Appendix 8.7 National Agency Reports, Data & Maps of Significance

1. GSI GWB Descriptor Sheets (2004a, 2004b)

2. EPA Water Monitoring Stations Data, Commentary & Graphs (Hydro-G)

3. EPA Biological Monitoring Report – Nore HA15
[Biological Monitoring reported 2025b, Last Field Survey 2022]

4. EPA 2nd Cycle Reports – Subcatchments (2018a, 2019, 2018b)

5. EPA 3rd Cycle Reports Nore & Barrow & Coastal (2024a, b, c)

Kilkenny GWB: Summary of Initial Characterisation.

Hydrometric Area Local Authority		Associated surface water bodies	Associated terrestrial ecosystems	Area (km^2)
15 – Nore Kilkenny Co Co S. Tipperary Co Co		King's, Ballintaggart Stream, Munster, Desart Stream, Bregagh, Ennisnag Stream, Nore, Brownstown Stream,	Newpark Marsh, Lough Macask, Dunmore Complex, Archersgrove.	152
Topography		The topography is dominated by the Slieveardagh Hills which border the northern area of the groundwater body. The topographic gradients are greatly reduced below 100m OD. Surface drainage is to the south off the hills and there is a low drainage density south of Kilkenny town.		
Geology and Aquifers	Aquifer type(s)	**Rk**: Regionally Important Karstified Aquifer.		
	Main aquifer lithologies	BM: Ballyadams Formation - Pale-grey thick-bedded pure fossiliferous limestone. CL: Clogrenan Formation - Thinly bedded bluish-grey pure limestones, regularly cherty. Both formations comprise thick-bedded pure limestones, with beds getting thinner and somewhat cherty in the Clogrenan.		
	Key structures.	The pure nature of the limestone means that the deformation brought about by the Variscan folding episode will have resulted in extensive brittle fracturing.		
	Key properties	As with most karstic systems, permeability and transmissivity data are very variable. Daly (1994) cites a range in permeability of 0.1 m/day to 100 m/day, and a range in transmissivity of 5 m^2/day to 3000 m^2/day. Groundwater gradients??		
	Thickness	Karstification is likely to concentrate within 20 m of the top of the rock in this formation (Cawley, 1990). Most groundwater flow is likely to be concentrated in this upper zone, and E.P. Daly (1994) has estimated that the maximum saturated and permeable part of the aquifer is 75 m thick.		
Overlying Strata	Lithologies	There are two significant sand and gravel deposits overlying this aquifer at Kilkenny and Kilmanagh. Both deposits are considered to be aquifers and groundwater bodies in their own right. The remainder of the aquifer is covered by glacial till.		
	Thickness	Depth to bedrock is substantial (over 10m) over the southern sections of this groundwater body. In the north the thickness is less than 5 metres, and towards the eastern boundary of the body <3m thick in places.		
	% area aquifer near surface	There is a low percentage of this aquifer close to the surface. The exceptions are towards the eastern boundary and also some isolated patches elsewhere.		
	Vulnerability	East of the Nore the vulnerability is Low in the southern band of the aquifer and Moderate elsewhere. To the east there are large areas of Extreme vulnerability.		
Recharge	Main recharge mechanisms	Significant amounts of recharge to the aquifer will enter via swallowholes. There is a cluster of such karst features located southwest of Kilkenny around Shellumsrath. This form of point recharge is typical of karstic aquifers. It is also important to note that it is derived from rain that has fallen outside this groundwater body. This makes the estimation of recharge values more complicated.		
	Est. recharge rates	*[Recharge estimates will be added at a later date]*		
Discharge	Springs and large known abstractions	*A Full list of Groundwater abstractions greater than 10m^3/d will be provided at a later date.* Clarabricken GWS (7), Clara GWS, Clifden GWS (17), Rathcash GWS, Shellumsrath (17 & 12), St. Pat's School (38).		
	Main discharge mechanisms	The aquifer discharges via numerous large springs close to the main river channels or directly into the rivers. In a mathematical analysis of the spring and stream flows in the Nuenna Valley, Cawley (1990) describes a significant portion (??%) of the groundwater discharge from this karstic aquifer, particularly in winter, as "quickflow". This is essentially conduit flow and confirms the visual and other evidence of this type of flow in this aquifer.		
	Hydrochemical Signature	Waters are typically 'hard' to 'very hard', with a neutral pH and with calcium/bicarbonate as the dominant ions. This signature is thought to reflect the generally shallow nature of flows within the karst aquifer. Typical electrical conductivity is around 650 µs/cm.		
Groundwater Flow Paths		In karstic areas, groundwater flow velocities are typically tens of metres per hour. Though the groundwater flow system is karstic, Cawley, 1990's study of 43 wells in the aquifer showed that a continuous watertable does exist, indicating that flow in the aquifer may be through a diffuse network of conduits. Due to the predominance of conduit flow in karst systems, large fluctuations in watertable levels are expected, particularly in areas of elevated topography. These very high annual fluctuations are considered indicative of relatively low groundwater storage potential.		
Groundwater & surface water interactions.		This aquifer makes a major contribution to the baseflow of the Nore River (Daly 1994). Where the aquifer occurs close to the surface, stream densities are low. In fact, surface water sinks underground in many areas where the aquifer is at surface. These occur where streams, flowing off areas of thicker subsoil to the west, meet an area where the karst aquifer comes very close to the surface.		

Conceptual model	This body is defined to the east and west by the boundaries of the Nore Basin and hence stretches the width of the basin. The boundary between the Namurian shales and the Clogrenan Limestone defines the boundary to the north and the southern boundary is defined by the contact between the Ballyadams Limestone and the Calp-like formations. The pure nature of the limestone means that the rocks are susceptible to dissolution. Coupled with the probability of extensive fracturing, this means that the aquifer is likely to be karstified. This is supported by the presence of many recorded karst features. Some portions of the Ballyadams Limestone are dolomitised, which is likely to enhance the development of permeability. Where the aquifer is protected from dissolution by the presence of the Namurian shale above it, significant karstification and permeability is not believed to exist (Daly, E.P., 1994). Similarly, where the Namurian has been eroded away in only recent geological times, karstification and permeability are likely to be limited.
Attachments	
Instrumentation	Stream gauge: *15002*, 15040 Borehole Hydrograph: none EPA Representative Monitoring boreholes: Clara GWS (#41 - 577553), Clifden GWS (#13 - S583555) Rathcash GWS (#55 - 587551) Kilkenny Cattle Mart (#72 - S510565), Avonmore Dairy Kilkenny City (#49 – S508565)
Information Sources	Buckley, R. & Fitzsimons, V. (2002) Kilkenny Co Co Groundwater Protection Scheme. Cawley, A., (1990) The hydrological analysis of a karst aquifer system. Unpublished M.Eng.Sc. Dissertation University College Galway. Daly, E.P. (1994) The Groundwater Resources of the Nore River Basin. Geol. Surv. Ire. Unpubl. Rep
Disclaimer	Note that all calculation and interpretations presented in this report represent estimations based on the information sources described above and established hydrogeological formulae

Stoneyford GWB: Summary of Initial Characterisation.

Hydrometric Area Local Authority		Associated surface water bodies	Associated terrestrial ecosystems	Area (km2)
15 – Nore Kilkenny Co. Co.		Nore, Kings, Ennisnag Stream	Mount Juliet, Thomastown	
Topography		The Nore valley narrows considerably and the lateral extent of the gravels decreases to a thin strip along the river. The surrounding topography for a large area on both sides of the rivers is lowland. Much of the area has a characteristic hummocky terrain, typical of water-lain sand and gravel, although some more poorly sorted lenses have also been encountered, particularly in the north		
Geology and Aquifers	Aquifer type(s)	Lg: Locally Important Sand and Gravel Aquifer		
	Main aquifer lithologies	Sand and Gravel. The sand and gravel deposits associated with the Nore are believed to be fluvio-glacial in origin, deposited by large quantities of meltwater associated with ice-retreat. This means that coarse sands and gravels are likely to predominate.		
	Key structures.			
	Key properties	Though permeability testing data are limited, productivity, borehole logging and quarry data tend to support the suggestion that coarse material predominates and that the permeability of the aquifer is high.		
	Thickness	The saturated thickness is generally in excess of 5m		
Overlying Strata	Lithologies	There may be some locations where the aquifer is overlain by glacial till.		
	Thickness			
	% area aquifer near surface	HIGH		
	Vulnerability	HIGH		
Recharge	Main recharge mechanisms	The Nore Valley narrows considerably and the lateral extent of the gravels decreases to a thin strip along the river. As such, the potential catchment area for rainfall recharge is significantly reduced compared to the portion of the gravel aquifer to the north. Therefore the proportion of direct recharge is reduced and the indirect recharge from the river is more significant.		
	Est. recharge rates	*[Information to be added at a later date]*		
Discharge	Springs and large known abstractions	Bausheenmore - Woolengrange (Spring), Dunbell Big (Spring), Bennettsbridge WS, St. John's Well, Mt Juliet (Spring), Thomastown Wells.		
	Main discharge mechanisms	Discharge from this aquifer is to the Nore river as baseflow. Infiltration galleries in Bennettsbridge and Thomastown have successfully exploited river recharge in this portion of the gravel aquifer in the past, and the public supply borehole at Bennetsbridge is also thought to derive much of its supply by inducing river recharge		
	Hydrochemical Signature	The sand and gravel deposits in this groundwater body are **Calcareous**. Waters appear to be typically 'hard' to 'very hard', with a calcium-bicarbonate signature, reflecting the limestone mineralogy of much of the gravel deposit.		
Groundwater Flow Paths		The gravels are generally unconfined. The water level data for the aquifer show that static water levels can fluctuate from 2 m to 20 m below ground level. At some points it also comes to the surface, as in Kilkenny City, where a high yielding spring is found. This suggests that the saturated thickness of the aquifer is likely to vary both spatially and temporally.		
Groundwater & surface water interactions		River hydrograph analysis by E.P. Daly (1994) showed that the aquifer is likely to contribute to baseflow in the Nore, it also showed that over some stretches of the aquifer, particularly in the northern portion, the Nore could be influent into the sand and gravels.		
Conceptual model		This groundwater body is defined by the extent of the sand and gravel deposits in the Nore Valley south of Kilkenny city. The groundwater body is considered to be a locally important gravel aquifer. There is some overlying till but the aquifer is considered to be highly vulnerable to pollution. The groundwater body has limited areal extent and therefore the volume of direct recharge is small. Any large borehole discharges from the gravels will be recharged from river water flowing up through the gravels.		

Attachments	
Instrumentation	Stream gauge: 15011, 15001 Borehole Hydrograph: none EPA Representative Monitoring boreholes: Springs at Bausheenmore (#39 – S552469), Thomastown WS (#32 – 589415)
Information Sources	Buckley R, Fitzsimons V (2002) County Kilkenny Groundwater Protection Scheme. Daly EP (1994) Groundwater Resources of the Nore River Basin. Geological Survey of Ireland Internal report.
Disclaimer	Note that all calculation and interpretations presented in this report represent estimations based on the information sources described above and established hydrogeological formulae

Section 2. Appendix 8.7

EPA Data from Envision Downloads

Hydro-G collated Tables, Graphs and Commentary for EPA Data

Q Values (2022, last year surveyed) – reported in EPA (2025a) Biological Quality report for HA15.

A. Upstream of Bennettsbridge = @ Kilkenny City D/s of WWTP

B. Downstream of Bennettsbridge settlement.

Plate 8.7.2.1 EPA Envision Mapping: Q Values (2022) U/S and D/S of quarry and Status (2016 – 2021)

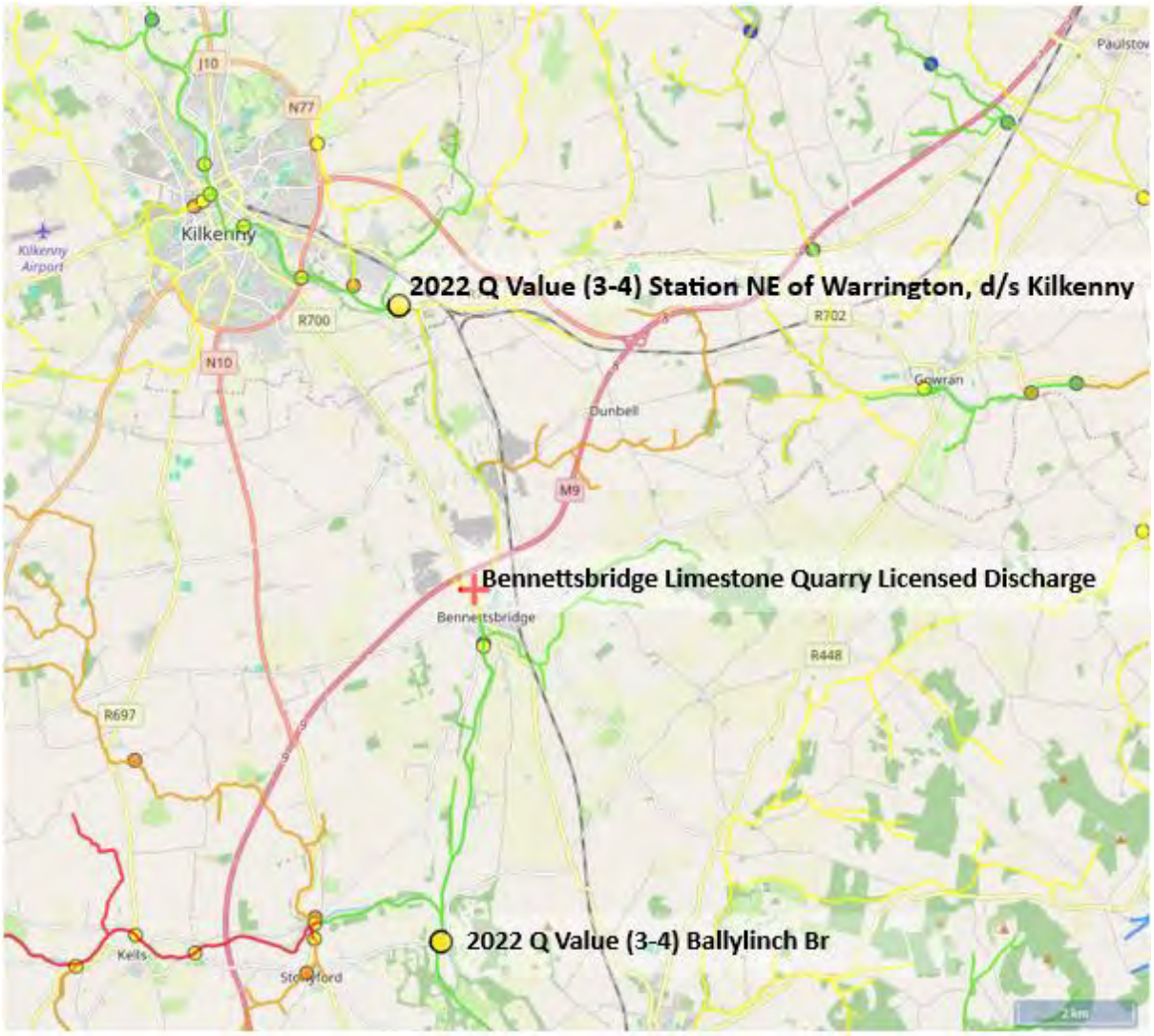


Table 1 Q Rating Station Information – Upstream and Downstream of Quarry Discharge

StationCode	**RS15N012000**	**RS15N012200**
StationName	NE of Warrington, d/s Kilkenny	Ballylinch Br
StationTypeEDEN	RIVER_STATION	RIVER_STATION
RiverWaterbodyName	NORE_180	NORE_210
EntityName	NORE	NORE
EntityCode	15N01	15N01
Year	2022	2022
QValueScore	**3 - 4**	**3 - 4**
QValueStatus	**Moderate**	**Moderate**
WFDWISECODE	IEMRRS15N012000	IEMRRS15N012200
WBWFDWISECODE	IE_SE_15N012000	IE_SE_15N012200
LocalAuthority	KILKENNY COUNTY COUNCIL	KILKENNY COUNTY COUNCIL
EPAStationTypeWFD	Operational	Operational
Typeofwatermonitored	River Water	River Water
RiverBasinDistrict	South Eastern	South Eastern
SegCd	15_10357	15_705
Media	WATER	WATER
DataSource	FCT	FCT
URL	View the Data Page	View the Data Page
Easting	253814	254696.88
Northing	154480	143655.56

Table 2 Hydrochemical Monitoring Station Information – Upstream and Downstream of Quarry Discharge

	1	2
UPSTREAM OF QUARRY EPA HYDROCHEMICAL Surface Water Data	**Upstream of Quarry Discharge. At Kilkenny D/S of WWTP= Same as the Q Rating Station**	**Upstream of Quarry Discharge: River Coming in to Nore from East (Stn between Hennesseys and Roadstone)**
StationID	RS15N012000	RS15R370950
StationName	**NE of Warrington, d/s Kilkenny**	**RATHGARVAN_or_CLIFDEN - Interstitial, 1st Br u/s from Nore R Conf.**
StationType	RIVER_STATION	RIVER_STATION
WFDWISECODE	IEMRRS15N012000	IEMRRS15R370950
EntityCode	15N01	15R37
EntityName	NORE	RATHGARVAN_or_CLIFDEN
WBWFDWISECODE	IE_SE_15N012000	IE_SE_15R370950
TypeofWaterMonitored	River Water	River Water
LocalAuthority	KILKENNY COUNTY COUNCIL	KILKENNY COUNTY COUNCIL
RiverBasinDistrict	South Eastern	South Eastern
EPAStationTypeWFDs	Operational	Investigative
CreatedByOrganisation	EPA	EPA
EPALink	15N012000	15R370950
Easting	253814	255520.61
Northing	154480	151840.49

	3	4	5
DOWNSTREAM OF QUARRY EPA Surface Water Data	**At the Bridge in Bennettsbridge. Downstream of Bennettsbridge Quarry's Licensed Discharge. UPSTREAM of WWTP.**	**Downstream of Bennettsbridge Settlement & WWTP**	**Far Downstream of Bennettsbridge**
StationID	RS15N012090	RS15N012100	RS15N012180
StationName	**Upstream Bennettsbridge WWTP**	**Bennettsbridge, 600 m d/s Br**	**u/s King's R confl (u/s abstr)**
StationType	RIVER_STATION	RIVER_STATION	RIVER_STATION
WFDWISECODE	IEMRRS15N012090	IEMRRS15N012100	IEMRRS15N012180
EntityCode	15N01	15N01	15N01
EntityName	NORE	NORE	NORE
WBWFDWISECODE	IE_SE_15N012090	IE_SE_15N012130	IE_SE_15N012200
TypeofWaterMonitored	River Water	River Water	River Water
LocalAuthority	KILKENNY COUNTY COUNCIL	KILKENNY COUNTY COUNCIL	KILKENNY COUNTY COUNCIL
RiverBasinDistrict	South Eastern	South Eastern	South Eastern
EPAStationTypeWFDs	Investigative	Operational	Operational
CreatedByOrganisation	KILKENNY COUNTY COUNCIL	EPA	EPA
EPALink	15N012090	15N012100	15N012180
Easting	255258.8	255340.83	255145
Northing	149244.88	148745.57	146390

Plate 8.7.2.2 EPA Hydrochemical Station's Map.

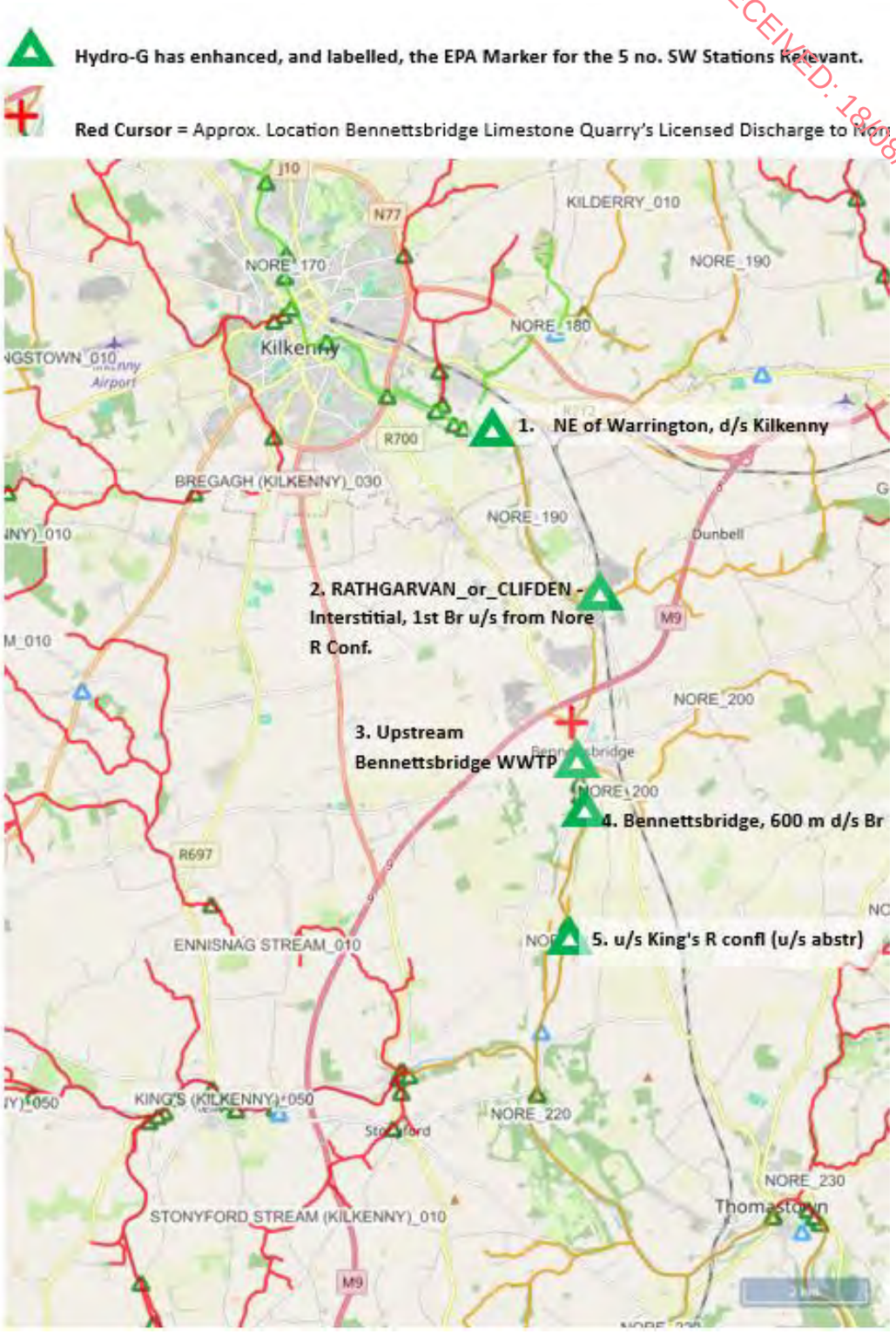


Table 3 Summary Data – All Relevant EPA Surface Water Monitoring stations (Hydrochemistry)

[Note Suspended Solids is not routinely reported by the EPA]

	Conductivity @ 25Â°C (uS/cm)	Nitrate (as N) mg/l	Ammonia-Total (as N) mg/l	BOD mg/l	ortho-Phosphate (as P) - mg/l	pH	Suspended Solids (mg/l)	Station Name
MAX	685	5.2	0.28	5.4	0.12	8.7	no values	**1. NE of Warrington, d/s Kilkenny**
MIN	269	1.4	0.01	0.5	0.013	7.8		
AVERAGE	551	3.1	0.03	1.3	0.033	8.2		
MAX	791	no values	0.1	0.5	0.041	8.3	no values	**2. RATHGARVAN_or_CLIFDEN - Interstitial, 1st Br u/s from Nore R Conf.**
MIN	722		0.01	0.5	0.005	8		
AVERAGE	759		0.02	0.5	0.013	8.2		
MAX	not reported	3.5	0.06	3	0.14	8.4	no values	**3. Upstream Bennettsbridge WWTP [2012 - 2015]**
MIN		1	0.01	0.8	0.016	8		
AVERAGE		2.40	0.03	1.33	0.060	8.1		
MAX	668	6.76	0.083	3.9	0.168	9.2	no values	**3. Upstream Bennettsbridge WWTP [2017 - 2025]**
MIN	428	0.03	0.002	0.4	0.002	7.9		
AVERAGE	570	3.08	0.029	1.4	0.034	8.2		
MAX	702	5.5	0.094	6.5	0.16	8.6	39	**4. Bennettsbridge, 600 m d/s Br**
MIN	290	1.3	0.01	0.5	0.005	7.9	2	
AVERAGE	552	3.3	0.02	1.1	0.030	8.3	7	
MAX	673	5.1	0.086	7.3	0.15	8.7	no values	**5. u/s King's R confl (u/s abstr)**
MIN	269	1.3	0.01	0.5	0.005	7.9		
AVERAGE	541	3.1	0.02	1.3	0.030	8.3		
Surface Water Regulation 2019 (mg/l) Good Status EQO (mean)			0.065	1.5	0.035	6 - 9	25mg/l (Salmonid Regulations)	**Regulation**

The complete recent record for monitoring results for each Station are presented in full in Tables 4 to 7overleaf, with commentary and graphs after the data Tables. Only data relevant to the site's discharge licence ELVs are presented.

Overall, in relation to the information presented in Table 3 above, which is Table 8.7 in the Water Chapter of the EIAR, the Hydro-G appointed sequential numbers and EPA official names of the **most relevant EPA Monitoring Stations to the quarry's discharge** are, as follows:

- **"1. NE of Warrington, d/s Kilkenny"** is the MP UPSTREAM on the River Nore of the site's discharge location, and
- "**3. Upstream Bennettsbridge WWTP"** is the MP DOWNSTREAM of the site's discharge to the River Nore. Hydro-G has separated out the data for **3. Upstream Bennettsbridge WWTP":** data before the site's section 4 Licence ENV/W/78 is presented for (2012 – 2015) and for (2017 – 2025).
- Readers are advised to discount the Station "2. Rathgarvan of Clifden – Interstitial…." because that is a TRIBUTARY joining from the east after flowing through the Roadstone Maddockstown Quarry. Therefore, the Station "2. Rathgarvan of Clifden – Interstitial…." does not provide the upstream baseline: **1. NE of Warrington, d/s Kilkenny"** is the MP UPSTREAM on the River Nore of the site's discharge location.

Table 4 NE Warrington EPA Station – Subset data showing relevant parameters of the Quarry's Discharge Licence

WaterbodyName	NORE_180
WaterbodyCode	IE_SE_15N012000
Waterbodytype	River
MonitoringStationCode	RS15N012000
MonitoringStationName	NE of Warrington, d/s Kilkenny
MonitoringStationType	Operational
MonitoringStationLocalAuthority	Kilkenny County Council
Hydro-G Note	Suspended Solids measured once only 05/01/2010

Sample Date	Conductivity @ 25Â°C (uS/cm)	Nitrate (as N) mg/l	Ammonia-Total (as N) mg/l	BOD mg/l	ortho-Phosphate (as P) - mg/l	pH	Good Status EQS Ammonia (mean)	Good Status EQS BOD (mean)	Good Status Ortho-P as P (mean)
17/02/2016	269	1.4	0.066	2.2	0.056	7.9	0.065	1.5	0.035
19/04/2016	621	3.4	0.098	1	0.027	8.4	0.065	1.5	0.035
14/06/2016	636	3.6	0.04	0.5	0.067	8.6	0.065	1.5	0.035
16/08/2016	656	3.4	0.01	0.5	0.06	8.6	0.065	1.5	0.035
17/10/2016	393	1.9	0.03	4.2	0.071	7.9	0.065	1.5	0.035
15/02/2017	592	3.4	0.28	1.8	0.1	8.5	0.065	1.5	0.035
25/04/2017	645	3.5	0.023	0.5	0.018	8.4	0.065	1.5	0.035
13/06/2017	514	2.3	0.043	1.5	0.048	8.2	0.065	1.5	0.035
15/08/2017	357	1.6	0.062	5.4	0.12	8.4	0.065	1.5	0.035
17/10/2017	545	2.1	0.01	1.1	0.032	8.7	0.065	1.5	0.035
15/02/2018	516	2.9	0.029	1.1	0.019	8.2	0.065	1.5	0.035
24/04/2018	641	3.8	0.01	0.5	0.022	8.4	0.065	1.5	0.035
12/06/2018	669	3.2	0.025	0.5	0.023	8.2	0.065	1.5	0.035
14/08/2018	685	3.6	0.026	0.5	0.014	8.3	0.065	1.5	0.035
15/10/2018	399	2.1	0.01	1.9	0.027	8	0.065	1.5	0.035
13/02/2019	582	5.2	0.024	0.5	0.024	8.1	0.065	1.5	0.035
29/04/2019	512	3.5	0.023	1	0.021	8.1	0.065	1.5	0.035
11/06/2019	607	3.6	0.03	1.1	0.033	8.2	0.065	1.5	0.035
12/08/2019	307	1.5	0.026	2	0.025	7.8	0.065	1.5	0.035
14/10/2019	473	2.5	0.01	1.2	0.042	8	0.065	1.5	0.035
12/02/2020	416	3.4	0.04	1.3	0.037	8	0.065	1.5	0.035
09/06/2020	678	4.9	0.01	0.5	0.013	8.1	0.065	1.5	0.035
10/08/2020	568	2.7	0.025	0.5	0.035	8.1	0.065	1.5	0.035
12/10/2020	521	2.3	0.01	1	0.033	8.1	0.065	1.5	0.035
11/02/2021	597	4.5	0.023	0.5	0.02	8.1	0.065	1.5	0.035
27/04/2021	665	4.8	0.01	1.3	0.013	8.3	0.065	1.5	0.035
08/06/2021	621	3.8	0.055	1.3	0.027	8.5	0.065	1.5	0.035
09/08/2021	452	2.3	0.031	1.2	0.025	8	0.065	1.5	0.035
12/10/2021	532	2.8	0.02	1.1	0.034	8.1	0.065	1.5	0.035
10/02/2022	486	3.3	0.01	1.1	0.036	8.4	0.065	1.5	0.035
26/04/2022	641	4.2	0.01	0.5	0.015	8.3	0.065	1.5	0.035
08/06/2022	651	3.7	0.024	0.5	0.026	8.2	0.065	1.5	0.035
08/08/2022	656	3.2	0.023	0.5	0.022	8.2	0.065	1.5	0.035
11/10/2022	384	2	0.01	1.1	0.03	8	0.065	1.5	0.035
09/02/2023	649		0.023	0.5	0.023	8.1	0.065	1.5	0.035
25/04/2023	589		0.02	1.3	0.02	8.2	0.065	1.5	0.035
08/08/2023	491		0.02	1.4	0.027	7.9	0.065	1.5	0.035
10/10/2023	596		0.023	1	0.025	8.3	0.065	1.5	0.035
08/02/2024	476		0.036	0.5	0.037	8.2	0.065	1.5	0.035
23/04/2024	641		0.03	4.9	0.017	8.1	0.065	1.5	0.035
06/08/2024	677		0.01	0.5	0.022	8.2	0.065	1.5	0.035
08/10/2024	551		0.03	2.4	0.029	8	0.065	1.5	0.035
13/02/2025	642		0.025	0.5	0.023	8.1	0.065	1.5	0.035
24/04/2025	448		0.029	1.3	0.027	7.9	0.065	1.5	0.035

	Conductivity @ 25Â°C (uS/cm)	Nitrate (as N) mg/l	Ammonia-Total (as N) mg/l	BOD mg/l	ortho-Phosphate (as P) - mg/l	pH	Station Name
MAX	685	5.2	0.28	5.4	0.12	8.7	1. NE of Warrington, d/s Kilkenny
MIN	269	1.4	0.01	0.5	0.013	7.8	
AVERAGE	551	3.1	0.03	1.3	0.033	8.2	

In Summary Notes For NE Warrington (Data Table above)

NORE_180
IE_SE_15N012000
River
RS15N012000
NE of Warrington, d/s Kilkenny
Operational
Kilkenny County Council
Suspended Solids measured once only 05/01/2010

a) Data are presented in graphical format overleaf.

b) This MP is significantly upstream of the site's licensed discharge and immediately south of Kilkenny and the Municipal WWTP.

c) Suspended Solids was reported by the EPA only once in 2010 and the result was 5mg/l SS, which is well within the <25mg/l SS objective of the Salmonid Regulations. The SS parameter is not specified as an EQO of the SW Regulations.

d) The signal pattern for Electrical Conductivity (EC) is very interesting. The EC graph is presented overleaf. The average value of 551 uS/cm is a relatively high value for surface water and a reasonably low value for the limestone bedrock catchment groundwater. However, the maximum ECs are close to 700 uS/cm, which is s strong and definitive groundwater signal for limestone bedrock. The maximum values occur in the drought months of April 2017; April to August in the 2018 Drought; June in 2019; June 2021; April to June 2021; April to August 2022 and April to August in the 2024. In 2023 and 2025 the >600 uS/cm values occurred in February. The significance of the pattern is that it confirms the accepted conceptual understanding for the River Nore, which is that it has a high groundwater baseflow component.

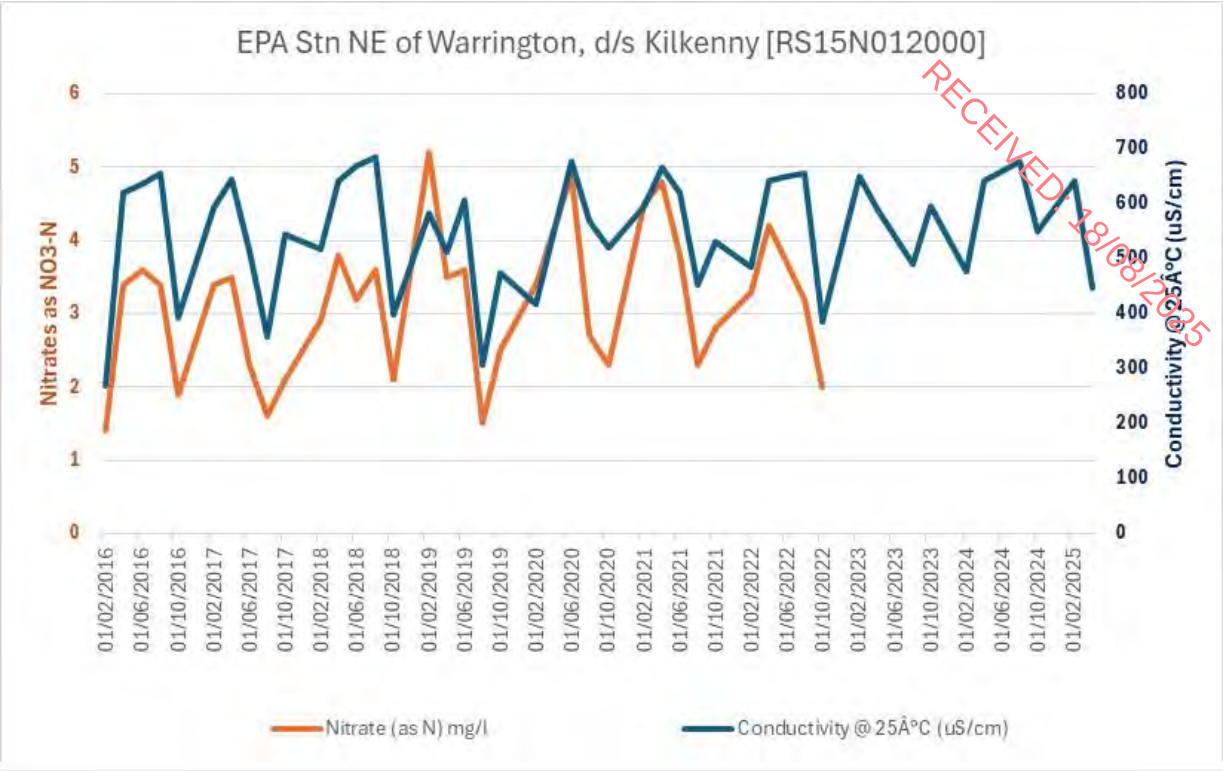
e) Reporting for Nitrate monitoring apparently ceased in October 2022. Prior to that the average value was baseline for Ireland and relatively low with a range from 1.4 to 5 mg/l and an average of c.3mg/l as Nitrate as NO3-N. The EC graph is plotted with the concurrent river's Nitrate concentration data and it is clear that when the EC peaks, the nitrate peaks. This signifies that it is groundwater carrying the nitrate to the river. This is the EPA (2024) published 'Significant Issue and Pressures': Nutrients, Agriculture.

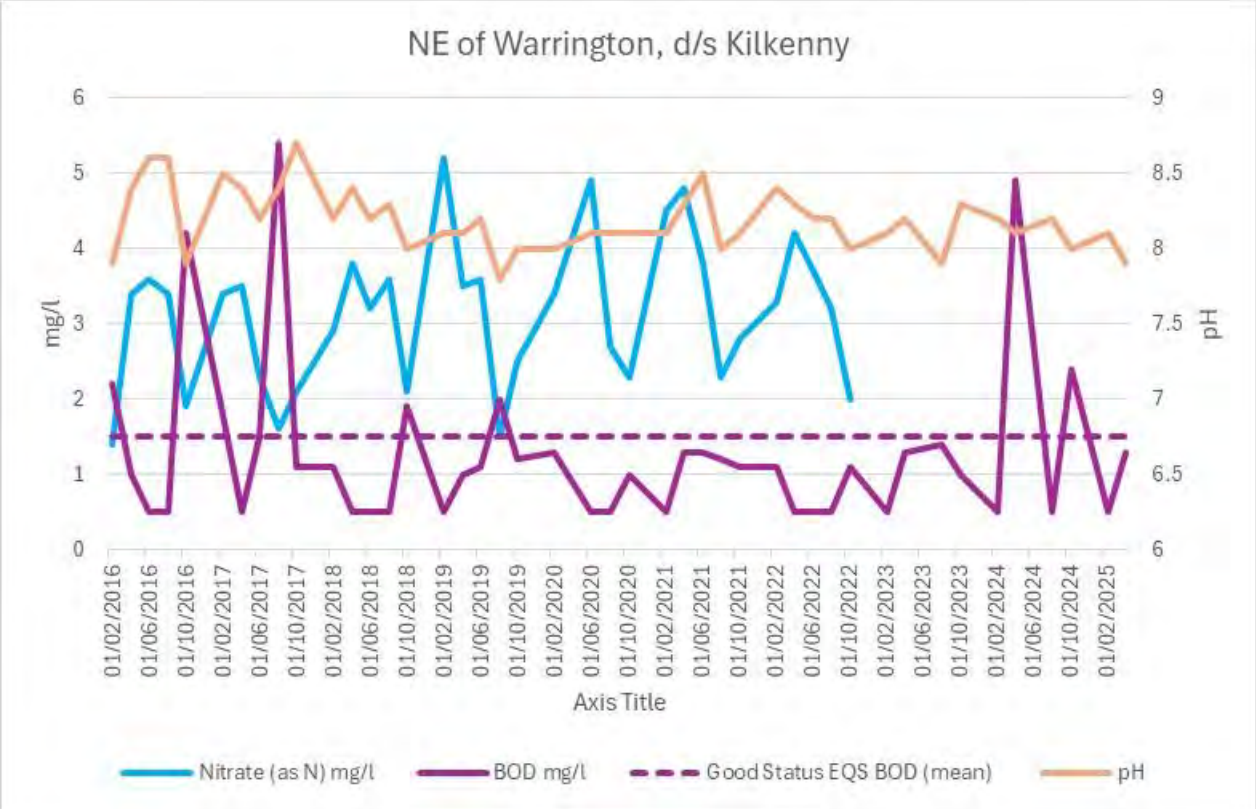
f) BOD is generally compliant with 1.5mg/l BOD EQO of the SW Regs but exceedance peaks do occur.

g) pH is slightly high in that it ranges from c.8 to c.8.5 pH, but it is SW Reg compliant, in that it is between the 6 – 9 pH range required.

h) There were issues with ortho-P and Ammonia in 2016 and 2017 but this has been rectified and values remain below the required Environmental Quality Objectives of the SW Regulations.

Graphs for NE Warrington, overleaf





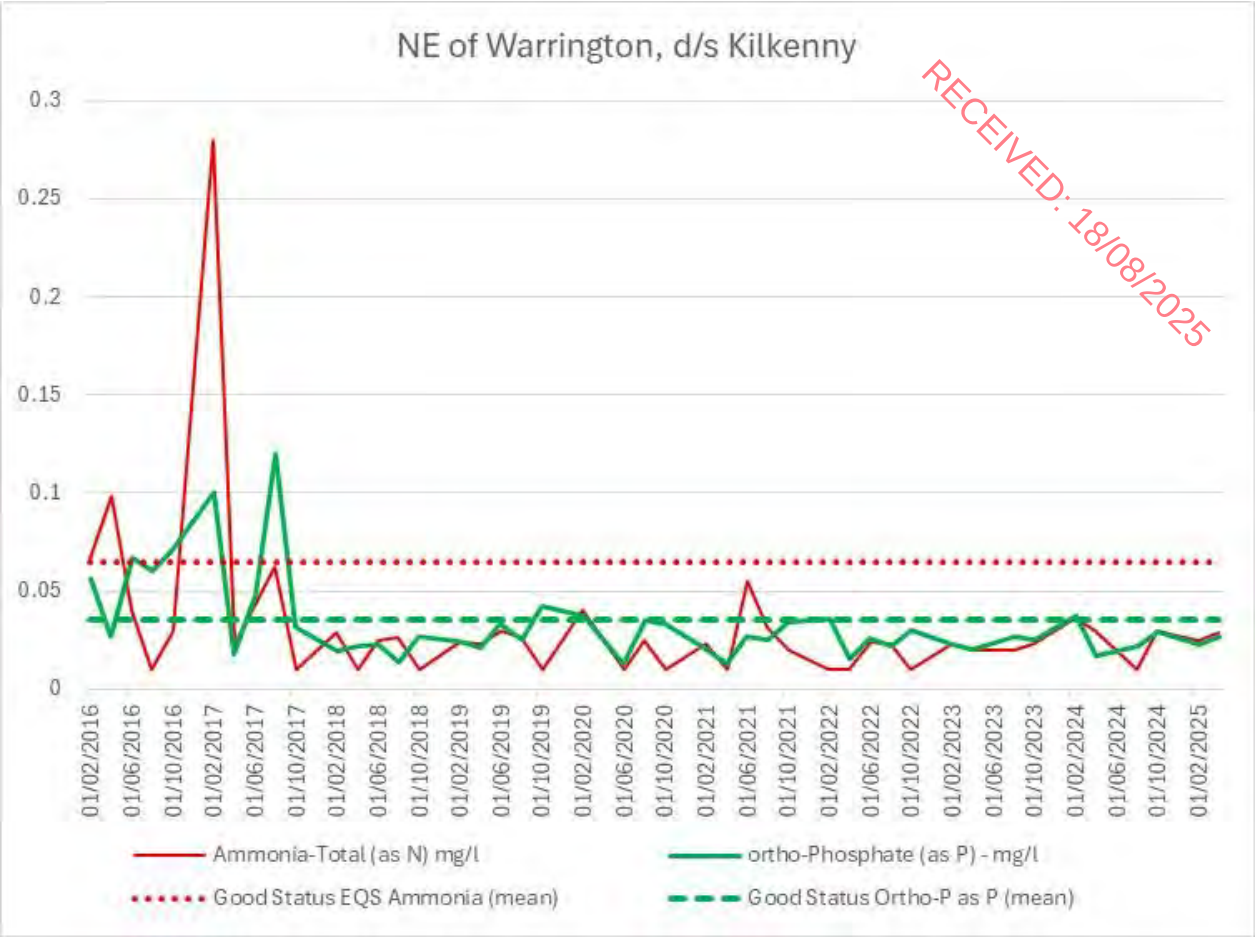


Table 5 Rathgarvan or Clifden Stn. = a tributary of the Nore, joining from the east and upstream of Bennettsbridge Limestone Quarry's licensed discharge.

