Fish in Rivers Factsheet

SWRBD **Caragh River Catchment** **Factsheet: 2024/04**

The River Caragh catchment is located in the Southwestern River Basin District and covers an area of approximately 171 km^2. The River Caragh rises in the Macgillycuddy's Reeks and flows in a westerly direction before turning north near Glencar. The river continues its course north and into Lough Caragh before joining the sea close to the village of Glenbeigh, Co. Kerry.

A number of lakes are present in the catchment, including Lough Caragh and Lough Acoose. The geology of the catchment is mostly sandstone, with some limestone towards the lower end. The primary land use is scrubland and bog with large sections of forestry located above Lough Caragh and mainly agriculture below Lough Caragh. This catchment falls within the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment Special Area of Conservation (EPA 2016).

Inland Fisheries Ireland conducts annual nation-wide fish sampling surveys to assess and report the status of stocks in Ireland's rivers, lakes and transitional waters. This report presents the results of an electro-fishing (CEN 2003) survey, carried out in the Caragh Catchment over the 2024 season. Eight sites were surveyed between the 30th of July and the 31st of July 2024.

The survey methods included 10-minute timed Electro-Fishing (TEF_{10}) and Area Delineated Electro-Fishing (ADEF handset). One long-term Water Framework Directive (WFD) surveillance monitoring (SM) site was surveyed on the Caraghbeg River at Gortmaloon East (Site 5). All TEF_{10} fish count results were converted to minimum population estimates according to Matson *et al.* 2018.

Glashawee river at Ballaghbeama Gap, Co. Kerry (Site 2).

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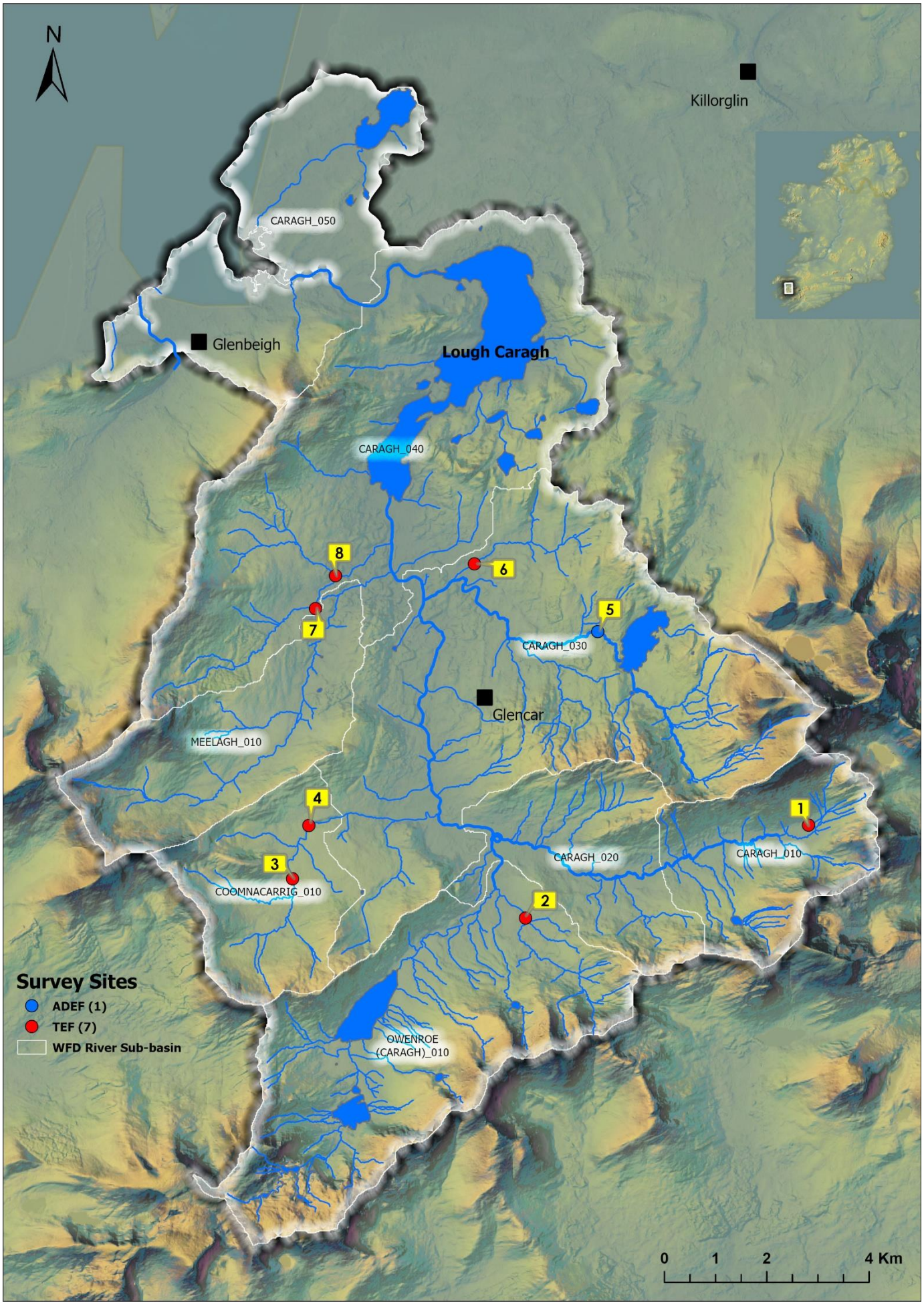

