Appendix 11E: Irish Water Biodiversity Metric Calculation

IRISH WATER BIODIVERSITY METRIC

Project Reference	210711
Date & Time	27/01/2023
Subject	Castletroy WwTP Upgrades, Limerick
Author(s)	Rachel Walsh

Background

MKO carried out a Biodiversity No Net Loss/ Net Gain assessment of the proposed upgrade works to Castletroy Wastewater Treatment Plant. The assessment was carried out in line with the Irish Water Biodiversity Metric and guidelines as described in Irish Water's *Biodiversity Guidance for Irish Water Developments* (IW-AMT-GL-021).

The results of calculation of the pre-development and post-development biodiversity units for linear and non-linear habitats are shown in the table below. The post-development calculation includes the incorporation of proposed landscaping measures as described in the EIAR.

Results

The metric indicates the following:

Non-linear habitat: Post-development increase of 2291 Biodiversity Units (approximately a 4.5% increase).

Linear habitat: Post development increase of 400 Biodiversity Units (approximately a 10.9% increase).

Notes

Existing grassland areas have a score of 2 due to being species-poor and the presence of invasive species.

The post-development calculation of biodiversity units is conservative and doesn't include for the future potential to increase species richness of grassland areas with native wildflower seed mixes.

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Table 1 Results of Irish Water Biodiversity Metric Calculation

Habitat type	Pre-Development - Baseline Habitats and Extent Refer to IW Biodiversity Guidance Document No. IW-AMT-GL-021 including Appendix B for further explanation					Post-Development - Baseline Habitats and Extent				
Habitat type (Fossitt level 3)	Score	Area of habitat (m2)	Length (m)	Biodiversity Units Area	Biodiversity Units Length	Score	Area of habitat (m2)	Length (m)	Biodiversity Units Area	Biodiversity Units Length
Use dropdown below	Use dropdown below	*Do not leave blanks*		*Self Calculating Cells Do Not Edit*	*Self Calculating Cells Do Not Edit*	Use dropdown below	*Do not leave blanks*		*Self Calculating Cells Do Not Edit*	*Self Calculating Cells Do Not Edit*
				0	0				0	0
BL3 Buildings and artificial surfaces	0	11901		0	0	0	15197		0	0
GA2 Amenity grassland (improved)	2	8688		17376	0	2	5877		11754	0
GS2 Dry meadows and grassy verges	2	5676		11352	0	2	3104		6208	0
WD5 Scattered trees and parkland	5	449		2245	0	5	292		1460	0
WD1 (Mixed) broadleaved woodland	6	3335		20010	0	6	3335		20010	0
FW4 Drainage ditches	5		313	0	1565	5		313	0	1565
WL2 Treelines	6		348	0	2088	6		348	0	2088
				0	0				0	0

		Pre - Total Area	Pre - Total Length	Total Units Area	Total Units Length		Post - Total Area	Post - Total Length	Total Units Area	Total Units Length
WN4 Wet pedunculate oak-ash woodland				0	0	6	2307		13842	0
WL2 Treelines				0	0	5		80	0	400
				0	0				0	0
		Pre - Total Area	Pre - Total Length	Total Units Area	Total Units Length		Post - Total Area	Post - Total Length	Total Units Area	Total Units Length
		30049	661	**50983**	**3653**		30112	741	**53274**	**4053**