WaterbodyName	RATHGARVAN_or_CLIFDEN_010
WaterbodyCode	IE_SE_15R370950
Waterbodytype	River
MonitoringStationCode	RS15R370950
MonitoringStationName	RATHGARVAN_or_CLIFDEN - Interstitial, 1st Br u/s from Nore R Conf.
MonitoringStationType	Investigative
MonitoringStationLocalAuthority	Kilkenny County Council
Hydro-G Note	Suspended Solids never reported by EPA for this Station

SampleDate	Conductivity @ 25Â°C (uS/cm)	Nitrate (as N) mg/l	Ammonia-Total (as N) mg/l	BOD (mg/l)	ortho-Phosphate (as P) - mg/l	pH	Good Status EQS Ammonia (mean)	Good Status EQS BOD (mean)	Good Status Ortho-P as P (mean)
01/03/2023	767	not measured	0.01	0.5	0.005	8.3	0.065	1.5	0.035
04/05/2023	746		0.01	0.5	0.005	8.3	0.065	1.5	0.035
09/08/2023	739		0.01	0.5	0.012	8.3	0.065	1.5	0.035
14/11/2023	753		0.1	0.5	0.041	8.1	0.065	1.5	0.035
05/03/2024	762		0.01	0.5	0.021	8.3	0.065	1.5	0.035
01/05/2024	772		0.021	0.5	0.013	8.3	0.065	1.5	0.035
08/08/2024	722		0.01	0.5	0.005	8.1	0.065	1.5	0.035
12/11/2024	773		0.02	0.5	0.005	8.2	0.065	1.5	0.035
04/03/2025	791		0.01	0.5	0.017	8.1	0.065	1.5	0.035
01/05/2025	764		0.01	0.5	0.005	8	0.065	1.5	0.035
MAX	791	no values	0.1	0.5	0.041	8.3			
MIN	722		0.01	0.5	0.005	8			
AVERAGE	759		0.02	0.50	0.013	8.20			
	Conductivity @ 25Â°C (uS/cm)	**Nitrate (as N) mg/l**	**Ammonia-Total (as N) mg/l**	**BOD (mg/l)**	**ortho-Phosphate (as P) - mg/l**	**pH**			

In Summary Notes For:

RATHGARVAN_or_CLIFDEN_010
IE_SE_15R370950
River
RS15R370950
RATHGARVAN_or_CLIFDEN - Interstitial, 1st Br u/s from Nore R Conf.

a) This MP is upstream of the Quarry and it is on a tributary of the River Nore after it travels through the Roadstone quarry at Maddockstown to the north of Bennetssbridge quarry. The water quality is exceptionally good bar one event in 2023 where there was elevated ammonia and ortho-P. Given that the elevated ammonia was associated with elevated ortho-P, the source is likely to be catchment related because there are no significant sources of phosphorus on quarries.

b) Suspended Solids never reported by EPA.

c) Strong Groundwater signal in EC average of 759 uS/cm with little deviation, which suggests a pure groundwater signal with little rainfall runoff contribution.

d) Nitrate not measured.

e) BOD persistently 0.5 mg/l = compliant with 1.5mg/l BOD EQO of the SW Regs.

f) pH steady and between 6-9 as required by the SW Regs.

g) The only demonstrative data are for ortho-P and Ammonia and this graph is shown here. There was an issue in 2023 but that is now rectified and the river persistently meets its EQOs for ammonia and ortho-P, as well as BOD and pH.

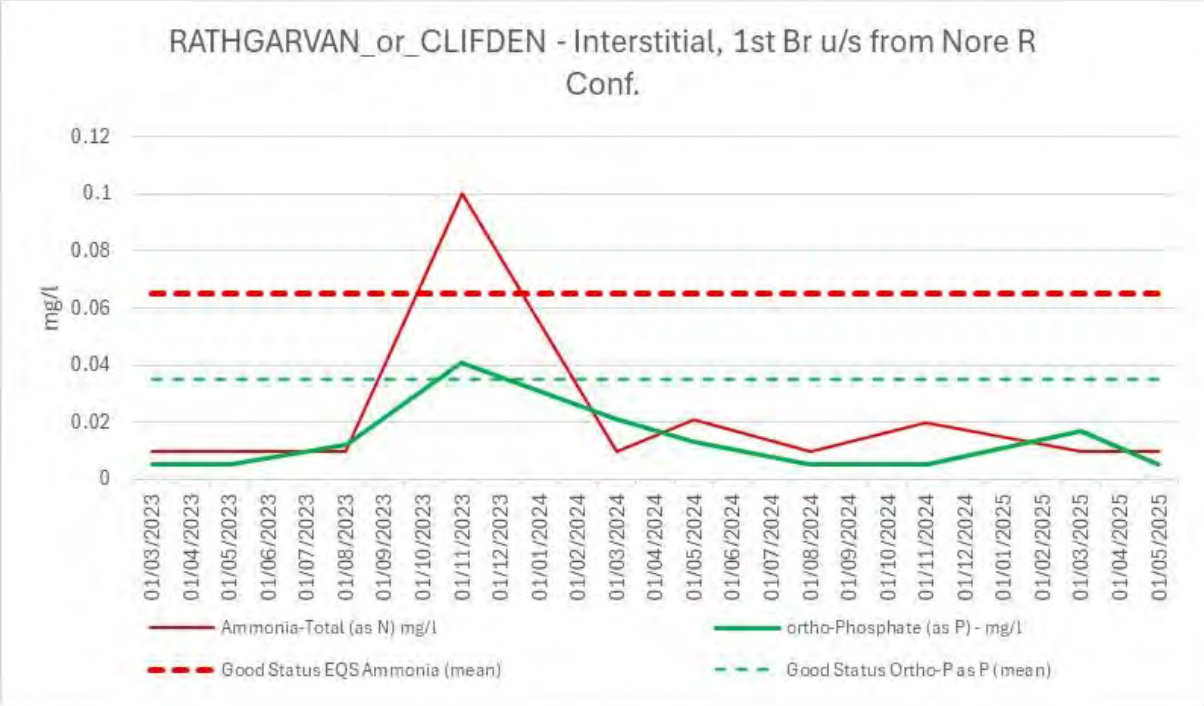


Table 6 EPA Stn 'Upstream of Bennettsbridge WWTP'. This is a MP downstream of Bennettsbridge Limestone Quarry's discharge.

WaterbodyName	NORE_190
WaterbodyCode	IE_SE_15N012090
Waterbodytype	River
MonitoringStationCode	RS15N012090
MonitoringStationName	Upstream Bennettsbridge WWTP
MonitoringStationType	Investigative
MonitoringStationLocalAuthority	Kilkenny County Council
Notes	**Suspended Solids not reported by EPA. EC at 25oC not reported until April 2023**

SampleDate	Electrical Conductivity @ 25oC (uS/cm)	Nitrate (as N) mg/l	Ammonia-Total (as N) mg/l	BOD (mg/l)	ortho-Phosphate (as P) - mg/l	pH	Good Status EQS Ammonia (mean)	Good Status EQS BOD (mean)	Good Status Ortho-P as P (mean)
13/01/2012		3.1	0.022	0.9	0.04		0.065	1.5	0.035
05/03/2012		3.1	0.011	0.9	0.016		0.065	1.5	0.035
04/07/2012		1	0.042	3	0.069		0.065	1.5	0.035
22/08/2012		2	0.02	1	0.06		0.065	1.5	0.035
10/10/2012		2.1	0.02	1.2	0.067		0.065	1.5	0.035
05/12/2012		1.6	0.058	1	0.07		0.065	1.5	0.035
24/01/2013		2	0.034	0.8	0.045		0.065	1.5	0.035
13/03/2013		2.5	0.026	1	0.14	8.2	0.065	1.5	0.035
16/05/2013		2	0.01	1.6	0.03	8.4	0.065	1.5	0.035
14/08/2013		2.4	0.02	1.3	0.14	8	0.065	1.5	0.035
08/10/2013		1.8	0.06	1.8	0.07	8.2	0.065	1.5	0.035
03/12/2013		2.9	0.01	1.2	0.05	8.2	0.065	1.5	0.035
10/03/2014		2.7	0.05	0.8	0.03	8.1	0.065	1.5	0.035
07/04/2014		2.5	0.02	1.6	0.04	8.1	0.065	1.5	0.035
15/05/2014		2.2	0.03	1.2	0.034	8	0.065	1.5	0.035
17/07/2014		3.5	0.03	1.9	0.06		0.065	1.5	0.035
13/10/2014		3	0.02	1.9	0.07	8.2	0.065	1.5	0.035
27/11/2014		2.9	0.02	0.8	0.04	8.2	0.065	1.5	0.035
25/06/2015		1.2	0.01	2	0.06	8.2	0.065	1.5	0.035
14/08/2015		2.5	0.03	1	0.07	8	0.065	1.5	0.035
19/10/2015		3.5	0.03	1	0.06	8.1	0.065	1.5	0.035
20/02/2017		3.2	0.07	2	0.02	8	0.065	1.5	0.035
03/05/2017		3.1	0.01	1	0.04	8.2	0.065	1.5	0.035
29/08/2017		2.6	0.04	1	0.07	8.1	0.065	1.5	0.035
29/11/2017		4.2	0.02	2	0.07	8	0.065	1.5	0.035
26/02/2018		3.4	0.04	1	0.05	8.1	0.065	1.5	0.035
24/05/2018		3.5	0.02	1	0.02	8.1	0.065	1.5	0.035
23/11/2018		3.1	0.026	2	0.017	9	0.065	1.5	0.035
07/12/2018		2.6	0.016	1	0.033	9	0.065	1.5	0.035
25/01/2019		2.6	0.009	1	0.02	9.2	0.065	1.5	0.035
24/05/2019		4.5	0.032	1	0.002	8.3	0.065	1.5	0.035
21/08/2019		1.7	0.04	2	0.04	8.3	0.065	1.5	0.035
27/11/2019		2.59	0.032	0	0.021	8.3	0.065	1.5	0.035
11/03/2020		2.27	0.017	1	0.005	8.66	0.065	1.5	0.035
19/06/2020		0.03	0.076	1	0.031	8.29	0.065	1.5	0.035
27/08/2020		1.08	0.048	2	0.043	7.91	0.065	1.5	0.035
25/11/2020		2.98	0.051	1	0.026	8.22	0.065	1.5	0.035
04/03/2021		3.88	0.043	0	0.026	8.43	0.065	1.5	0.035
03/06/2021		3.1	0.083	1	0.044	8.45	0.065	1.5	0.035
23/09/2021		2.9	0.017	0	0.022	8.14	0.065	1.5	0.035
09/12/2021		2.94	0.038	1	0.034	8.25	0.065	1.5	0.035
03/03/2022		3.97	0.002	0	0.009	8.35	0.065	1.5	0.035
02/06/2022		3.62	0.007	1	0.006	8.5	0.065	1.5	0.035
09/09/2022		6.76	0.035	2	0.063	7.9	0.065	1.5	0.035
25/11/2022		2.36	0.025	1	0.09	8.03	0.065	1.5	0.035
08/03/2023		4.54	0.012	1.1	0.168	8.08	0.065	1.5	0.035
27/04/2023	617	3.777		1.4	0.016	8.2	0.065	1.5	0.035
27/04/2023				0.5	0.049	8.04	0.065	1.5	0.035
08/08/2023	485		<0.02	3.9	0.032	8.1	0.065	1.5	0.035
10/08/2023		2.078	0.013	1.2	0.018	8.18	0.065	1.5	0.035
10/10/2023	597			2	0.022	8.3	0.065	1.5	0.035
26/10/2023		1.896	0.011	0.9	0.032	8.09	0.065	1.5	0.035
31/01/2024		4.354	0.038	0.9	0.065	8.33	0.065	1.5	0.035
08/02/2024	428			1.4	0.044	8.2	0.065	1.5	0.035
19/04/2024		3.115	0.006	0.9	0.012	8.35	0.065	1.5	0.035
23/04/2024	640			3.6	0.02	8.1	0.065	1.5	0.035
06/08/2024	668			1.9	0.014	8.2	0.065	1.5	0.035
12/09/2024		3.379	0.018	0.9	0.023	8.11	0.065	1.5	0.035
08/10/2024	553			2.8	0.028	8	0.065	1.5	0.035
22/11/2024		2.421	0.004	0.4	0.011	8.2	0.065	1.5	0.035
13/02/2025			<0.02	0.5	0.022	8.1	0.065	1.5	0.035
24/04/2025				2.1	0.026	7.9	0.065	1.5	0.035

MAX	not reported	3.5	0.06	3	0.14	8.4	**Upstream Bennettsbridge WWTP [2012 - 2015]**
MIN		1	0.01	0.8	0.016	8	
AVERAGE		2.40	0.027	1.33	0.060	8.15	
2012 - 2015 River nore @ Bennettsbridge Bridge Statistics (Pre ENV/W/78, 2017 Licence Bennettsbridge Limestone)	**Conductivity @ 25Â°C (uS/cm)**	**Nitrate (as N) mg/l**	**Ammonia-Total (as N) mg/l**	**BOD (mg/l)**	**ortho-Phosphate (as P) - mg/l**	**pH**	

MAX	668	6.76	0.083	3.9	0.168	9.2	**Upstream Bennettsbridge WWTP [2017 - 2025]**
MIN	428	0.03	0.002	0	0.002	7.9	
AVERAGE	570	3.08	0.029	1.28	0.034	8.25	
2017 - 2025 River nore @ Bennettsbridge Bridge Statistics (POST ENV/W/78, 2017 Licence Bennettsbridge Limestone)	**Conductivity @ 25Â°C (uS/cm)**	**Nitrate (as N) mg/l**	**Ammonia-Total (as N) mg/l**	**BOD (mg/l)**	**ortho-Phosphate (as P) - mg/l**	**pH**	

In Summary Notes For: Station 'Upstream Bennettsbridge WWTP'

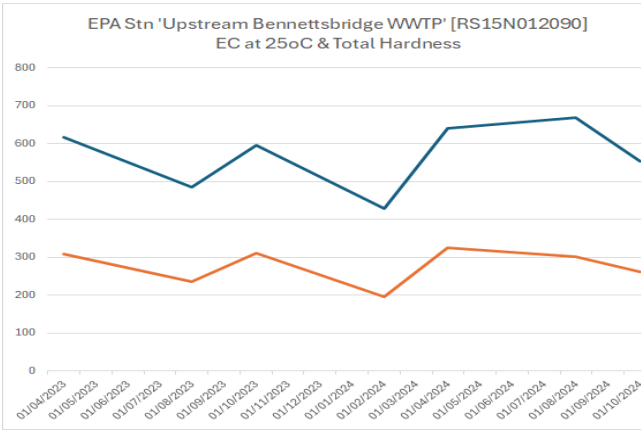
NORE_190
IE_SE_15N012090
River
RS15N012090
Upstream Bennettsbridge WWTP
Investigative
Kilkenny County Council
Suspended Solids not reported by EPA. EC at 25oC not reported until April 2023

a. The 'Upstream of Bennettsbridge WWTP' stn is downstream of Bennettsbridge Limestone Quarry's discharge.

b. Suspended Solids are not reported by the EPA for this MP.

c. EC at 25oC was not reported until 2023. At this station, the same pattern for EC and seasonality occurs as at the stn 'NE of Warrington': groundwater baseflow results in higher EC values in summer. At the same time as EC monitoring commenced, the EPA included analysis for Total Hardness. The patterns for EC and Total Hardness mirror each other: heavy rains in the catchment result in lower hardness and lower EC. This is the accepted model repeated for the River Nore: high groundwater baseflow. The river water is extremely hard (>300 mg/l as CaCO3) in summer and less so in high recharge February 2024 (c.200 mg/l as CaCO3). There are not enough concurrent data that would enable exploration of the relationship between nitrate and EC.

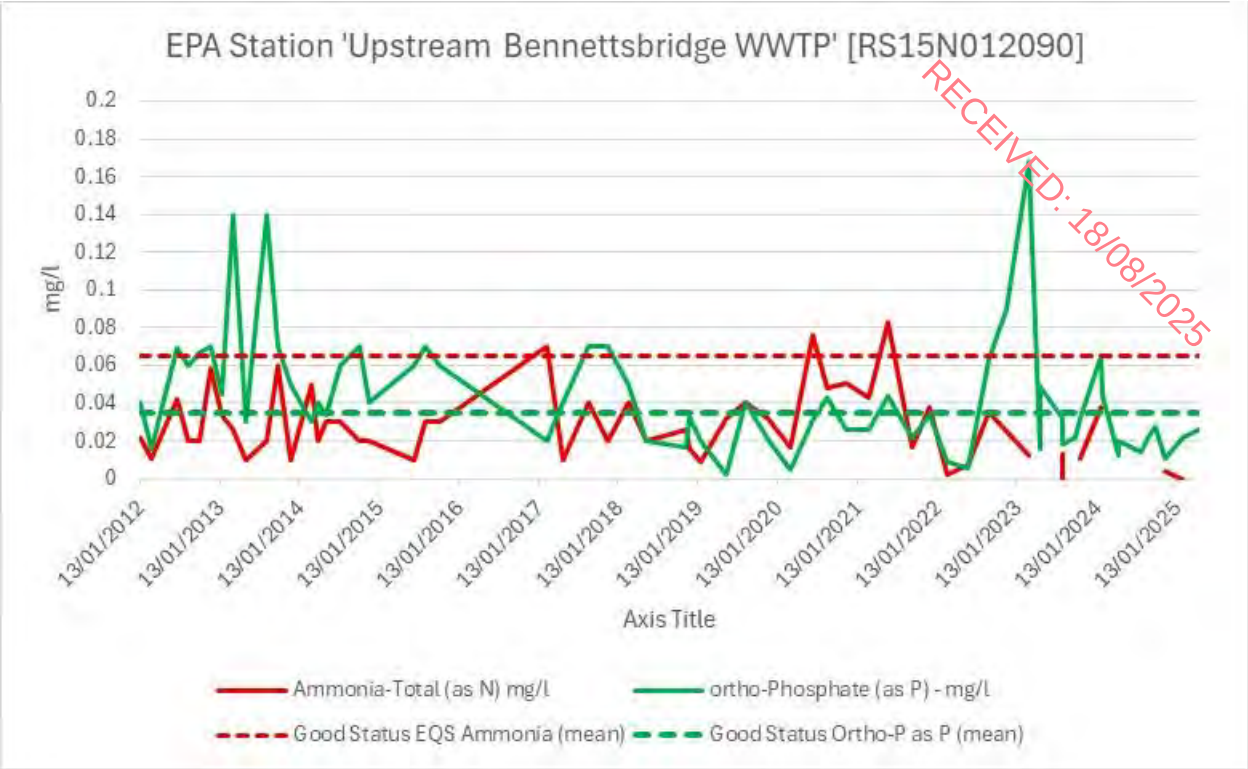
EPA Stn 'Upstream Bennettsbridge WWTP' [RS15N012090]		
Date	**EC at 25oC**	**Total Hardness (as CaCO3)**
27/04/2023	617	309
08/08/2023	485	236
10/10/2023	597	312
08/02/2024	428	197
23/04/2024	640	326
06/08/2024	668	302
08/10/2024	553	261

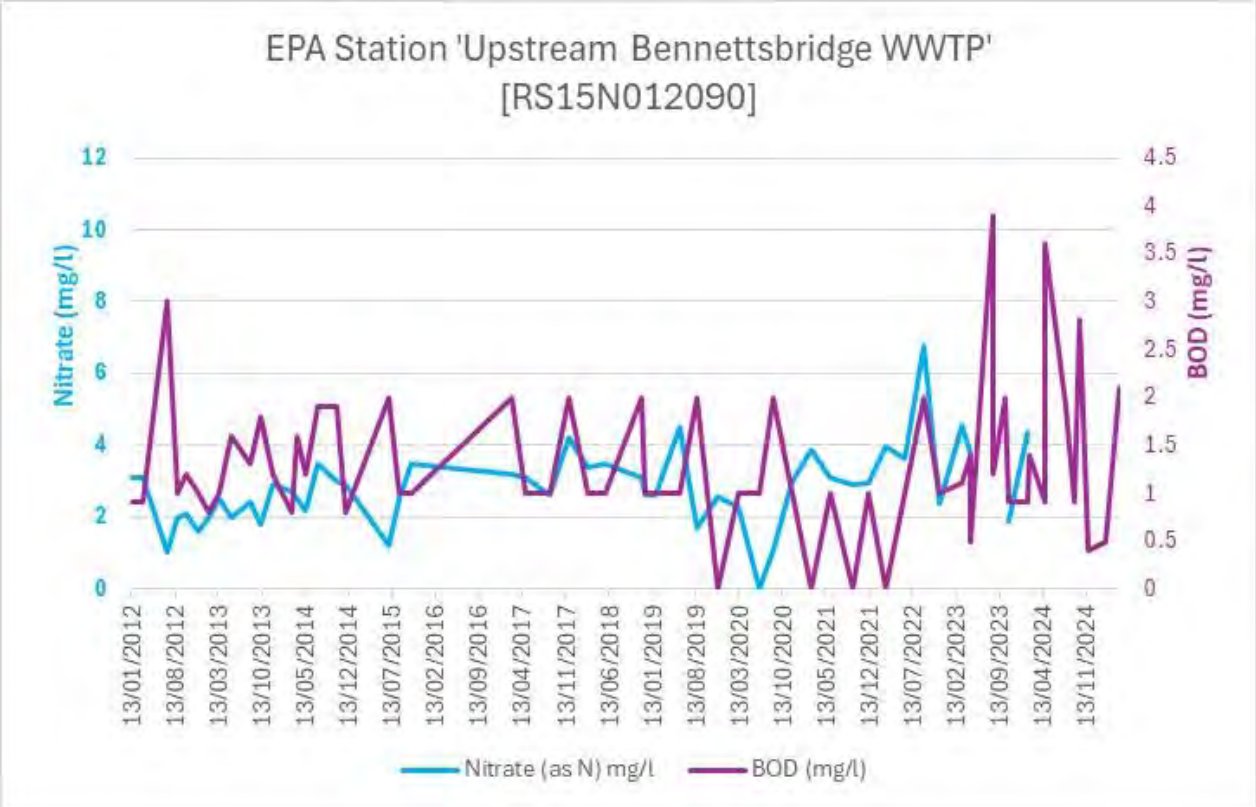


d. Ortho-P seems to present excessive concentrations. There is no source of ortho-P at a quarry.

e. The ortho-P and ammonia peaks share a pattern. This suggests that they have the same source and a catchment source is assumed on the basis that there is no source of ortho-P at the quarry.

f. BOD at this station is erratic and regularly exceeds the BOD mean EQO of 1.5 mg/l.





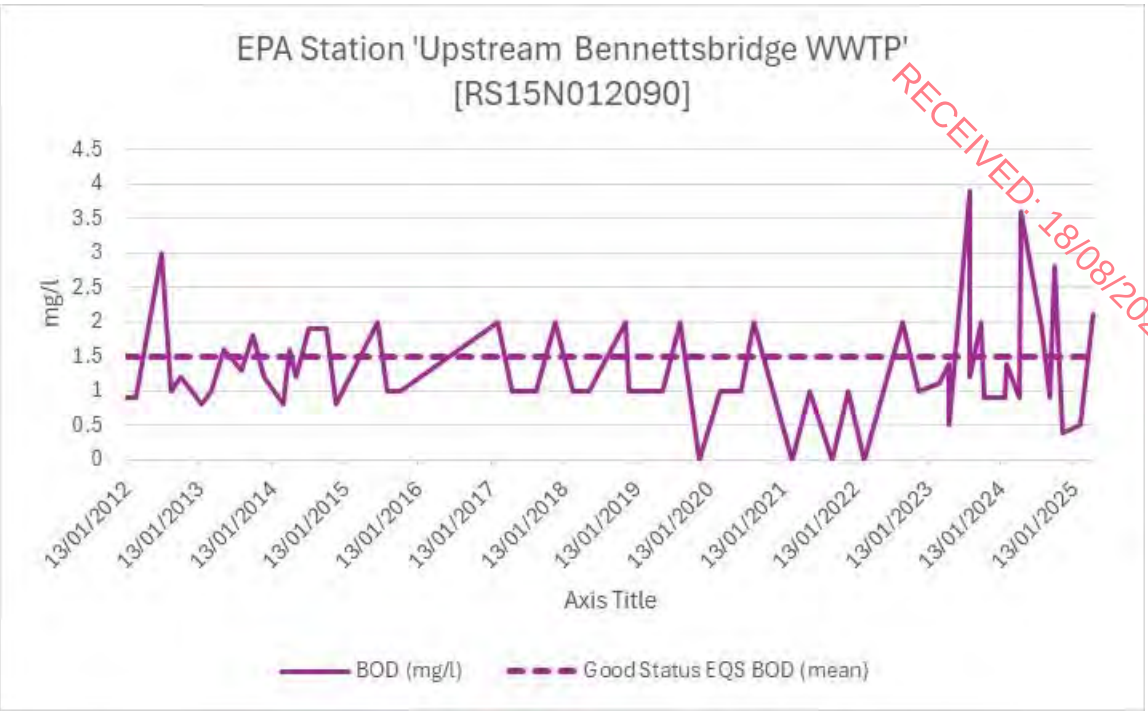


Table 7 Bennettsbridge, 600m D/S WWTP

WaterbodyName	NORE_200
WaterbodyCode	IE_SE_15N012130
Waterbodytype	River
MonitoringStationCode	RS15N012100
MonitoringStationName	Bennettsbridge, 600 m d/s Br
MonitoringStationType	Operational
MonitoringStationLocalAuthority	Kilkenny County Council
Hydro-G Notes	Suspended Solids reporting ceased inJanuary 2019

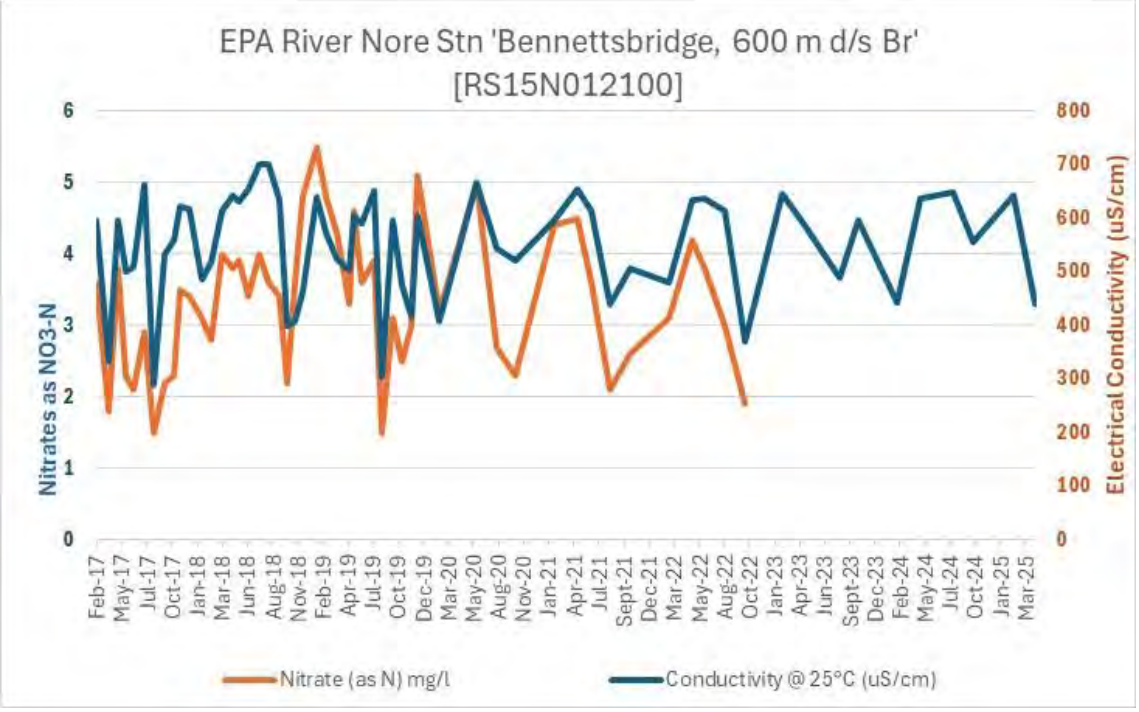
SampleDate	Conductivity @ 25°C (uS/cm)	Nitrate (as N) mg/l	Ammonia-Total (as N) mg/l	BOD (mg/l)	ortho-Phosphate (as P) - mg/l	pH	Suspended Solids (mg/l)	Good Status EQS Ammonia (mean)	Good Status EQS BOD (mean)	Good Status Ortho-P as P (mean)
15/02/2017	597	3.6	0.057	0.5	0.041	8.4	2	0.065	1.5	0.035
23/03/2017	334	1.8	0.065	1.6	0.056	7.9	4	0.065	1.5	0.035
25/04/2017	598	3.8	0.01	0.5	0.012	8.2	34	0.065	1.5	0.035
16/05/2017	500	2.3	0.049	0.5	0.022	8.3	2	0.065	1.5	0.035
13/06/2017	511	2.1	0.045	1.3	0.052	8.3	2	0.065	1.5	0.035
18/07/2017	664	2.9	0.029	1.3	0.034	8.3	6	0.065	1.5	0.035
15/08/2017	290	1.5	0.094	6.5	0.16	8.3	2	0.065	1.5	0.035
19/09/2017	532	2.2	0.01	0.5	0.035	8.5	39	0.065	1.5	0.035
17/10/2017	558	2.3	0.01	0.5	0.027	8.5	2	0.065	1.5	0.035
09/11/2017	622	3.5	0.01	0.5	0.03	8.2	2	0.065	1.5	0.035
05/12/2017	617	3.4	0.028	0.5	0.03	8.4	2	0.065	1.5	0.035
15/01/2018	486	3.1	0.049	0.5	0.037	8.6	2	0.065	1.5	0.035
15/02/2018	517	2.8	0.028	0.5	0.02	8.2	21	0.065	1.5	0.035
22/03/2018	613	4	0.03	0.5	0.025	8.5	5	0.065	1.5	0.035
24/04/2018	642	3.8	0.01	0.5	0.022	8.4	5	0.065	1.5	0.035
15/05/2018	630	3.9	0.01	1.3	0.005	8.6	2	0.065	1.5	0.035
12/06/2018	655	3.4	0.028	0.5	0.02	8.3	2	0.065	1.5	0.035
17/07/2018	702	4	0.01	0.5	0.017	8.4	2	0.065	1.5	0.035
14/08/2018	702	3.6	0.028	0.5	0.005	8.2	2	0.065	1.5	0.035
18/09/2018	633	3.4	0.01	1.3	0.035	8.2	2	0.065	1.5	0.035
15/10/2018	400	2.2	0.033	2.1	0.027	8	2	0.065	1.5	0.035
08/11/2018	408	3.6	0.028	1.4	0.036	8	2	0.065	1.5	0.035
04/12/2018	464	4.8	0.026	1	0.038	8	17	0.065	1.5	0.035
14/01/2019	640	5.5	0.022	0.5	0.03	8.2	9	0.065	1.5	0.035
13/02/2019	574	4.8	0.022	0.5	0.023	8.1		0.065	1.5	0.035
21/03/2019	524	4.3	0.01	0.5	0.017	8.1		0.065	1.5	0.035
29/04/2019	505	3.3	0.022	1.2	0.022	8.1		0.065	1.5	0.035
16/05/2019	606	4.6	0.01	0.5	0.017	8.3		0.065	1.5	0.035
11/06/2019	590	3.6	0.042	1.2	0.033	8.3		0.065	1.5	0.035
16/07/2019	652	3.9	0.01	1.5	0.011	8.4		0.065	1.5	0.035
12/08/2019	304	1.5	0.02	2.5	0.022	7.9		0.065	1.5	0.035
17/09/2019	596	3.1	0.035	0.5	0.01	8.3		0.065	1.5	0.035
14/10/2019	474	2.5	0.029	1.2	0.043	8.1		0.065	1.5	0.035
14/11/2019	418	3	0.025	1.5	0.037	8.1		0.065	1.5	0.035
03/12/2019	604	5.1	0.038	0.5	0.025	8.1		0.065	1.5	0.035
12/02/2020	409	3.2	0.028	1.3	0.037	8		0.065	1.5	0.035
09/06/2020	667	5	0.01	0.5	0.005	8.3		0.065	1.5	0.035
10/08/2020	545	2.7	0.01	0.5	0.011	8.4		0.065	1.5	0.035
12/10/2020	521	2.3	0.01	1.5	0.032	8.2		0.065	1.5	0.035
11/02/2021	598	4.4	0.04	0.5	0.075	8.1		0.065	1.5	0.035
27/04/2021	656	4.5	0.01	1	0.005	8.4		0.065	1.5	0.035
08/06/2021	615	3.6	0.033	1.3	0.029	8.6		0.065	1.5	0.035
09/08/2021	441	2.1	0.01	1.4	0.018	8.2		0.065	1.5	0.035
12/10/2021	507	2.6	0.01	0.5	0.029	8.3		0.065	1.5	0.035
10/02/2022	480	3.1	0.01	1.1	0.039	8.5		0.065	1.5	0.035
26/04/2022	634	4.2	0.01	1.3	0.005	8.4		0.065	1.5	0.035
08/06/2022	636	3.8	0.02	0.5	0.014	8.4		0.065	1.5	0.035
08/08/2022	613	3	0.01	0.5	0.005	8.5		0.065	1.5	0.035
11/10/2022	370	1.9	0.01	1.1	0.031	8		0.065	1.5	0.035
09/02/2023	646		0.021	0.5	0.022	8.2		0.065	1.5	0.035
25/04/2023	584		0.01	1.4	0.017	8.2		0.065	1.5	0.035
08/08/2023	488		0.01	1.3	0.027	8.1		0.065	1.5	0.035
10/10/2023	598		0.01	1.3	0.025	8.3		0.065	1.5	0.035
08/02/2024	444		0.031	1	0.038	8.2		0.065	1.5	0.035
23/04/2024	637		0.02	2	0.016	8.1		0.065	1.5	0.035
06/08/2024	650		0.01	0.5	0.005	8.4		0.065	1.5	0.035
08/10/2024	555		0.01	1.3	0.025	8.1		0.065	1.5	0.035
13/02/2025	642		0.02	0.5	0.03	8.1		0.065	1.5	0.035
24/04/2025	441		0.032	1.4	0.026	7.9		0.065	1.5	0.035
MAX	702	5.5	0.094	6.5	0.160	8.6	39			
MIN	290	1.3	0.01	0.5	0.005	7.9	2			
AVERAGE	552	3.25	0.02	1.11	0.030	8.27	7.08			
2017 - 2025	Conductivity @ 25Â°C (uS/cm)	Nitrate (as N) mg/l	Ammonia-Total (as N) mg/l	BOD mg/l	ortho-Phosphate (as P) - mg/l	pH	Suspended Solids (mg/l)	Bennettsbridge, 600 m d/s Br		

In Summary Notes For: 'Bennettsbridge, 600m d/s Br'

NORE_200
IE_SE_15N012130
River
RS15N012100
Bennettsbridge, 600 m d/s Br
Operational
Kilkenny County Council
Suspended Solids reporting ceased inJanuary 2019

a. The same pattern is seen: Electrical conductivity in the River Nore peaks in summer months, generally. This is groundwater baseflow. Note: one of the lowest ECs recorded was August 2017 but this was because it was one of the wettest Augusts in Irish history.

b. River EC and river nitrate concentrations share the same pattern, suggesting that groundwater carries nutrients to the river.



c. Nitrate concentrations are not excessive. The reporting for Nitrate ends in 2022.

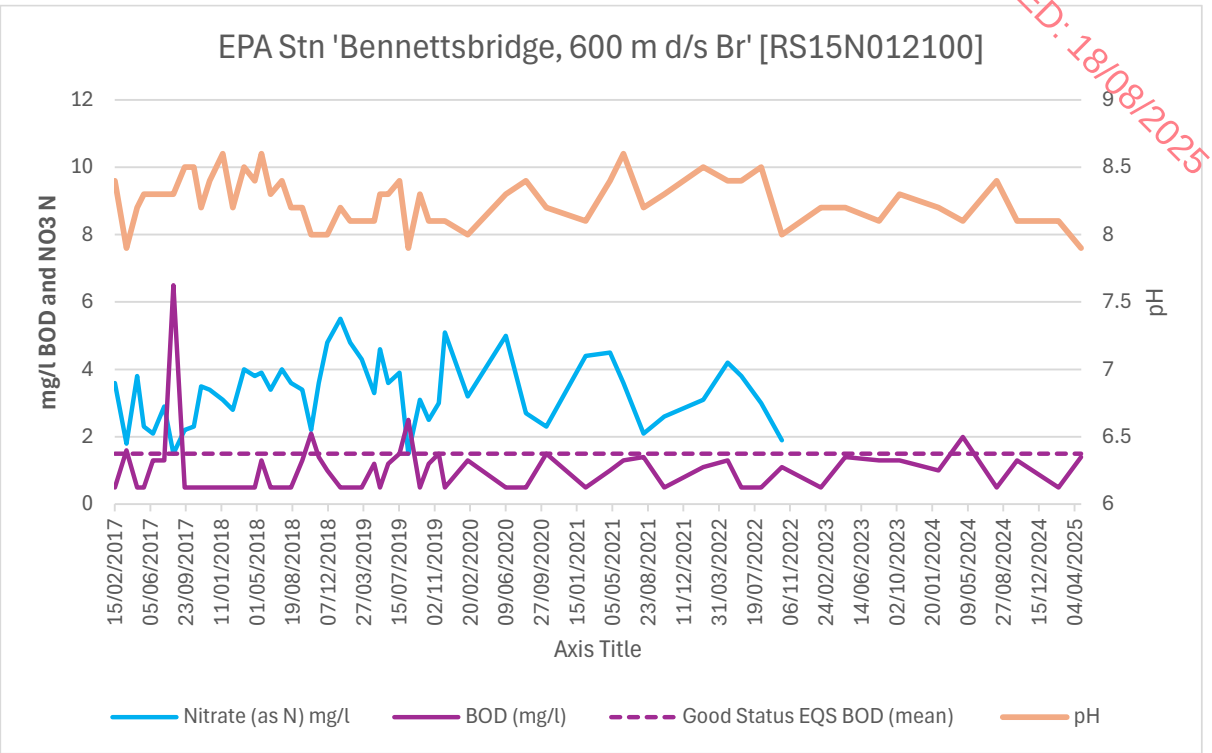
d. On an average basis, parameters generally comply with the EQOs (mean) of the SW Regulations. BOD is close to the EQO (mean) line often. See graphs overleaf.

e. pH is higher than neutral, which is expected in the Limestone environment. pH is in the range c.8 to c.8.5, which is between the required 6 to 9pH and SW Regulations compliant.

f. Ammonia concentrations appear problematic in 2017 but since then only occasional exceedances are recorded. See graph overleaf.

g. Ortho-P hovers close to the EQO.

h. There are occasional excessive Suspended Solids but SS reporting ceased January 2019.



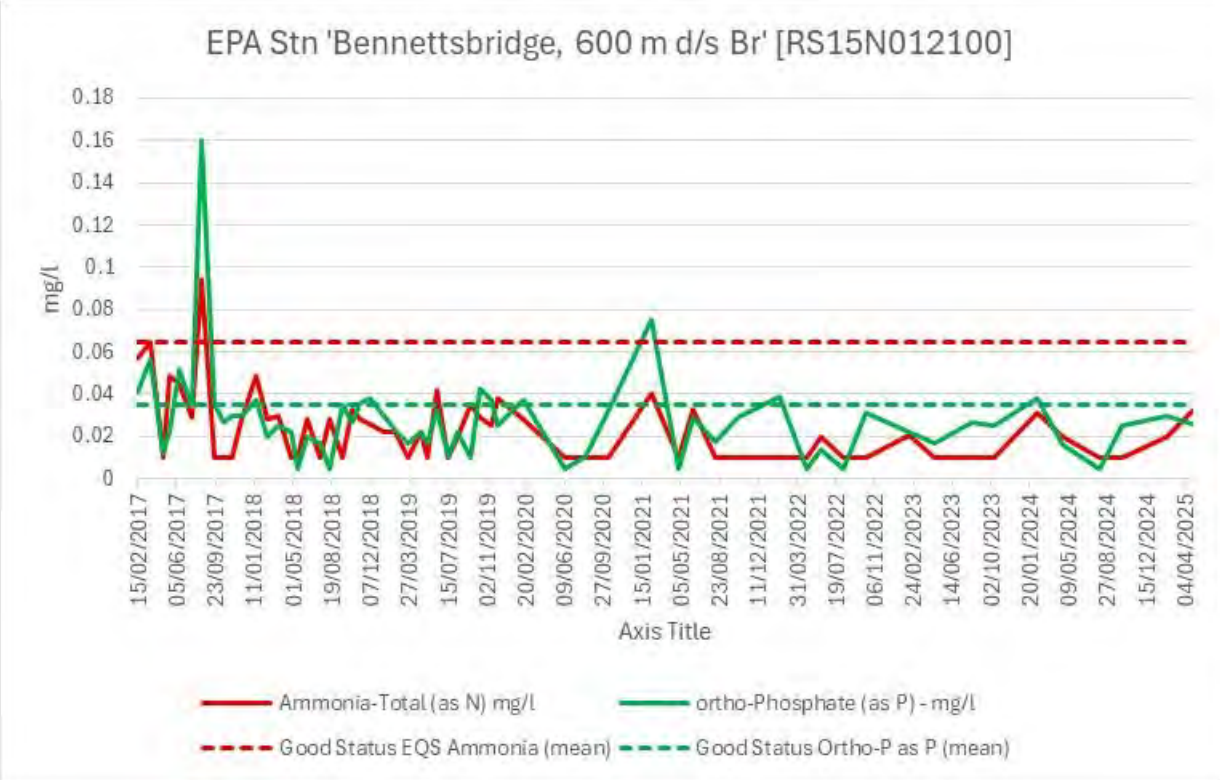


Table 8 U/S Kings R. Confluence Stn = Far downstream of quarry discharge and Bennettsbridge WWTP.

WaterbodyName	NORE_210
WaterbodyCode	IE_SE_15N012200
Waterbodytype	River
MonitoringStationCode	RS15N012180
MonitoringStationName	u/s King's R confl (u/s abstr)
MonitoringStationType	Operational
MonitoringStationLocalA	Kilkenny County Council
Hydro-G Notes	Suspended Solids not reported.