Figure 1. Location of electrofishing survey sites on the Caragh River catchment, July 2024.

Table 1. Site survey details, Caragh River Catchment, July 2024.

No.	WFD Sub-basin	River	Site	Method	WFD	Date
1	Caragh_010	Caragh tributary	Bridia	TEF (Handset)	No	31/07/2024
2	Owenroe (Caragh)_010	Glashawee	Ballaghbeama Gap	TEF (Handset)	No	31/07/2024
3	Coomnacarrig_010	Knocknacrusha	Coomnacarrig	TEF (Handset)	No	31/07/2024
4	Coomnacarrig_010	Knocknacrusha	Kealboy	TEF (Handset)	No	31/07/2024
5	Caragh_030	Caraghbeg	Gortmaloon East	ADEF (Handset)	Yes	30/07/2024
6	Caragh_030	Cappamore	Dromstabla	TEF (Handset)	No	30/07/2024
7	Caragh_040	Owbeg	Corrawoolia	TEF (Handset)	No	30/07/2024
8	Caragh_040	Coomavoon	Drom East	TEF (Handset)	No	30/07/2024

Table 2. Minimum density estimates of fish (no. fish/m^2), Caragh River Catchment, July 2024 (previous results are shown where applicable).

Caragh							
Site no.	1		2	3		4	
Species	2017	2024	2024	2017*	2024	2017*	2024
Brown trout	1.059	0.540	0.476	P	0.207	P	0.375
0+ brown trout	0.974	0.540	0.124	P	0.084	P	0.072
1+ & older brown trout	0.085	-	0.352	P	0.123	P	0.303
Salmon	0.127	0.035	-	-	-	P	-
0+ salmon	-	0.035	-	-	-	P	-
1+ & older salmon	0.127	-	-	-	-	-	-
European eel	-	-	-	-	-	-	0.020
Minnow	-	-	-	-	-	-	-
All fish	**1.186**	**0.575**	**0.476**	**SPOT***	**0.207**	**SPOT***	**0.395**

Caragh							
Site no.	5		6		7		8	
Species	2017	2024	2017*	2024	2017	2024	2017	2024
Brown trout	0.023	0.045	-	0.345	0.232	0.192	0.114	0.056
0+ brown trout	0.023	0.040	-	0.158	0.180	0.072	0.065	0.014
1+ & older brown trout	-	0.004	-	0.187	0.051	0.120	0.049	0.042
Salmon	0.076	0.098	-	0.111	0.197	0.192	0.309	0.069
0+ salmon	0.030	0.076	-	0.076	0.129	0.016	0.130	-
1+ & older salmon	0.045	0.022	-	0.035	0.069	0.176	0.179	0.069
European eel	-	0.004	-	0.017	-	0.048	-	0.021
Minnow	-	-	-	0.111	-	-	-	-
All fish	**0.098**	**0.147**	**SPOT***	**0.584**	**0.429**	**0.431**	**0.423**	**0.146**

**SPOT surveys were carried out when a full electrofishing survey was not possible. Results are not comparable to full survey and are included as a guide to indicate species presence or absence. P=present.*

Table 3. Brown trout % age class structure (where recorded), Caragh River Catchment, July 2024

