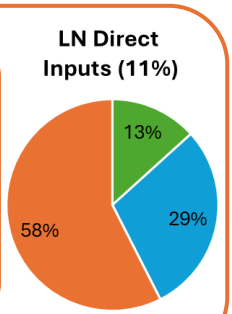
Table 1

Catchment	Area (km^2)	Total P Load (t)	kg P /ha	%
Main River	714	74	1.03	12
Sixmile Water	279.4	29	1.05	4.8
Upper Bann	611.5	66	1.08	11
Blackwater River	1488.5	173	1.16	28
Ballinderry River	433.8	37	0.85	6
Moyola River	312.4	29	0.92	4.7
L. Neagh Peripheral (inc. Glenavy & Crumlin)	672.6	66	0.98	11
Lower Bann	889.3	76	0.85	12
Lough Direct Inputs		65		11
Total Catchment	5401.6	614		100



Note: All models were run for the reference year 2021 using available data. The project continues to August 2025 & results are still subject to review.

Direct to Lough (piped discharge & atmospheric deposition)



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