Sample Date	Electrical Conductivity (uS/cm)	Nitrate (as N) mg/l	Ammonia-Total (as N) mg/l	BOD mg/l	ortho-Phosphate (as P) - mg/l	pH	Good Status EQS Ammonia (mean)	Good Status EQS BOD (mean)	Good Status Ortho-P as P (mean)
17/02/2016	269	1.3	0.052	3.8	0.072	7.9	0.065	1.5	0.035
19/04/2016	624	3.6	0.033	0.5	0.028	8.4	0.065	1.5	0.035
14/06/2016	638	3.6	0.01	0.5	0.041	8.6	0.065	1.5	0.035
16/08/2016	632	3.3	0.02	1	0.024	8.6	0.065	1.5	0.035
17/10/2016	363	1.7	0.045	4	0.08	7.9	0.065	1.5	0.035
15/02/2017	592	3.7	0.042	0.5	0.037	8.5	0.065	1.5	0.035
25/04/2017	624	3.8	0.01	0.5	0.011	8.3	0.065	1.5	0.035
13/06/2017	513	2.1	0.045	1.4	0.053	8.3	0.065	1.5	0.035
15/08/2017	275	1.4	0.086	7.3	0.15	8.3	0.065	1.5	0.035
17/10/2017	553	2.3	0.01	1.1	0.03	8.7	0.065	1.5	0.035
15/02/2018	519	2.9	0.038	1.2	0.02	8.2	0.065	1.5	0.035
24/04/2018	634	3.9	0.01	0.5	0.022	8.6	0.065	1.5	0.035
12/06/2018	654	3.4	0.01	0.5	0.014	8.4	0.065	1.5	0.035
14/08/2018	673	3.5	0.01	1.6	0.017	8.4	0.065	1.5	0.035
15/10/2018	398	2.1	0.029	2.3	0.029	8	0.065	1.5	0.035
13/02/2019	578	5.1	0.027	0.5	0.023	8	0.065	1.5	0.035
29/04/2019	502	3.4	0.026	1	0.022	8.1	0.065	1.5	0.035
11/06/2019	587	3.6	0.032	1	0.033	8.3	0.065	1.5	0.035
12/08/2019	303	1.5	0.039	2.2	0.027	7.9	0.065	1.5	0.035
14/10/2019	474	2.6	0.024	1.2	0.044	8.1	0.065	1.5	0.035
12/02/2020	409	3.2	0.027	1.4	0.037	8	0.065	1.5	0.035
09/06/2020	649	5	0.01	0.5	0.005	8.3	0.065	1.5	0.035
10/08/2020	551	2.9	0.01	0.5	0.024	8.2	0.065	1.5	0.035
12/10/2020	520	2.3	0.01	1	0.031	8.2	0.065	1.5	0.035
11/02/2021	598	4.3	0.027	0.5	0.061	8.2	0.065	1.5	0.035
27/04/2021	663	4.7	0.01	0.5	0.005	8.4	0.065	1.5	0.035
08/06/2021	620	3.7	0.025	1	0.027	8.5	0.065	1.5	0.035
09/08/2021	432	2	0.025	1.4	0.026	8.2	0.065	1.5	0.035
12/10/2021	513	2.7	0.01	0.5	0.029	8.2	0.065	1.5	0.035
10/02/2022	472	3.2	0.01	1	0.037	8.4	0.065	1.5	0.035
26/04/2022	641	4.3	0.01	1	0.005	8.4	0.065	1.5	0.035
08/06/2022	636	3.8	0.01	2.7	0.016	8.4	0.065	1.5	0.035
08/08/2022	610	2.9	0.021	0.5	0.005	8.5	0.065	1.5	0.035
11/10/2022	369	1.8	0.01	1.1	0.031	8.1	0.065	1.5	0.035
09/02/2023	645		0.01	0.5	0.022	8.2	0.065	1.5	0.035
25/04/2023	582		0.01	1	0.016	8.3	0.065	1.5	0.035
08/08/2023	487		0.01	1.4	0.026	8.1	0.065	1.5	0.035
10/10/2023	599		0.01	0.5	0.025	8.3	0.065	1.5	0.035
08/02/2024	472		0.029	0.5	0.035	8.2	0.065	1.5	0.035
23/04/2024	641		0.01	2.9	0.015	8.2	0.065	1.5	0.035
06/08/2024	655		0.01	0.5	0.005	8.4	0.065	1.5	0.035
08/10/2024	570		0.02	1.3	0.024	8.1	0.065	1.5	0.035
13/02/2025	645		0.022	0.5	0.021	8.1	0.065	1.5	0.035
24/04/2025	432		0.036	1.3	0.026	7.9	0.065	1.5	0.035

2016 - 2025	Electrical Conductivity (uS/cm)	Nitrate (as N) mg/l	Ammonia-Total (as N) mg/l	BOD mg/l	ortho-Phosphate (as P) - mg/l	pH	Station Name
MAX	673	5.1	0.086	7.3	0.15	8.7	u/s King's R confl (u/s abstr)
MIN	269	1.3	0.01	0.5	0.005	7.9	
AVERAGE	541	3.11	0.02	1.29	0.030	8.26	

In Summary for

NORE_210
IE_SE_15N012200
River
RS15N012180
u/s King's R confl (u/s abstr)
Operational
Kilkenny County Council
Suspended Solids not reported by the EPA.

(a) Suspended Solids not reported by the EPA for the far downstream stn. 'U/S Kings R Confluence'.

(b) Strong groundwater baseflow signal persists by virtue of the low EC concentrations in high rainfall periods.

(c) The exact same characteristic ranges and issues exist here as for the upstream stations: The average result for Nitrate-N is at the expected baseline concentration, average Ammonia, ortho-P and BOD comply with the EQOs of the Surface Water Regulations (2009, as amended).

EPA Groundwater Monitoring Stations

Hydro-G has enhanced, and labelled, the EPA Marker for the 5 no. GW Stations Relevant. The EPA Name and the associated GWB is labelled.

Red Cursor = Approx. Location Bennettsbridge Limestone Quarry & Application Area.

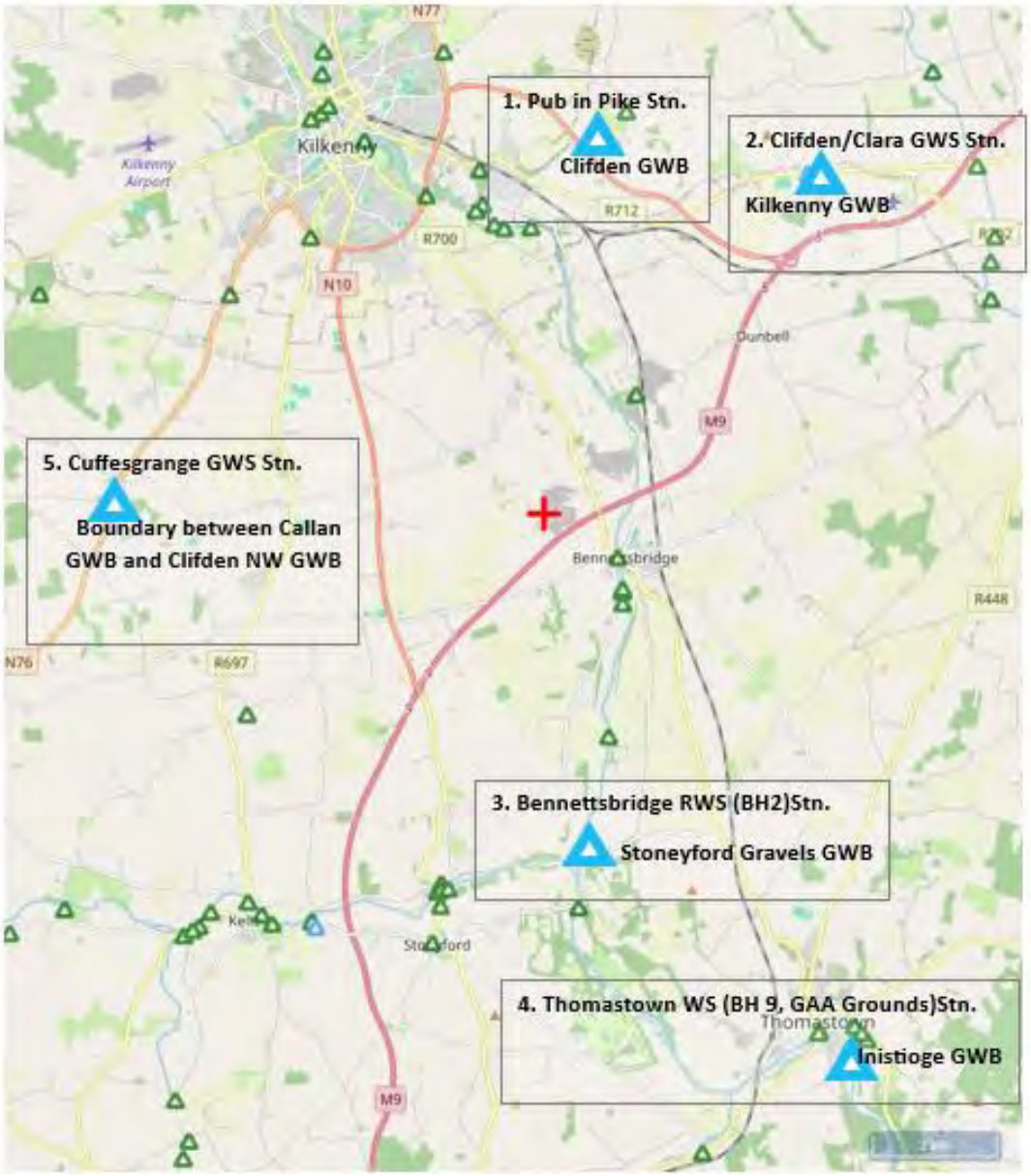


Table 9 **EPA Groundwater Monitoring Station's Information**

Hydro-G Map No.	1	2	3	4	5	6
StationID	**GWIE_SE_G_038 15000016**	**GWIE_SE_G_078 15000006**	**GWIE_SE_G_128 15000004**	**GWIE_SE_G_128 15000019**	**GWIE_SE_G_021 15000017**	**GWIE_SE_G_026 15000007**
StationName	**Pub in Pike**	**Clifden/Clara GWS**	**Bennettsbridge RWS (BH2)**	**Thomastown WS (BH 9, GAA Grounds)**	**Rathduff (KNY 27/58)**	**Cuffesgrange GWS**
StationType	GROUNDWATER_ STATION	GROUNDWATER_ STATION	GROUNDWATER_ STATION	GROUNDWATER_ STATION	GROUNDWATER_ STATION	GROUNDWATER_ STATION
WFDWISECODE	IEMGGWIE_SE_G _03815000016	IEMGGWIE_SE_G _07815000006	IEMGGWIE_SE_G _12815000004	IEMGGWIE_SE_G _12815000019	IEMGGWIE_SE_G _02115000017	IEMGGWIE_SE_G _02615000007
EntityCode	IE_SE_G_038	IE_SE_G_078	IE_SE_G_128	IE_SE_G_128	IE_SE_G_021	IE_SE_G_026
EntityName	**Clifden**	**Kilkenny**	**Stoneyford Gravels GWB**	**Stoneyford Gravels GWB**	**Bennettsbridge**	**Callan**
WBWFDWISECODE	IE_SE_G_038	IE_SE_G_078	IE_SE_G_128	IE_SE_G_128	IE_SE_G_021	IE_SE_G_026
TypeofWaterMonitored	Groundwater body code but there is no corresponding code in Eden MDS for the moment	Groundwater body code but there is no corresponding code in Eden MDS for the moment	Groundwater body code but there is no corresponding code in Eden MDS for the moment	Groundwater body code but there is no corresponding code in Eden MDS for the moment	Groundwater body code but there is no corresponding code in Eden MDS for the moment	Groundwater body code but there is no corresponding code in Eden MDS for the moment
LocalAuthority	KILKENNY COUNTY COUNCIL	KILKENNY COUNTY COUNCIL	KILKENNY COUNTY COUNCIL	KILKENNY COUNTY COUNCIL	KILKENNY COUNTY COUNCIL	KILKENNY COUNTY COUNCIL
RiverBasinDistrict	South Eastern	South Eastern	South Eastern	South Eastern	South Eastern	South Eastern
EPAStationTypeWFDs	**Investigative**	**Surveillance And Operational**	**Surveillance**	**Surveillance**	**Investigative**	**Surveillance And Operational**
CreatedByOrganisation	EPA	EPA	EPA	EPA	EPA	EPA
EPALink	N/A	N/A	N/A	N/A	N/A	N/A
Easting	254858.35	258220.93	254755.89	259035.96	250499.46	247227.9
Northing	156017.04	155391.07	144668.14	141462.18	143300.12	150133.04

Note:

Wrt to GW Mon Stations:

Only the Clifden / Clare GWS is in the Kilkenny GWB of the Quarry.

EPA data for groundwater quality in the Groundwater Monitoring point in the Kilkenny GWB (the Clifden/Clara GWS Stn.) suggests upward trends in nutrients and this is presented (EPA, 2024) as posing a risk to surface water quality. Monitoring information for the period 2016 - 2021 presents trends for the single groundwater monitoring station 'Clifden /Clara GWS' [GWIE_SE_G_07815000006], which demonstrate currently compliant, but upward trends in the direction of exceedances in the indicative quality guide levels for Nitrate, Chloride and ortho-Phosphate (https://www.catchments.ie/data/#/waterbody/IE_SE_G_078).

In the EPA (2024) 3rd Cycle Report, agriculture is the most cited Pressure resulting in Significant Impact arising from increased nutrients in the river systems of the Nore.

Environmental Protection Agency

EPA RIVER QUALITY SURVEYS: BIOLOGICAL

Biotic indices ("Q Values") reflect average water quality at any location as follows:

Q Value*	WFD Status	Pollution Status	Condition **
Q5, Q4-5	High	Unpolluted	Satisfactory
Q4	Good	Unpolluted	Satisfactory
Q3-4	Moderate	Slightly polluted	Unsatisfactory
Q3, Q2-3	Poor	Moderately polluted	Unsatisfactory
Q2, Q1-2,	Bad	Seriously polluted	Unsatisfactory

* These Values are based primarily on the relative proportions of pollution sensitive to tolerant macroinvertebrates (the young stages of insects primarily but also snails, worms, shrimps etc.) resident at a river site. The intermediate values (Q1-2, 2-3, 3-4 etc.) denote transitional conditions. The scheme mainly reflects the effects of organic pollution (i.e. de-oxygenation and eutrophication) but where a toxic effect is apparent or suspected the suffix '0' is added to the biotic index (e.g. Q1/0, 2/0 or 3/0). An asterisk after the Q value (e.g. Q3*) indicates something worthy of special attention, typically heavy siltation of the substratum.

** "Condition" refers to the likelihood of interference with beneficial or potential beneficial uses.

Also presented is a description of the exact location surveyed with relevant OS Grid Reference, WFD river water body code and relevant Local Authority.

Hydrometric Area 15

Name	Code
ARIGNA (KILKENNY)	15A01
ARRIGLE	15A02
BALLINTAGGART STREAM	15B06
BALLYROAN	15B01
BALLYTARSNA	15B03
BAUNBALLINLOUGH STREAM	15B12
BREGAGH (KILKENNY)	15B02
BROWNSTOWN (POCOCKE)	15B04
CAHERLESK STREAM	15C12
CAPPANACLOGHY	15C06
CASTLECOMER STREAM	15C01
Castletown Trib	15C02
CLOGH	15C03
CLOGHNAGH	15C04
CLONAWOOLAN STREAM	15C19
COALBROOK STREAM	15C20
DELOUR	15D01
DESART STREAM	15D04
DININ (MAIN CHANNEL)	15D02
DININ (NORTH)	15D07
DININ (SOUTH)	15D08
DONAGHMORE STREAM	15D03

Name	Code
ENNISNAG STREAM	15E02
ERKINA	15E01
ERRILL	15E03
GARRANACOOL STREAM	15G10
GLORY	15G01
GORTEENAHILLA	15G08
GOUL	15G02
GULLY	15G03
HOLLY PARK STREAM	15H01
KILLEEN (DELOUR)	15K01
KING'S (KILKENNY)	15K02
LISDOWNEY	15L02
LITTLE ARRIGLE	15L01
MOUNTRATH	15M01
MUCKALEE	15M02
MUNSTER	15M03
NEEDLEFORD STREAM	15N04
NEWTOWN (GOUL)	15N03
NORE	15N01
NUENNA	15N02
OWVEG (NORE)	15O01
RATHDOWNEY STREAM	15R03
STONYFORD STREAM (KILKENNY)	15S01
TONET	15T01

Name	Code
TULLAROAN STREAM	15T02

ARIGNA (KILKENNY) 15A01

Date Surveyed (last survey year only): 22/06/22

Biological Quality Rating (Q Values)

Station Code	1987	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15A010400	4	4-5	3-4	3-4	3-4	4	4	4	4	3-4	3-4	3-4

Most Recent Assessment:

The Arigna remains in unsatisfactory Moderate condition at the single site assessed in 2022.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15A010400	Arigna Br	IE_SE_15A010400	242466	164078	Kilkenny County Council

ARRIGLE

15A02

Date Surveyed (last survey year only): 26/07/22, 27/07/22

Biological Quality Rating (Q Values)

Station Code	1980	1986	1989	1991	1995	1998	2001	2004	2007	2010	2013	2016	2019	2022
RS15A020100	4	4	4	3-4	3-4	3-4	3-4	3-4	3-4	4	4	4	4	3-4
RS15A020200	4	4	4	4										
RS15A020250			4	4	4	4	4	4		4-5	4	4-5	4-5	4-5
RS15A020300	5	4-5	4	3-4	4	4	4	3-4	4	4-5	3-4*	3-4	4	4

Most Recent Assessment:

The invertebrate fauna of the Arrigle indicates a slight decline to unsatisfactory moderate ecological condition at the uppermost site in 2022, but high and good ecological conditions maintained at the middle and downstream sites, respectively.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15A020100	Br W of Ballyconnaught	IE_SE_15A020100	262183	130057	Kilkenny County Council
RS15A020200	ARRIGLE - Br SW of Garrandarragh	IE_SE_15A020250	260706	132201	Kilkenny County Council
RS15A020250	ARRIGLE - Br WSW of Bohilla	IE_SE_15A020250	260438	135032	Kilkenny County Council
RS15A020300	Br u/s Nore River confl	IE_SE_15A020300	260806	138179	Kilkenny County Council

BALLINTAGGART STREAM

15B06

Date Surveyed (last survey year only): 02/10/95

Biological Quality Rating (Q Values)

Station Code	1993	1995
RS15B060300	4	Dry

Most Recent Assessment:

This stream was dry in autumn 1995.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15B060300	BALLINTAGGART STREAM - Br W of Scotsborough	IE_SE_15K020560	233955	147664	Tipperary County Council

BALLYROAN 15B01

Date Surveyed (last survey year only): 05/08/22, 08/08/22

Biological Quality Rating (Q Values)

Station Code	1980	1982	1984	1987	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15B010030				4	4										
RS15B010050				3	3-4										
RS15B010100				3	3-4	4	3-4	4	3-4	4	3-4	3-4	3	3-4	3-4
RS15B010150		4	4	3-4	4	3-4	3-4	3	3-4						
RS15B010200	3	2-3	2-3	3	4	3	3	3	3	3	3	3	3-4	3-4	3-4

Most Recent Assessment:

Both stations (0100 and 0200) remain in unsatisfactory condition in 2022 with Moderate ecological condition recorded again.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15B010030	BALLYROAN - Dooary Br	IE_SE_15B010100	247587	186574	Laois County Council
RS15B010050	BALLYROAN - Br in Ballyroan	IE_SE_15B010100	246700	188682	Laois County Council
RS15B010100	Sallagh Br	IE_SE_15B010100	244375	187569	Laois County Council
RS15B010150	BALLYROAN - Ballydine Br	IE_SE_15B010200	243130	185601	Laois County Council
RS15B010200	Gloreen Br	IE_SE_15B010200	242070	185176	Laois County Council

BALLYTARSNA

15B03

Date Surveyed (last survey year only): 02/10/95

Biological Quality Rating (Q Values)

Station Code	1987	1988	1989	1991	1995
RS15B030700	2-3	3	3	3	Dry

Most Recent Assessment:

River was dry in summer/autumn of 1995 precluding sampling.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15B030700	BALLYTARSNA - Br u/s Nore River confl	IE_SE_15N010900	240789	186199	Laois County Council

BAUNBALLINLOUGH STREAM 15B12

Date Surveyed (last survey year only): 16/06/22

Biological Quality Rating (Q Values)

Station Code	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15B120080	3-4	3	3-4	3-4	3	3-4	3	3	3	3	3

Most Recent Assessment:

In 2022, there has been no change in the Poor ecological condition of the Baunballinlough Stream.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15B120050	BAUNBALLINLOUGH STREAM - Br S of Baunballinlough	IE_SE_15B120080	227936	169270	Kilkenny County Council
RS15B120080	Br u/s confl with River Goul	IE_SE_15B120080	228912	168495	Kilkenny County Council

BREGAGH (KILKENNY) 15B02

Date Surveyed (last survey year only): 06/07/22, 07/07/22

Biological Quality Rating (Q Values)

Station Code	1980	1982	1985	1989	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15B020050				4		Dry									
RS15B020080				3		3	3-4	3	3	3	3-4	3-4	3*	3	3
RS15B020300	2	3	3	2-3											
RS15B020350	3			2-3	2-3	3	3	3	3	3	3	3	3	3-4	
RS15B020810															3-4

Most Recent Assessment:

While the lower site had to be moved due to an access problem and the habitat of the upper site had been significantly altered, no change was found in the ecological condition of the Breagagh in 2022: Poor in the upper part of the river improving slightly to Moderate ecological conditions (but still unsatisfactory), near its confluence with the Nore main channel.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15B020050	BREGAGH (KILKENNY) - Br SE of Ballyfrunk	IE_SE_15B020080	242711	153818	Kilkenny County Council
RS15B020080	Br NW of Aughtanny	IE_SE_15B020080	245985	153343	Kilkenny County Council
RS15B020300	Br E of Kilcreen House	IE_SE_15B020350	250285	156164	Kilkenny County Council
RS15B020350	Brewery Br	IE_SE_15B020350	250440	156257	Kilkenny County Council
RS15B020810	Footbridge d/s of Brewery Br.	IE_SE_15N011950	250564	156376	Kilkenny County Council

BROWNSTOWN (POCOCKE) 15B04

Date Surveyed (last survey year only): 07/07/22

Biological Quality Rating (Q Values)

Station Code	1989	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15B040100	3-4											
RS15B040200	4											
RS15B040300	2-3/0		Dry									
RS15B040600	3-4		Dry									
RS15B040800	3-4	3	3	3-4	3-4	3-4						
RS15B041100	4	3-4	4	3-4	4	4	4	3-4*	3*	3	3-4*	3

Most Recent Assessment:

While a drop to Poor ecological condition was recorded at the single site assessed on this tributary of the Nore in 2022, no siltation impact was noted at the sampling site upstream of the bridge on this occasion. However, downstream of the bridge, there were several cattle in the water at the time of sampling and poaching and siltation was evident.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15B040100	BROWNSTOWN (POCOCKE) - Br E of Ballyfoyle	IE_SE_15B041100	253844	164302	Kilkenny County Council
RS15B040200	BROWNSTOWN (POCOCKE) - Br NW of Kilkieran Cross-Roads	IE_SE_15B041100	254029	161179	Kilkenny County Council
RS15B040300	BROWNSTOWN (POCOCKE) - Br SW of Kilkieran Cross-Roads	IE_SE_15B041100	253938	160913	Kilkenny County Council

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15B040600	BROWNSTOWN (POCOCKE) - Br S of Carrigeen	IE_SE_15B041100	252968	159162	Kilkenny County Council
RS15B040800	BROWNSTOWN (POCOCKE) - Br S of Brownstown	IE_SE_15B041100	252392	157257	Kilkenny County Council
RS15B041100	Br u/s Nore R confl	IE_SE_15B041100	253037	154837	Kilkenny County Council

CAHERLESK STREAM

15C12

Date Surveyed (last survey year only): 27/07/22

Biological Quality Rating (Q Values)

Station Code	1993	1995	1998	2001	2004	2007	2010	2011	2013	2016	2017	2019	2022
RS15C120200	3												
RS15C120400		3	3	3	3	3	1	3	2-3*	1-2*	2-3	3	2-3*

Most Recent Assessment:

The Caherlesk Stream, upstream of the King's River confluence remains in poor ecological condition, with a slight decline since last surveyed in 2019. Siltation is also impacting the invertebrate fauna here and cattle dung was noted in the stream channel.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15C120200	CAHERLESK STREAM - Br near Ballytobin House	IE_SE_15C120400	244861	141057	Kilkenny County Council
RS15C120400	Br u/s King's R confl	IE_SE_15C120400	245603	143156	Kilkenny County Council

CAPPANACLOGHY

15C06

Date Surveyed (last survey year only): 05/08/22, 10/08/22

Biological Quality Rating (Q Values)

Station Code	1987	1988	1989	1990	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15C060100	3-4														
RS15C060400	2	2	2	2	3	2	3	2	3-4	3	3	3	3	2-3	3
RS15C060500				2											
RS15C060600	3				3*										
RS15C060700	1	2-3	3	3	3	3	4	3-4	3-4						
RS15C060800	2	3			3										
RS15C060900						3	4	3	4	4		4	4	3	3*

Most Recent Assessment:

The Cappanacloghy is still in unsatisfactory condition with Poor ecological condition assigned at both stations surveyed (0400, 0900). A very slight improvement from Q2-3 to Q3 was observed at Station 0400 but it stills remains in Poor ecological condition. Further downstream a Q3* was assigned with heavy siltation observed.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15C060100	CAPPANACLOGHY - Br SE of Kylealiss	IE_SE_15C060600	239009	198848	Laois County Council
RS15C060400	Br E of Clooncullen	IE_SE_15C060600	239672	197430	Laois County Council
RS15C060500	CAPPANACLOGHY - W of Gorteen	IE_SE_15C060600	240257	196342	Laois County Council

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15C060600	CAPPANACLOGHY - Cloncourse Br	IE_SE_15C060600	241188	195422	Laois County Council
RS15C060700	CAPPANACLOGHY - The Hollow Br	IE_SE_15C060900	241191	193731	Laois County Council
RS15C060800	CAPPANACLOGHY - Doon Br	IE_SE_15C060900	240472	191534	Laois County Council
RS15C060900	Br E of Cromoge	IE_SE_15C060900	240304	189582	Laois County Council

CASTLECOMER STREAM 15C01

Date Surveyed (last survey year only): 04/08/22

Biological Quality Rating (Q Values)

Station Code	1980	1984	1988	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15C010100	4	4	4	4	4	4	3-4	3-4	4	4	4	3-4	3-4	4

Most Recent Assessment:

For the first time since 2013 the Castlecomer was found to be in Good ecological condition in 2022 as it flows through the village.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15C010100	Br at N end of Castlecomer	IE_SE_15C010100	253285	173188	Kilkenny County Council

Castletown Trib

15C02

Date Surveyed (last survey year only): 28/06/05

Biological Quality Rating (Q Values)

Station Code	1993	1995	1998
RS15C020300	3	3	3

Most Recent Assessment:

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15C020300	Br u/s confl with Castletown Tribu	IE_SE_15R031100	227356	173559	Kilkenny County Council

CLOGH

15C03

Date Surveyed (last survey year only): 03/08/22

Biological Quality Rating (Q Values)

Station Code	1971	1975	1980	1985	1988	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15C030100			4	4	4		Dry									
RS15C030200					4	4	3-4	4	3-4	4						
RS15C030300	5	4-5	4	3-4	3-4	3-4					4	4	3-4	4	3-4	3-4
RS15C030400							3-4	3-4	3-4	3-4						

Most Recent Assessment:

The Clogh remained at Moderate ecological condition in 2022. A high abundance of filamentous green algae was present at the time of sampling indicating nutrient enrichment. This was reflected in an unbalanced invertebrate community, dominated by pollution tolerant taxa.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15C030100	CLOGH - The Swan Br	IE_SE_15C030300	256408	182408	Laois County Council
RS15C030200	CLOGH - Slatt Br	IE_SE_15C030300	256473	180703	Laois County Council
RS15C030300	Clogh Br	IE_SE_15C030300	256563	179010	Kilkenny County Council
RS15C030400	CLOGH - Ford (Br) d/s Clogh Br	IE_SE_15D070200	256253	178566	Kilkenny County Council

CLOGHNAGH

15C04

Date Surveyed (last survey year only): 03/08/22

Biological Quality Rating (Q Values)

Station Code	1988	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15C040300	3-4	3-4	3-4	4	3-4	3-4						
RS15C040400	4	4-5	4	4	3-4	4	4	4	4	4	3-4	4

Most Recent Assessment:

The Cloghnagh just upstream of the Dinin confluence has improved back to Good ecological condition following a decline to Moderate in 2019.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15C040300	CLOGHNAGH - Br W of Maudlin	IE_SE_15C040400	249979	169263	Kilkenny County Council
RS15C040400	Br u/s Dinin R confl	IE_SE_15C040400	250769	167363	Kilkenny County Council

CLONAWOOLAN STREAM

15C19

Date Surveyed (last survey year only): 05/08/22

Biological Quality Rating (Q Values)

Station Code	1987	1988	1989	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15C191100	1	2	2-3	2-3	2-3	3-4	2	2-3	2-3	2-3	3	3	3	3

Most Recent Assessment:

The Clonawoolan once again remains in Poor ecological condition. The river has been in an unsatisfactory condition since monitoring began in the late 1980's.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15C191100	Br S of Coole	IE_SE_15C191100	242862	189067	Laois County Council

COALBROOK STREAM

15C20

Date Surveyed (last survey year only): 29/06/22

Biological Quality Rating (Q Values)

Station Code	1987	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15C200040	4	4-5	4	4	4-5	4	4	4	4	4	4	4

Most Recent Assessment:

Good ecological condition maintained in 2022.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15C200020	COALBROOK STREAM - Br W of Bolintlea	IE_SE_15C200040	229226	151808	Tipperary County Council
RS15C200040	Br u/s confl with Kings River	IE_SE_15C200040	229790	149945	Tipperary County Council

DELOUR 15D01

Date Surveyed (last survey year only): 09/08/22, 10/08/22

Biological Quality Rating (Q Values)

Station Code	1976	1980	1986	1989	1991	1995	1998	2001	2005	2007	2011	2013	2016	2019	2022
RS15D010060				5	5	5	4-5	4	4	4	4-5	4-5	4-5	4	4-5
RS15D010100		5	4-5	5	4-5										
RS15D010150						3-4*	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5
RS15D010200		5	4-5	4	4-5										
RS15D010300	4-5	4	4												
RS15D010400				4-5	4-5	4-5	4-5	4	4	4-5	4-5	4-5	4-5	4	4
RS15D010440															4-5

Most Recent Assessment:

The Delour is in satisfactory condition at all stations surveyed in 2022. A welcome improvement from Good to High ecological condition was recorded in the uppermost station (0060). High ecological condition was maintained at the next station (0150). Good ecological condition was again recorded at the station 0400 at Derrynaseera Br. This station has not recovered from the decline observed in 2019 from High to Good ecological condition. Cattle access and localised silt pressures were noted on the day of survey. An additional site (station 0440) d/s of Derrynaseera Br and the confluence of the Tonet River was surveyed in error in 2022 and was found be a High ecological condition.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15D010060	Br at Sallybrook	IE_SE_15D010060	230179	200409	Laois County Council
RS15D010100	DELOUR - Lacca Br	IE_SE_15D010150	229178	198053	Laois County Council

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15D010150	Br u/s Delour Br	IE_SE_15D010150	228984	195569	Laois County Council
RS15D010200	DELOUR - Delour Br	IE_SE_15D010400	228019	194670	Laois County Council
RS15D010300	DELOUR - Annagh Br	IE_SE_15D010400	229097	193503	Laois County Council
RS15D010400	Derrynaseera Br	IE_SE_15D010400	229478	192449	Laois County Council
RS15D010440	Just downstream of Tonet River confluence	IE_SE_15N010600	229531	192313	Laois County Council

DESART STREAM

15D04

Date Surveyed (last survey year only): 06/07/22

Biological Quality Rating (Q Values)

Station Code	1989	1991	1994	1995	1998	2001	2004	2007	2010	2013	2016	2019	2022
RS15D040200	3												
RS15D040300	3-4	3		3	3-4	3	3						
RS15D040500	2-3	2	3	2-3	3-4	3	3	3	3-4	3	3	3	3

Most Recent Assessment:

The Desart Stream remains in the Poor ecological condition recorded here since 2013.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15D040200	DESART STREAM - Clasheen Br	IE_SE_15D040500	243064	149928	Kilkenny County Council
RS15D040300	DESART STREAM - Br S of Desart Demesne	IE_SE_15D040500	243694	147555	Kilkenny County Council
RS15D040500	Br d/s Br SE of Knockreagh	IE_SE_15D040500	244077	145087	Kilkenny County Council

DININ (MAIN CHANNEL) 15D02

Date Surveyed (last survey year only): 02/08/22

Biological Quality Rating (Q Values)

Station Code	1971	1975	1979	1985	1988	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2020	2022
RS15D020700	5		4-5	4	4	3-4	3-4	4	3-4	3-4	4	4	4	3-4	3-4		4
RS15D020760					4	3-4	3-4	4	4	3-4							
RS15D020800		5	4-5	3-4	4	4	4	4	4	3-4	4	4	3-4	4	3-4	3-4	3-4

Most Recent Assessment:

In 2022 the upper station (0700) improved to Good ecological condition. Nevertheless station 0800 remained Moderate with nutrient enrichment still an issue and an unbalanced biological community.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15D020700	Lisnafunshion	IE_SE_15D020700	252180	168082	Kilkenny County Council
RS15D020760	DININ (MAIN CHANNEL) - Br E of Jenkinstown Ho	IE_SE_15D020800	249550	164595	Kilkenny County Council
RS15D020800	Dinin Br	IE_SE_15D020800	247926	162880	Kilkenny County Council

DININ (NORTH) 15D07

Date Surveyed (last survey year only): 03/08/22

Biological Quality Rating (Q Values)

Station Code	1971	1975	1979	1981	1985	1988	1989	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15D070070						4-5		4										
RS15D070080						2	3	3	3	3	3-4	3-4	4	3-4	3	4	3-4	3-4
RS15D070100			3-4	4-5	3-4	3-4		4										
RS15D070125						3-4		3-4										
RS15D070200			4	4	4				3-4	4	3-4	4	4	4	4	4	3-4	3-4
RS15D070250						4		4										
RS15D070300				4-5	4	4		4	3-4	4	4	4						
RS15D070350	5	4			3-4	3-4		3-4										
RS15D070400			4-5		4				4	3-4	3-4	3-4	4	4	4	3-4	3-4	4

Most Recent Assessment:

In 2022 the uppermost stations (0080 and 0200) were still unsatisfactory maintaining the decline to Moderate ecological condition observed in 2019. The lower station (0400) however showed an improvement to Good ecological condition and is now satisfactory.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15D070070	DININ (NORTH) - Br SW of Moore's Cross Rds	IE_SE_15D070080	260091	177685	Laois County Council

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15D070080	Killeen Br	IE_SE_15D070080	259785	177385	Laois County Council
RS15D070100	DININ (NORTH) - Br N of Crettyard House (aka Crettyard or Ormond Br)	IE_SE_15D070200	258823	177473	Laois County Council
RS15D070125	DININ (NORTH) - Doonane Br	IE_SE_15D070200	257892	177736	Kilkenny County Council
RS15D070200	Massford Br	IE_SE_15D070200	255682	177325	Kilkenny County Council
RS15D070250	2 km d/s Massford Br.	IE_SE_15D070250	254253	175791	Kilkenny County Council
RS15D070300	DININ (NORTH) - Br in Castlecomer	IE_SE_15D070400	253652	173001	Kilkenny County Council
RS15D070350	DININ (NORTH) - Ballyhimmin	IE_SE_15D070400	253542	171632	Kilkenny County Council
RS15D070400	Dysart Br (North Channel)	IE_SE_15D070400	253137	170031	Kilkenny County Council

DININ (SOUTH) 15D08

Date Surveyed (last survey year only): 03/08/22, 04/08/22

Biological Quality Rating (Q Values)

Station Code	1979	1981	1985	1988	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15D080450		5	5	4	4-5	4	3-4	4	4	4	4-5	4	3-4	4	4
RS15D080500	5	5	5			4	4	3-4	4						
RS15D080600	4-5	5	4-5	4-5	4	3-4	4	4	3-4	4	4	4	4	4	4

Most Recent Assessment:

Both stations surveyed in the Dinin (South) maintained their Good ecological condition in 2022. At the lowermost station (0600) there were signs of nutrient enrichment with a lot of filamentous green algae present and the sample was only just achieving the Good ecological condition assigned.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15D080450	Black Br	IE_SE_15D080450	261802	170092	Carlow County Council
RS15D080500	DININ (SOUTH) - Br S of Uskerty Wood	IE_SE_15D080600	257473	169453	Kilkenny County Council
RS15D080600	Dysart Br	IE_SE_15D080600	253090	169833	Kilkenny County Council

DONAGHMORE STREAM 15D03

Date Surveyed (last survey year only): 16/06/22

Biological Quality Rating (Q Values)

Station Code	1989	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15D030200	4	3-4										
RS15D030400	3-4	3-4	3	4	3-4	4		4	4	3-4	3	3-4
RS15D030600	4	3-4										
RS15D030700	4	3-4	3	4	3-4	3-4	3-4	3-4	3-4	3-4	2-3*	3-4

Most Recent Assessment:

While the condition of the Donaghmore Stream is still unsatisfactory, an improvement since 2019 was recorded at both sites assessed with the invertebrate fauna now indicating Moderate ecological condition.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15D030200	DONAGHMORE STREAM - Br u/s Brockry Br	IE_SE_15D030700	220956	181095	Laois County Council
RS15D030400	DONAGHMORE STREAM - Br d/s Brockry Br	IE_SE_15D030700	223331	181100	Laois County Council
RS15D030600	DONAGHMORE STREAM - Br u/s Donaghmore	IE_SE_15D030700	226185	180865	Laois County Council
RS15D030700	Br in Donaghmore	IE_SE_15D030700	226757	180131	Laois County Council

ENNISNAG STREAM

15E02

Date Surveyed (last survey year only): 27/07/22

Biological Quality Rating (Q Values)

Station Code	1989	1991	1995	1998	2001	2004	2007	2010	2013	2016	2019	2022
RS15E020500	3											
RS15E020700	3-4	4	3-4*	3-4	3-4	3	3-4	3-4	3	3	3	3

Most Recent Assessment:

The Ennisnag Stream remains at Poor ecological quality in 2022, as has been the case since 2013.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15E020500	ENNISNAG STREAM - Br SE of Cottrellsrath	IE_SE_15E020700	249364	146679	Kilkenny County Council
RS15E020700	Br in Ennisnag	IE_SE_15E020700	252497	144020	Kilkenny County Council

ERKINA

15E01

Date Surveyed (last survey year only): 16/06/22, 17/06/22

Biological Quality Rating (Q Values)

Station Code	1976	1980	1985	1988	1989	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15E010040				3		3-4	3	3-4	3-4	3-4	3-4	3-4	3-4	4	4	3-4*
RS15E010050				3		3										
RS15E010100	4-5	4	4	3-4		4	4	3-4	4	3-4						
RS15E010170																3
RS15E010180															3	
RS15E010200	4	4	2	2-3	3	3	2-3	3-4	3	3	3-4	3-4	3	3-4	3-4	3-4
RS15E010250		3	2-3	3		3-4										
RS15E010300		3	3	3		3-4	3	3-4	3-4	3-4	3-4	3-4	3-4	3	3-4	3
RS15E010350				3-4		3-4										
RS15E010400	4-5	4	4	4			4	4	3-4	4						
RS15E010500		4	4	4		3-4										
RS15E010550			4	4		3-4	3-4	4	3-4	3-4	3-4	4	3-4	3-4	3-4	3-4

Most Recent Assessment:

All five site assessed biologically on the Erkina in 2022 were found to be in unsatisfactory condition. Station 0300 fell from the Moderate ecological condition recorded in 2019, back to the Poor ecological condition previously recorded in 2016 while the upper station (0040) declined from good to unsatisfactory moderate ecological conditions.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15E010040	Br NW of Templequain	IE_SE_15E010040	223220	175546	Laois County Council
RS15E010050	ERKINA - Br at Lyroge	IE_SE_15E010100	225431	177072	Laois County Council
RS15E010100	Br SE of Beechmount	IE_SE_15E010100	226684	178756	Laois County Council
RS15E010170	Upstream of TPEFF1600D0288SW001	IE_SE_15E010200	228374	178935	Laois County Council
RS15E010180	Br. at WWTP discharge	IE_SE_15E010200	228505	178810	Laois County Council
RS15E010200	Coneyburrow Br	IE_SE_15E010200	229080	178367	Laois County Council
RS15E010250	ERKINA - Coolkerry Br	IE_SE_15E010300	230303	177740	Laois County Council
RS15E010300	ERKINA - Carrick Br	IE_SE_15E010300	231588	177904	Laois County Council
RS15E010350	ERKINA - Boston Br (d/s Carrick Br)	IE_SE_15E010550	234146	177758	Laois County Council
RS15E010400	Br nr Black Island (Curragh)	IE_SE_15E010550	236314	178165	Laois County Council
RS15E010500	ERKINA - Footbridge 0.5 km u/s Durrow Br	IE_SE_15E010550	240567	177481	Laois County Council
RS15E010550	Durrow Br	IE_SE_15E010550	240891	177473	Laois County Council

ERRILL

15E03

Date Surveyed (last survey year only): 08/06/23

Biological Quality Rating (Q Values)

Station Code	2005	2007	2010	2013	2016	2019	2022	2023
RS15E030500	3-4	3-4	3-4	3-4	4	4	3/0	3-4

Most Recent Assessment:

While the toxic impact at Eglish Bridge that was recorded in 2022 was no longer evident in June 2023, the invertebrate community indicated only Moderate ecological quality here on this occasion.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15E030500	Eglish Br	IE_SE_15E030500	224401	178080	Laois County Council

GARRANACOOL STREAM

15G10

Date Surveyed (last survey year only): 29/06/22

Biological Quality Rating (Q Values)

Station Code	1987	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15G100060	4	3-4	4	3-4	4	2	3-4	4	4	4	4	4

Most Recent Assessment:

Continuing satisfactory with Good ecological condition in 2022.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15G100060	Br SE of Garranacool	IE_SE_15G100060	231229	149909	Tipperary County Council

GLORY

15G01

Date Surveyed (last survey year only): 27/07/22

Biological Quality Rating (Q Values)