Site No.	% of catch				
	0+	1+	2+	3+	4+
1	100	-	-	-	-
2	31	66	3	-	-
3	47	53	-	-	-
4	24	59	10	4	3
5	75	25	-	-	-
6	53	44	3	-	-
7	46	39	15	-	-
8	25	75	-	-	-

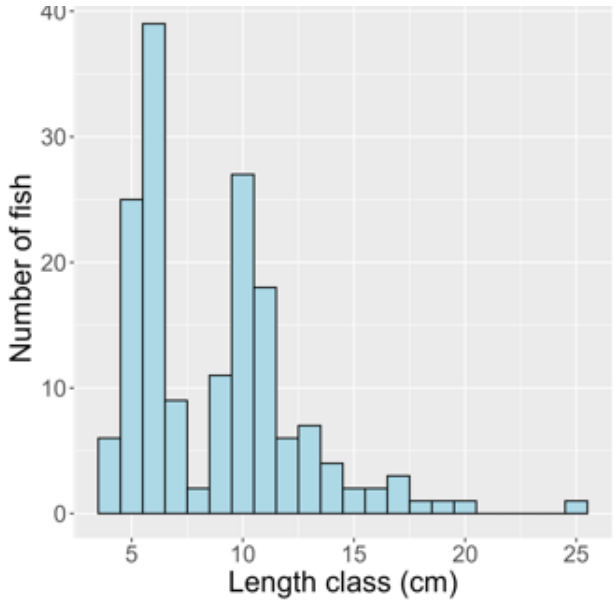

Figure 2. Length frequency distribution for brown trout (n =165), Caragh Catchment, 2024 (No. sites = 8).

Table 4. Salmon % age class structure (where recorded), Caragh River Catchment, July 2024.

Site No.	% of catch	
	0+	1+
1	100	-
5	76	24
6	70	30
7	8	92
8	-	100

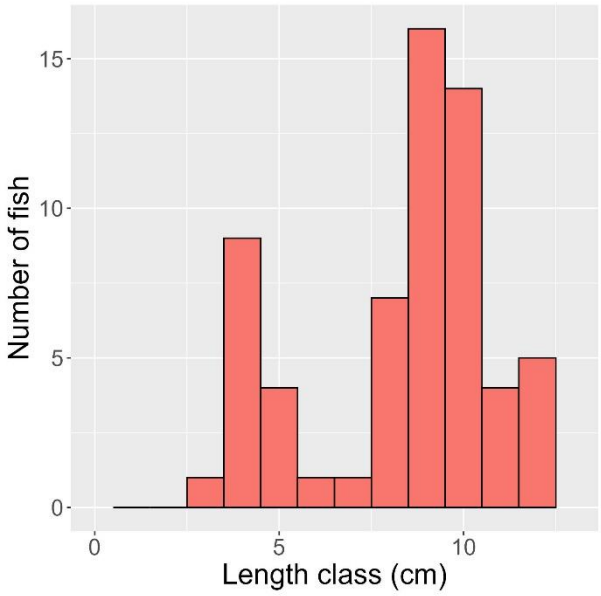

Figure 3. Length frequency distribution for salmon (n =62), Caragh Catchment, 2024 (No. sites = 4).

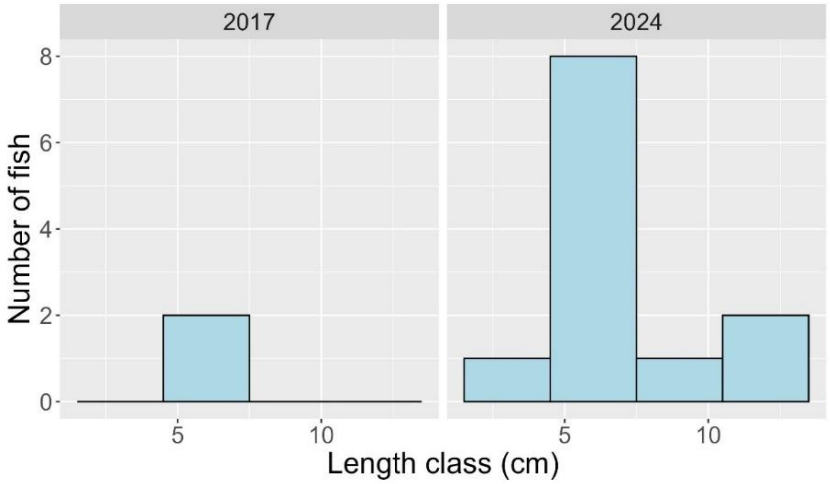

Figure 4. Length frequency distribution of brown trout (2017 n=2, 202412) at the WFD surveillance Monitoring site Gortmaloon East (Site 5) on the Caragh River Co. Kerry