Station Code	1980	1986	1989	1991	1995	1998	2001	2004	2007	2010	2013	2016	2019	2022
RS15G010020			4	4										
RS15G010040			3-4	3	1									
RS15G010045					1	2-3	2	2	2-3	2-3	3-4	3*	3	3
RS15G010100	5	4	3	4	3-4	4	3-4	3						
RS15G010200	5	4	4	3-4	3	3-4	4	3	3-4	4	4	3-4	3-4	3-4
RS15G010300	5	4	4	4	3	4	4	3-4	4	4	4	3-4	3-4	3-4

Most Recent Assessment:

In 2022, the macroinvertebrate community indicated that the condition of the Glory is still unsatisfactory, with Poor ecological condition at the uppermost site (Station 0045) and Moderate ecological condition continuing at the other two sites.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15G010020	GLORY - Br SW of Kilmaganny	IE_SE_15G010045	244799	135082	Kilkenny County Council
RS15G010040	GLORY - Br N of Kilmaganny	IE_SE_15G010045	245767	135219	Kilkenny County Council
RS15G010045	0.1 km d/s Br N of Kilmaganny	IE_SE_15G010045	245884	135200	Kilkenny County Council
RS15G010100	GLORY - Br SE of Rogerstown Bridge	IE_SE_15G010190	246832	137120	Kilkenny County Council

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15G010200	Br E of Raheen	IE_SE_15G010300	248503	139871	Kilkenny County Council
RS15G010300	Br u/s King's R confl	IE_SE_15G010300	248386	143143	Kilkenny County Council

GORTEENAHILLA

15G08

Date Surveyed (last survey year only): 04/08/22

Biological Quality Rating (Q Values)

Station Code	1993	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15G080300	4	3	3	3-4	3-4	3-4	3-4	4	2-3	3-4	3-4
RS15G080500	4	Dry									

Most Recent Assessment:

The Gorteenahilla Stream is still in the unsatisfactory, Moderate ecological condition recorded in the previous assessment in 2019.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15G080300	Br N of Balleen	IE_SE_15G080300	238237	167333	Kilkenny County Council
RS15G080500	GORTEENAHILLA - Br at Mills in Freshford	IE_SE_15N020400	240345	164960	Kilkenny County Council

GOUL 15G02

Date Surveyed (last survey year only): 16/06/22, 17/06/22

Biological Quality Rating (Q Values)

Station Code	1976	1980	1984	1987	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15G020100		3	3-4	3-4	4										
RS15G020200														3-4	3-4
RS15G020250				3	3	3	3	3-4	3	3-4	3	3-4	3-4	3	3
RS15G020300			3-4	4	3-4	3-4	3-4	3-4	3	3-4	3-4	3-4	3-4	3-4	3
RS15G020360						3-4	4	3-4	4	4	3-4	3-4	3-4	3-4	3-4
RS15G020400		4	3-4	4	3-4										
RS15G020450				4	4	4	4	4	4						
RS15G020500	4-5	4	4	4	4	3-4	3-4	3-4	3-4	4	4	3-4	3	3	3

Most Recent Assessment:

The condition of the River Goul was again assessed as being unsatisfactory throughout in 2022, with Moderate ecological condition recorded at Stations 0200 and 0360, and Poor ecological condition recorded at Stations 0250, 0300 and 0500. Apart from a decline from Moderate to Poor ecological condition at Station 0300, all other Stations were found to be in the same condition as when last assessed in 2019. Analysis of dead crayfish found at Station 0360 confirmed the presence of crayfish plague.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15G020100	Br NW of Urlingford	IE_SE_15G020110	228073	163753	Kilkenny County Council

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15G020200	Br W of Johnstown	IE_SE_15G020200	228302	166794	Kilkenny County Council
RS15G020250	Br 2 km NW of Johnstown	IE_SE_15G020300	229067	167924	Kilkenny County Council
RS15G020300	Fertagh Br	IE_SE_15G020300	230623	170311	Kilkenny County Council
RS15G020360	GOUL - 2nd Br u/s Aghmacart Br	IE_SE_15G020360	231553	173521	Laois County Council
RS15G020400	GOUL - Aghmacart Br	IE_SE_15G020500	233047	173970	Laois County Council
RS15G020450	GOUL - Maynebog Br	IE_SE_15G020500	234415	174866	Laois County Council
RS15G020500	Br near Newtown Mills	IE_SE_15G020500	236355	177363	Laois County Council

GULLY

15G03

Date Surveyed (last survey year only): 09/06/22, 17/06/22, 20/06/22

Biological Quality Rating (Q Values)

Station Code	1976	1980	1984	1987	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15G030060				3-4	3-4	3-4	3-4	3	3	3	3	3	3	3	3
RS15G030100		4	3-4	3	4	3	3-4	4	4	4	4	3	3-4	3*	4
RS15G030200	5	5	4	3-4	4	3-4	4	3	4						
RS15G030300	5	5	5	3-4	4	4	4	4	4	4	4	4	4	4	4

Most Recent Assessment:

With Station 0100 improving to Good ecological condition in 2022, the lower two sites on the Gully are now satisfactory, but the uppermost site remains in Poor ecological condition.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15G030060	Gully Br (Upper)	IE_SE_15G030060	231414	187626	Laois County Council
RS15G030100	Gortclea Br (1km N.E. of Ballycu	IE_SE_15G030100	236069	186407	Laois County Council
RS15G030200	GULLY - Gully Br	IE_SE_15G030300	239016	182559	Laois County Council
RS15G030300	Colooney Br	IE_SE_15G030300	240487	179261	Laois County Council

HOLLY PARK STREAM

15H01

Date Surveyed (last survey year only): 04/08/22

Biological Quality Rating (Q Values)

Station Code	2019	2022
RS15H010300	3-4	3-4

Most Recent Assessment:

In 2022 the Holly Park Stream was again unsatisfactory at Moderate ecological condition.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15H010300	Br u/s Dinan Confl. (Sally's Br)	IE_SE_15H010300	260855	179118	Laois County Council

KILLEEN (DELOUR) 15K01

Date Surveyed (last survey year only): 11/08/22

Biological Quality Rating (Q Values)

Station Code	1987	1991	1995	1998	2001	2005	2007	2011	2013	2016	2019	2022
RS15K010200	5	5	4-5	4-5	4-5	4-5	4	4-5	4-5	4	4	4
RS15K010400	5	5	5	4-5	4-5	4-5						

Most Recent Assessment:

As in the previous two surveys (2016, 2019) the Killeen (Delour) remains in Good ecological condition. While this is satisfactory the station has not recovered the High ecological condition that was regularly recorded in previous surveys.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15K010200	Cardtown Br (NE of Cappanarrow)	IE_SE_15K010400	227162	197951	Laois County Council
RS15K010400	KILLEEN (DELOUR) - Br u/s Delour River	IE_SE_15K010400	228710	195820	Laois County Council

KING'S (KILKENNY) 15K02

Date Surveyed (last survey year only): 06/07/22, 27/07/22, 29/06/22

Biological Quality Rating (Q Values)

Station Code	1971	1975	1979	1983	1987	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15K020100			4-5	4	4	4-5										
RS15K020200			4-5	4	4	3	4	3-4	4	4	4	4	4	4	4	4
RS15K020250					3	3-4		4	4	4						
RS15K020300	4-5	3-4	4-5	4	4		Dry									
RS15K020400		4	5	4-5	3-4		Dry									
RS15K020500	4		4-5	4	3	3-4	3	3-4	3	3	3-4	3-4	4	4	4	4
RS15K020600	4	3-4	4	3-4	3	3		3-4	3-4	3-4	4	4	3-4	4	3-4	4
RS15K020700				4	3-4	3-4	3-4	3-4	3-4	3-4						
RS15K020800	4-5	4	4-5	4	3-4	4					3-4	3-4	3-4	3-4	3-4	3-4
RS15K020850					3-4	3-4	3	3-4	3-4	3-4						
RS15K020900	4-5	4	4-5	4	3-4	3-4	3	3	3-4	3-4	3-4	3-4	3-4	4	3-4	3-4

Most Recent Assessment:

With the invertebrate fauna indicating a slight improvement from Moderate to Good ecological condition at Station 0600 and no change at the other four stations assessed, the condition of the King's River in 2022 is satisfactory at the upper three stations and unsatisfactory at the lower two.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15K020100	Ballingarry Br	IE_SE_15K020200	229606	149023	Tipperary County Council
RS15K020200	At Garrynoe	IE_SE_15K020200	229436	147638	Tipperary County Council
RS15K020250	KING'S (KILKENNY) - Second Br u/s Island's Br	IE_SE_15K020400	231139	144755	Tipperary County Council
RS15K020300	KING'S (KILKENNY) - Island's Br	IE_SE_15K020400	233121	144142	Tipperary County Council
RS15K020400	Br near Physicianstown	IE_SE_15K020400	237108	143807	Kilkenny County Council
RS15K020500	Br in Callan	IE_SE_15K020560	241439	143933	Kilkenny County Council
RS15K020600	2 km d/s Callan - nr Old Mill	IE_SE_15K020600	243232	142711	Kilkenny County Council
RS15K020700	KING'S (KILKENNY) - Br 3.8 km u/s Kells	IE_SE_15K020910	246480	143548	Kilkenny County Council
RS15K020800	Kells Br	IE_SE_15K020910	249410	143689	Kilkenny County Council
RS15K020850	KING'S (KILKENNY) - Near Kellsborough House	IE_SE_15K020910	250433	143392	Kilkenny County Council
RS15K020900	Br N of Stonyford	IE_SE_15K020910	252493	143916	Kilkenny County Council

LISDOWNEY

15L02

Date Surveyed (last survey year only): 17/06/22

Biological Quality Rating (Q Values)

Station Code	1991	1995	1998	2001	2005	2007	2010	2013	2016	2018	2019	2020	2022
RS15L020100		4	3-4	3-4	4	4	4	3-4	3-4	4	3-4	3-4	3-4
RS15L020200	3												
RS15L020300	3	Dry											

Most Recent Assessment:

Station 0100 remains at the unsatisfactory Moderate ecological condition recorded in 2019 and 2020.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15L020100	Br N of Lisdowney Cross Rds	IE_SE_15L020100	241096	171295	Kilkenny County Council
RS15L020200	LISDOWNEY - Br E of Lisdowney Cross Rds	IE_SE_15N011600	241462	170979	Kilkenny County Council
RS15L020300	LISDOWNEY - Grange Br	IE_SE_15N011600	243631	168623	Kilkenny County Council

LITTLE ARRIGLE

15L01

Date Surveyed (last survey year only): 31/12/91

Biological Quality Rating (Q Values)

Station Code	1980	1982	1985	1988	1991
RS15L010040	4-5	4	4	4	3-4
RS15L010100	4-5	4	4	4	4
RS15L010200	3-4	4	3-4	3	3

Most Recent Assessment:

The biological quality results for the Little Arrigle were mixed with unsatisfactory conditions recorded at the upper and lowermost stations (0040, 0200) while the middle station (0100) was satisfactory.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15L010040	LITTLE ARRIGLE - Br SW of Ballyhale	IE_SE_15L010200	253005	134746	Kilkenny County Council
RS15L010100	LITTLE ARRIGLE - Br 1 km E of Knocktopher	IE_SE_15L010200	254487	137328	Kilkenny County Council
RS15L010200	Goat's Br	IE_SE_15L010200	256721	139770	Kilkenny County Council

MOUNTRATH

15M01

Date Surveyed (last survey year only): 08/08/22

Biological Quality Rating (Q Values)

Station Code	1971	1976	1980	1985	1987	1991	1995	1998	2001	2005	2007	2008	2011	2013	2016	2019	2022
RS15M010050							4	4-5	4	4-5	4		4-5	4	4	4	3-4
RS15M010080					5	5											
RS15M010100			4-5	4	4	4	4	4	4-5	3-4	2	4	4	4	3-4	3-4	3-4
RS15M010160			4-5	4	3-4	4	4	4	4	3-4							
RS15M010200			4	4	3-4	4											
RS15M010300	5	4	4-5	4	4	4	4	3-4	3-4	3-4	3-4		4	4	3-4	3-4	4

Most Recent Assessment:

The two uppermost stations in the Mountrath are now both unsatisfactory in 2022. The density and diversity of macroinvertebrates was reduced at station 0050 with only one class A in low numbers marking a decline from Good to Moderate ecological quality. The next station (0100) was still unsatisfactory at Moderate ecological quality. An improvement to Good ecological quality however was recorded at the lowermost station (0300).

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15M010050	Br E of Drin	IE_SE_15M010080	233305	198846	Laois County Council
RS15M010080	Roundwood Br	IE_SE_15M010080	232361	197544	Laois County Council
RS15M010100	Paddock Br (near Rushin House)	IE_SE_15M010100	233926	196766	Laois County Council
RS15M010160	MOUNTRATH - Rushin Br	IE_SE_15M010300	235199	194925	Laois County Council

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15M010200	MOUNTRATH - 1.5 km d/s Mountrath	IE_SE_15M010300	235600	193113	Laois County Council
RS15M010300	Forest Br	IE_SE_15M010300	235392	191817	Laois County Council

MUCKALEE

15M02

Date Surveyed (last survey year only): 02/08/22, 03/08/22

Biological Quality Rating (Q Values)

Station Code	1980	1985	1989	1991	1995	1998	2001	2005	2007	2010	2013	2016	2018	2019	2021	2022
RS15M020100	5	4	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	4	3-4	4	4	4	4-5
RS15M020200	5	4	4	4	4	4	4	4	4	4	4	3-4		3-4		4

Most Recent Assessment:

The Muckalee is satisfactory at all stations surveyed. An improvement to High ecological condition was noted at station 0100 and an improvement to Good ecological condition was noted at station 0200.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15M020100	Br N of Cloghpook	IE_SE_15M020100	254833	165690	Kilkenny County Council
RS15M020200	Br u/s Dinin R confl	IE_SE_15D020800	251425	166327	Kilkenny County Council

MUNSTER

15M03

Date Surveyed (last survey year only): 06/07/22

Biological Quality Rating (Q Values)

Station Code	1980	1985	1987	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15M030500	5	4	4											
RS15M030540			4	3-4		4	3-4	3-4	4	4	4	4	4	4
RS15M030600	5	4-5	4	4-5	Dry	3-4	3-4	4	4-5	4	4	4-5	4-5	4
RS15M030700	5	4	4	4	Dry	4	3-4	3-4	3-4	4	4	4	4	4

Most Recent Assessment:

While all three sampling sites were assessed as being in satisfactory, Good ecological condition, there was a slight decline from High to Good at the middle site (Station 0600). Agricultural pressure on the river was noted.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15M030500	Br SW of Gortnagap	IE_SE_15M030540	233435	154395	Kilkenny County Council
RS15M030540	Br WSW of Killeen	IE_SE_15M030540	235070	152441	Kilkenny County Council
RS15M030600	Br SW of Kilbraghan	IE_SE_15M030600	236119	148545	Kilkenny County Council
RS15M030700	Br u/s King's R confl	IE_SE_15M030700	239319	145352	Kilkenny County Council

NEEDLEFORD STREAM

15N04

Date Surveyed (last survey year only): 08/08/22

Biological Quality Rating (Q Values)

Station Code	2001	2005	2007	2011	2013	2016	2018	2019	2021	2022
RS15N040200	4	4-5	4-5	4-5	4	4	4-5	3-4	4	4

Most Recent Assessment:

The Needleford Stream has maintained Good ecological condition in 2022.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15N040200	Needleford Br.	IE_SE_15N040200	236687	197844	Laois County Council

NEWTOWN (GOUL) 15N03

Date Surveyed (last survey year only): 12/07/93

Biological Quality Rating (Q Values)

Station Code	1993
RS15N030400	3

Most Recent Assessment:

Dry in 1995; dropped.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15N030400	NEWTOWN (GOUL) - Br u/s Goul River confl	IE_SE_15E010550	237099	176746	Laois County Council

NORE

15N01

Date Surveyed (last survey year only): 07/07/22, 09/06/22, 17/06/22, 20/06/22, 21/07/22, 22/06/22, 27/07/22

Biological Quality Rating (Q Values)

Station Code	1971	1975	1979	1981	1984	1987	1991	1995	1998	2001	2004	2007	2008	2010	2013	2016	2019	2020	2022
RS15N010030								3	4	3	4								
RS15N010080							3-4	3-4	3-4	3-4	3-4	4		4	4	4	3-4		4
RS15N010100			4-5	4-5	4	4	4												
RS15N010200			3	4	3-4	3-4	4	3	3-4	3-4	3-4								
RS15N010300	5	4-5	4	4	4	3-4	3-4	3-4	3-4	3-4	3-4	3-4		4	4	4	3		3
RS15N010400	5	5	4-5		3-4	3-4	4	4	3-4	3-4	3-4						3-4		3-4
RS15N010500	4-5	4-5	5			4		4*	4	4	4	4		4	4	4	4		4
RS15N010580								3-4	3-4	4	4								
RS15N010600		4-5	5		4-5	4-5	4												
RS15N010700			4		3-4	4	4	4	3-4	4	3-4	3-4		4	4	4-5	4		4
RS15N010800	5	5	4-5		4	4	4												
RS15N010900					4	4-5	4	4	3-4	3-4	3-4	4		4	4	4-5	4-5		4
RS15N011000	5	5	5		4	4	4												
RS15N011100	5	5	4-5		4	4	4-5	3-4	3-4	4	4	4		4	4	4-5	4		4
RS15N011200					4	4	4												
RS15N011300	4-5	4-5	4-5		4	4	4	3-4	4	4-5	4-5	4		4		4-5	4		4

Station Code	1971	1975	1979	1981	1984	1987	1991	1995	1998	2001	2004	2007	2008	2010	2013	2016	2019	2020	2022
RS15N011380																		3-4	
RS15N011400	5	4-5	4	4	4	3-4	3-4											3-4	
RS15N011450	5	4-5	4	4	4	3-4	3-4	3-4	4	3-4	3-4	3-4		4	4	4-5	4		4
RS15N011500		4	3-4	4	3-4	3-4	3-4												
RS15N011600	5	5	3-4	4	3-4	4	4	3-4	4	4	4								
RS15N011700			4		4	4	4	4	4	4	4	4		4	4	4	4		3-4
RS15N011750						4	4												
RS15N011800	5	4-5	5		5	5	4	4	4-5	4	4	4		4	4	4	4		3-4
RS15N011900					2-3	4-5	4	3-4											
RS15N011950	3-4	3			2-3	4	3-4	3-4	3-4	3-4	3-4	3-4		4	4	4	4		3-4
RS15N012000			3	3-4	3-4	4	4	3	3-4	3	3-4	3		4*	4	4	4		3-4
RS15N012100			4		3-4	3-4	4	4											
RS15N012120			4		3-4	3-4	4	4	4	3-4	3-4								
RS15N012200			4		3-4	4	4	3-4	3-4	3-4	3-4	4		4	4	4	4		3-4
RS15N012300															4	3-4			3-4
RS15N012305	4-5	4-5	3-4	3	3	2	2	2	3	2	3	2	3	4	4	3-4	4		3-4
RS15N012310	4-5	4-5	3-4	4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	4		4	4	3-4	4		3-4
RS15N012320								3	3-4	3-4	3	3		3	4	3-4	3-4		3-4
RS15N012400			4	4	4	4	3-4	3-4	4	4	3-4	3-4		4	4	3-4	4		3-4

Most Recent Assessment:

The 2022 biological water quality results for the River Nore main channel are most disappointing, with 12 of the 19 sites assessed found to be in unsatisfactory condition. Only at the uppermost site (Station 0080) was there a slight improvement in Q-value recorded, while declines in ecological condition was found to have occurred at nine sites. This includes a drop from High to Good ecological condition at Poorman's Bridge (Station 0900), which was the only site where Q4-5 was recorded in 2019. Eight sites from Threecastles Bridge (Station 1700) downstream dropped from Good to Moderate ecological condition, resulting in all sites surveyed along the channel downstream of this point recorded as unsatisfactory in 2022.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15N010030	NORE - Br SW of Clonakenny	IE_SE_15N010080	210749	180528	Tipperary County Council
RS15N010080	Nore Br	IE_SE_15N010080	213194	181479	Tipperary County Council
RS15N010100	NORE - Curragunneen Br	IE_SE_15N010100	214208	182898	Tipperary County Council
RS15N010200	NORE - Nore Br SE of Roscrea	IE_SE_15N010200	217254	185696	Tipperary County Council
RS15N010300	Quakers Bridge	IE_SE_15N010300	221073	186967	Laois County Council
RS15N010400	NORE - New Br WNW of Borris-in-Ossory	IE_SE_15N010400	223723	187839	Laois County Council
RS15N010500	Br S of Coolrain, Kildrigh	IE_SE_15N010500	229319	190563	Laois County Council
RS15N010580	NORE - Danganroe Br	IE_SE_15N010600	232592	193086	Laois County Council
RS15N010600	NORE - Castletown New Road Br	IE_SE_15N010600	234125	192111	Laois County Council
RS15N010700	Kilbrickin Br	IE_SE_15N010700	236220	189952	Laois County Council
RS15N010800	NORE - New Br Cloncough	IE_SE_15N010900	237417	188015	Laois County Council
RS15N010900	Poorman's Br	IE_SE_15N010900	240729	185972	Laois County Council
RS15N011000	NORE - Waterloo Br	IE_SE_15N011100	241110	184118	Laois County Council
RS15N011100	Watercastle Br	IE_SE_15N011100	242575	180318	Laois County Council
RS15N011200	NORE - New Br u/s Durrow	IE_SE_15N011300	241533	178598	Laois County Council
RS15N011300	Tallyho Br	IE_SE_15N011300	242319	176225	Laois County Council

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15N011380	NE of Ballyconra (u/s of Glanbia)	IE_SE_15N011400	244169	172460	Kilkenny County Council
RS15N011400	0.5 km u/s Ballyragget	IE_SE_15N011400	244309	171108	Kilkenny County Council
RS15N011450	Br in Ballyragget	IE_SE_15N011500	244524	170820	Kilkenny County Council
RS15N011500	1.5 km d/s Ballyragget	IE_SE_15N011500	244004	169342	Kilkenny County Council
RS15N011600	Lismaine Br	IE_SE_15N011600	244112	166039	Kilkenny County Council
RS15N011700	Threecastles Br	IE_SE_15N011700	245821	162679	Kilkenny County Council
RS15N011750	ENE of Troyswood House	IE_SE_15N011750	249530	159345	Kilkenny County Council
RS15N011800	1 km u/s Green's Br, Kilkenny	IE_SE_15N011950	250456	156886	Kilkenny County Council
RS15N011900	St John's Br, Kilkenny	IE_SE_15N011950	251145	155833	Kilkenny County Council
RS15N011950	Fennessy's Mill (Ossory Br)	IE_SE_15N011950	252139	154964	Kilkenny County Council
RS15N012000	NE of Warrington, d/s Kilkenny	IE_SE_15N012000	253814	154480	Kilkenny County Council
RS15N012100	Bennettsbridge, 600 m d/s Br	IE_SE_15N012130	255340	148745	Kilkenny County Council
RS15N012120	NORE - 1 km d/s Bennettsbridge	IE_SE_15N012130	255339	148698	Kilkenny County Council
RS15N012200	Ballylinch Br	IE_SE_15N012200	254696	143655	Kilkenny County Council
RS15N012300	Thomastown Br (Mid)	IE_SE_15N012310	258557	141705	Kilkenny County Council
RS15N012305	Thomastown Br (LHS)	IE_SE_15N012310	258567	141728	Kilkenny County Council
RS15N012310	Thomastown Br (RHS)	IE_SE_15N012310	258567	141728	Kilkenny County Council
RS15N012320	1 km d/s Thomastown Br	IE_SE_15N012330	259244	141707	Kilkenny County Council
RS15N012400	Brownsbarn Br	IE_SE_15N012400	261749	139138	Kilkenny County Council

NUENNA

15N02

Date Surveyed (last survey year only): 04/08/22, 09/08/22, 22/06/22

Biological Quality Rating (Q Values)

Station Code	1976	1980	1985	1987	1991	1995	1998	2001	2005	2007	2010	2013	2016	2018	2019	2021	2022
RS15N020100		4	4	4	3-4	3-4	3-4	3-4	3	4	3-4	3	3	3-4	3-4	3-4	3-4
RS15N020200		4	4	3-4	3-4											3	3
RS15N020240																3	3
RS15N020250																3	3
RS15N020300		4	4	3-4	3	3	3	3	3	3	3-4	3		3-4	3-4	3	3-4
RS15N020400	4-5	4	4-5	3-4	4	3-4	4	3-4	3-4	3			3-4	3-4		3	3-4

Most Recent Assessment:

While all 6 sites on the Nuenna were again assessed as being in unsatisfactory condition in 2022, a slight improvement from Poor to Moderate ecological condition was noted at the two lowermost sites.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15N020100	Br d/s Clomantagh	IE_SE_15N020100	236268	163711	Kilkenny County Council
RS15N020200	NUENNA - Freshford E Br	IE_SE_15N020400	240690	164836	Kilkenny County Council
RS15N020240	Upstream Freshford WWTP	IE_SE_15N020400	240981	164776	Kilkenny County Council
RS15N020250	~40m u/s Freshford primary discharge	IE_SE_15N020400	241050	164761	Kilkenny County Council

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15N020300	1km d/s Freshford	IE_SE_15N020400	241387	164583	Kilkenny County Council
RS15N020400	NUENNA - Br near Cooleeshal	IE_SE_15N020400	244517	164190	Kilkenny County Council

OWVEG (NORE) 15O01

Date Surveyed (last survey year only): 04/08/22, 05/08/22

Biological Quality Rating (Q Values)

Station Code	1980	1984	1987	1991	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15O010050			3-4	4		3-4	4	4	3-4	4	4	4	4	4
RS15O010060			3-4	3-4										
RS15O010080					3	3-4	3-4	3-4	4	4	4	4	4	4
RS15O010100	4	3-4	3-4	4										
RS15O010160					4	3-4	4	4	4	4	3-4*	4	4	4
RS15O010200	4	4	4	4										
RS15O010280					4	4	4	4	3-4	4	4	4	4	4
RS15O010300	5	4	4	4										
RS15O010400					4	4	4	4	4	4	4	4	4	4

Most Recent Assessment:

The Owveg (Nore) is again in Good ecological condition throughout when surveyed in 2022.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15O010050	Br W of Spink	IE_SE_15O010050	251887	183711	Laois County Council

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15O010060	OWVEG (NORE) - Graiguenasmuttan Br	IE_SE_15O010080	250687	184791	Laois County Council
RS15O010080	OWVEG (NORE) - Boleybeg Br	IE_SE_15O010080	249572	184084	Laois County Council
RS15O010100	OWVEG (NORE) - Dysart Wooden Br	IE_SE_15O010160	249016	182689	Laois County Council
RS15O010160	Br WNW of Boleybawn (Cloghoge)	IE_SE_15O010160	247986	181021	Laois County Council
RS15O010200	OWVEG (NORE) - Ironmills Br	IE_SE_15O010280	247370	179650	Laois County Council
RS15O010280	OWVEG (NORE) - Castlemarket Br	IE_SE_15O010280	245767	178086	Kilkenny County Council
RS15O010300	OWVEG (NORE) - Rosconnell Br	IE_SE_15O010400	245122	177990	Laois County Council
RS15O010400	Br E of Attanagh	IE_SE_15O010400	244198	175773	Kilkenny County Council

RATHDOWNEY STREAM 15R03

Date Surveyed (last survey year only): 16/06/22

Biological Quality Rating (Q Values)

Station Code	1993	1995	1998	2001	2005	2007	2010	2013	2016	2019	2022
RS15R030100	3	3	Dry								
RS15R030500	3-4	Dry	Dry								
RS15R030700	4-5	4	3-4	3*	3-4	3-4*	3-4*	3	3	3	3
RS15R031000	3	3									
RS15R031100	3	3	3-4	3	3-4	3-4	3-4*	3	3*	3*	3*

Most Recent Assessment:

The Rathdowney Stream is still in Poor ecological condition at both sites assessed, with the additional impact of siltation upstream of the bridge in Rathdowney.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15R030100	RATHDOWNEY STREAM - Br nr Cody's Castle	IE_SE_15R031100	226570	172709	Kilkenny County Council
RS15R030500	RATHDOWNEY STREAM - Br W of Whiteswall	IE_SE_15R031100	226968	173716	Kilkenny County Council
RS15R030700	Br W of Glasha Crossroads	IE_SE_15R031100	227102	176002	Laois County Council
RS15R031000	RATHDOWNEY STREAM - Br at S end of Rathdowney	IE_SE_15R031100	227901	177959	Laois County Council

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15R031100	Br. in Rathdowney	IE_SE_15R031100	228032	178327	Laois County Council

STONYFORD STREAM (KILKENNY) 15S01

Date Surveyed (last survey year only): 22/08/91

Biological Quality Rating (Q Values)

Station Code	1980	1983	1984	1987	1991
RS15S010050	4	3-4	3-4	3	3
RS15S010100	4		3-4	3-4	

Most Recent Assessment:

Poor ecological condition in Stonyford representing no change since 1987. The other station, just upstream of the King's River, was not sampled when visited on 22 August 1991 due to lack of flow.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15S010050	STONYFORD STREAM (KILKENNY) - Br in Stonyford	IE_SE_15S010100	252360	143071	Kilkenny County Council
RS15S010100	Br u/s King's River confl	IE_SE_15S010100	252488	143658	Kilkenny County Council

TONET

15T01

Date Surveyed (last survey year only): 10/08/22

Biological Quality Rating (Q Values)

Station Code	1987	1991	1995	1998	2001	2005	2007	2011	2013	2016	2018	2019	2022
RS15T010200	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4-5	4	4
RS15T010400	4-5	4-5	4-5	4-5	4-5	4-5	3-4	4	3	3-4		3-4	4
RS15T010600	4	4-5	4	4	4	4	4	4	3-4	3-4		3-4	3*

Most Recent Assessment:

The uppermost station (0200) on the Tonet maintained Good ecological condition while the next station (0400) improved from Moderate to Good ecological condition for the first time since 2011. While these first two stations are satisfactory an unfortunate decline to Poor ecological condition was observed at station 0600 just before the confluence with the Delour. Here no sensitive taxa were present and heavy siltation was observed.

Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15T010200	Br N of Keeloge North	IE_SE_15T010200	223317	194857	Laois County Council
RS15T010400	Rossnaclonagh Br	IE_SE_15T010400	226447	193179	Laois County Council
RS15T010600	Anatrim Br	IE_SE_15T010600	229447	192331	Laois County Council

TULLAROAN STREAM

15T02

Date Surveyed (last survey year only): 06/07/22

Biological Quality Rating (Q Values)

Station Code	1980	1985	1987	1991	1995	1998	2005	2007	2010	2013	2016	2019	2022
RS15T020100	4	3	2-3										
RS15T020250			3-4	3-4	Dry	3-4	3-4	4	4	4	4	4	4
RS15T020300	4	3-4	3	4									
RS15T020400	5	4	4	4	Dry	4	3-4						
RS15T020450			4	4	3-4	3-4	3-4	4	4	4	4	4	4

Most Recent Assessment:

Good ecological condition was maintained at both sites on the Tullaroan Stream in 2022.

Station Details

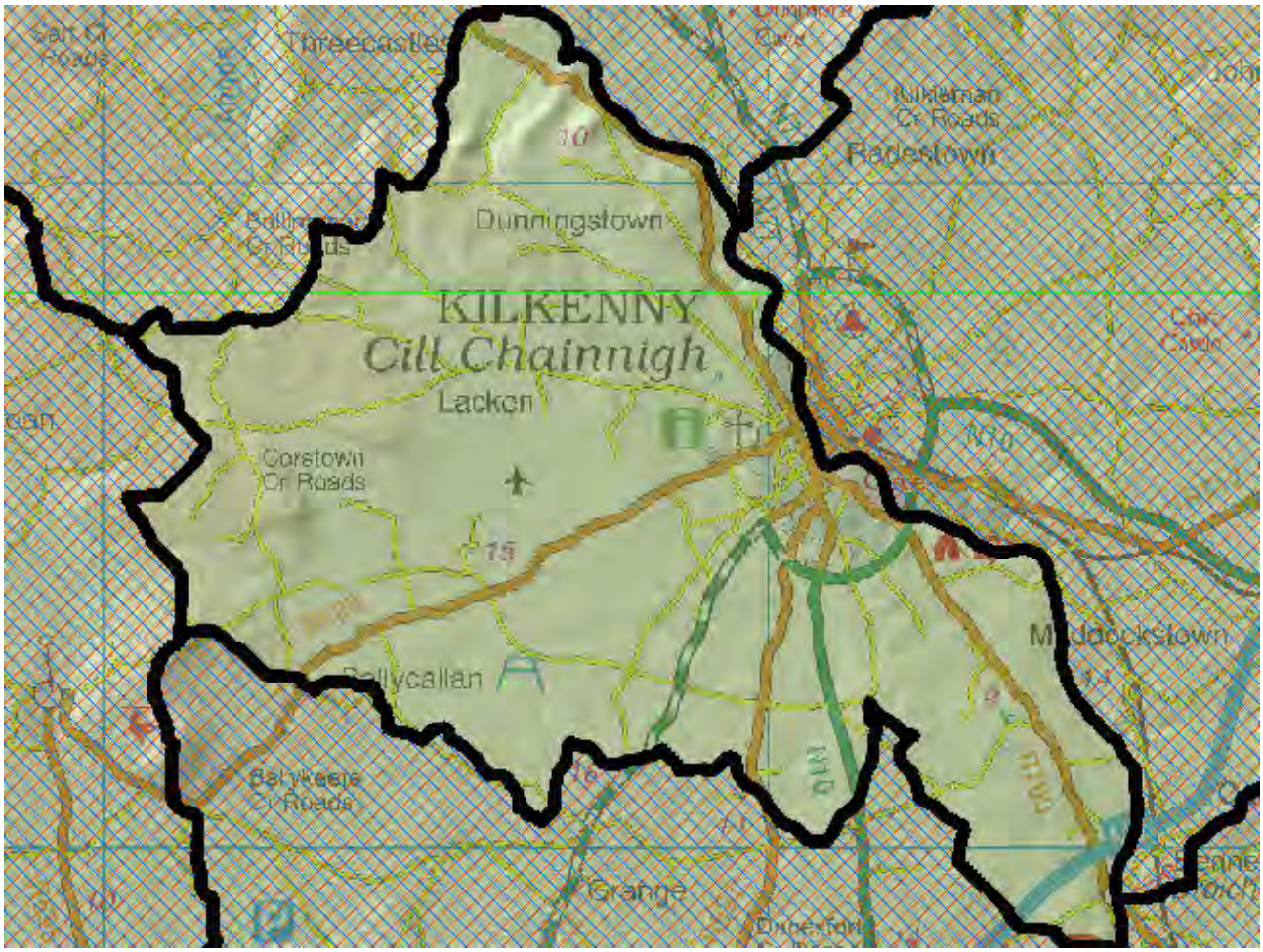
Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS15T020100	TULLAROAN STREAM - Br in Tullaroan	IE_SE_15T020200	237754	156851	Kilkenny County Council
RS15T020250	Br at Oldtown	IE_SE_15T020250	238818	154691	Kilkenny County Council
RS15T020300	TULLAROAN STREAM - Br E of Kilmanagh	IE_SE_15T020450	239409	152284	Kilkenny County Council
RS15T020400	TULLAROAN STREAM - Br E of Graigue	IE_SE_15T020450	239735	147685	Kilkenny County Council
RS15T020450	Br u/s Munster R confl	IE_SE_15T020450	239211	146723	Kilkenny County Council

WFD Cycle 2

Catchment Nore

Subcatchment Nore_SC_090

Code 15_6

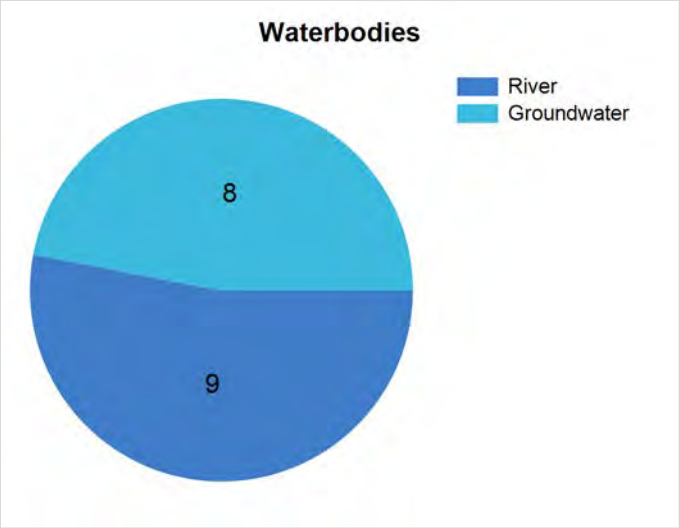


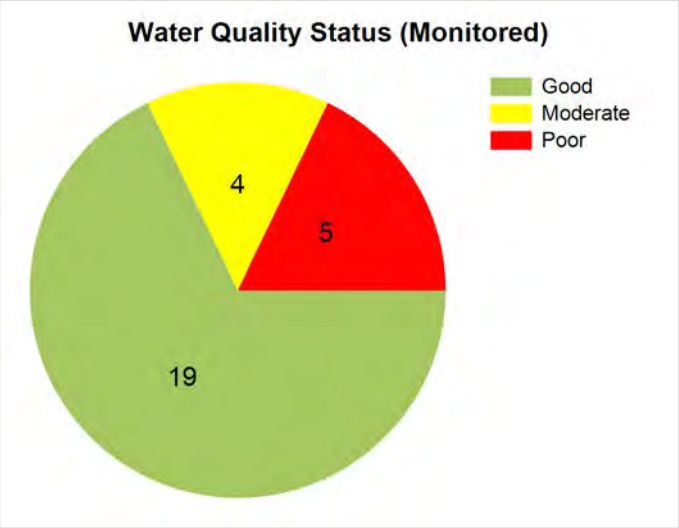
Generated on: 12 Dec 2018

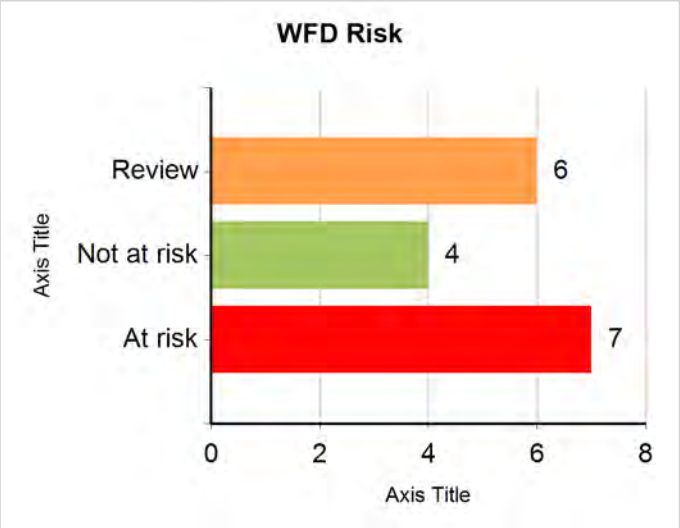
Assessment Purpose

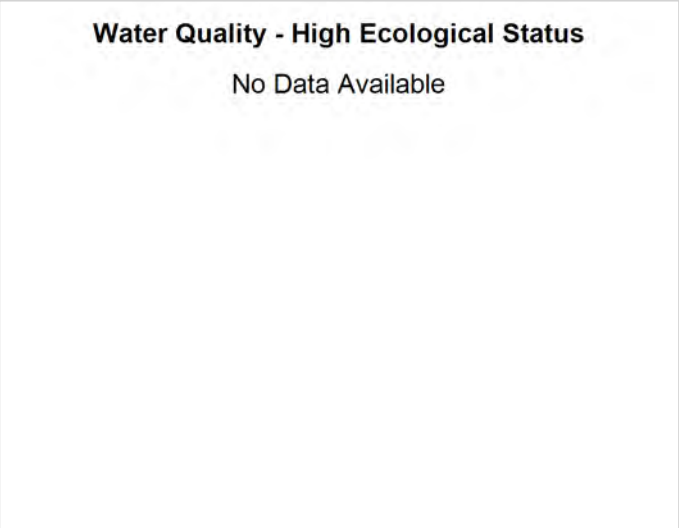
This assessment has been produced as part of the national characterisation programme undertaken for the second cycle of Water Framework Directive river basin management planning. It has been led by the EPA, with input from Local Authorities and other public bodies, and with support from RPS consultants.

The characterisation assessments are automatically generated from the information stored in the WFD Application. They are based on information available to the end of 2015 but may be subject to change until the final 2018-21 river basin management plan is published. Users should ensure that they have the most up to date information by downloading the latest assessment before use.









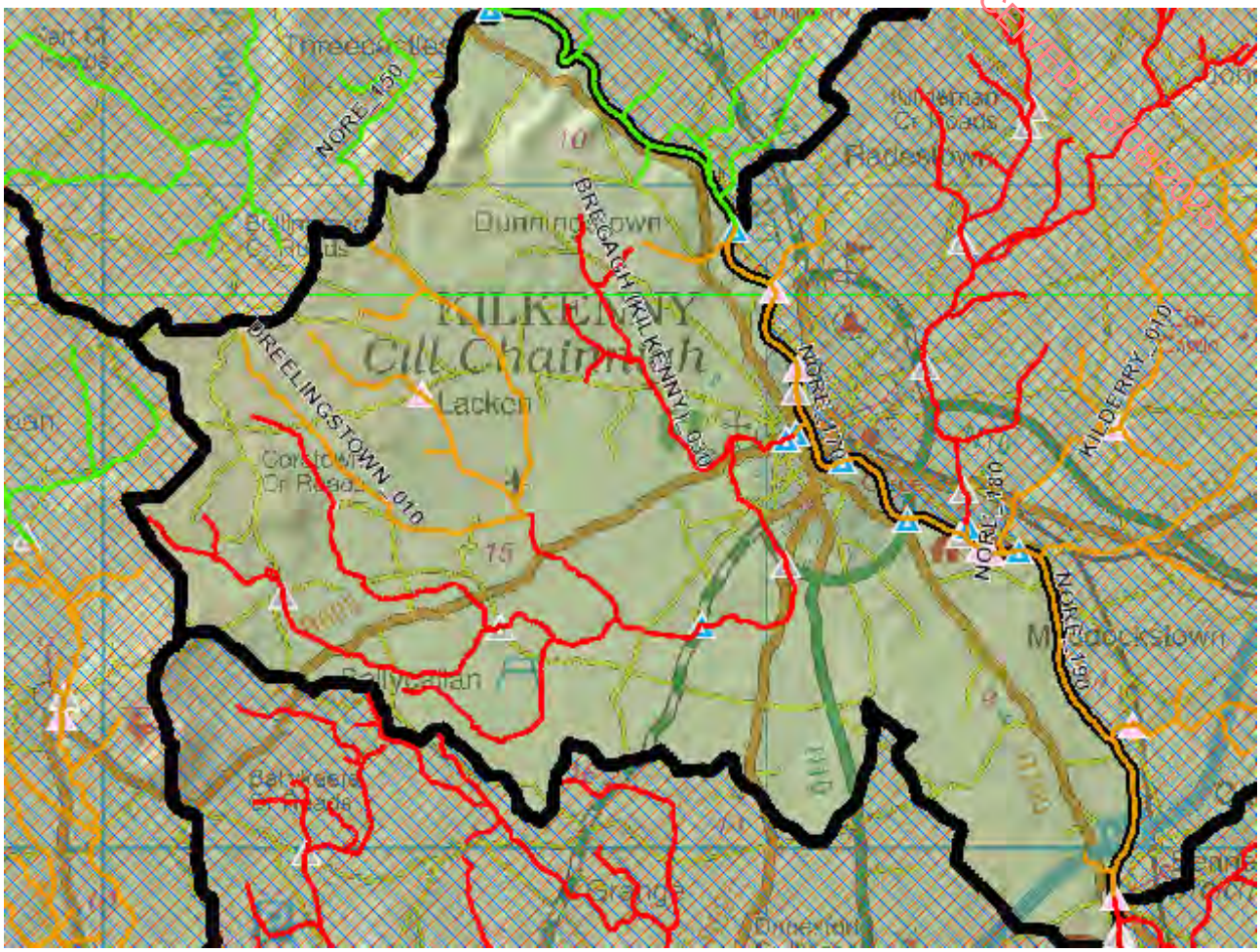
Evaluation of PrioritySubcatchment Issues

On the tributaries to the River Nore, Breagagh_010 to Breagagh_030 and Dreelingstown_010 the significant issues are elevated phosphate concentrations which are driving a less than Good biological status. The significant pressure was identified to be agriculture, both pasture and arable. Investigative assessments will be completed in all four RWBs.