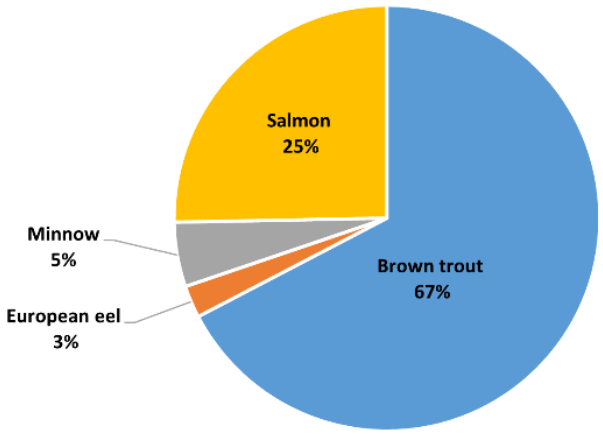

Figure 5. Fish species composition (%), Caragh River Catchment, 2024.

Table 5. Fish ecological status, Caragh River catchment, July 2024. Previous results are shown where applicable.

Site No.	2017	2024
1	H	M
2	-	G
3	N/A	M
4	N/A	G
5	P	M
6	N/A	G
7	G	M
8	G	M

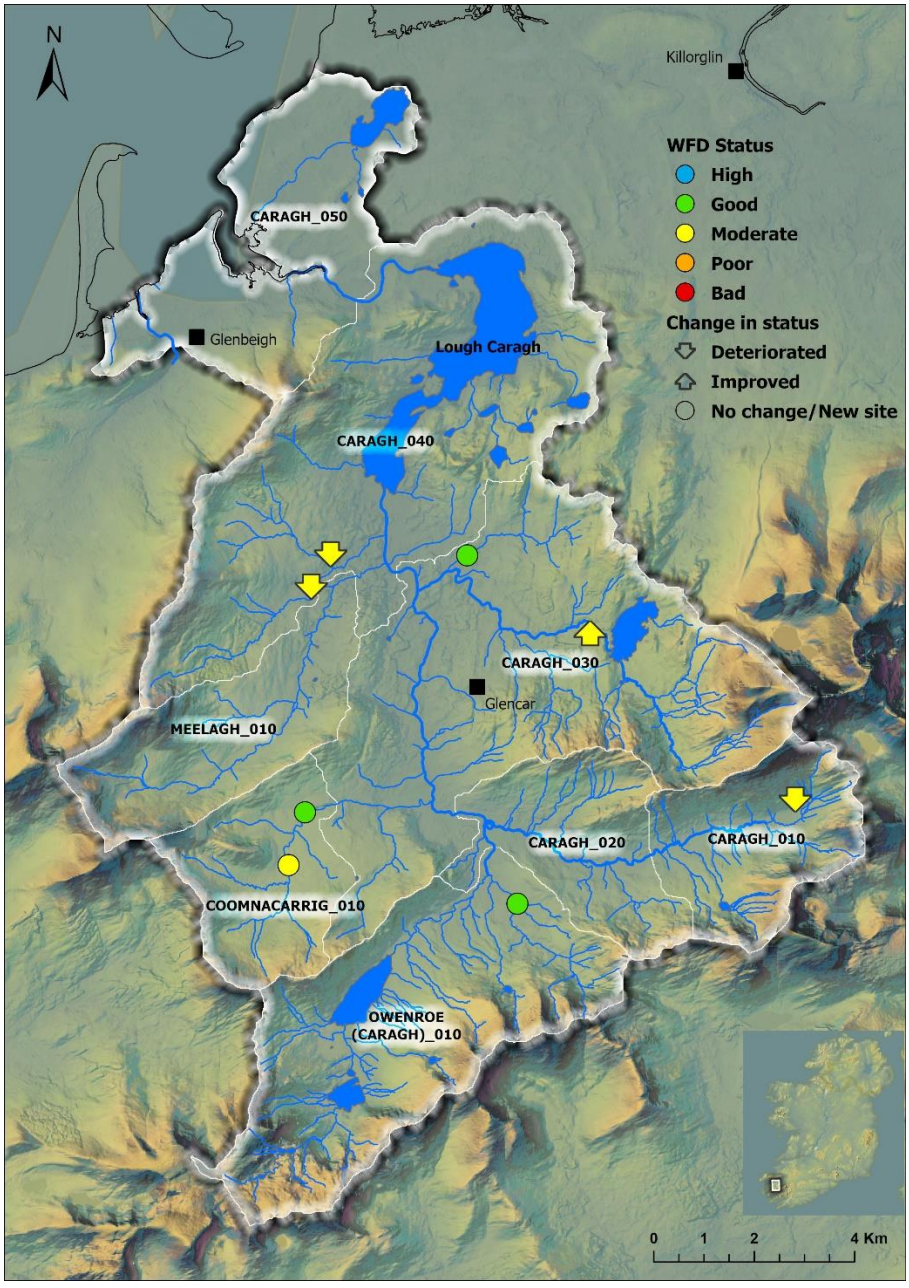

Figure 6. Fish ecological status in the Caragh River Catchment, July 2024. Arrows indicate a change in status since previous surveys (where applicable).

Summary

Four fish species were recorded at eight sites electrofished on the Caragh River Catchment in 2024.

Brown trout was the most common species captured (8 sites, 100%), followed by salmon (5 sites, 62%), European eel (5 sites, 62%) and minnow (1 site, 12%).

Brown trout was the most abundant species captured, followed by salmon, minnow and European eel.

Brown trout ranged in size from 4cm to 25.5cm. Five age classes of brown trout (0+, 1+, 2+, 3+, 4+) were encountered with 0+ being the most abundant cohort. The highest density of brown trout (all ages combined) (0.540 fish/m^2) was recorded at Site 1 (Bridia) in Caragh_010. The highest density of 0+ brown trout (0.540 fish/m^2) was also recorded at Site 1. The highest density of 1+ and older brown trout (0.352 fish/m^2) was recorded at Site 2 (Ballaghbeama Gap) in the Glashawee River (Owenroe (Caragh)_010).

Salmon ranged in size from 3.8 to 12.8cm. Two age classes for salmon were encountered (0+ and 1+) with 0+ the most abundant cohort. The highest density of salmon (all ages combined) (0.192 fish/m^2) was recorded at Site 7 (Corrawoolia) in the Owbeg River (Caragh_040). The highest density of 0+ salmon (0.076 fish/m^2) was recorded at both sites 5 and 6 (Gortmaloon East and Dromstabla). The highest density of 1+ and older salmon (0.176 fish/m^2) was recorded at Site 7.