On the main channel of the River Nore (Nore_170 and Nore_180), the significant issue is elevated concentrations of phosphate; diffuse urban pollution in the forms of SWOs and CSOs, and WWTPs are the significant pressures.
On Nore_170, the decline of phosphate concentrations to below the EQS in 2014 indicates that the WWTP upgrade has resulted in an improvement in the water quality discharging from CSOs into the RWB. This river remains at Review to monitor for a continued improvement in water quality.
In the upper reaches of Nore_180, upstream of RS15N011980, the significant issue is elevated phosphate concentrations and the significant pressure is identified as a combination of Sion Hill COA and misconnections in the sewer network. An investigative assessment, to be completed by Kilkenny County Council will confirm this.
In the lower reaches of Nore_180, between RS15N011980 and RS15N012000, the significant pressure is Kilkenny WWTP.. Prior to 2014 the WWTP did not include phosphate removal. In addition, prior to 2014 the Smithwicks Brewery, an IPPC licenced facility that ceased operation in 2014, discharged effluent with elevated phosphate concentrations to the WWTP. The WWTP was upgraded in Q1 2014 to include P removal and this, combined with the cessation of receiving effluent from the Brewery, has resulted in a decline in mean annual concentrations of phosphate. In 2014, mean annual concentrations of phosphate had declined from 0.161mg/l in 2013 to 0.048mg/l. The mean annual concentrations remain above the EQS of 0.035mg/l. Additional nutrients are discharging into this water body from the Brownstown (Pococke) river in subcatchment 15_4, where the significant pressure is diffuse urban runoff. A watching brief was put in place in Nore_180 to monitor for a decline in mean annual concentrations of phosphate to below the EQS.

Pressures in Nore_170 and Nore_180 are also believed to be impacting on Ortho-P levels in Nore_190 and _200 as the elevated annual mean concentrations noted in 15N012000, prior to the Nore_190 sub-basin shows elevated Ortho-P concentrations which are generally higher than downstream concentrations. In the case of Nore_200 Benntsbridge WWTP is also impacting on Ortho-P levels based on comparison between ambient u/s and d/s annual average mean concentrations although the levels are already above the EQS for Good status prior to WWTP discharge.

Map Subcatchment Risk Map

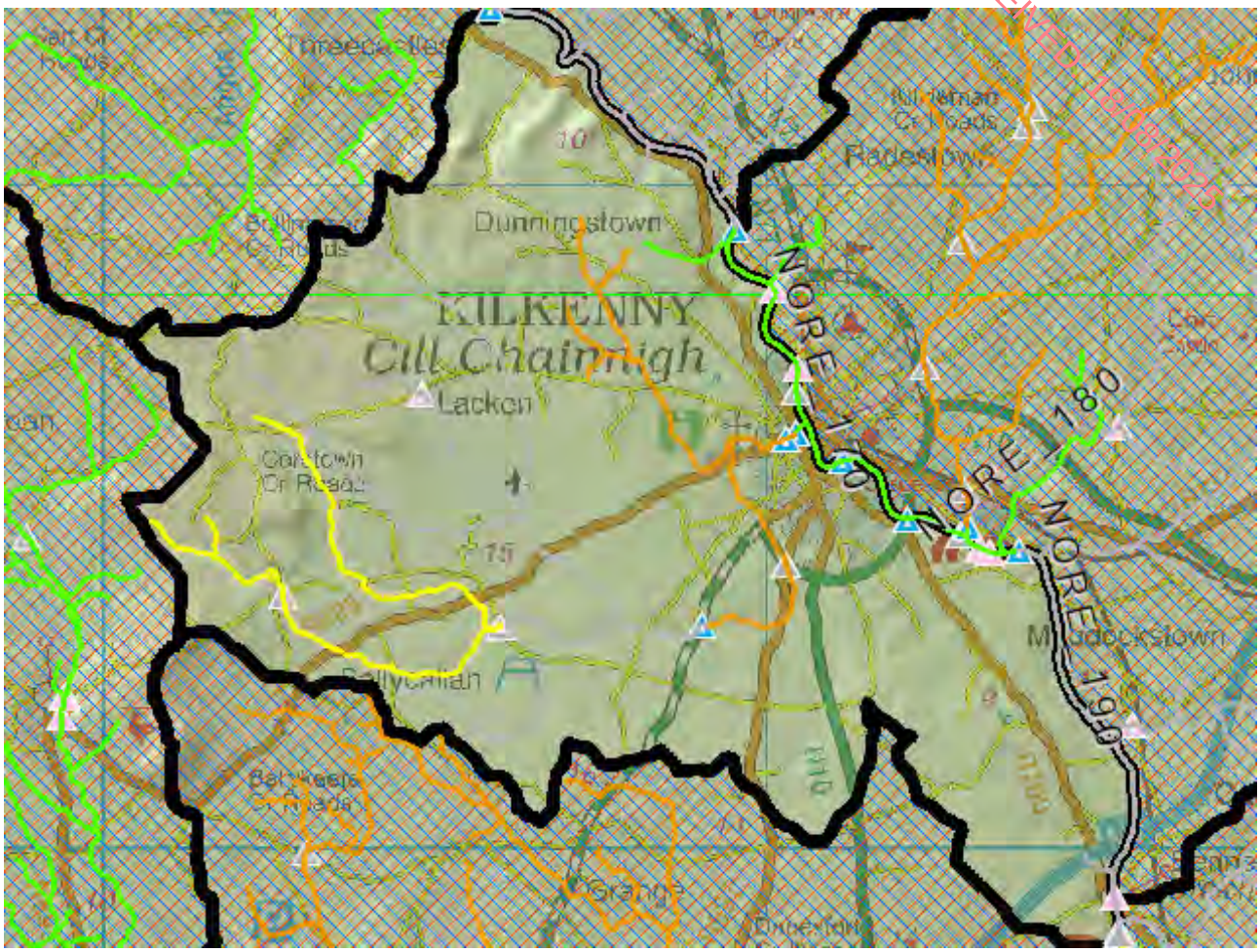


River And Lake Waterbodies: WFD Risk

The following river and lake waterbodies are in the subcatchment.

Code	Name	Type	WFD Risk	Significant Pressure
IE_SE_15B020080	BREGAGH (KILKENNY)_010	River	At risk	Yes
IE_SE_15B020100	BREGAGH (KILKENNY)_020	River	At risk	Yes
IE_SE_15B020350	BREGAGH (KILKENNY)_030	River	At risk	Yes
IE_SE_15N012130	NORE_200	River	At risk	Yes
IE_SE_15D420500	DREELINGSTOWN_010	River	Review	Yes
IE_SE_15N011950	NORE_170	River	Review	Yes
IE_SE_15N012000	NORE_180	River	Review	Yes
IE_SE_15N012090	NORE_190	River	Review	Yes
IE_SE_15N011750	NORE_160	River	Not at risk	No

Map Subcatchment Water Quality Status Map



River And Lake Waterbodies: Water Quality Status

The water quality status of river and lake waterbodies in the subcatchment is as follows.

Code	Name	Type	2007-09	2010-12	2010-15
IE_SE_15B020080	BREGAGH (KILKENNY)_010	River	Poor	Moderate	Moderate
IE_SE_15B020100	BREGAGH (KILKENNY)_020	River	Unassigned	Unassigned	Unassigned
IE_SE_15B020350	BREGAGH (KILKENNY)_030	River	Poor	Poor	Poor
IE_SE_15D420500	DREELINGSTOWN_010	River	Unassigned	Unassigned	Unassigned
IE_SE_15N011750	NORE_160	River	Unassigned	Unassigned	Unassigned
IE_SE_15N011950	NORE_170	River	Moderate	Good	Good
IE_SE_15N012000	NORE_180	River	Poor	Moderate	Good
IE_SE_15N012090	NORE_190	River	Unassigned	Unassigned	Unassigned
IE_SE_15N012130	NORE_200	River	Unassigned	Unassigned	Unassigned

Potentially Dependent Transitional and Coastal Waterbodies

The Transitional and Coastal waterbodies listed below intersect spatially with river and lake waterbodies in the subcatchment …

Code	Name	Type	Local Authority	WFD Risk

Potentially Dependent Groundwater Waterbodies

The groundwaters listed below interset spatially with river and lake waterbodies in the subcatchment …

Code	Name	Type	Local Authority	WFD Risk
IE_SE_G_009	Ballingarry	Groundwater	Kilkenny County Council	Review
IE_SE_G_026	Callan	Groundwater	Kilkenny County Council	At risk
IE_SE_G_038	Clifden	Groundwater	Kilkenny County Council	Not at risk
IE_SE_G_078	Kilkenny	Groundwater	Kilkenny County Council	At risk
IE_SE_G_128	Stoneyford Gravels	Groundwater	Kilkenny County Council	Review
IE_SE_G_156	Durrow	Groundwater	Kilkenny County Council	At risk
IE_SE_G_161	Clifden Northwest	Groundwater	Kilkenny County Council	Not at risk
IE_SE_G_163	Killkenny-Ballynakill Gravels	Groundwater	Kilkenny County Council	Not at risk

Protected Areas intersecting River and Lake Waterbodies

The Protected Areas listed below intersect spatially with river and lake waterbodies in the subcatchment …

Code	Name	Type	Waterbody Name	Association Type
IE0002162	River Barrow And River Nore SAC	SAC	NORE_160	Overlapping / partly within Protected Area
IE0002162	River Barrow And River Nore SAC	SAC	NORE_170	Overlapping / partly within Protected Area
IE0002162	River Barrow And River Nore SAC	SAC	NORE_180	Overlapping / partly within Protected Area
IE0002162	River Barrow And River Nore SAC	SAC	NORE_190	Overlapping / partly within Protected Area
IE0002162	River Barrow And River Nore SAC	SAC	NORE_200	Overlapping / partly within Protected Area
IEPA1_SE_15N011750	NORE_160	Drinking Water	NORE_160	Within Protected Area
IEPA5D0027	River Nore	Salmonid	NORE_160	Overlapping / partly within Protected Area
IEPA5D0027	River Nore	Salmonid	NORE_170	Overlapping / partly within Protected Area
IEPA5D0027	River Nore	Salmonid	NORE_190	Overlapping / partly within Protected Area
IEPA5D0027	River Nore	Salmonid	NORE_180	Overlapping / partly within Protected Area
IEPA5D0027	River Nore	Salmonid	NORE_200	Overlapping / partly within Protected Area
IERI_SE_2001_0017	Nore (River)	Nutrient Sensitive Area	NORE_200	Overlapping / partly within Protected Area
IERI_SE_2001_0017	Nore (River)	Nutrient Sensitive Area	NORE_190	Overlapping / partly within Protected Area

Pressures

Below is a list of all significant pressures identified in the subcatchment.

Code	Name	WFD Risk	Pressure Category	Pressure Sub Category
IE_SE_15B020080	BREGAGH (KILKENNY)_010	At risk	Agriculture	Pasture
IE_SE_15B020100	BREGAGH (KILKENNY)_020	At risk	Agriculture	Pasture
IE_SE_15B020100	BREGAGH (KILKENNY)_020	At risk	Forestry	Forestry
IE_SE_15B020100	BREGAGH (KILKENNY)_020	At risk	Agriculture	Arable
IE_SE_15B020350	BREGAGH (KILKENNY)_030	At risk	Industry	Section 4
IE_SE_15B020350	BREGAGH (KILKENNY)_030	At risk	Hydromorphology	Channelisation
IE_SE_15B020350	BREGAGH (KILKENNY)_030	At risk	Agriculture	Pasture
IE_SE_15B020350	BREGAGH (KILKENNY)_030	At risk	Hydromorphology	Embankments
IE_SE_15N012130	NORE_200	At risk	Urban Run-off	Diffuse Sources Run-Off
IE_SE_15N012130	NORE_200	At risk	Urban Waste Water	Agglomeration PE of 500 to 1,000
IE_SE_G_026	Callan	At risk	Agriculture	Agriculture
IE_SE_G_078	Kilkenny	At risk	Agriculture	Agriculture
IE_SE_G_156	Durrow	At risk	Agriculture	Agriculture
IE_SE_15D420500	DREELINGSTOWN_010	Review	Agriculture	Pasture
IE_SE_15N011950	NORE_170	Review	Urban Run-off	Diffuse Sources Run-Off
IE_SE_15N012000	NORE_180	Review	Urban Run-off	Diffuse Sources Run-Off
IE_SE_15N012000	NORE_180	Review	Urban Waste Water	Agglomeration PE < 500
IE_SE_15N012000	NORE_180	Review	Urban Waste Water	Agglomeration PE > 10,000
IE_SE_15N012090	NORE_190	Review	Urban Run-off	Diffuse Sources Run-Off
IE_SE_15N012090	NORE_190	Review	Urban Waste Water	Agglomeration PE > 10,000
IE_SE_15N012090	NORE_190	Review	Urban Waste Water	Agglomeration PE < 500
IE_SE_G_009	Ballingarry	Review	Anthropogenic Pressures	Unknown
IE_SE_G_128	Stoneyford Gravels	Review	Anthropogenic Pressures	Unknown

Further Characterisation Actions

The following further characterisation actions have been identified. These are necessary to help understand more fully issues in the subcatchment and their likely cause.

Code	Name	Action	Responsible Organisation
IE_SE_15B020080	BREGAGH (KILKENNY)_010	IA7 Multiple Sources in Multiple Areas	Kilkenny County Council
IE_SE_15N012130	NORE_200	IA1 Provision of Information	Kilkenny County Council
IE_SE_15B020100	BREGAGH (KILKENNY)_020	IA7 Multiple Sources in Multiple Areas	Kilkenny County Council
IE_SE_15B020350	BREGAGH (KILKENNY)_030	IA7 Multiple Sources in Multiple Areas	Kilkenny County Council
IE_SE_15N011950	NORE_170	IA1 Provision of Information	Environmental Protection Agency
IE_SE_15D420500	DREELINGSTOWN_010	IA7 Multiple Sources in Multiple Areas	Kilkenny County Council
IE_SE_15N012090	NORE_190	IA1 Provision of Information	Kilkenny County Council
IE_SE_15N012000	NORE_180	IA6 Multiple Sources in Large Urban Area	Kilkenny County Council
IE_SE_15N012130	NORE_200	IA4 Regulated Point Sources	Environmental Protection Agency

WFD Cycle 2

Catchment Nore

Subcatchment Nore_SC_100

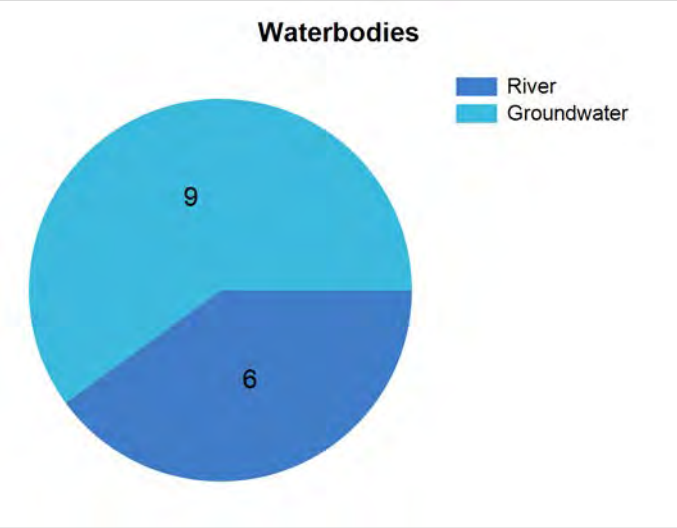
Code 15_4

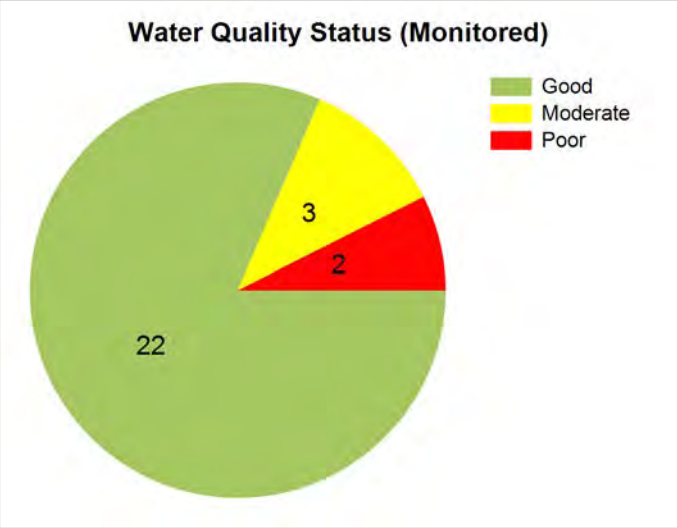
Generated on: 04 Jan 2019

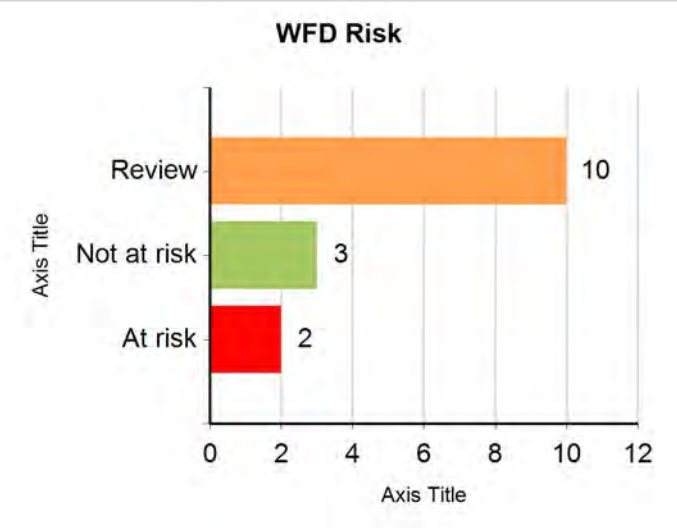
Assessment Purpose

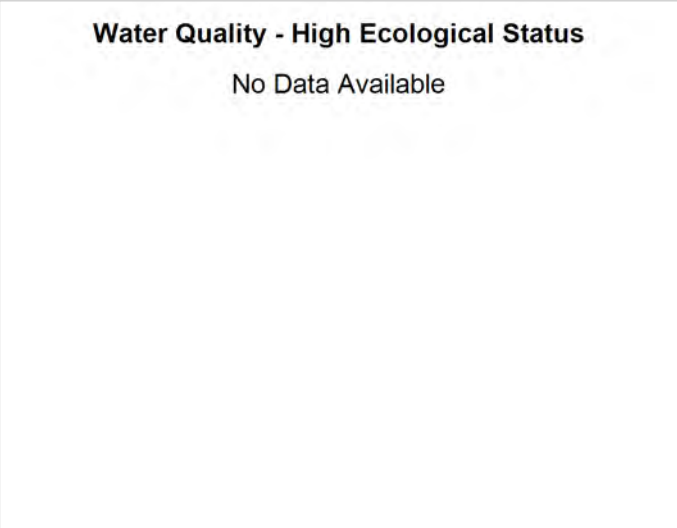
This assessment has been produced as part of the national characterisation programme undertaken for the second cycle of Water Framework Directive river basin management planning. It has been led by the EPA, with input from Local Authorities and other public bodies, and with support from RPS consultants.

The characterisation assessments are automatically generated from the information stored in the WFD Application. They are based on information available to the end of 2015 but may be subject to change until the final 2018-21 river basin management plan is published. Users should ensure that they have the most up to date information by downloading the latest assessment before use.









Evaluation of PrioritySubcatchment Issues

Diffuse urban pollution in the forms of SWOs and CSOs, and WWTPs are the significant pressures in this section of the River Nore. Agriculture is also an issue in the tributaries.

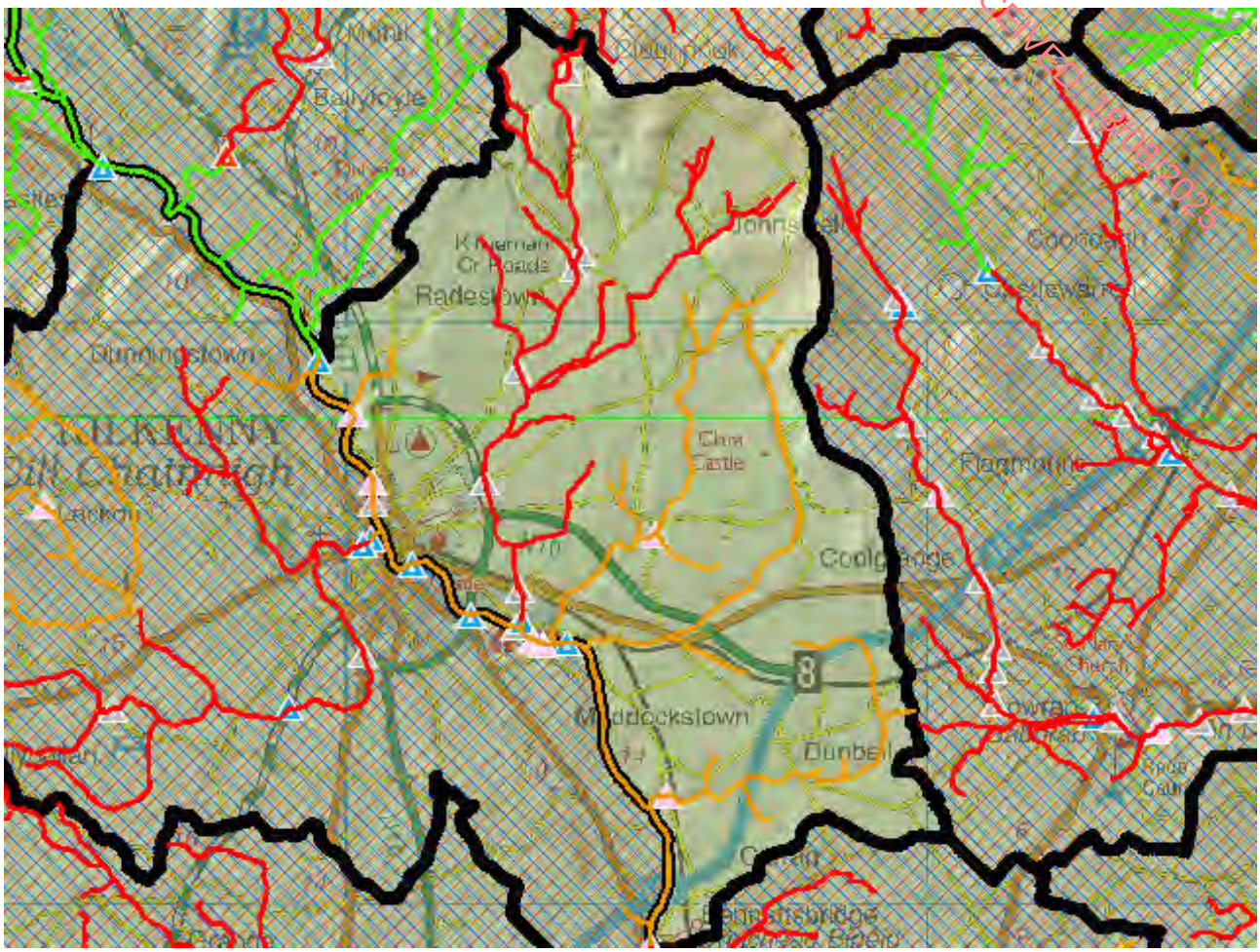
Phosphate concentrations in Nore_170 remain close to or above the EQS despite the WWTP upgrade which should have improved the water quality discharging from SWOs into the RWB. This river remains at Review to monitor Ortho-p concentrations and possible impacts on biology status.

In the upper reaches of Nore_180, upstream of RS15N011980, the significant issue is elevated phosphate concentrations and the significant pressure is identified as a combination of waste water treatment and misconnections in the sewer network. A local catchment assessment, to be completed by Kilkenny County Council will confirm this.

In the lower reaches of Nore_180, between RS15N011980 and RS15N012000, the significant pressure is waste water treatment - Prior to 2014 the waste water treatment facility did not include phosphate removal. In addition, prior to 2014 an IPPC licenced facility that ceased operation in 2014, discharged effluent with elevated phosphate concentrations to the waste water treatment facility. The facility was upgraded in Q1 2014 to include P removal and this, combined with the cessation of receiving effluent from the IPPC facility, has resulted in a decline in mean annual concentrations of phosphate. In 2014, mean annual concentrations of phosphate had declined from 0.161mg/l in 2013 to 0.048mg/l. The mean annual concentrations remain above the EQS of 0.035mg/l. A watching brief was put in place to monitor for a decline in mean annual concentrations of phosphate to below the EQS. Elevated mean annual concentrations for Ortho-P were noted downstream of the waste water treatment facility and while the EQS for Good status was also exceeded upstream of the plant the plant seems to be impacting on in-stream concentrations.

On Brownstown (Pococke)_010, the decline in ecological status from Moderate to Poor, driven by biology (Q value) was attributed to siltation caused by poor drainage from the adjacent ring road and industrial estates. Slightly elevated nutrients are also an issue. Kilkenny County Council reported that data collection was undertaken to confirm that this is the significant pressure. They will send this information to the EPA in order to confirm that a wetland is the most appropriate measure to address this issue.
Kilderry 15_010 and Rathgarvan_or_Clifden_010 are unmonitored by pressures information suggests there is likely to be an issue. IA3s will be carried out to confirm, likely to be followed by IA7s.

Map Subcatchment Risk Map

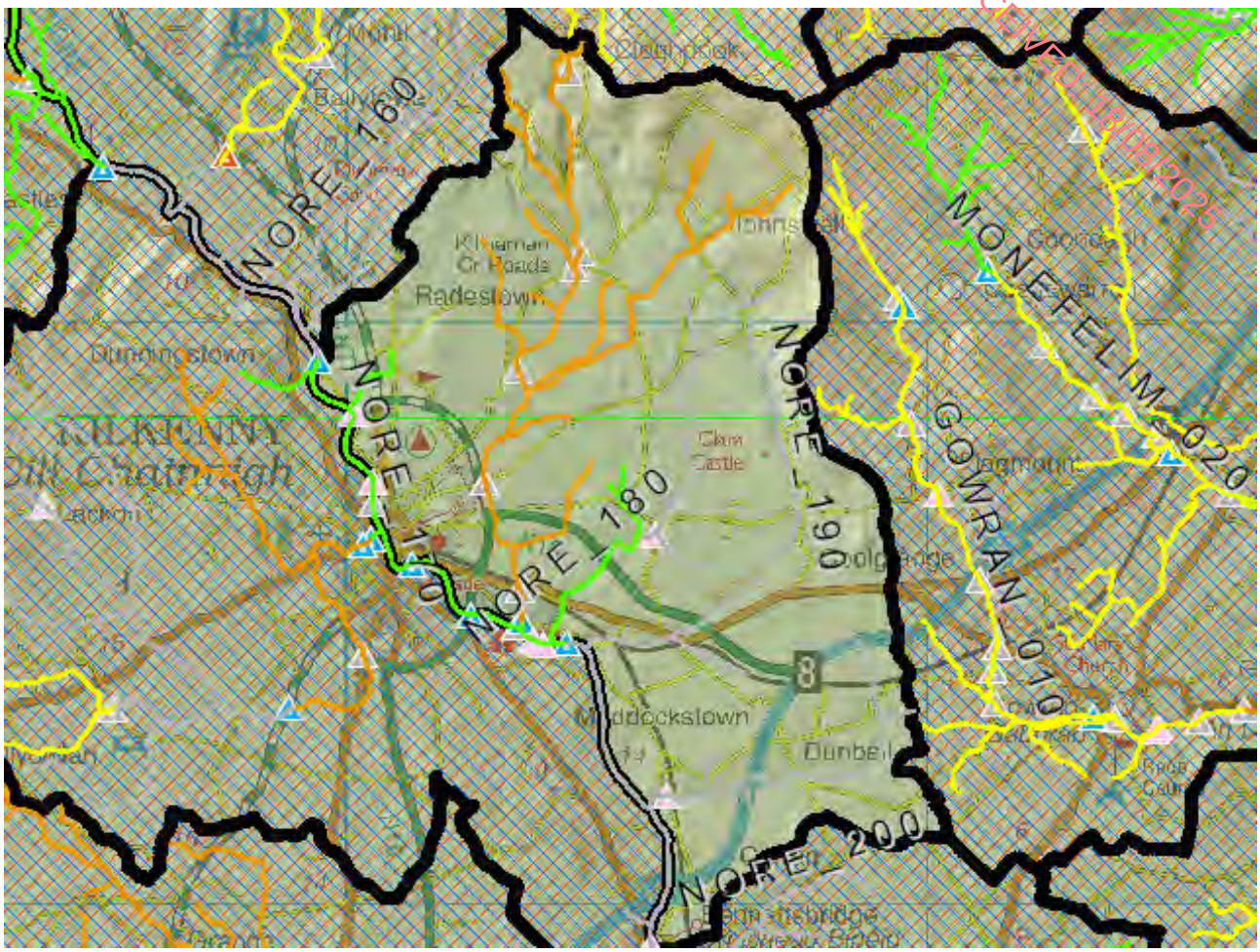


River And Lake Waterbodies: WFD Risk

The following river and lake waterbodies are in the subcatchment.

Code	Name	Type	WFD Risk	Significant Pressure
IE_SE_15B041100	BROWNSTOWN (POCOCKE)_010	River	At risk	Yes
IE_SE_15K540650	KILDERRY_010	River	Review	Yes
IE_SE_15N011950	NORE_170	River	Review	Yes
IE_SE_15N012000	NORE_180	River	Review	Yes
IE_SE_15N012090	NORE_190	River	Review	Yes
IE_SE_15R370950	RATHGARVAN_or_CLIFDEN_010	River	Review	Yes

Map Subcatchment Water Quality Status Map



River And Lake Waterbodies: Water Quality Status

The water quality status of river and lake waterbodies in the subcatchment is as follows.

Code	Name	Type	2007-09	2010-12	2010-15
IE_SE_15B041100	BROWNSTOWN (POCOCKE)_010	River	Good	Moderate	Poor
IE_SE_15K540650	KILDERRY_010	River	Unassigned	Unassigned	Unassigned
IE_SE_15N011950	NORE_170	River	Moderate	Good	Good
IE_SE_15N012000	NORE_180	River	Poor	Moderate	Good
IE_SE_15N012090	NORE_190	River	Unassigned	Unassigned	Unassigned
IE_SE_15R370950	RATHGARVAN_or_CLIFDEN_010	River	Unassigned	Unassigned	Unassigned

Potentially Dependent Transitional and Coastal Waterbodies

The Transitional and Coastal waterbodies listed below intersect spatially with river and lake waterbodies in the subcatchment …

Code	Name	Type	Local Authority	WFD Risk

Potentially Dependent Groundwater Waterbodies

The groundwaters listed below interset spatially with river and lake waterbodies in the subcatchment …

Code	Name	Type	Local Authority	WFD Risk
IE_SE_G_009	Ballingarry	Groundwater	Kilkenny County Council	Review
IE_SE_G_021	Bennettsbridge	Groundwater	Kilkenny County Council	Review
IE_SE_G_038	Clifden	Groundwater	Kilkenny County Council	Not at risk
IE_SE_G_078	Kilkenny	Groundwater	Kilkenny County Council	At risk
IE_SE_G_124	Shanragh	Groundwater	Laois County Council	Not at risk
IE_SE_G_128	Stoneyford Gravels	Groundwater	Kilkenny County Council	Review
IE_SE_G_157	Bagenalstown Lower	Groundwater	Carlow County Council	Review
IE_SE_G_163	Killkenny-Ballynakill Gravels	Groundwater	Kilkenny County Council	Not at risk
IE_SE_G_165	Goresbridge North	Groundwater	Kilkenny County Council	Review

Protected Areas intersecting River and Lake Waterbodies

The Protected Areas listed below intersect spatially with river and lake waterbodies in the subcatchment …

Code	Name	Type	Waterbody Name	Association Type
IE0002162	River Barrow And River Nore SAC	SAC	BROWNSTOWN (POCOCKE)_010	Overlapping / partly within Protected Area
IE0002162	River Barrow And River Nore SAC	SAC	NORE_170	Overlapping / partly within Protected Area
IE0002162	River Barrow And River Nore SAC	SAC	NORE_180	Overlapping / partly within Protected Area
IE0002162	River Barrow And River Nore SAC	SAC	NORE_190	Overlapping / partly within Protected Area
IE0002162	River Barrow And River Nore SAC	SAC	RATHGARVAN_or_CLIFDEN_010	Overlapping / partly within Protected Area
IEPA1_SE_15B041100	BROWNSTOWN (POCOCKE)_010	Drinking Water	BROWNSTOWN (POCOCKE)_010	Within Protected Area
IEPA5D0027	River Nore	Salmonid	NORE_170	Overlapping / partly within Protected Area
IEPA5D0027	River Nore	Salmonid	NORE_190	Overlapping / partly within Protected Area
IEPA5D0027	River Nore	Salmonid	NORE_180	Overlapping / partly within Protected Area
IERI_SE_2001_0017	Nore (River)	Nutrient Sensitive Area	NORE_190	Overlapping / partly within Protected Area

Pressures

Below is a list of all significant pressures identified in the subcatchment.

Code	Name	WFD Risk	Pressure Category	Pressure Sub Category
IE_SE_15B041100	BROWNSTOWN (POCOCKE)_010	At risk	Urban Run-off	Diffuse Sources Run-Off
IE_SE_G_078	Kilkenny	At risk	Agriculture	Agriculture
IE_SE_15K540650	KILDERRY_010	Review	Agriculture	Agriculture
IE_SE_15N011950	NORE_170	Review	Urban Run-off	Diffuse Sources Run-Off
IE_SE_15N012000	NORE_180	Review	Urban Run-off	Diffuse Sources Run-Off
IE_SE_15N012000	NORE_180	Review	Urban Waste Water	Agglomeration PE > 10,000
IE_SE_15N012000	NORE_180	Review	Urban Waste Water	Agglomeration PE < 500
IE_SE_15N012090	NORE_190	Review	Urban Run-off	Diffuse Sources Run-Off
IE_SE_15N012090	NORE_190	Review	Urban Waste Water	Agglomeration PE < 500
IE_SE_15N012090	NORE_190	Review	Urban Waste Water	Agglomeration PE > 10,000
IE_SE_15R370950	RATHGARVAN_or_CLIFDEN_010	Review	Industry	IPC
IE_SE_15R370950	RATHGARVAN_or_CLIFDEN_010	Review	Agriculture	Agriculture
IE_SE_G_009	Ballingarry	Review	Anthropogenic Pressures	Unknown
IE_SE_G_021	Bennettsbridge	Review	Anthropogenic Pressures	Unknown
IE_SE_G_128	Stoneyford Gravels	Review	Anthropogenic Pressures	Unknown
IE_SE_G_157	Bagenalstown Lower	Review	Anthropogenic Pressures	Unknown
IE_SE_G_165	Goresbridge North	Review	Anthropogenic Pressures	Unknown

Further Characterisation Actions

The following further characterisation actions have been identified. These are necessary to help understand more fully issues in the subcatchment and their likely cause.

Code	Name	Action	Responsible Organisation
IE_SE_15N012000	NORE_180	IA6 Multiple Sources in Large Urban Area	Kilkenny County Council
IE_SE_15N012090	NORE_190	IA6 Multiple Sources in Large Urban Area	Kilkenny County Council
IE_SE_15N011950	NORE_170	IA6 Multiple Sources in Large Urban Area	Kilkenny County Council
IE_SE_15B041100	BROWNSTOWN (POCOCKE)_010	IA6 Multiple Sources in Large Urban Area	Kilkenny County Council
IE_SE_15N012000	NORE_180	IA1 Provision of Information	Kilkenny County Council
IE_SE_15R370950	RATHGARVAN_or_CLIFDEN_010	IA3 Determination of Water Quality (unassigned waterbody)	Kilkenny County Council
IE_SE_15K540650	KILDERRY_010	IA3 Determination of Water Quality (unassigned waterbody)	Kilkenny County Council
IE_SE_15N011950	NORE_170	IA1 Provision of Information	Environmental Protection Agency
IE_SE_15N012090	NORE_190	IA3 Determination of Water Quality (unassigned waterbody)	Kilkenny County Council
IE_SE_15B041100	BROWNSTOWN (POCOCKE)_010	IA1 Provision of Information	Kilkenny County Council

Cycle 3

HA 15 Nore Catchment Report, May 2024

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

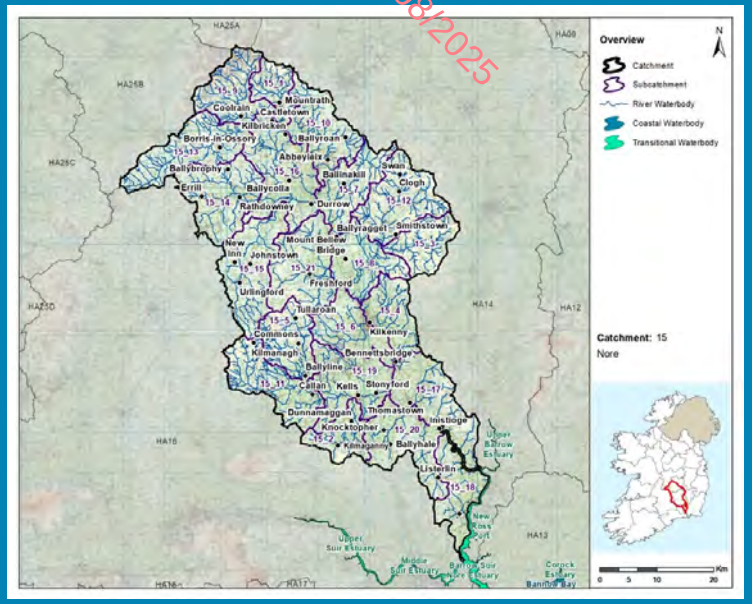
Introduction

This report provides an overview of the water quality in the Nore Catchment and the pressures impacting on water quality. This report is based on data up to 2021. The latest water quality data, dashboards and maps throughout this report are available on catchments.ie and EPA Water Map.

The Nore Catchment includes the area drained by the River Nore and all streams entering tidal water between its confluence with the River Barrow at Ringwood, and the Barrow railway bridge at Drumdowney, Co. Kilkenny, draining a total area of 2,595km². The largest urban centre in the catchment is Kilkenny. The other main urban centres in this catchment are Abbeyleix, Callan and Thomastown.

The Nore catchment is divided into 21 subcatchments with 123 river waterbodies, five transitional waterbodies and 48 groundwater bodies.

View the Nore Catchment on the EPA Water Map



Overview of Subcatchments in the Nore Catchment

Previous Catchment Assessments

Previous catchment assessments, which provide additional historic context and information, are archived on catchments.ie:

- Cycle 2 Catchment Assessments – published September 2018
- Cycle 3 Draft Catchment Assessments – published September 2021

Online Dashboards

Links to online dashboards are provided in this report – these numbers may vary from those in this document as time progress and the online dashboards are updated based on the latest data and scientific assessments.

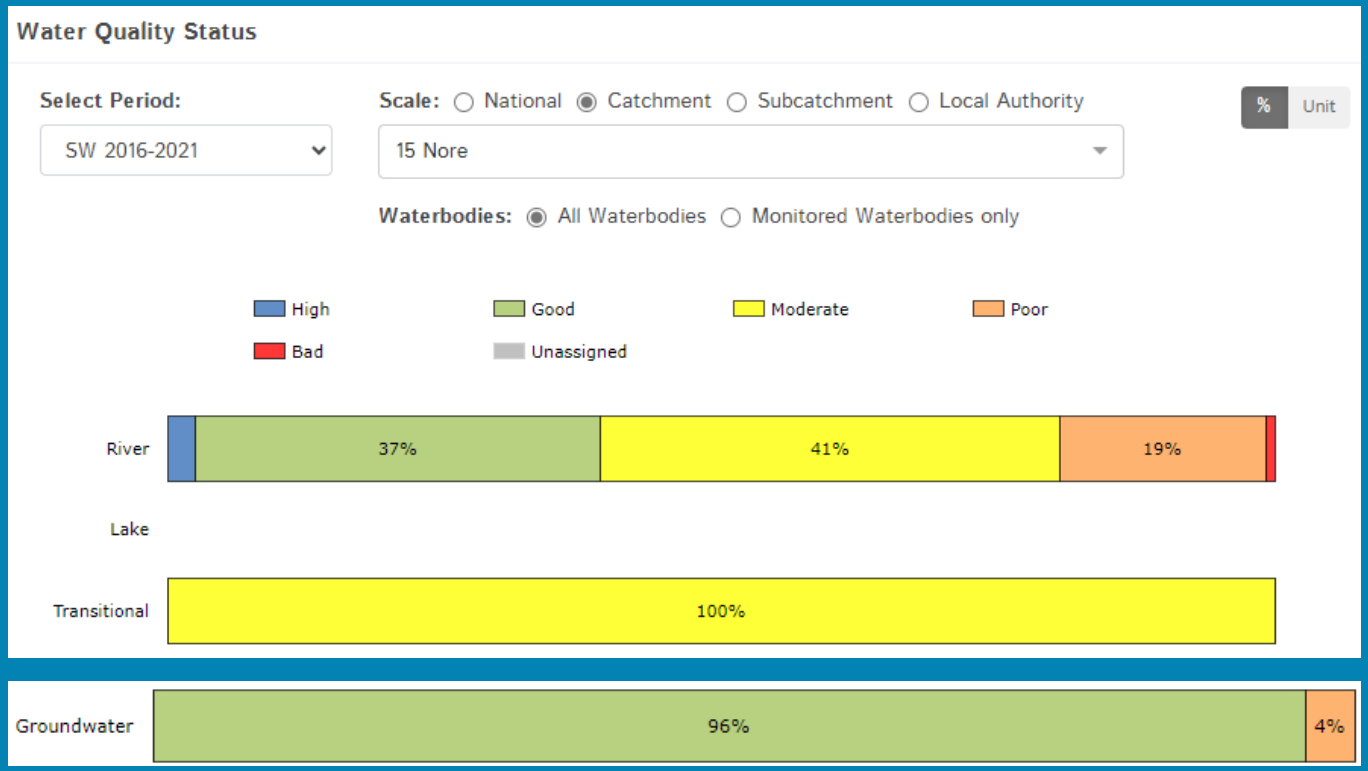
Water Quality Summary

The dashboard below provides a breakdown of water quality status for surface and groundwater bodies in the Nore Catchment.