A Water Framework Directive fish classification tool (FCS2) was developed for Irish rivers in 2011 (SNIFFER 2011). The tool works by comparing various fish community metric values within a site to those predicted for a site under un-impacted conditions. In general, a site will achieve High status if all indicator species (e.g. both salmonid cohorts 0+ and 1+ and older) are present and in expected numbers. Status will decline if such cohorts are missing, are in poor abundance, or if more tolerant species proliferate

Fish ecological status was assigned to eight sites surveyed in the Caragh Catchment during 2024. Three sites were assigned Good status and five sites were assigned Moderate. Seven sites were surveyed previously on this catchment and assigned fish ecological status. When compared with their most recent previous surveys, one site improved (Site 5), three sites (sites 1, 7 and 8) deteriorated and three sites remained unchanged.

The reasons for the failures (i.e. moderate status) in fish ecological status were due to lower-than-expected abundance of type specific indicator species (e.g., salmon and trout), absence of certain age cohorts indicating recruitment failures. Failures and deteriorations in fish ecological status can be caused by pressures such as nutrient enrichment, habitat modification and fish passage issues.

References

CEN (2003) Water Quality Sampling of Fish with Electricity. CEN EN 14011:2000. Brussels. European Committee for Standardization.

Matson, R., Delanty, K., Shephard, S., Coghlan, B. and Kelly, F. (2018). *Moving from multiple pass depletion to single pass timed electrofishing for fish community assessment in wadeable streams*. Fisheries Research, 198, 99-108.

SNIFFER (2011) River Fish Classification Tool: Science Work. WFD68c, Phase 2. Final Report. Version 6. Edinburgh. Scotland and Northern Ireland Forum for Environmental Research.

EPA (2016) https://gis.epa.ie/EPAMaps/WaterCatchments.ie – Catchments.ie Accessed in March/April 2025.

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