A total of 38% of surface waterbodies were at Good or High Ecological Status in the 2016-2021 monitoring period. Ninety-six percent of groundwater bodies were at Good status.

Go to EPA Water Maps for WFD Status

EPA Water Map



Water quality status 2016-2021 for the Nore Catchment.

View Online Dashboard: *https://www.catchments.ie/data/#/dashboard/waterquality*

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High Status Objective Waterbodies

High status waters are prioritised for protection and action.

There are seven waterbodies with a **High Ecological Status Objective** (HSO) in the Nore Catchment, with six currently not meeting their environmental objective of High.

Grants for septic tank upgrades may be available in high status objective catchment areas - you can learn more and check your Eircode for eligibility here: https://www.gov.ie/en/publication/6cc1e-domestic-waste-water-treatment-systems-septic-tanks

View HSO river waterbodies in this catchment.
See *Status and Risk / High Status Objective* for other waterbody types.

Water Quality Status - High Status Objective Waterbodies

Select Type: All Surface Waters

Scale: (•) Catchment ( ) Local Authority

15 Nore

	SW 2007-2009	SW 2010-2012	SW 2010-2015	SW 2013-2018	SW 2016-2021
DELOUR_010 (River)	Good	High	High	High	Good
DELOUR_020 (River)	High	High	High	High	High
DELOUR_030 (River)	High	High	High	High	Good
KILLEEN (DELOUR)_010 (River)	Good	High	High	Good	Good
MUCKALEE_010 (River)	High	High	Good	Good	Good
NEEDLEFORD STREAM_010 (River)	High	High	Good	High	Good
TONET_010 (River)	High	High	High	High	Good

Water quality status for High Ecological Status Objective waterbodies.
View Online Dashboard: https://www.catchments.ie/data/#/dashboard/waterquality

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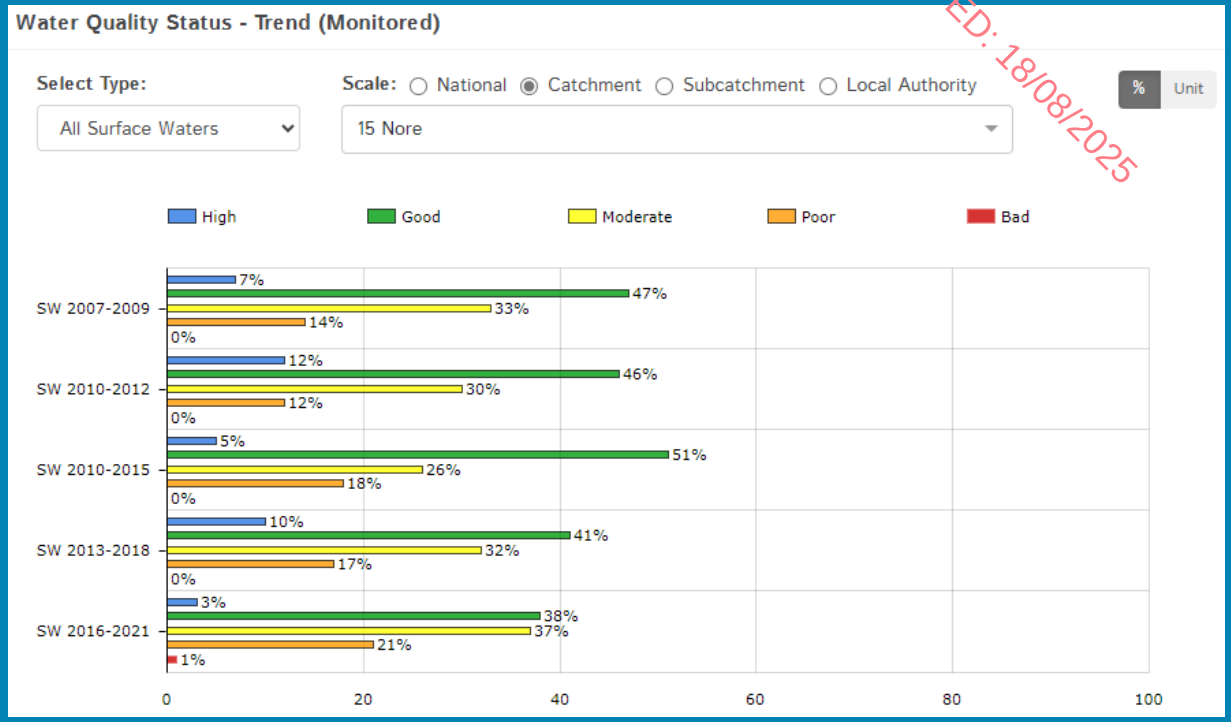
Water Quality Changes

Below illustrates the changes in ecological status in monitored surface waterbodies over the last five monitoring cycles in the Nore Catchment. Nationally while there have been improvements in some waterbodies, these have been offset by declines elsewhere.



Ecological status trends for monitored surface waterbodies over the last five monitoring cycles in the Nore Catchment.

View online dashboard: https://www.catchments.ie/data/#/dashboard/waterquality

A total of 88 (50%) waterbodies are currently meeting their environmental objective of Good or High Ecological Status.

	Total	Achieving Environmental Objectives (2016-2021)	High Status Environmental Objectives Waterbodies	Achieving High Status Environmental Objectives (2016-2021)
Rivers	123	42 (*34%*)	7	1 (*14%*)
Canals	-	-	-	-
Lakes	-	-	-	-
Transitional	5	0 (*0%*)	0	0 (*0%*)
Coastal	-	-	-	-
Groundwater	48	46 (*96%*)	0	0 (*0%*)

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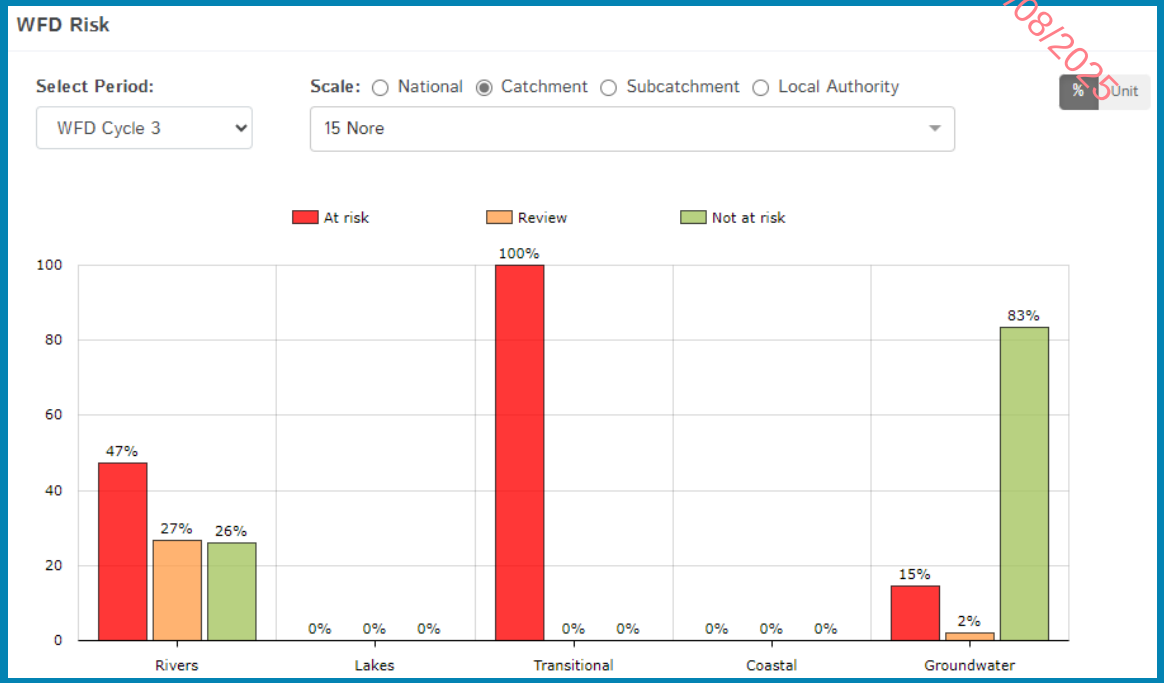
WFD Risk

A total of 70 (40%) waterbodies are *At Risk* of not meeting their environmental objective in the Nore Catchment, while 34 (19%) are under *Review* and 72 (41%) are *Not At Risk.*

Go to EPA Water Map to see WFD Risk for this catchment



WFD Risk for the Nore Catchment based on 2016-2021 data.
View Online Dashboard: https://www.catchments.ie/data/#/dashboard/waterquality

There are currently three heavily modified water bodies (HMWBs) in the Nore Catchment (New Ross Port, Lower Suir Estuary (Little Island – Cheekpoint) and Bregagh (Kilkenny)_030). All three waterbodies are *At Risk*.

There are no artificial waterbodies in the Nore Catchment.

The EPA's characterisation outcome report has more information on WFD Risk

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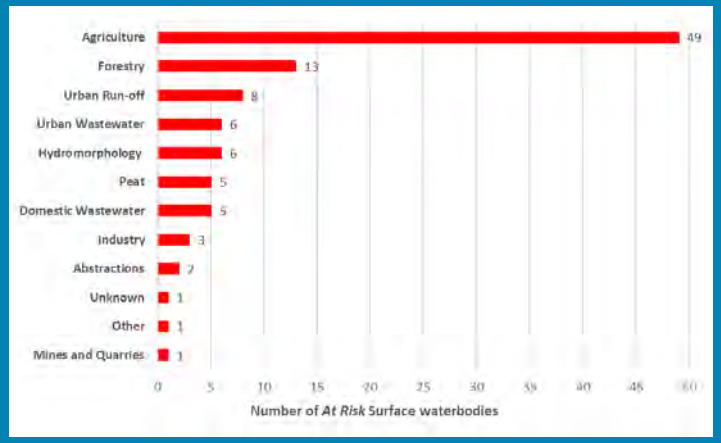
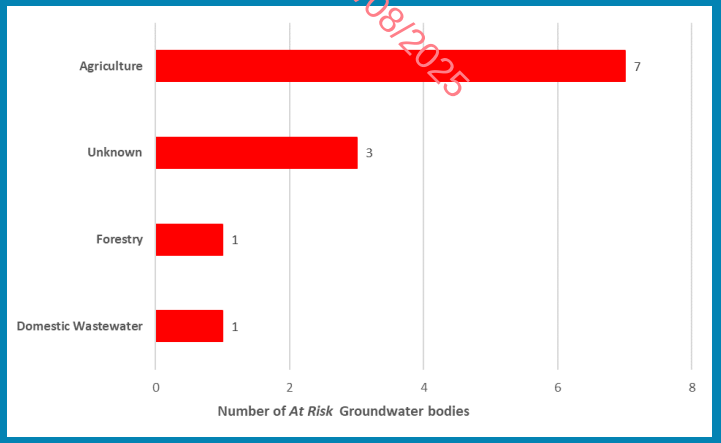
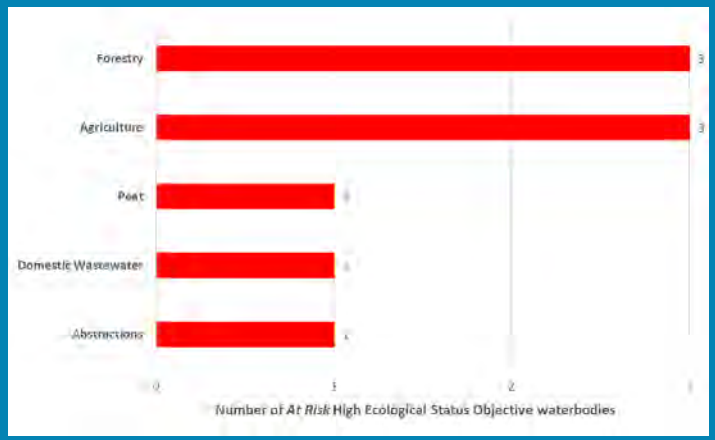
Significant Pressures driving risk

Click here for more information on significant pressures

Significant pressure types impacting the 63 *At Risk* surface waterbodies and seven groundwater bodies are broken down in the figures below, including significant pressure information for the five *At Risk* High Ecological Status Objective waterbodies.







The issues driven by these pressures are mainly nutrient pollution, organic pollution and altered morphological condition (habitat) impacts for surface water, and nutrient pollution and chemical quality diminution for surface water for groundwaters. For more information, see https://www.catchments.ie/data/#/dashboard/pressure?_k=i351zs.

Go to the Summary Information section to get significant pressure and issue data for At Risk waterbodies within the Nore Catchment.

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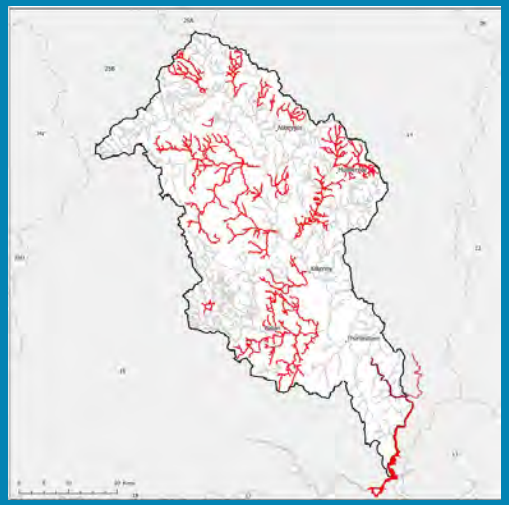
Significant Pressures

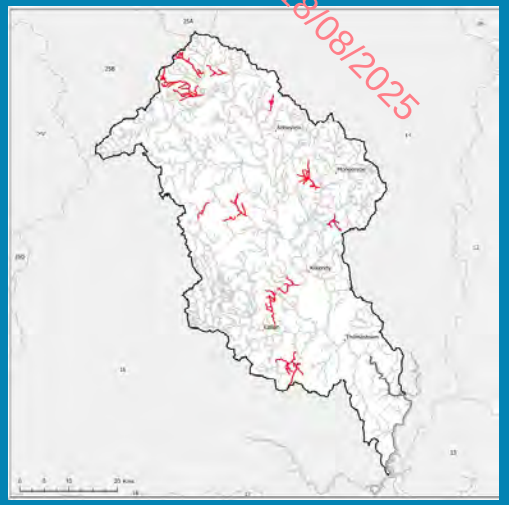
Agriculture is the top significant pressure impacting 80% of the 70 *At Risk* waterbodies within the Nore Catchment, followed by 20% impacted by forestry and 11% by urban run-off.

River Waterbody
Significant Pressure in Waterbody *At Risk*
Other Waterbodies
Lake, Coastal and Transitional Waterbody
Significant Pressure in Waterbody *At Risk*
Other Waterbodies

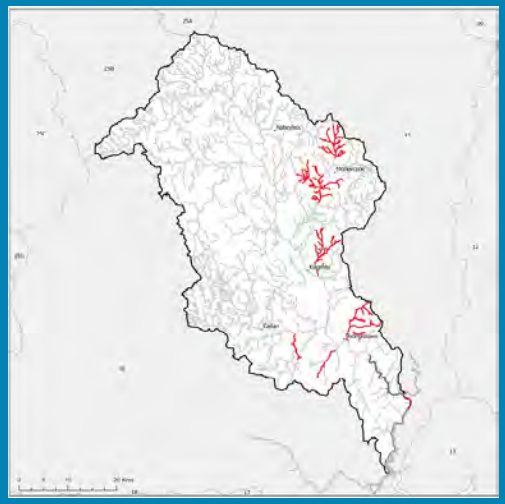
i



ii



iii



The catchments.ie dashboards will show all significant pressures identified for this catchment.

www.catchments.ie/data/#/dashboard/pressure

Go to the EPA Water Maps for the locations of all significant pressure types identified for this catchment

Locations of At Risk surface waterbodies impacted by i) Agriculture, ii) Forestry and iii) Urban Run-off.

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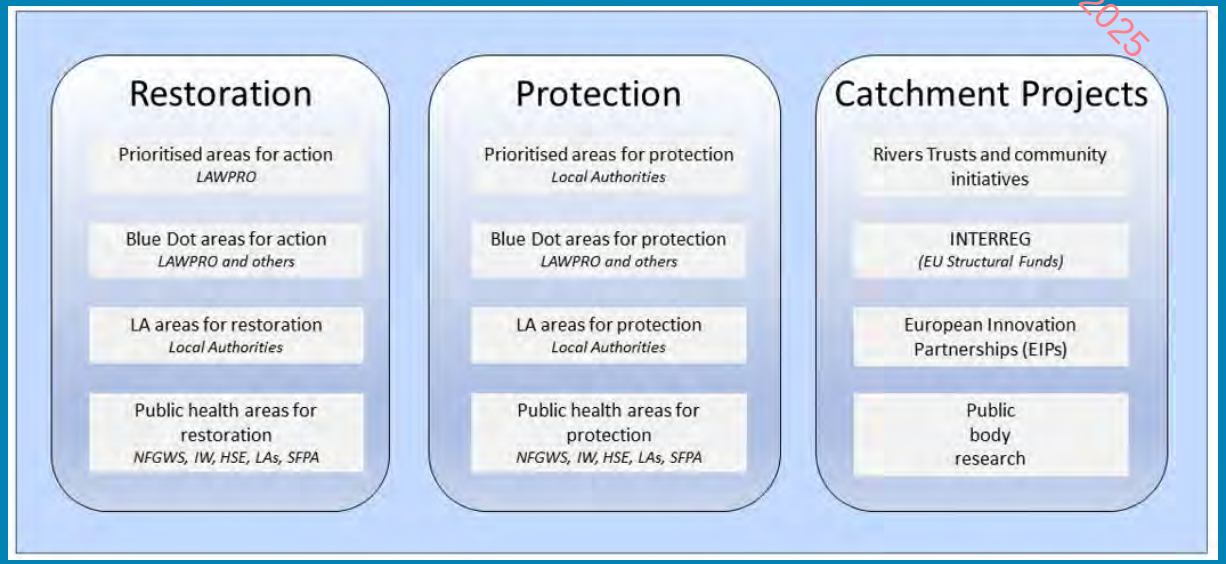
Priority Areas for Action

A number of waterbodies have been prioritised through the selection of Areas for Action. There were seven Priority Areas for Action identified for the second river basin management planning cycle in the Nore Catchment. This has increased to a total of 13 Areas for Restoration, eight Areas for Protection and two Catchment Projects for the third cycle. ***Go to the summary information section to get Area for Action information for waterbodies within the Nore Catchment.***



Types of Areas for Action under the third cycle River Basin Management Plan

- View the current progress of Areas for Action and Summary Reports completed by LAWPRO, on catchments.ie and the EPA Water Map:
  - https://www.catchments.ie/data/#/areaforaction
  - https://gis.epa.ie/EPAMaps/default?easting=?&northing=?&lid=EPA:WFD_AreasForAction
- LAWPRO have also published detailed desktop studies on Prioritised Areas for Action (PAAs) which are available their website: https://lawaters.ie/desktop-studies/
- Information on Areas for Action for the second cycle is available in Cycle 2 Catchment Assessments which have been archived on catchments.ie: https://www.catchments.ie/download/cycle-2-catchment-assessments-published-september-2018/

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Summary information for all waterbodies in the Nore Catchment

The next page provides a table with a breakdown of key information for all waterbodies in this catchment. The key is provided below. Additional information for each waterbody is available on https://www.catchments.ie/data, including a breakdown of status, a monitoring schedule for monitored waterbodies and downloadable chemistry results, where available.

Protected Area categories	BW: Bathing Water DW: Drinking Water Fish: Salmonid Waters NSA: Nutrient Sensitive Areas SAC: Special Area of Conservation, Natura 2000 (water dependent habitats and species) SF: Shellfish Area SPA: Special Area of Protection, Natura 2000 (water dependent habitat and species)
Significant pressure* types categories ** For At Risk waterbodies only*	Ab: Abstractions Ag: Agriculture Aq: Aquaculture At: Atmospheric DWW: Domestic Wastewater For: Forestry HPS: Historically polluted sites HYMO: Hydromorphology Ind: Industry IS: Invasive Species M+Q: Mines and Quarries Peat: Peat Drainage and Extraction UR: Urban Run-Off UWW: Urban Wastewater Was: Waste WT: Water Treatment

Catchment Code	Waterbody (WB) Code	WB Name	WB Type	Local Authority	Protected Area	Status 10-15	Status 13-18	Status 16-21	Environmental Objective	Environmental Objective Date	WFD Risk 16-21	Significant Issue(s)	Significant Pressure(s)	Area for Action (AFA)	AFA (lead, type)	Link to WB page on catchments.ie	Link to WB on EPA Water Map
14, 15, 16	IE_SE_G_009	Ballingarry	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_021	Bennettsbridge	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_G_026	Callan	Groundwater	Kilkenny County Council	DWPA	Good	Good	Good	Good	2021 or earlier	At risk	ChemicalQualityDiminutionForSW, Nutrients	Ag			View WB Page	View WB on EPA Water Map
14, 15, 25A, 25B	IE_SE_G_027	Camross	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 16, 18	IE_SE_G_030	Carrick-on-Suir	Groundwater	Waterford City & County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	At risk	ChemicalQualityDiminutionForSW, Nutrients	DWTS, For, Ag			View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_034	Castlecomer	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_038	Clifden	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25A	IE_SE_G_039	Clonaslee	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 16, 18	IE_SE_G_040	Clonmel	Groundwater	Tipperary County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	At risk	Nutrients	Ag, Unknown			View WB Page	View WB on EPA Water Map
14, 15, 25B	IE_SE_G_047	Coolrain	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 25B	IE_SE_G_050	Derrymore Gravels	Groundwater	Tipperary County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 16	IE_SE_G_051	Donaghmore	Groundwater	Laois County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_076	Inistioge	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_078	Kilkenny	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	At risk	ChemicalQualityDiminutionForSW, Nutrients	Unknown, Ag			View WB Page	View WB on EPA Water Map
15, 16	IE_SE_G_081	Killenaule	Groundwater	Tipperary County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_G_083	Kilmanagh Gravels	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_G_088	Lisdowney	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_104	Newtown	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25A	IE_SE_G_107	Portlaoise	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 16, 25B	IE_SE_G_114	Rathdowney	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25A	IE_SE_G_118	Rosenallis	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 16	IE_SE_G_119	Shanahoe	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_124	Shanragh	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 16	IE_SE_G_126	Slieveardagh Hills	Groundwater	Tipperary County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_G_128	Stoneyford Gravels	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Poor	Good	2022-2027	At risk	ChemicalQualityDiminutionForSW, Nutrients	Ag			View WB Page	View WB on EPA Water Map
15, 16, 24, 25B, 25C, 25D	IE_SE_G_131	Templemore	Groundwater	Tipperary County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	At risk	Nutrients	Unknown, Ag			View WB Page	View WB on EPA Water Map
15	IE_SE_G_134	GWDTE-The Loughlans Turlough (SAC000407)	Groundwater	Kilkenny County Council	DWPA; SAC (GWDTE)	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_135	Thomastown	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 16, 17	IE_SE_G_149	Waterford	Groundwater	Waterford City & County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
12, 13, 14, 15, 9	IE_SE_G_152	New Ross	Groundwater	Carlow County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25A, 7	IE_SE_G_153	Bagenalstown Upper	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 16	IE_SE_G_155	Mullinavat	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_156	Durrow	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Poor	Poor	Good	2022-2027	At risk	Nutrients	Ag			View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_157	Bagenalstown Lower	Groundwater	Carlow County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 16	IE_SE_G_158	Thurles	Groundwater	Tipperary County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_159	Clifden South	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 16	IE_SE_G_161	Clifden Northwest	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_G_163	Killkenny-Ballynakill Gravels	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_165	Goresbridge North	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map

14, 15	IE_SE_G_166	Goresbridge South	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_G_168	Poormansbridge Gravels	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_G_171	Abbeyleix Gravels	Groundwater	Laois County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_G_174	Castletown Gravels	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 25A, 25B	IE_SH_G_045	Bredagh	Groundwater	Offaly County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 16, 25A, 25B, 25C	IE_SH_G_205	Shinrone	Groundwater	Offaly County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25A, 25B	IE_SH_G_210	Slieve Bloom North	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 25A, 25B	IE_SH_G_211	Slieve Bloom South	Groundwater	Offaly County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15, 25B	IE_SH_G_247	Roscrea Gravels	Groundwater	Tipperary County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_14O130860	OAKLANDS_010	River	Kilkenny County Council	SAC; NSA;	Unassigned	Unassigned	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15A010400	ARIGNA (KILKENNY)_010	River	Kilkenny County Council		Good	Moderate	Moderate	Good	2022-2027	At risk	UnknownImpactType	Ag	Nuenna	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15A020100	ARRIGLE_010	River	Kilkenny County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15A020250	ARRIGLE_020	River	Kilkenny County Council	SAC;	Good	High	High	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15A020300	ARRIGLE_030	River	Kilkenny County Council	SAC;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ind			View WB Page	View WB on EPA Water Map
15	IE_SE_15A030960	ARDREAGH_010	River	Tipperary County Council		Unassigned	Moderate	Moderate	Good	2022-2027	Review			Goul	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15B010100	BALLYROAN_010	River	Laois County Council		Moderate	Poor	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag, UWW	Ballyroan	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15B010200	BALLYROAN_020	River	Laois County Council		Poor	Moderate	Poor	Good	2022-2027	At risk	Morphological, Nutrients, Organic	Unknown, HYMO	Ballyroan	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15B020080	BREGAGH (KILKENNY)_010	River	Kilkenny County Council		Moderate	Poor	Poor	Good	2022-2027	At risk	Sediment, Nutrients	Ag	Bregagh (Kilkenny)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15B020100	BREGAGH (KILKENNY)_020	River	Kilkenny County Council		Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Morphological, Nutrients	Ag, For	Bregagh (Kilkenny)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15B020350	BREGAGH (KILKENNY)_030	River	Kilkenny County Council		Poor	Poor	Moderate	Good	2022-2027	At risk	Morphological, Nutrients	HYMO, Ag, Ind	Bregagh (Kilkenny)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15B041100	BROWNSTOWN (POCOCKE)_010	River	Kilkenny County Council	SAC;	Poor	Poor	Moderate	Good	2022-2027	At risk	Nutrients, Organic	UR	Brownstown (Pococke)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15B120080	BAUNBALLINLOUGH STREAM_010	River	Kilkenny County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Morphological, Nutrients	Ag	Goul	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15C010100	CASTLECOMER STREAM_010	River	Kilkenny County Council		Good	Moderate	Moderate	Good	2022-2027	At risk	Oxygetion, Nutrients	For, UR	Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15C030300	CLOGH_010	River	Laois County Council	SAC;	Moderate	Good	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag, UR	Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15C040400	CLOGHNAGH_010	River	Kilkenny County Council	SAC;	Good	Good	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15C050100	Clodiagh_010	River	Kilkenny County Council	DWPA; SAC; SPA;	Unassigned	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15C060600	CAPPANACLOGHY_010	River	Laois County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients, Organic, UnknownImpactType	Peat	Ballyroan	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15C060900	CAPPANACLOGHY_020	River	Laois County Council		Good	Good	Poor	Good	2022-2027	At risk	Nutrients	Ag, Peat	Ballyroan	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15C060990	CAPPANACLOGHY_030	River	Laois County Council	SAC; SPA;	Unassigned	Moderate	Moderate	Good	2022-2027	Review			Ballyroan	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15C120400	CAHERLESK STREAM_010	River	Kilkenny County Council	SAC;	Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients	Ag	Stoneyford-Kells-Burnchurch	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15C191100	CLONAWOOLAN STREAM_010	River	Laois County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients, Organic, UnknownImpactType	For, Ag, Peat	Ballyroan	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15C200040	COALBROOK STREAM_010	River	Tipperary County Council		Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15D010060	DELOUR_010	River	Laois County Council	SAC;	High	High	Good	High	2022-2027	Review			Delour - Blue Dot	LAWPRO, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15D010150	DELOUR_020	River	Laois County Council	SAC;	High	High	High	High	2021 or earlier	Not at risk			Delour - Blue Dot	LAWPRO, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15D010400	DELOUR_030	River	Laois County Council	SAC; SPA;	High	High	Good	High	2022-2027	At risk	Sediment	Ag	Delour - Blue Dot	LAWPRO, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15D020700	DININ (MAIN CHANNEL)_010	River	Kilkenny County Council	SAC;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag, DWTS	Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15D020800	DININ (MAIN CHANNEL)_020	River	Kilkenny County Council	DWPA; SAC;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Hydrological, Nutrients, UnknownImpactType	Ag, Ab, M+Q	Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15D030700	DONAGHMORE STREAM_010	River	Laois County Council		Moderate	Moderate	Poor	Good	2022-2027	At risk	Nutrients	Ag	Erkina	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15D040500	DESART STREAM_010	River	Kilkenny County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Morphological, Nutrients	For, Ag	Stoneyford-Kells-Burnchurch	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15D070080	DININ (NORTH)_010	River	Laois County Council		Poor	Good	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15D070200	DININ (NORTH)_020	River	Kilkenny County Council	SAC;	Good	Good	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map

15	IE_SE_15D070250	DININ (NORTH)_030	River	Kilkenny County Council	DWPA; SAC;	Unassigned	Moderate	Moderate	Good	2022-2027	Review			Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15D070400	DININ (NORTH)_040	River	Kilkenny County Council	SAC;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	UWW, UR, Ag, DWTS	Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15D080450	DININ (SOUTH)_010	River	Laois County Council		Good	Moderate	Good	Good	2021 or earlier	Not at risk			Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15D080600	DININ (SOUTH)_020	River	Kilkenny County Council	SAC;	Moderate	Good	Good	Good	2021 or earlier	Not at risk			Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15D420500	DREELINGSTOWN_010	River	Kilkenny County Council		Unassigned	Good	Moderate	Good	2022-2027	Review			Bregagh (Kilkenny)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15E010040	ERKINA_010	River	Laois County Council		Moderate	Good	Good	Good	2021 or earlier	Review			Erkina	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15E010100	ERKINA_020	River	Laois County Council		Unassigned	Moderate	Moderate	Good	2022-2027	Review			Erkina	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15E010200	ERKINA_030	River	Laois County Council		Poor	Moderate	Poor	Good	2022-2027	At risk	Nutrients	UWW, Ag	Erkina	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15E010300	ERKINA_040	River	Laois County Council		Moderate	Poor	Moderate	Good	2022-2027	At risk	Sediment, Nutrients	Ag	Erkina	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15E010550	ERKINA_050	River	Laois County Council	SAC; SPA;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Erkina	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15E020700	ENNISNAG STREAM_010	River	Kilkenny County Council	SAC;	Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients	Ag, DWTS	Stoneyford-Kells-Burnchurch	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15E030400	ERRILL_010	River	Laois County Council		Unassigned	Good	Moderate	Good	2022-2027	Review			Erkina	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15E030500	ERRILL_020	River	Laois County Council		Moderate	Good	Good	Good	2021 or earlier	Review			Erkina	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G010045	GLORY_010	River	Kilkenny County Council		Moderate	Poor	Poor	Good	2022-2027	At risk	Sediment, Nutrients, Organic	UWW, HYMO, Ag	Glory Kilkenny	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G010190	GLORY_020	River	Kilkenny County Council	SAC;	Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	For, Ag	Glory Kilkenny	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G010300	GLORY_030	River	Kilkenny County Council	SAC;	Good	Moderate	Poor	Good	2022-2027	At risk	Nutrients, Organic	UR, Ag	Glory Kilkenny	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G020060	GOUL_010	River	Tipperary County Council		Unassigned	Good	Moderate	Good	2022-2027	Review			Goul	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G020110	GOUL_020	River	Tipperary County Council		Unassigned	Good	Poor	Good	2022-2027	Review			Goul	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G020200	GOUL_030	River	Kilkenny County Council	SAC;	Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Goul	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G020300	GOUL_040	River	Kilkenny County Council		Moderate	Moderate	Poor	Good	2022-2027	At risk	Morphological, Nutrients	For, Ag	Goul	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G020360	GOUL_050	River	Kilkenny County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Goul	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G020500	GOUL_060	River	Laois County Council	SAC; SPA;	Moderate	Poor	Poor	Good	2022-2027	At risk	Sediment, Morphological, Nutrients	HYMO, Ag	Goul	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G030060	GULLY_010	River	Laois County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Morphological, Nutrients	Ag	Gully	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G030100	GULLY_020	River	Laois County Council		Poor	Moderate	Poor	Good	2022-2027	At risk	Sediment, Hydrological, Morphological	HYMO	Gully	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G030300	GULLY_030	River	Laois County Council		Good	Good	Good	Good	2021 or earlier	Not at risk			Gully	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G080300	GORTEENAHILLA_010	River	Kilkenny County Council		Good	Poor	Moderate	Good	2022-2027	At risk	Oxygetion, Nutrients	For, Ag	Nuenna	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15G100060	GARRANACOOL STREAM_010	River	Tipperary County Council		Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15G720980	GLEBE_010	River	Kilkenny County Council	SAC;	Unassigned	Moderate	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15G820400	Glory River_010	River	Kilkenny County Council		Unassigned	Good	Moderate	Good	2022-2027	Review			Glory Kilkenny	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15H010300	HOLLY PARK STREAM_010	River	Laois County Council		Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag	Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15K010400	KILLEEN (DELOUR)_010	River	Laois County Council	SAC;	High	Good	Good	High	2022-2027	At risk	Sediment, Oxygetion	Ag, DWTS, For	Delour - Blue Dot	LAWPRO, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15K020200	KING'S (KILKENNY)_010	River	Tipperary County Council		Good	Good	Moderate	Good	2022-2027	At risk	Nutrients	Ag	King's (Kilkenny) Tipperary	Tipperary County Council, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15K020400	KING'S (KILKENNY)_020	River	Tipperary County Council	SAC;	Unassigned	Moderate	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15K020560	KING'S (KILKENNY)_030	River	Kilkenny County Council	SAC;	Good	Moderate	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15K020600	KING'S (KILKENNY)_040	River	Kilkenny County Council	SAC; SPA;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Morphological, Nutrients, Organic	Other, HYMO, Ag	Caherleske GWS	NFGWS, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15K020910	KING'S (KILKENNY)_050	River	Kilkenny County Council	SAC; SPA;	Moderate	Moderate	Bad	Good	2022-2027	At risk	Nutrients	Ag	Stoneyford-Kells-Burnchurch	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15K540650	KILDERRY_010	River	Kilkenny County Council		Unassigned	Good	Moderate	Good	2022-2027	Review			Brownstown (Pococke)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15K750910	Knockwilliam_010	River	Kilkenny County Council	SAC;	Unassigned	Moderate	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15L010200	LITTLE ARRIGLE_010	River	Kilkenny County Council	SAC;	Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	UWW, Ind, UR			View WB Page	View WB on EPA Water Map
15	IE_SE_15L020100	LISDOWNEY_010	River	Kilkenny County Council		Moderate	Good	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Nuenna	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15M010080	MOUNTRATH_010	River	Laois County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk			Mountrath	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map

15	IE_SE_15M010100	MOUNTRATH_020	River	Laois County Council	SAC;	Good	Moderate	Moderate	Good	2022-2027	At risk	Oxygetion, Nutrients, Organic	For	Mountrath	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15M010300	MOUNTRATH_030	River	Laois County Council	SAC;	Good	Moderate	Moderate	Good	2022-2027	At risk	Oxygetion, Organic	Ag	Mountrath	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15M020100	MUCKALEE_010	River	Kilkenny County Council		Good	Good	Good	High	2022-2027	At risk	Sediment, Nutrients	For	Dinin	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15M030540	MUNSTER_010	River	Kilkenny County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15M030600	MUNSTER_020	River	Tipperary County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15M030700	MUNSTER_030	River	Kilkenny County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15M340730	MODESHIL_010	River	Tipperary County Council	SAC;	Unassigned	Moderate	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15N010080	NORE_010	River	Tipperary County Council	Fish;	Good	Good	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15N010100	NORE_020	River	Tipperary County Council	Fish;	Unassigned	Good	Moderate	Good	2022-2027	Review			Couraguneen GWS	NFGWS, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15N010200	NORE_030	River	Tipperary County Council	Fish;	Unassigned	Good	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15N010300	NORE_040	River	Tipperary County Council	Fish;	Good	Moderate	Poor	Good	2022-2027	At risk	Nutrients, Organic	Peat			View WB Page	View WB on EPA Water Map
15	IE_SE_15N010400	NORE_050	River	Laois County Council	Fish;	Unassigned	Moderate	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15N010500	NORE_060	River	Laois County Council	Fish; SPA;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15N010600	NORE_070	River	Laois County Council	SAC; Fish; SPA;	Unassigned	High	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15N010700	NORE_080	River	Laois County Council	SAC; Fish; SPA;	Good	High	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15N010900	NORE_090	River	Laois County Council	SAC; Fish; SPA;	Good	High	High	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15N011100	NORE_100	River	Laois County Council	SAC; Fish; SPA;	Good	High	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15N011300	NORE_110	River	Laois County Council	SAC; Fish; SPA;	Good	Good	Good	Good	2021 or earlier	Not at risk			Gully	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15N011400	NORE_120	River	Kilkenny County Council	DWPA; SAC; Fish; SPA;	Unassigned	Good	Moderate	Good	2022-2027	At risk	Nutrients	Ag			View WB Page	View WB on EPA Water Map
15	IE_SE_15N011500	NORE_130	River	Kilkenny County Council	SAC; Fish; SPA;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15N011600	NORE_140	River	Kilkenny County Council	SAC; Fish; SPA;	Unassigned	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15N011700	NORE_150	River	Kilkenny County Council	SAC; Fish; SPA;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15N011750	NORE_160	River	Kilkenny County Council	DWPA; SAC; Fish; SPA;	Unassigned	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15N011950	NORE_170	River	Kilkenny County Council	SAC; Fish; SPA;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15N012000	NORE_180	River	Kilkenny County Council	SAC; Fish; SPA;	Good	Good	Good	Good	2021 or earlier	Not at risk			Maddoxtown GWS	NFGWS, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15N012090	NORE_190	River	Kilkenny County Council	SAC; Fish; SPA; NSA;	Unassigned	Moderate	Moderate	Good	2022-2027	Review			Clifden - The Highrath GWS	NFGWS, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15N012130	NORE_200	River	Kilkenny County Council	SAC; Fish; SPA; NSA;	Unassigned	Moderate	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15N012200	NORE_210	River	Kilkenny County Council	SAC; Fish; SPA; NSA;	Moderate	Good	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15N012310	NORE_220	River	Kilkenny County Council	DWPA; SAC; Fish; SPA; NSA;	Good	Moderate	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15N012330	NORE_230	River	Kilkenny County Council	SAC; Fish; SPA;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	UR			View WB Page	View WB on EPA Water Map
15	IE_SE_15N012400	NORE_240	River	Kilkenny County Council	SAC; Fish; SPA; NSA;	Good	Moderate	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
15	IE_SE_15N012500	NORE_250	River	Kilkenny County Council	SAC; Fish; SPA; NSA;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15N020100	NUENNA_010	River	Kilkenny County Council		Poor	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Nuenna	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15N020400	NUENNA_020	River	Kilkenny County Council	SAC; SPA;	Poor	Moderate	Poor	Good	2022-2027	At risk	Nutrients, Organic	Ag, UWW	Nuenna	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15N040200	NEEDLEFORD STREAM_010	River	Laois County Council	SAC;	Good	High	Good	High	2022-2027	At risk	Hydrological, Nutrients, Organic	Ab, Ag, Peat	Mountrath	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15O010050	OWVEG (NORE)_010	River	Laois County Council		Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15O010080	OWVEG (NORE)_020	River	Laois County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15O010160	OWVEG (NORE)_030	River	Laois County Council	SAC;	Moderate	Good	Good	Good	2021 or earlier	Not at risk			Ballypickas GWS	NFGWS, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15O010280	OWVEG (NORE)_040	River	Kilkenny County Council	SAC; SPA;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
15	IE_SE_15O010400	OWVEG (NORE)_050	River	Laois County Council	SAC; SPA;	Good	Good	Good	Good	2021 or earlier	Not at risk			Attanagh GWS	NFGWS, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15R031100	RATHDOWNEY STREAM_010	River	Laois County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients	Ag	Erkina	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15R370950	RATHGARVAN_or_CLIFDEN_010	River	Kilkenny County Council	SAC; SPA;	Unassigned	Moderate	Poor	Good	2022-2027	Review			Brownstown (Pococke)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map

15	IE_SE_15S010100	STONYFORD STREAM (KILKENNY)_010	River	Kilkenny County Council		Unassigned	Moderate	Poor	Good	2022-2027	At risk	Nutrients	Ag, DWTS	Stoneyford-Kells-Burnchurch	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15T010200	TONET_010	River	Laois County Council	SAC;	High	High	Good	High	2022-2027	At risk	UnknownImpactType	For	Tonet	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15T010400	TONET_020	River	Laois County Council		Poor	Moderate	Moderate	Good	2022-2027	At risk	UnknownImpactType	For	Tonet	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15T010600	TONET_030	River	Laois County Council	SAC; SPA;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	UnknownImpactType	For	Tonet	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
15	IE_SE_15T020200	TULLAROAN STREAM_010	River	Kilkenny County Council		Unassigned	Poor	Moderate	Good	2022-2027	Review			Tullaroan stream	Kilkenny County Council, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15T020250	TULLAROAN STREAM_020	River	Kilkenny County Council		Good	Good	Good	Good	2021 or earlier	Not at risk			Tullaroan stream	Kilkenny County Council, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15T020450	TULLAROAN STREAM_030	River	Kilkenny County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Review			Tullaroan stream	Kilkenny County Council, Protection	View WB Page	View WB on EPA Water Map
15	IE_SE_15T360920	TULLAGHER_010	River	Kilkenny County Council	SAC;	Unassigned	Good	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14, 15	IE_SE_100_0200	New Ross Port	Transitional	Wexford County Council	SAC; SF; NSA;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag			View WB Page	View WB on EPA Water Map
14, 15	IE_SE_100_0250	Barrow Nore Estuary Upper	Transitional	Wexford County Council	SAC; NSA;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	UR, Ag			View WB Page	View WB on EPA Water Map
14, 15	IE_SE_100_0300	Upper Barrow Estuary	Transitional	Kilkenny County Council	SAC; NSA;	Good	Good	Moderate	Good	2022-2027	At risk	Nutrients	Ag			View WB Page	View WB on EPA Water Map
14, 15	IE_SE_100_0400	Nore Estuary	Transitional	Kilkenny County Council	SAC; SPA; NSA;	Moderate	Good	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag			View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_100_0500	Lower Suir Estuary (Little Island - Cheekpoint)	Transitional	Waterford City & County Council	SAC; SF; NSA;	Moderate	Good	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag			View WB Page	View WB on EPA Water Map

Cycle 3

HA 14 Barrow Catchment Report, May 2024

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

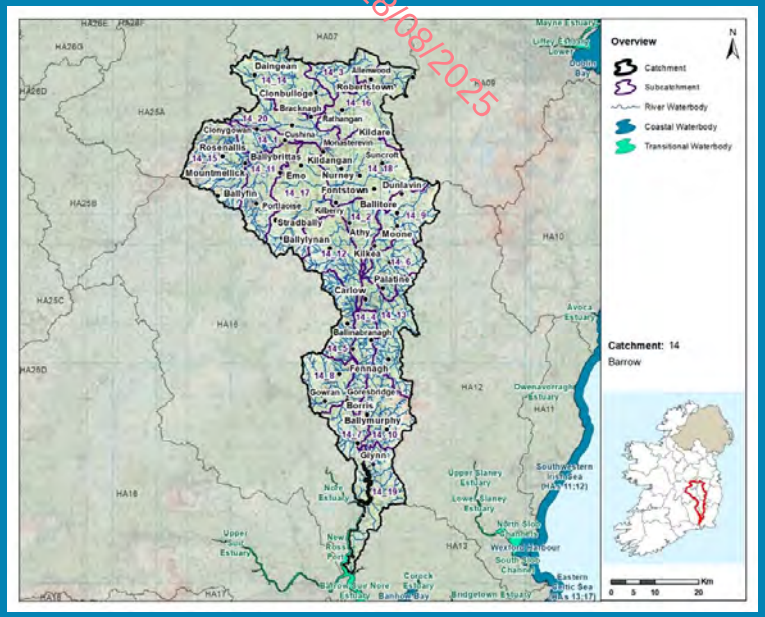
Introduction

This report provides an overview of the water quality in the Barrow Catchment and the pressures impacting on water quality. This report is based on data up to 2021. The latest water quality data, dashboards and maps throughout this report are available on catchments.ie and EPA Water Map.

The Barrow Catchment includes the area drained by the River Barrow upstream of the River Nore confluence and all streams entering tidal water between the Barrow railway bridge at Great Island and Ringwood, Co. Kilkenny, draining a total area of 3,025km². The largest urban centre in the catchment is Carlow. The other main urban centres in this catchment are New Ross, Graiguenamanagh, Athy, Portlaoise, Mountmellick, Portarlington, Monasterevin and Kildare.

The Barrow Catchment is divided into 20 subcatchments with 149 river waterbodies, six transitional waterbodies and 50 groundwater bodies.

View the Barrow Catchment on the EPA Water Map



Overview of Subcatchments in the Barrow Catchment

Previous Catchment Assessments

Previous catchment assessments, which provide additional historic context and information, are archived on catchments.ie:

- Cycle 2 Catchment Assessments – published September 2018
- Cycle 3 Draft Catchment Assessments – published September 2021

Online Dashboards

Links to online dashboards are provided in this report – these numbers may vary from those in this document as time progress and the online dashboards are updated based on the latest data and scientific assessments.

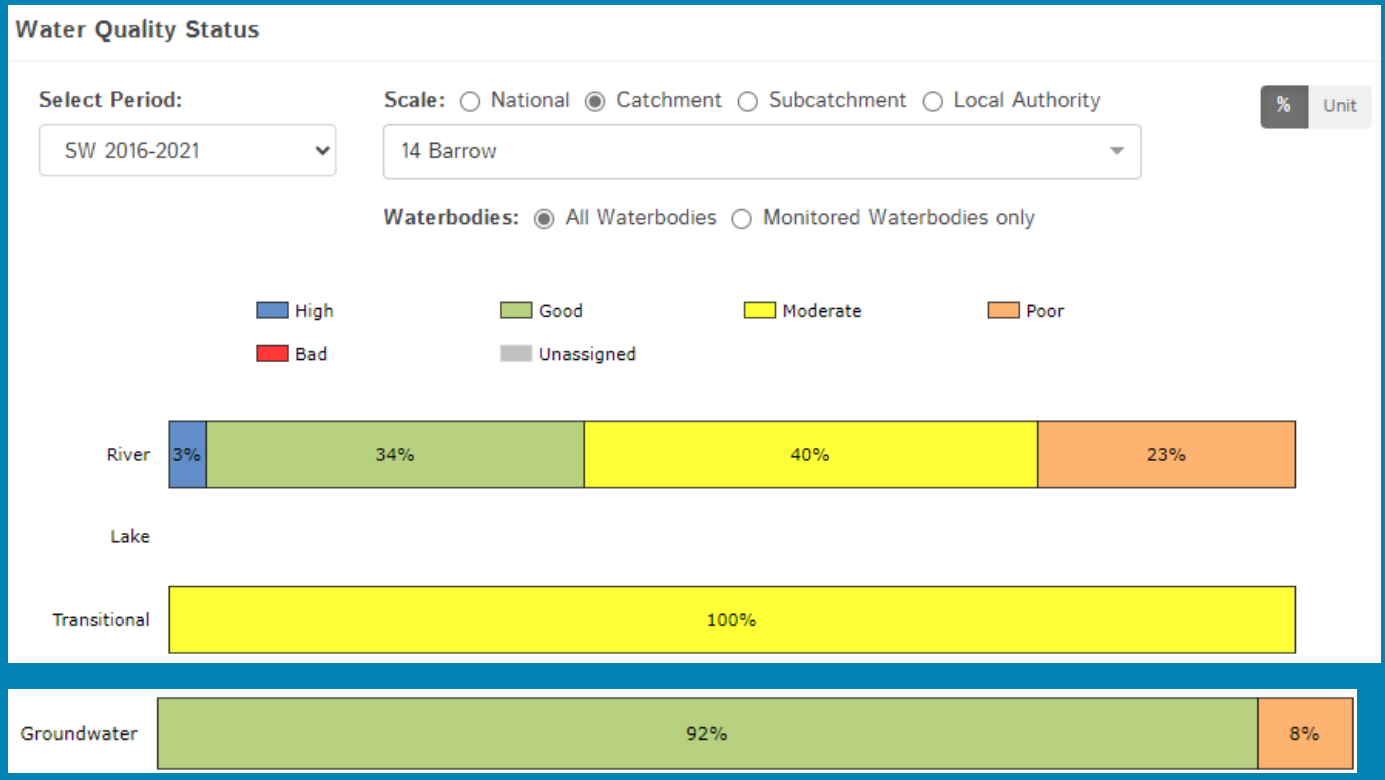
Water Quality Summary

The dashboard below provides a breakdown of water quality status for surface and groundwater bodies in the Barrow Catchment.

A total of 36% of surface waterbodies were at Good or High Ecological Status in the 2016-2021 monitoring period. Ninety-two percent of groundwater bodies were at Good status.

Go to EPA Water Maps for WFD Status

EPA Water Map



Water quality status 2016-2021 for the Barrow Catchment. Note canals are also included under the river category.

View Online Dashboard: *https://www.catchments.ie/data/#/dashboard/waterquality*

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High Status Objective Waterbodies

High status waters are prioritised for protection and action.

There are three waterbodies with a **High Ecological Status Objective** (HSO) in the Barrow Catchment, with one currently not meeting its environmental objective of High.

Grants for septic tank upgrades may be available in high status objective catchment areas - you can learn more and check your Eircode for eligibility here: https://www.gov.ie/en/publication/6cc1e-domestic-waste-water-treatment-systems-septic-tanks

View HSO river waterbodies in this catchment.
See *Status and Risk / High Status Objective* for other waterbody types.

Water Quality Status - High Status Objective Waterbodies

Select Type: All Surface Waters

Scale: (●) Catchment ( ) Local Authority — 14 Barrow

	SW 2007-2009	SW 2010-2012	SW 2010-2015	SW 2013-2018	SW 2016-2021
BARROW_010 (River)	Good	High	High	High	High
BURREN_010 (River)	Good	High	Good	Good	Good
DOUGLAS (LAOIS)_010 (River)	Good	Good	High	High	High

Water quality status for High Ecological Status Objective waterbodies.
View Online Dashboard: https://www.catchments.ie/data/#/dashboard/waterquality

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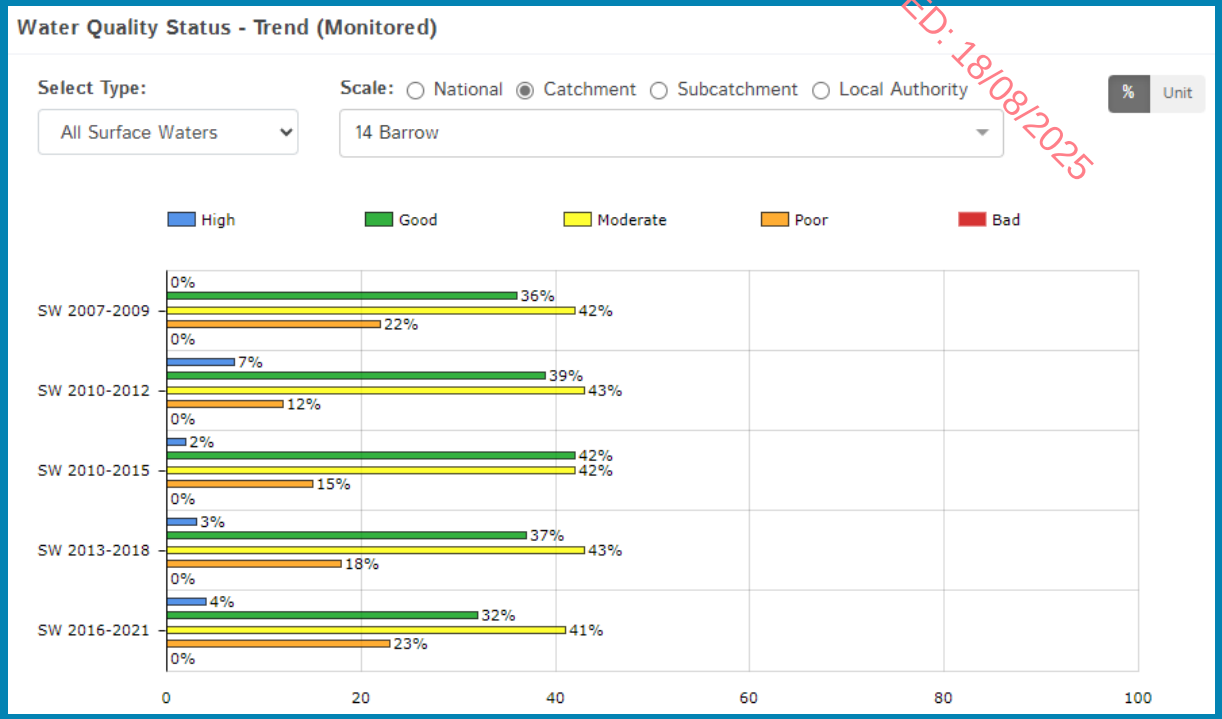
Water Quality Changes

Below illustrates the changes in ecological status in monitored surface waterbodies over the last five monitoring cycles in the Barrow Catchment. Nationally while there have been improvements in some waterbodies, these have been offset by declines elsewhere.



Ecological status trends for monitored surface waterbodies over the last five monitoring cycles in the Barrow Catchment.
View online dashboard: https://www.catchments.ie/data/#/dashboard/waterquality

A total of 100 (49%) waterbodies are currently meeting their environmental objective of Good or High Ecological Status, and Good Ecological Potential for canals.

	Total	Achieving Environmental Objectives (2016-2021)	High Status Environmental Objectives Waterbodies	Achieving High Status Environmental Objectives (2016-2021)
Rivers	145	50 (*35%*)	3	2 (*67%*)
Canals	4	4 (*100%*)	0	0 (*0%*)
Lakes	-	-	-	-
Transitional	6	0 (*0%*)	0	0 (*0%*)
Coastal	-	-	-	-
Groundwater	50	46 (*92%*)	0	0 (*0%*)

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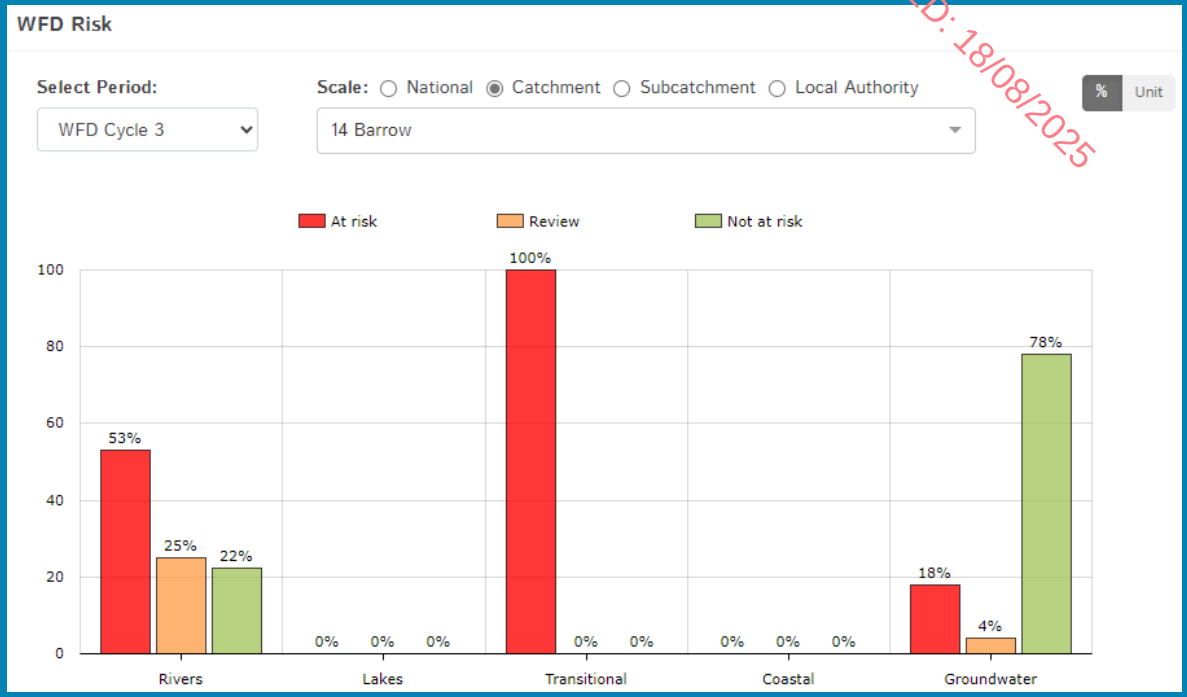
WFD Risk

A total of 94 (46%) waterbodies are *At Risk* of not meeting their environmental objective in the Barrow Catchment, while 39 (19%) are under *Review* and 72 (35%) are *Not At Risk.*

Go to EPA Water Map to see WFD Risk for this catchment



WFD Risk for the Barrow Catchment based on 2016-2021 data.

View Online Dashboard: https://www.catchments.ie/data/#/dashboard/waterquality

There are currently two heavily modified waterbodies (HMWBs) in the Barrow Catchment (New Ross Port and Lower Suir Estuary (Little Island - Cheekpoint)), both of which are *At Risk.*

There are four artificial waterbodies in the Barrow Catchment:

- Grand Canal Barrow Line (Barrow) (*Review*)
- Grand Canal Milltown Feeder (Barrow) (*Review*)
- Grand Canal Main Line East (Barrow) (*Not at Risk*)
- Grand Canal Main Line West (Barrow) (*Review*)

The EPA's characterisation outcome report has more information on WFD Risk

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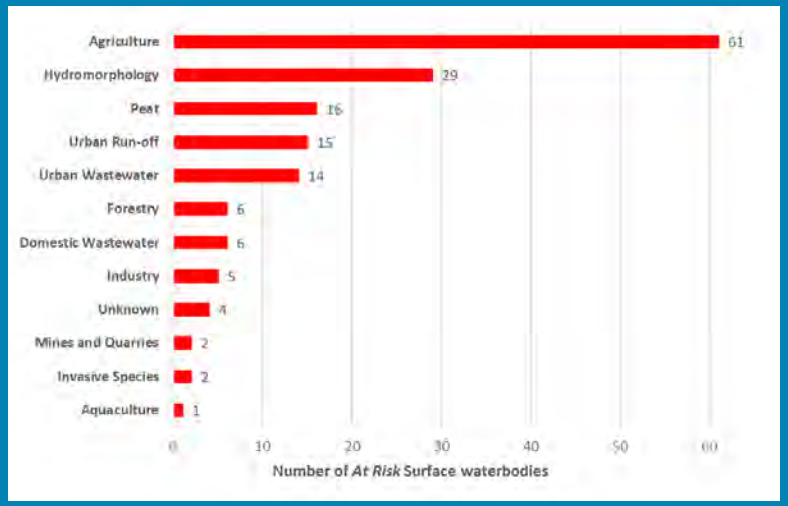
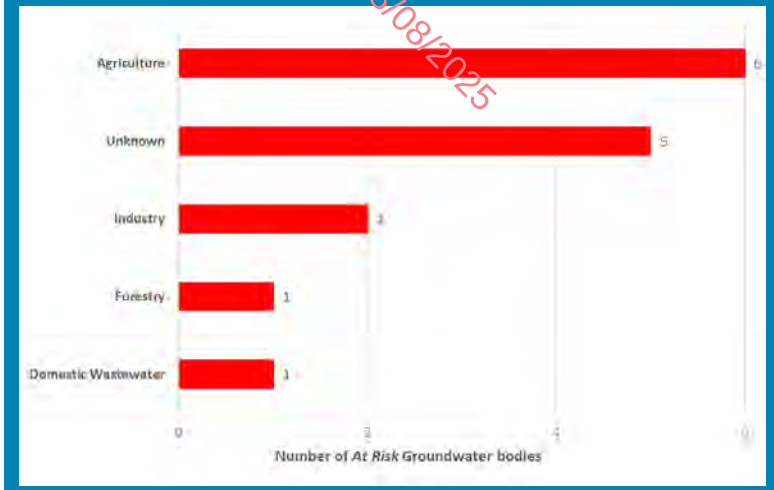
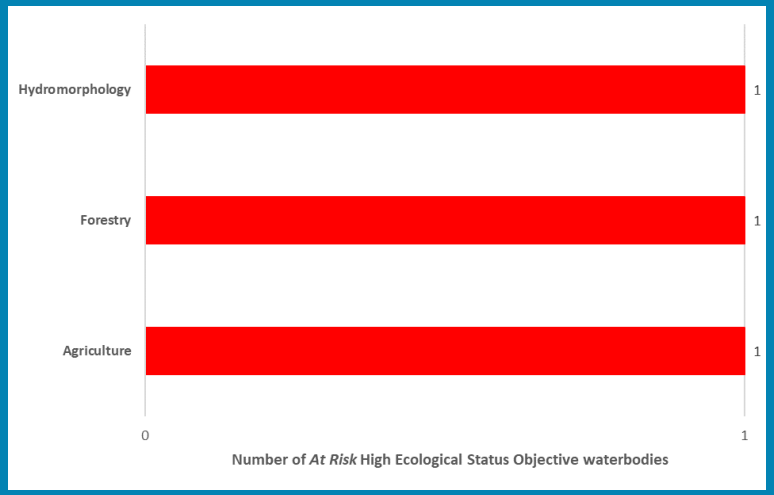
Click here for more information on significant pressures

Significant Pressures driving risk

Significant pressure types impacting the 85 *At Risk* surface waterbodies and nine groundwater bodies are broken down in the figures below, including significant pressure information for the one *At Risk* High Ecological Status Objective waterbody.







The issues driven by these pressures are mainly nutrient pollution, altered morphological condition (habitat) and organic pollution impacts for surface water, and nutrient pollution, chemical quality diminution for surface water and chemical pollution for groundwaters. For more information, see https://www.catchments.ie/data/#/dashboard/pressure?_k=i351zs.

Go to the Summary Information section to get significant pressure and issue data for At Risk waterbodies within the Barrow Catchment.

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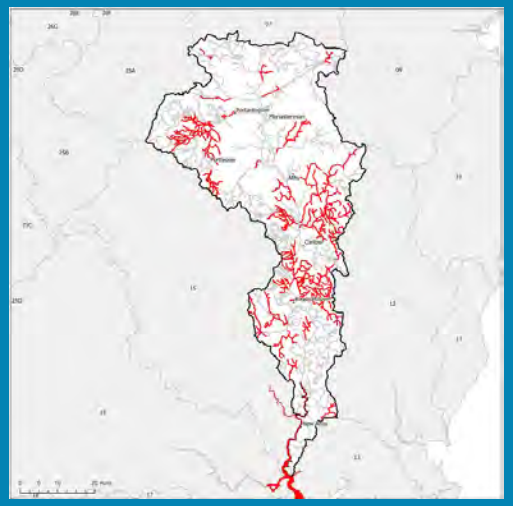
Significant Pressures

Agriculture is the top significant pressure impacting 71% of the 94 *At Risk* waterbodies within the Barrow Catchment, followed by 31% impacted by hydromorphological pressures and 17% by peat.

River Waterbody
Significant Pressure in Waterbody *At Risk*
Other Waterbodies
Lake, Coastal and Transitional Waterbody
Significant Pressure in Waterbody *At Risk*
Other Waterbodies



The catchments.ie dashboards will show all significant pressures identified for this catchment.

www.catchments.ie/data/#/dashboard/pressure

Go to the EPA Water Maps for the locations of all significant pressure types identified for this catchment

Locations of At Risk surface waterbodies impacted by i) Agriculture, ii) Hydromorphological Pressures and iii) Peat.

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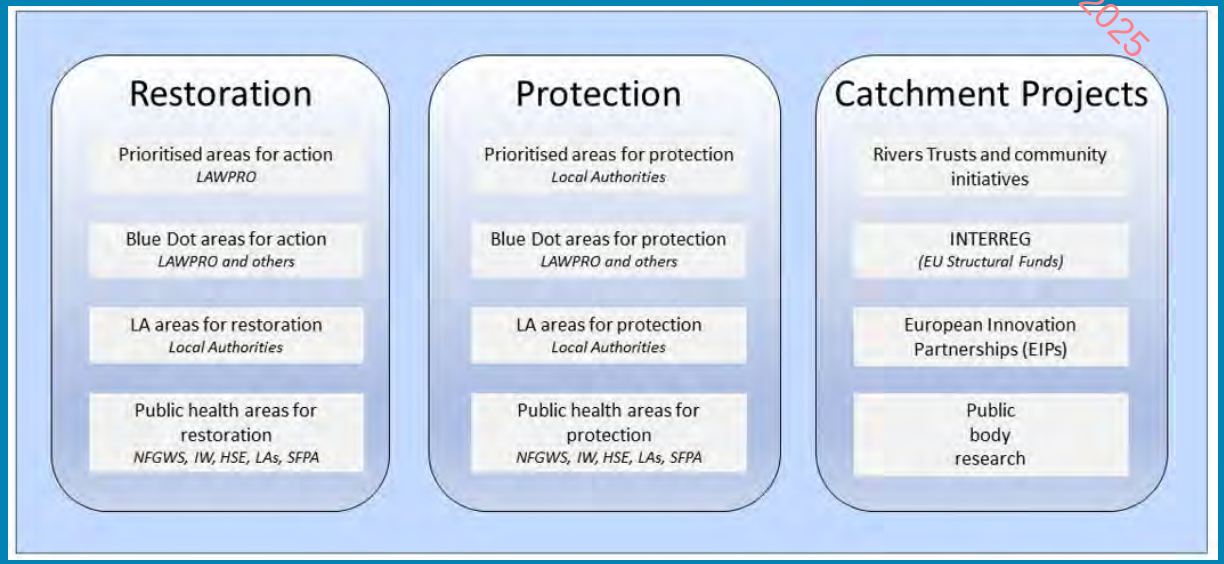
Priority Areas for Action

A number of waterbodies have been prioritised through the selection of Areas for Action. There were six Priority Areas for Action identified for the second river basin management planning cycle in the Barrow Catchment. This has increased to a total of 21 Areas for Restoration, four Areas for Protection and two Catchment Projects for the third cycle. ***Go to the summary information section to get Area for Action information for waterbodies within the Barrow Catchment.***



Types of Areas for Action under the third cycle River Basin Management Plan

- View the current progress of Areas for Action and Summary Reports completed by LAWPRO, on catchments.ie and the EPA Water Map:
  - https://www.catchments.ie/data/#/areaforaction
  - https://gis.epa.ie/EPAMaps/default?easting=?&northing=?&lid=EPA:WFD_AreasForAction
- LAWPRO have also published detailed desktop studies on Prioritised Areas for Action (PAAs) which are available their website: https://lawaters.ie/desktop-studies/
- Information on Areas for Action for the second cycle is available in Cycle 2 Catchment Assessments which have been archived on catchments.ie: https://www.catchments.ie/download/cycle-2-catchment-assessments-published-september-2018/

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Water Quality Summary
High Status Objectives
Water Quality Changes
WFD Risk
Significant Pressures
Action
Summary Information

Summary information for all waterbodies in the Barrow Catchment

The next page provides a table with a breakdown of key information for all waterbodies in this catchment. The key is provided below. Additional information for each waterbody is available on https://www.catchments.ie/data, including a breakdown of status, a monitoring schedule for monitored waterbodies and downloadable chemistry results, where available.

Protected Area categories	BW: Bathing Water DW: Drinking Water Fish: Salmonid Waters NSA: Nutrient Sensitive Areas SAC: Special Area of Conservation, Natura 2000 (water dependent habitats and species) SF: Shellfish Area SPA: Special Area of Protection, Natura 2000 (water dependent habitat and species)
Significant pressure* types categories ** For At Risk waterbodies only*	Ab: Abstractions Ag: Agriculture Aq: Aquaculture At: Atmospheric DWW: Domestic Wastewater For: Forestry HPS: Historically polluted sites HYMO: Hydromorphology Ind: Industry IS: Invasive Species M+Q: Mines and Quarries Peat: Peat Drainage and Extraction UR: Urban Run-Off UWW: Urban Wastewater Was: Waste WT: Water Treatment

Catchment Code	Waterbody (WB) Code	WB Name	WB Type	Local Authority	Protected Area	Status 10-15	Status 13-18	Status 16-21	Environmental Objective	Environmental Objective Date	WFD Risk 16-21	Significant Issue(s)	Significant Pressure(s)	Area for Action (AFA)	AFA (lead, type)	Link to WB page on catchments.ie	Link to WB on EPA Water Map
14	IE_14_AWB_GCBL	Grand Canal Barrow Line (Barrow)	Canal	Kildare County Council	SAC; NSA;	Good	Good	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14	IE_14_AWB_GCMF	Grand Canal Milltown Feeder (Barrow)	Canal	Kildare County Council	SAC;	Moderate	Good	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14	IE_14_AWB_GCMLE	Grand Canal Main Line East (Barrow)	Canal	Kildare County Council	SAC;	Unassigned	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_14_AWB_GCMLW	Grand Canal Main Line West (Barrow)	Canal	Kildare County Council		Unassigned	Good	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14, 25A, 26F, 7	IE_EA_G_001	Athboy	Groundwater	Westmeath County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 7, 8, 9	IE_EA_G_002	Trim	Groundwater	Meath County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	At risk	ChemicalQualityDiminutionForSW, Nutrients	DWTS, Unknown, Ag			View WB Page	View WB on EPA Water Map
10, 12, 14, 9	IE_EA_G_003	Kilcullen	Groundwater	Wicklow County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	At risk	ChemicalQualityDiminutionForSW, Nutrients	Ag, Unknown, For			View WB Page	View WB on EPA Water Map
14, 7, 8, 9	IE_EA_G_008	Dublin	Groundwater	South Dublin County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14, 9	IE_EA_G_017	Curragh Gravels East	Groundwater	Kildare County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
12, 14, 9	IE_EA_G_046	Gormanstown Gravels	Groundwater	Wicklow County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 25A, 7	IE_EA_G_074	GWDTE-Raheenmore Bog (SAC000582)	Groundwater	Offaly County Council	DWPA; SAC (GWDTE)	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
12, 13, 14	IE_SE_G_001	Adamstown	Groundwater	Wexford County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_G_005	Industrial Facility (P0274-01)	Groundwater	Laois County Council	DWPA; SAC	Poor	Poor	Poor	Good	2022-2027	At risk	Chemical, ChemicalQualityDiminutionForSW	Ind			View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_009	Ballingarry	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
10, 11, 12, 13, 14, 9	IE_SE_G_011	Ballyglass	Groundwater	Wicklow County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	At risk	ChemicalQualityDiminutionForSW, Nutrients	Unknown, Ag			View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_021	Bennettsbridge	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_G_023	Burren Valley Gravels	Groundwater	Carlow County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25A, 25B	IE_SE_G_027	Camross	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_034	Castlecomer	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_038	Clifden	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25A	IE_SE_G_039	Clonaslee	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25B	IE_SE_G_047	Coolrain	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 7	IE_SE_G_048	Cushina	Groundwater	Offaly County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 25A, 7	IE_SE_G_049	Daingean	Groundwater	Offaly County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_076	Inistioge	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 7, 9	IE_SE_G_077	Kildare	Groundwater	Kildare County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_078	Kilkenny	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	At risk	ChemicalQualityDiminutionForSW, Nutrients	Unknown, Ag			View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_104	Newtown	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 9	IE_SE_G_106	GWDTE-Pollardstown Fen (SAC000396)	Groundwater	Kildare County Council	DWPA; SAC (GWDTE)	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25A	IE_SE_G_107	Portlaoise	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 16, 25B	IE_SE_G_114	Rathdowney	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 25A, 7	IE_SE_G_116	Rhode	Groundwater	Offaly County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25A	IE_SE_G_118	Rosenallis	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_124	Shanragh	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 9	IE_SE_G_133	Curragh Gravels West	Groundwater	Kildare County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_135	Thomastown	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_G_144	Timahoe Gravels	Groundwater	Laois County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
12, 13, 14, 15, 9	IE_SE_G_152	New Ross	Groundwater	Carlow County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25A, 7	IE_SE_G_153	Bagenalstown Upper	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map

14, 15, 16	IE_SE_G_156	Durrow	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Poor	Poor	Good	2022-2027	At risk	Nutrients	Ag			View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_157	Bagenalstown Lower	Groundwater	Carlow County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_G_159	Clifden South	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_G_160	Athy-Bagnelstown Gravels	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Poor	Good	2022-2027	At risk	Nutrients	Ag			View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_165	Goresbridge North	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15	IE_SE_G_166	Goresbridge South	Groundwater	Kilkenny County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 9	IE_SE_G_167	Usk Gravels	Groundwater	Kildare County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_G_169	Rosenallis Gravels	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_G_170	Portlaoise-Mountmellick Gravels	Groundwater	Laois County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_G_173	Narraghmore Gravels	Groundwater	Kildare County Council	DWPA	Good	Good	Good	Good	2021 or earlier	At risk	Nutrients	Unknown			View WB Page	View WB on EPA Water Map
14, 9	IE_SE_G_177	Historic Waste Facility (S22-02443)	Groundwater	Kildare County Council	DWPA	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_G_180	Industrial Facility (P0322-01)	Groundwater	Laois County Council	DWPA		Poor	Poor	Good	2022-2027	At risk	Chemical	Ind			View WB Page	View WB on EPA Water Map
14, 25A, 25B	IE_SH_G_066	Clonaslee West	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 25A, 25B, 7	IE_SH_G_103	Geashill	Groundwater	Offaly County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14, 15, 25A, 25B	IE_SH_G_210	Slieve Bloom North	Groundwater	Laois County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14A010840	Abbeylough_010	River	Kildare County Council		Unassigned	Poor	Moderate	Good	2022-2027	At risk	Morphological	Peat	Figile	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14A020100	AGHALONA_010	River	Carlow County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Burren	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14A020200	AGHALONA_020	River	Carlow County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Burren	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14A040400	AUGHAVAUD_010	River	Carlow County Council	SAC;	Unassigned	Good	Good	Good	2021 or earlier	Review			Aughavaud	Carlow County Council, Protection	View WB Page	View WB on EPA Water Map
14	IE_SE_14A040600	AUGHAVAUD_020	River	Carlow County Council	SAC; NSA;	Good	Good	Good	Good	2021 or earlier	Not at risk			Aughavaud	Carlow County Council, Protection	View WB Page	View WB on EPA Water Map
14	IE_SE_14A050500	AUGHNABRISKY_010	River	Carlow County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk			Mountain-Borris	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14A060200	ATHY STREAM_010	River	Kildare County Council		Poor	Moderate	Moderate	Good	2022-2027	At risk	Morphological	Ag	Athy Stream	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14A060400	ATHY STREAM_020	River	Kildare County Council		Moderate	Moderate	Poor	Good	2022-2027	At risk	Morphological, Nutrients	Ag	Athy Stream	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14A060600	ATHY STREAM_030	River	Kildare County Council	SAC;	Unassigned	Moderate	Poor	Good	2022-2027	Review			Athy Stream	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14A070300	AUGHNACREW_010	River	Wexford County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag			View WB Page	View WB on EPA Water Map
14	IE_SE_14A070500	AUGHNACREW_020	River	Wexford County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14B010060	BARROW_010	River	Laois County Council	SAC;	High	High	High	High	2021 or earlier	Not at risk			Upper Barrow (Headwaters to Mountmellick)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B010200	BARROW_020	River	Laois County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk			Upper Barrow (Headwaters to Mountmellick)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B010300	BARROW_030	River	Laois County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk			Upper Barrow (Headwaters to Mountmellick)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B010500	BARROW_040	River	Laois County Council	SAC;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Upper Barrow (Headwaters to Mountmellick)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B010550	BARROW_050	River	Laois County Council	SAC; NSA;	Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Hydrological, Morphological, Nutrients, Organic	Ag, HYMO, For, Peat	Barrow (Mountmellick to Portarlington)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B010700	BARROW_060	River	Laois County Council	SAC; NSA;	Good	Good	Good	Good	2021 or earlier	Review			Barrow (Mountmellick to Portarlington)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B010780	BARROW_070	River	Offaly County Council	SAC; NSA;	Good	Good	Poor	Good	2022-2027	At risk	Nutrients	Ag	Barrow (Mountmellick to Portarlington)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B010900	BARROW_080	River	Laois County Council	SAC; NSA;	Moderate	Moderate	Poor	Good	2022-2027	At risk	Nutrients, Organic	UR, UWW	Barrow (Mountmellick to Portarlington)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B011000	BARROW_090	River	Laois County Council	SAC; NSA;	Poor	Poor	Poor	Good	2022-2027	At risk	Hydrological, Morphological, Nutrients, OtherSignificantImpacts	UR, HYMO, IS	Barrow (Portarlington to Monsterevin)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B011130	BARROW_100	River	Kildare County Council	SAC; NSA;	Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Morphological, Nutrients, Organic	UR, HYMO, UWW	Barrow (Portarlington to Monsterevin)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B011300	BARROW_110	River	Laois County Council	SAC; NSA;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14B011500	BARROW_120	River	Kildare County Council	SAC; NSA;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14B011600	BARROW_130	River	Kildare County Council	DWPA; SAC; NSA;	Unassigned	Poor	Poor	Good	2022-2027	Review			Athy Stream	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map

14	IE_SE_14B011900	BARROW_140	River	Kildare County Council	SAC; NSA;	Moderate	Poor	Poor	Good	2022-2027	At risk	Hydrological, Morphological, Nutrients, OtherSignificantImpacts	HYMO, IS, Ag	Athy Stream	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B012000	BARROW_150	River	Kildare County Council	SAC; NSA;	Unassigned	Moderate	Moderate	Good	2022-2027	Review			Athy Stream	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B012460	BARROW_160	River	Laois County Council	SAC; NSA;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Hydrological, Morphological, UnknownImpactType	UR, HYMO	Burren	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B012600	BARROW_170	River	Carlow County Council	SAC; NSA;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Hydrological, Morphological, Nutrients	HYMO, Ag	Ballinabranna GWS	NFGWS, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B012700	BARROW_180	River	Carlow County Council	SAC; NSA;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	UR, Ag			View WB Page	View WB on EPA Water Map
14	IE_SE_14B012820	BARROW_190	River	Carlow County Council	SAC; NSA;	Unassigned	Unassigned	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14B012920	BARROW_200	River	Carlow County Council	SAC; NSA;	Good	Good	Moderate	Good	2022-2027	At risk	Nutrients, Organic	UR, Ag, UWW			View WB Page	View WB on EPA Water Map
14	IE_SE_14B013100	BARROW_210	River	Carlow County Council	SAC; NSA;	Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients, Organic, UnknownImpactType	UR, HYMO, Ind			View WB Page	View WB on EPA Water Map
14	IE_SE_14B013300	BARROW_220	River	Carlow County Council	SAC; NSA;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag			View WB Page	View WB on EPA Water Map
14	IE_SE_14B013514	BARROW_230	River	Kilkenny County Council	SAC; NSA;	Poor	Poor	Poor	Good	2022-2027	At risk	Morphological, Chemical, Nutrients	Unknown, HYMO	Mountain-Borris	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B013600	BARROW_240	River	Kilkenny County Council	SAC; NSA;	Unassigned	Moderate	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14B031000	BLACKWATER (LAOIS)_010	River	Laois County Council	SAC;	Moderate	Moderate	Good	Good	2021 or earlier	Not at risk			Upper Barrow (Headwaters to Mountmellick)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B040100	BOTHOGE_010	River	Wicklow County Council		Good	Good	Good	Good	2021 or earlier	Not at risk			Greese	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B040300	BOTHOGE_020	River	Wicklow County Council		Good	Good	Good	Good	2021 or earlier	Not at risk			Greese	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B050020	BURREN_010	River	Carlow County Council	SAC;	Good	Good	Good	High	2022-2027	At risk	Sediment, Hydrological, Morphological	Ag, For, HYMO	Burren	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B050110	BURREN_020	River	Carlow County Council	DWPA;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Sediment, Hydrological, Morphological, Nutrients, Organic	Ag, HYMO	Burren	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B050200	BURREN_030	River	Carlow County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Morphological, Nutrients	HYMO, Ag	Burren	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B050310	BURREN_040	River	Carlow County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Hydrological, Morphological, Nutrients	HYMO, Ag	Burren	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B050400	BURREN_050	River	Carlow County Council		Good	Moderate	Good	Good	2021 or earlier	Not at risk			Burren	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B050500	BURREN_060	River	Carlow County Council	DWPA;	Poor	Moderate	Moderate	Good	2022-2027	At risk	Hydrological, Morphological, Nutrients, Organic	HYMO, UR	Burren	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B060700	BLACK (BORRIS)_010	River	Carlow County Council		Good	Good	Good	Good	2021 or earlier	Not at risk			Mountain-Borris	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B061380	BLACK (BORRIS)_020	River	Carlow County Council		Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag, UWW	Mountain-Borris	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B080700	BALLYNABOLEY STREAM_010	River	Carlow County Council	SAC;	Moderate	Poor	Poor	Good	2022-2027	At risk	Nutrients, UnknownImpactType	Ag, Unknown	Ballynaboley	Carlow County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B100300	BURTOWN STREAM_010	River	Kildare County Council		Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Hydrological, Morphological, UnknownImpactType	Ag	Greese	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14B210500	Ballyroughan Little_010	River	Carlow County Council	SAC;	Good	Good	High	Good	2021 or earlier	Not at risk			Mountain-Borris	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14C020600	CROOKED (STRADBALLY)_010	River	Laois County Council		Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14C040050	CUSHINA_010	River	Offaly County Council		Moderate	Poor	Good	Good	2021 or earlier	Review			Cushina	Offaly County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14C040080	CUSHINA_020	River	Offaly County Council		Good	Poor	Poor	Good	2022-2027	At risk	Sediment, Morphological, Nutrients, Organic	Ag, DWTS, UWW, Peat	Cushina	Offaly County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14C040100	CUSHINA_030	River	Offaly County Council		Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14C150500	COTTONERS BROOK_010	River	Laois County Council		Unassigned	Good	Moderate	Good	2022-2027	Review			Barrow (Mountmellick to Portarlington)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14C170200	CLONCUMBER STREAM_010	River	Kildare County Council	SAC;	Poor	Moderate	Moderate	Good	2022-2027	At risk	Hydrological, Morphological	HYMO	Cloncumber	Kildare County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14C170250	CLONCUMBER STREAM_020	River	Kildare County Council		Unassigned	Poor	Moderate	Good	2022-2027	At risk	Hydrological, Morphological	HYMO	Cloncumber	Kildare County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14C510940	CLONYGOWAN_010	River	Offaly County Council	SAC;	Unassigned	Unassigned	Moderate	Good	2022-2027	Review			Barrow (Mountmellick to Portarlington)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14D030040	DOUGLAS (LAOIS)_010	River	Laois County Council		High	High	High	High	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14D030100	DOUGLAS (LAOIS)_020	River	Laois County Council		Good	Good	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14D030300	DOUGLAS (LAOIS)_030	River	Laois County Council	SAC;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag, UWW			View WB Page	View WB on EPA Water Map
14	IE_SE_14D040100	DUISKE_010	River	Kilkenny County Council	SAC;	Good	Good	High	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map

14	IE_SE_14D040200	DUISKE_020	River	Kilkenny County Council	DWPA; SAC;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Morphological, MicrobiologicalPollution, Nutrients, Organic	UR, HYMO, Ag	Powerstown - Duiske	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14D050200	DUNRALLY STREAM_010	River	Laois County Council		Good	Good	Good	Good	2021 or earlier	Not at risk			The Heath GWS	NFGWS, Protection	View WB Page	View WB on EPA Water Map
14	IE_SE_14D050400	DUNRALLY STREAM_020	River	Laois County Council		Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14D060100	DAINGEAN_010	River	Offaly County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Morphological, Nutrients	Peat	Daingean	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14D060200	DAINGEAN_020	River	Offaly County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Sediment, Morphological, Nutrients, Organic	UWW, Ag, Peat	Daingean	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14D060400	DAINGEAN_030	River	Offaly County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Morphological, Nutrients	Peat	Daingean	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14D070500	DRUMMOND STREAM_010	River	Laois County Council		Unassigned	Good	Good	Good	2021 or earlier	Review			Upper Barrow (Headwaters to Mountmellick)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14E010100	ESKER STREAM_010	River	Offaly County Council		Unassigned	Good	Moderate	Good	2022-2027	Review			Figile	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14E010200	ESKER STREAM_020	River	Offaly County Council		Moderate	Good	Moderate	Good	2022-2027	At risk	Morphological, Nutrients	Peat	Figile	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14E020300	ENAGHAN STREAM_010	River	Offaly County Council		Good	High	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14F010061	FIGILE_010	River	Kildare County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Sediment, Hydrological, Morphological, Nutrients, Organic	HYMO, Ind, UWW, Peat	Figile	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14F010100	FIGILE_020	River	Kildare County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Hydrological, Morphological	Peat	Figile	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14F010200	FIGILE_030	River	Offaly County Council	SAC;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Sediment, Hydrological, Organic	Peat	Figile	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14F010300	FIGILE_040	River	Offaly County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Morphological, Nutrients, Organic	Peat	Figile	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14F010400	FIGILE_050	River	Offaly County Council		Good	Good	Poor	Good	2022-2027	At risk	Sediment, Nutrients, Organic	Ag, Peat			View WB Page	View WB on EPA Water Map
14	IE_SE_14F010500	FIGILE_060	River	Offaly County Council		Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14F010510	FIGILE_070	River	Offaly County Council		Unassigned	Unassigned	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14F010600	FIGILE_080	River	Kildare County Council	SAC;	Unassigned	Moderate	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14F030050	FUSHOGE_010	River	Laois County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk			Fushoge	Laois County Council, Protection	View WB Page	View WB on EPA Water Map
14	IE_SE_14F030250	FUSHOGE_020	River	Laois County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Review			Fushoge	Laois County Council, Protection	View WB Page	View WB on EPA Water Map
14	IE_SE_14G020300	GLENLAHAN_010	River	Laois County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk			Upper Barrow (Headwaters to Mountmellick)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G030100	GOWRAN_010	River	Kilkenny County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Gowran-Monefelim	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G030220	GOWRAN_020	River	Kilkenny County Council		Moderate	Moderate	Good	Good	2021 or earlier	Review			Gowran-Monefelim	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G040070	GREESE_010	River	Wicklow County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients, Organic	Ag, DWTS	Greese	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G040100	GREESE_020	River	Wicklow County Council		Good	Moderate	Moderate	Good	2022-2027	At risk	Sediment, Nutrients	Ag	Greese	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G040200	GREESE_030	River	Kildare County Council		Moderate	Poor	Poor	Good	2022-2027	At risk	Sediment, Hydrological, Nutrients, Organic	Ind, Ag, DWTS, HYMO, UWW	Greese	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G040350	GREESE_040	River	Kildare County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Sediment, Morphological, Nutrients	HYMO, Ag, DWTS	Greese	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G040400	GREESE_050	River	Kildare County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Morphological, UnknownImpactType	Ag	Greese	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G040600	GREESE_060	River	Kildare County Council	SAC;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	UWW, Ag	Greese	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G060100	GRANGECON STREAM_010	River	Wicklow County Council		Good	Good	Good	Good	2021 or earlier	Review			Greese	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G070200	GRANEY (LERR)_010	River	Kildare County Council		Good	Moderate	Moderate	Good	2022-2027	At risk	Sediment, Morphological, Nutrients	Ag, HYMO, M+Q	Graney-Lerr	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G070310	GRANEY (LERR)_020	River	Kildare County Council		Moderate	Poor	Poor	Good	2022-2027	At risk	Sediment, Morphological, Nutrients	HYMO, Ag	Graney-Lerr	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14G110800	GUILLIE_010	River	Laois County Council	SAC;	Unassigned	Moderate	Poor	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14H090690	HERMITAGE_010	River	Wexford County Council	SAC; NSA;	Unassigned	Unassigned	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14H110730	Hill Camlin_010	River	Wexford County Council	SAC;	Unassigned	Poor	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14H170950	Hillfort Ballinkillin_010	River	Carlow County Council		Unassigned	Unassigned	Good	Good	2021 or earlier	Review			Ballyellen GWS	NFGWS, Protection	View WB Page	View WB on EPA Water Map
14	IE_SE_14K040200	KILLEEN STREAM (DOUGLAS)_010	River	Laois County Council		Unassigned	Moderate	Poor	Good	2022-2027	At risk	Nutrients, Organic	Ag, DWTS			View WB Page	View WB on EPA Water Map
14	IE_SE_14K060600	KYLEGROVE STREAM_010	River	Laois County Council		Unassigned	Unassigned	Poor	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14K220850	KILKEERAN_010	River	Offaly County Council	SAC;	Unassigned	Unassigned	Moderate	Good	2022-2027	Review			Barrow (Mountmellick to Portarlington)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map

14	IE_SE_14K240670	KILNANTOGE_LOWER_010	River	Kildare County Council		Unassigned	Moderate	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14K270950	KILDOON_010	River	Kildare County Council	SAC;	Unassigned	Moderate	Moderate	Good	2022-2027	Review			Tully Stream	Kildare County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14L010080	LERR_010	River	Kildare County Council	SAC;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Morphological, Nutrients	Ag	Graney-Lerr	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14L010155	LERR_020	River	Kildare County Council	SAC;	Poor	Moderate	Poor	Good	2022-2027	At risk	Sediment, Morphological, Nutrients	UR, Ag, HYMO	Graney-Lerr	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14L010250	LERR_030	River	Kildare County Council	SAC;	Moderate	Moderate	Poor	Good	2022-2027	At risk	Morphological	Ag, HYMO	Graney-Lerr	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14L010300	LERR_040	River	Kildare County Council	SAC;	Moderate	Moderate	Poor	Good	2022-2027	At risk	Hydrological, Morphological	HYMO, Ag	Graney-Lerr	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14M010020	MOUNTAIN (CARLOW)_010	River	Carlow County Council	SAC;	Moderate	Good	Good	Good	2021 or earlier	Not at risk			Mountain-Borris	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14M010070	MOUNTAIN (CARLOW)_020	River	Carlow County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk			Mountain-Borris	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14M010160	MOUNTAIN (CARLOW)_030	River	Carlow County Council	DWPA; SAC;	Unassigned	Good	Good	Good	2021 or earlier	Review			Mountain-Borris	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14M030100	MONEFELIM_010	River	Kilkenny County Council		Good	Good	High	Good	2021 or earlier	Not at risk			Gowran-Monefelim	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14M030600	MONEFELIM_020	River	Kilkenny County Council		Moderate	Good	Good	Good	2021 or earlier	Review			Gowran-Monefelim	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14M031000	MONEFELIM_030	River	Kilkenny County Council	SAC;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Sediment, Nutrients, Organic	DWTS, Ag	Gowran-Monefelim	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14M240860	MOANMORE_010	River	Kilkenny County Council	SAC;	Unassigned	Moderate	Good	Good	2021 or earlier	Review			Gowran-Monefelim	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14O010050	OWENASS_010	River	Laois County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk			Upper Barrow (Headwaters to Mountmellick)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14O010300	OWENASS_020	River	Laois County Council	SAC;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag, UWW	Upper Barrow (Headwaters to Mountmellick)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14O020500	OLD LEIGHLIN STREAM_010	River	Carlow County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14O020700	OLD LEIGHLIN STREAM_020	River	Carlow County Council	SAC;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Old Leighlin stream	Carlow County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14P020400	POWERSTOWN_010	River	Kilkenny County Council	SAC;	Moderate	Poor	Moderate	Good	2022-2027	At risk	Sediment, Morphological, Nutrients	HYMO, For, Ag, M+Q	Powerstown - Duiske	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14P030300	POLLMOUNTY_010	River	Wexford County Council	DWPA; SAC;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Morphological, UnknownImpactType	For, Aq			View WB Page	View WB on EPA Water Map
14	IE_SE_14P040200	PALATINE STREAM_010	River	Carlow County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Morphological, Nutrients	HYMO, Ag	Graney-Lerr	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14P200000	PIGEONHOUSE_010	River	Laois County Council		Unassigned	Poor	Good	Good	2021 or earlier	Review			Upper Barrow (Headwaters to Mountmellick)	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14R170990	RATHANGAN_DEMESNE_010	River	Kildare County Council		Unassigned	Unassigned	Moderate	Good	2022-2027	Review			Slate	Kildare County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14R330970	ROSCAT_010	River	Carlow County Council		Unassigned	Moderate	Moderate	Good	2022-2027	Review			Burren	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14R430830	RATHORNAN_010	River	Carlow County Council	SAC;	Unassigned	Moderate	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14S010000	SLATE_010	River	Kildare County Council	SAC;	Unassigned	Moderate	Poor	Good	2022-2027	At risk	Morphological, Nutrients, Organic, UnknownImpactType	UR, HYMO, Peat	Upper Slate	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14S010020	SLATE_020	River	Kildare County Council	SAC;	Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients, Organic	UWW, Ag	Upper Slate	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14S010036	SLATE_030	River	Kildare County Council		Unassigned	Poor	Poor	Good	2022-2027	At risk	Nutrients, UnknownImpactType	For, Ag	Upper Slate	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14S010050	SLATE_040	River	Kildare County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Hydrological, Morphological, Nutrients, Organic	Peat	Upper Slate	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14S010100	SLATE_050	River	Kildare County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Hydrological, Morphological, Organic	HYMO, Peat	Slate	Kildare County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14S010210	SLATE_060	River	Kildare County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	UR	Slate	Kildare County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14S010300	SLATE_070	River	Offaly County Council		Good	Moderate	Moderate	Good	2022-2027	At risk	Sediment, Morphological, Nutrients, Organic	Ag, HYMO, UWW, Peat	Slate	Kildare County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14S020030	STRADBALLY (LAOIS)_010	River	Laois County Council		Moderate	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14S020100	STRADBALLY (LAOIS)_020	River	Laois County Council		Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
14	IE_SE_14S020350	STRADBALLY (LAOIS)_030	River	Laois County Council	SAC;	Moderate	Moderate	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
14	IE_SE_14S020400	STRADBALLY (LAOIS)_040	River	Laois County Council	SAC;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag			View WB Page	View WB on EPA Water Map
14	IE_SE_14T010100	TRIOGUE_010	River	Laois County Council		Good	Good	Moderate	Good	2022-2027	At risk	Sediment, Nutrients	Ag			View WB Page	View WB on EPA Water Map
14	IE_SE_14T010200	TRIOGUE_020	River	Laois County Council	NSA;	Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients, Organic	UR, UWW			View WB Page	View WB on EPA Water Map
14	IE_SE_14T010300	TRIOGUE_030	River	Laois County Council	NSA;	Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients, Organic	UR, Unknown, Ag			View WB Page	View WB on EPA Water Map
14	IE_SE_14T010400	TRIOGUE_040	River	Laois County Council	NSA;	Moderate	Poor	Poor	Good	2022-2027	At risk	Nutrients	Ag			View WB Page	View WB on EPA Water Map

14	IE_SE_14T020200	TULLY STREAM_010	River	Kildare County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients, Organic, UnknownImpactType	Unknown, Ind	Tully Stream	Kildare County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14T020409	TULLY STREAM_020	River	Kildare County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients, Organic	Ind, Ag	Tully Stream	Kildare County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14T020500	TULLY STREAM_030	River	Kildare County Council		Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Tully Stream	Kildare County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14T020600	TULLY STREAM_040	River	Kildare County Council	SAC;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Tully Stream	Kildare County Council, Restoration	View WB Page	View WB on EPA Water Map
14	IE_SE_14T450060	TRIB TRIOGUE CUSH BRIDGE_010	River	Laois County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag, For			View WB Page	View WB on EPA Water Map
14	IE_SE_14U080790	Upper Carranroe_010	River	Kilkenny County Council	SAC; NSA;	Unassigned	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
13, 14, 16, 17	IE_SE_100_0100	Barrow Suir Nore Estuary	Transitional	Wexford County Council	BW; SAC; SF;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Waterford Harbour	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
14, 15	IE_SE_100_0200	New Ross Port	Transitional	Wexford County Council	SAC; SF; NSA;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag			View WB Page	View WB on EPA Water Map
14, 15	IE_SE_100_0250	Barrow Nore Estuary Upper	Transitional	Wexford County Council	SAC; NSA;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	UR, Ag			View WB Page	View WB on EPA Water Map
14, 15	IE_SE_100_0300	Upper Barrow Estuary	Transitional	Kilkenny County Council	SAC; NSA;	Good	Good	Moderate	Good	2022-2027	At risk	Nutrients	Ag			View WB Page	View WB on EPA Water Map
14, 15	IE_SE_100_0400	Nore Estuary	Transitional	Kilkenny County Council	SAC; SPA; NSA;	Moderate	Good	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag			View WB Page	View WB on EPA Water Map
14, 15, 16	IE_SE_100_0500	Lower Suir Estuary (Little Island - Cheekpoint)	Transitional	Waterford City & County Council	SAC; SF; NSA;	Moderate	Good	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag			View WB Page	View WB on EPA Water Map

Cycle 3

HA 13 Ballyteigue-Bannow Catchment Report

May 2024

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

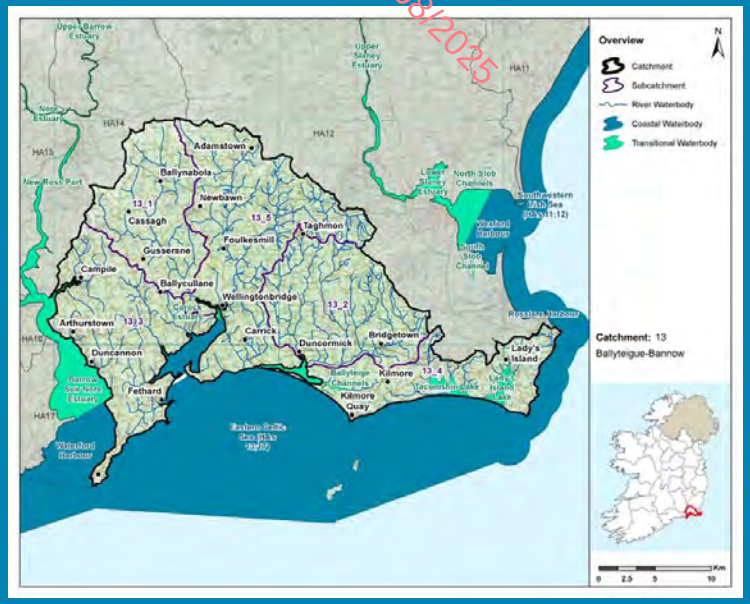
Introduction

This report provides an overview of the water quality in the Ballyteigue-Bannow Catchment and the pressures impacting on water quality. This report is based on data up to 2024. The latest water quality data, dashboards and maps throughout this report are available on catchments.ie and EPA Water Map.

The Ballyteigue-Bannow Catchment includes the area drained by all streams entering tidal water between Greenore Point and Railway Bridge, Great Island, Co. Wexford, draining a total area of 654km². There are no large urban centres in the catchment. The only urban centres in this catchment are Lady's Island, Kilmore Quay, Bridgetown, Wellingtonbridge, Duncannon, and Campile.

The Ballyteigue-Bannow Catchment is divided into five subcatchments with 115 river waterbodies, 19 lakes, two transitional waterbodies, four coastal waterbodies and 37 groundwater bodies.

View the Ballyteigue-Bannow Catchment on the EPA Water Map



Overview of Subcatchments in the Ballyteigue-Bannow Catchment

Previous Catchment Assessments

Previous catchment assessments, which provide additional historic context and information, are archived on catchments.ie:

- Cycle 2 Catchment Assessments – published September 2018
- Cycle 3 Draft Catchment Assessments – published September 2021

Online Dashboards

Links to online dashboards are provided in this report – these numbers may vary from those in this document as time progress and the online dashboards are updated based on the latest data and scientific assessments.

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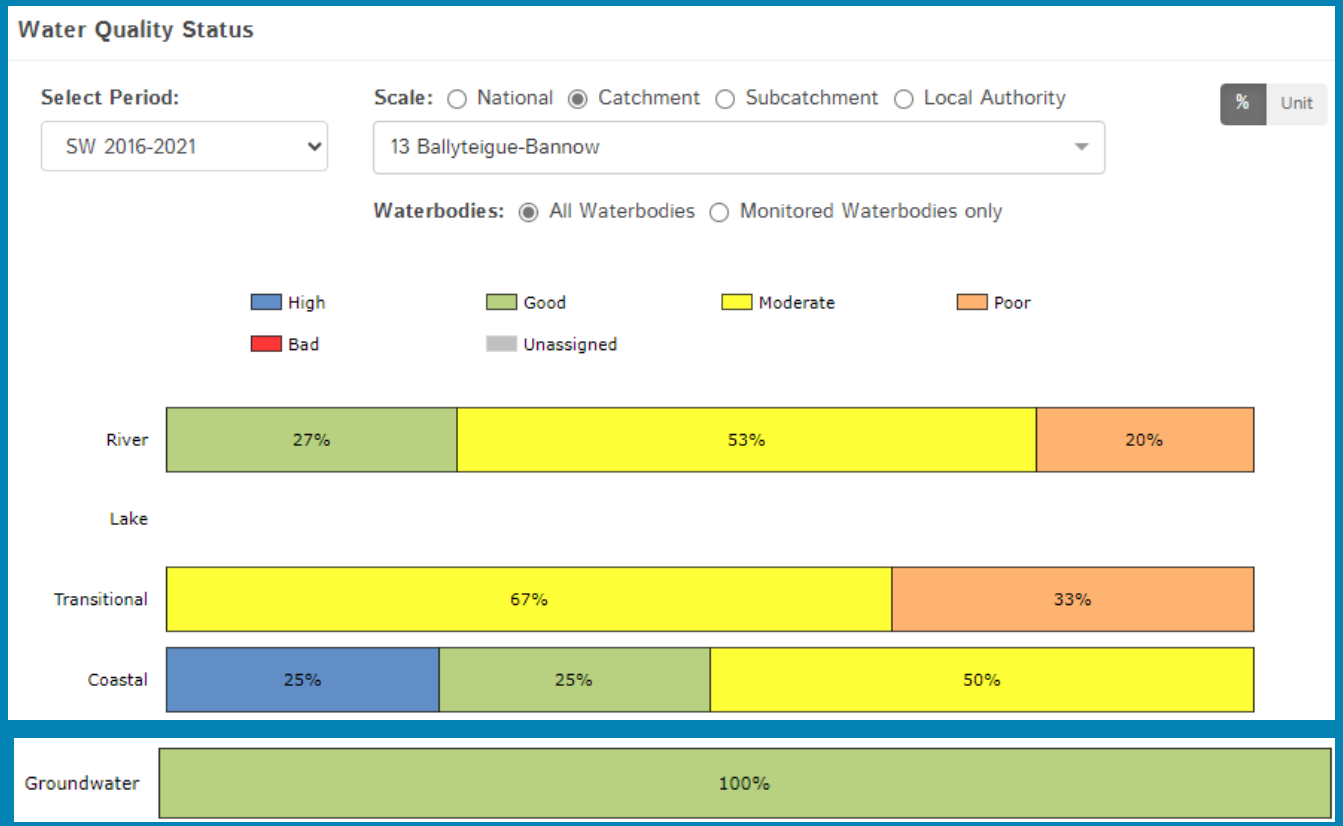
Water Quality Summary

The dashboard below provides a breakdown of water quality status for surface and groundwater bodies in the Ballyteigue-Bannow Catchment.

A total of 10 (25%) of surface waterbodies were at Good or High Ecological Status in the 2016-2021 monitoring period. One hundred percent of groundwater bodies were at Good status.

Go to EPA Water Maps for WFD Status

EPA Water Map



Water quality status 2016-2021 for the Ballyteigue-Bannow Catchment.
View Online Dashboard: *https://www.catchments.ie/data/#/dashboard/waterquality*

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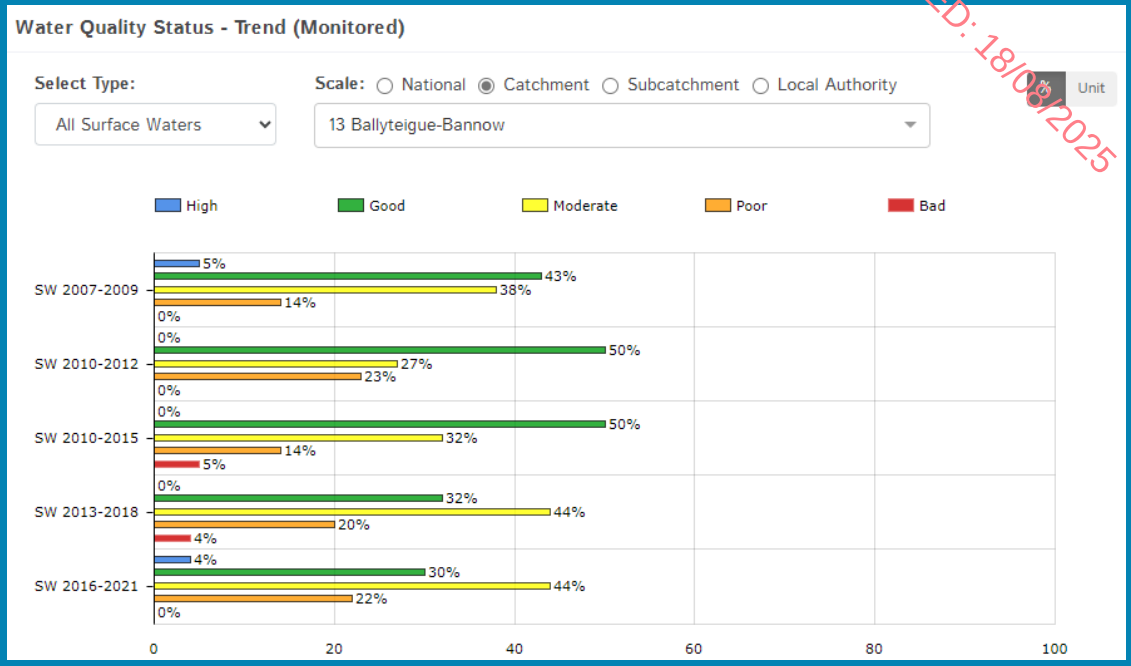
Water Quality Changes

Below illustrates the changes in ecological status in monitored surface waterbodies over the last five monitoring cycles in the Ballyteigue-Bannow Catchment. Nationally while there have been improvements in some waterbodies, these have been offset by declines elsewhere.



Ecological status trends for monitored surface waterbodies over the last five monitoring cycles in the Ballyteigue-Bannow Catchment.

View online dashboard: https://www.catchments.ie/data/#/dashboard/waterquality

A total of 18 (38%) waterbodies are currently meeting their environmental objective of Good Ecological Status.

	Total	Achieving Environmental Objectives (2016-2021)	High Status Environmental Objectives Waterbodies	Achieving High Status Environmental Objectives (2016-2021)
Rivers	30	8 (*27%*)	0	0 (*0%*)
Canals	-	-	-	-
Lakes	-	-	-	-
Transitional	6	0 (*0%*)	0	0 (*0%*)
Coastal	4	2 (*50%*)	0	0 (*0%*)
Groundwater	8	8 (*100%*)	0	0 (*0%*)

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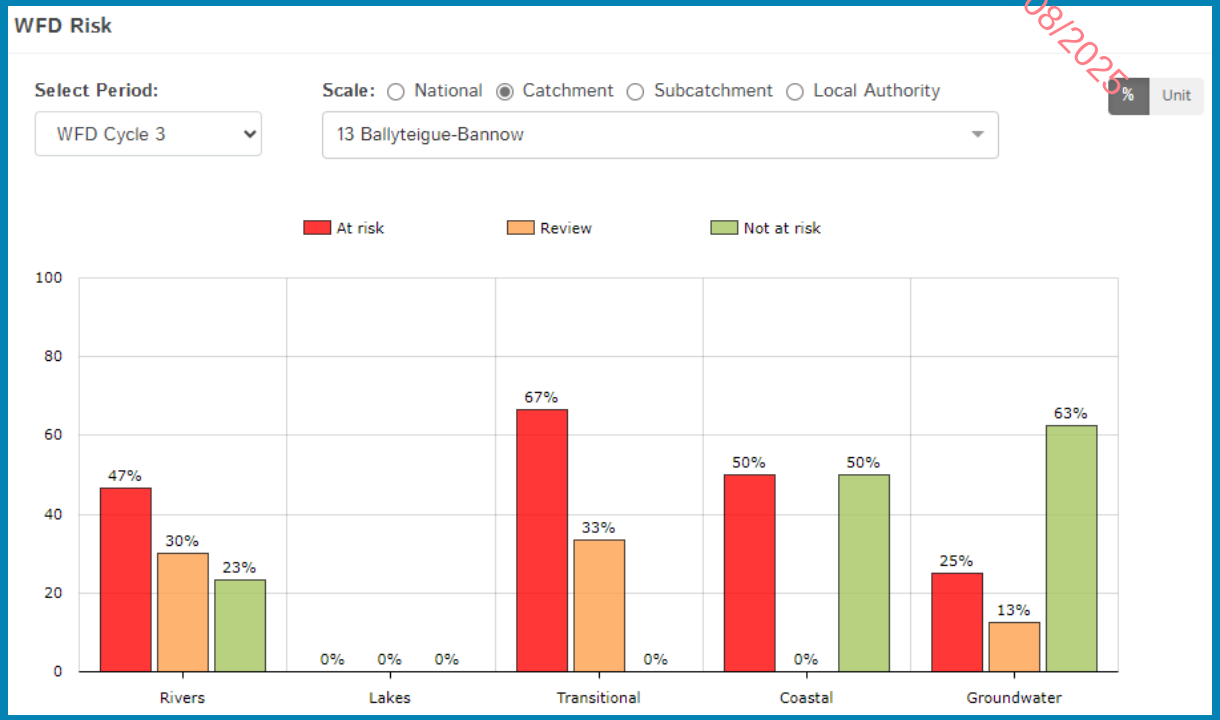
WFD Risk

A total of 22 (46%) waterbodies are *At Risk* of not meeting their environmental objective in the Ballyteigue-Bannow Catchment, while 12 (25%) are under *Review* and 14 (29%) are *Not At Risk.*

Go to EPA Water Map to see WFD Risk for this catchment



WFD Risk for the Ballyteigue-Bannow Catchment based on 2016-2021 data.
View Online Dashboard: https://www.catchments.ie/data/#/dashboard/waterquality

There are currently no heavily modified water bodies (HMWBs) in the Ballyteigue-Bannow Catchment.

There are no artificial waterbodies in the Ballyteigue-Bannow Catchment.

The EPA's characterisation outcome report has more information on WFD Risk

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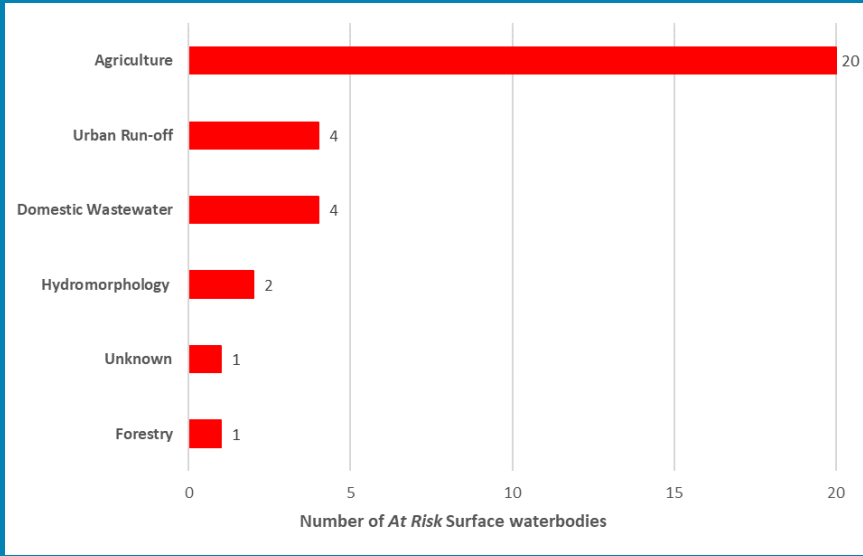
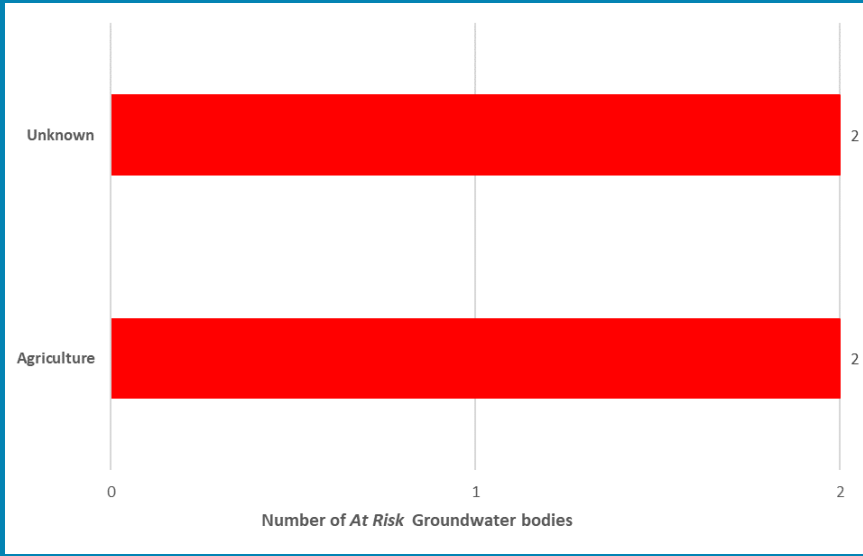
Significant Pressures driving risk

Click here for more information on significant pressures

Significant pressure types impacting the 20 *At Risk* surface waterbodies and two groundwater bodies are broken down in the figures below.





The issues driven by these pressures are mainly nutrient pollution, organic pollution and altered morphological condition (habitat) impacts for surface water, and nutrient pollution and chemical quality diminution for surface water for groundwaters. For more information, see https://www.catchments.ie/data/#/dashboard/pressure?_k=i351zs.

Go to the Summary Information section to get significant pressure and issue data for At Risk waterbodies within the Ballyteigue-Bannow Catchment.

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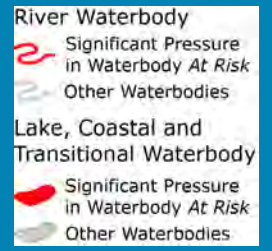
Significant Pressures

Agriculture is the top significant pressure impacting 100% of the 22 *At Risk* waterbodies within the Ballyteigue-Bannow Catchment, followed by 18% impacted by both urban run-off and domestic wastewater .



i

ii

iii

The catchments.ie dashboards will show all significant pressures identified for this catchment.

www.catchments.ie/data/#/dashboard/pressure

Go to the EPA Water Maps for the locations of all significant pressure types identified for this catchment

Locations of At Risk surface waterbodies impacted by i) Agriculture, ii) Urban Run-off and iii) Domestic Wastewater.

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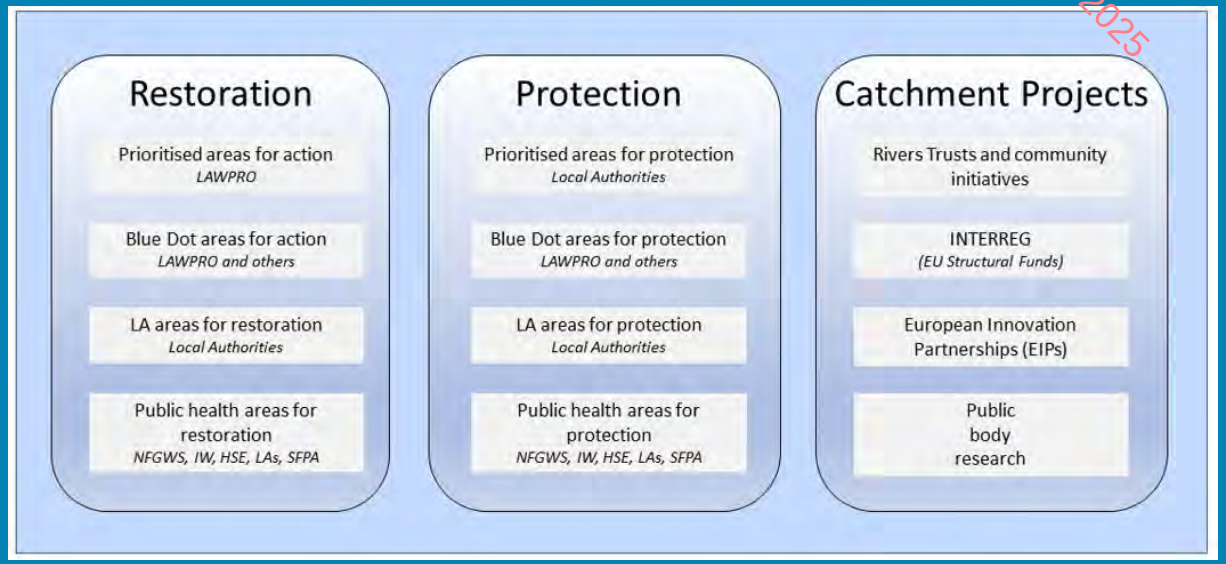
Priority Areas for Action

A number of waterbodies have been prioritised through the selection of Areas for Action. There were three Priority Areas for Action identified for the second river basin management planning cycle in the Ballyteigue-Bannow Catchment. This has increased to a total of three Areas for Restoration, one Area for Protection and one Catchment Project for the third cycle. ***Go to the summary information section to get Area for Action information for waterbodies within the Ballyteigue-Bannow Catchment.***



Types of Areas for Action under the third cycle River Basin Management Plan

- View the current progress of Areas for Action and Summary Reports completed by LAWPRO, on catchments.ie and the EPA Water Map:
  - https://www.catchments.ie/data/#/areaforaction
  - https://gis.epa.ie/EPAMaps/default?easting=?&northing=?&lid=EPA:WFD_AreasForAction
- LAWPRO have also published detailed desktop studies on Prioritised Areas for Action (PAAs) which are available their website: https://lawaters.ie/desktop-studies/
- Information on Areas for Action for the second cycle is available in Cycle 2 Catchment Assessments which have been archived on catchments.ie: https://www.catchments.ie/download/cycle-2-catchment-assessments-published-september-2018/

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Summary information for all waterbodies in the Ballyteigue-Bannow Catchment

The next page provides a table with a breakdown of key information for all waterbodies in this catchment. The key is provided below. Additional information for each waterbody is available on https://www.catchments.ie/data, including a breakdown of status, a monitoring schedule for monitored waterbodies and downloadable chemistry results, where available.

Protected Area categories	BW: Bathing Water DW: Drinking Water Fish: Salmonid Waters NSA: Nutrient Sensitive Areas SAC: Special Area of Conservation, Natura 2000 (water dependent habitats and species) SF: Shellfish Area SPA: Special Area of Protection, Natura 2000 (water dependent habitat and species)
Significant pressure* types categories ** For At Risk waterbodies only*	Ab: Abstractions Ag: Agriculture Aq: Aquaculture At: Atmospheric DWW: Domestic Wastewater For: Forestry HPS: Historically polluted sites HYMO: Hydromorphology Ind: Industry IS: Invasive Species M+Q: Mines and Quarries Peat: Peat Drainage and Extraction UR: Urban Run-Off UWW: Urban Wastewater Was: Waste WT: Water Treatment

Catchment Code	Waterbody (WB) Code	WB Name	WB Type	Local Authority	Protected Area	Status 10-15	Status 13-18	Status 16-21	Environmental Objective	Environmental Objective Date	WFD Risk 16-21	Significant Issue(s)	Significant Pressure(s)	Area for Action (AFA)	AFA (lead, type)	Link to WB page on catchments.ie	Link to WB on EPA Water Map
10, 11, 12, 13	IE_SE_010_0000	Southwestern Irish Sea (HAs 11;12)	Coastal	Wexford County Council	BW; SAC; SPA; NSA;	Good	Moderate	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
13, 17	IE_SE_050_0000	Eastern Celtic Sea (HAs 13;17)	Coastal	Wexford County Council	BW; SAC; SPA;	Unassigned	Good	High	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
13	IE_SE_090_0000	Bannow Bay	Coastal	Wexford County Council	SAC; SPA; SF;	Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13, 17	IE_SE_100_0000	Waterford Harbour	Coastal	Waterford City & County Council	BW; SAC; SF;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	UR, Ag	Waterford Harbour	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
12, 13, 14	IE_SE_G_001	Adamstown	Groundwater	Wexford County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
10, 11, 12, 13, 14, 9	IE_SE_G_011	Ballyglass	Groundwater	Wicklow County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	At risk	ChemicalQualityDiminutionForSW, Nutrients	Unknown, Ag			View WB Page	View WB on EPA Water Map
12, 13	IE_SE_G_022	Bridgetown	Groundwater	Wexford County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
11, 12, 13	IE_SE_G_031	Castlebridge North	Groundwater	Wexford County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
11, 12, 13	IE_SE_G_061	Enniscorthy	Groundwater	Wexford County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	At risk	Nutrients	Ag, Unknown			View WB Page	View WB on EPA Water Map
12, 13	IE_SE_G_064	Fardystown	Groundwater	Wexford County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
12, 13	IE_SE_G_065	Fethard	Groundwater	Wexford County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
12, 13, 14, 15, 9	IE_SE_G_152	New Ross	Groundwater	Carlow County Council	DWPA; SAC	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
13	IE_SE_13B010080	BRIDGETOWN (WEXFORD)_010	River	Wexford County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	DWTS, Ag			View WB Page	View WB on EPA Water Map
13	IE_SE_13B010090	BRIDGETOWN (WEXFORD)_020	River	Wexford County Council		Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag, DWTS			View WB Page	View WB on EPA Water Map
13	IE_SE_13B010200	BRIDGETOWN (WEXFORD)_030	River	Wexford County Council		Unassigned	Moderate	Poor	Good	2022-2027	At risk	Nutrients, Organic	Ag, DWTS			View WB Page	View WB on EPA Water Map
13	IE_SE_13B010400	BRIDGETOWN (WEXFORD)_040	River	Wexford County Council	SAC; SPA;	Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag			View WB Page	View WB on EPA Water Map
13	IE_SE_13B040500	BATTLESTOWN STREAM_010	River	Wexford County Council	SAC; SPA;	Moderate	Good	Good	Good	2021 or earlier	Not at risk			Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13B050050	BEGERIN STREAM_010	River	Wexford County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Nutrients, Organic, UnknownImpactType	Ag, Unknown	Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13B330460	BALLYTEIGE_BURROW_010	River	Wexford County Council	SAC; SPA;	Unassigned	Moderate	Poor	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
13	IE_SE_13B350700	BALLYMADDER_010	River	Wexford County Council	SAC; SPA;	Unassigned	Moderate	Moderate	Good	2022-2027	Review			Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13B390600	BALLYCULLANE (Wexford)_010	River	Wexford County Council	SAC; SPA;	Unassigned	Moderate	Moderate	Good	2022-2027	Review			Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13C010020	COROCK_010	River	Wexford County Council		Moderate	Poor	Moderate	Good	2022-2027	At risk	Nutrients, Organic	Ag	Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13C010080	COROCK_020	River	Wexford County Council		Good	Good	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13C010150	COROCK_030	River	Wexford County Council	SAC;	Good	Good	Good	Good	2021 or earlier	Not at risk			Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13C010300	COROCK_040	River	Wexford County Council	SAC; SPA;	Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13C040400	CLERISTOWN STREAM_010	River	Wexford County Council		Poor	Moderate	Poor	Good	2022-2027	At risk	Morphological, Nutrients, Organic	UR, DWTS, Ag			View WB Page	View WB on EPA Water Map
13	IE_SE_13C220990	CARROWANREE_010	River	Wexford County Council	SAC;	Unassigned	Poor	Poor	Good	2022-2027	Review			Waterford Harbour	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13C230990	CURRAGHMORE_010	River	Wexford County Council	SAC;	Unassigned	Poor	Moderate	Good	2022-2027	Review			Waterford Harbour	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13D010260	DUNCORMICK_010	River	Wexford County Council		Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients, Organic	Ag, UR			View WB Page	View WB on EPA Water Map
13	IE_SE_13D010350	DUNCORMICK_020	River	Wexford County Council		Moderate	Moderate	Moderate	Good	2022-2027	At risk	Sediment, Nutrients	Ag			View WB Page	View WB on EPA Water Map
13	IE_SE_13G050890	GROGAN_BURROW_010	River	Wexford County Council	SAC; SPA;	Unassigned	Moderate	Moderate	Good	2022-2027	Review			Wexford Coastal Lagoons	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13G060990	GRAIGUE_GREAT_010	River	Wexford County Council	SAC; SPA;	Unassigned	Good	Moderate	Good	2022-2027	Review			Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13H010020	HEATHPARK STREAM_010	River	Wexford County Council		Moderate	Poor	Moderate	Good	2022-2027	At risk	Sediment, Morphological, Nutrients	For, Ag	Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13K140950	KISHA_010	River	Wexford County Council	SAC; SPA;	Unassigned	Moderate	Moderate	Good	2022-2027	Review			Wexford Coastal Lagoons	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13L110540	LONGBRIDGE_010	River	Wexford County Council		Unassigned	Moderate	Good	Good	2021 or earlier	Review					View WB Page	View WB on EPA Water Map
13	IE_SE_13M010200	MULMONTRY_010	River	Wexford County Council		Good	Good	Good	Good	2021 or earlier	Not at risk			Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13M010400	MULMONTRY_020	River	Wexford County Council		Good	Good	Good	Good	2021 or earlier	Not at risk			Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13M010700	MULMONTRY_030	River	Wexford County Council		Good	Good	Good	Good	2021 or earlier	Not at risk			Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_13O010100	OWENDUFF (WEXFORD)_010	River	Wexford County Council		Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag			View WB Page	View WB on EPA Water Map

13	IE_SE_13O010180	OWENDUFF (WEXFORD)_020	River	Wexford County Council		Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
13	IE_SE_13O010240	OWENDUFF (WEXFORD)_030	River	Wexford County Council	DWPA;	Good	Good	Good	Good	2021 or earlier	Not at risk					View WB Page	View WB on EPA Water Map
13	IE_SE_13T010900	TINTERN ABBEY STREAM_010	River	Wexford County Council	SPA;	Poor	Poor	Poor	Good	2022-2027	At risk	Nutrients	Ag	Bannow	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_060_0100	Lady's Island Lake	Transitional	Wexford County Council	SAC; SPA;	Bad	Poor	Poor	Good	2022-2027	At risk	Morphological, Nutrients, Organic	Ag, HYMO			View WB Page	View WB on EPA Water Map
13	IE_SE_070_0100	Tacumshin Lake	Transitional	Wexford County Council	SAC; SPA;	Moderate	Moderate	Moderate	Good	2022-2027	At risk	Morphological, Nutrients, Organic	HYMO, Ag	Wexford Coastal Lagoons	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map
13	IE_SE_080_0100	Bridgetown Estuary	Transitional	Wexford County Council	SAC; SPA;	Unassigned	Good	Moderate	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
13	IE_SE_080_0200	Ballyteige Channels	Transitional	Wexford County Council	SAC; SPA;	Unassigned	Bad	Poor	Good	2022-2027	Review					View WB Page	View WB on EPA Water Map
13	IE_SE_090_0100	Corock Estuary	Transitional	Wexford County Council	SAC; SPA;	Unassigned	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag, UR			View WB Page	View WB on EPA Water Map
13, 14, 16, 17	IE_SE_100_0100	Barrow Suir Nore Estuary	Transitional	Wexford County Council	BW; SAC; SF;	Good	Moderate	Moderate	Good	2022-2027	At risk	Nutrients	Ag	Waterford Harbour	LAWPRO, Restoration	View WB Page	View WB on EPA Water Map

Appendix 8.8 Scoping Responses of Relevance to Water

In this Appendix, each Scoping Response is presented in full and directly after each Scoping Response, Hydro-G addresses the water related aspects raised. Scoping responses were received by the following national agencies:

1. The Geological Survey of Ireland
2. Uisce Eireann
3. TII
4. The National Office for Environmental Health Services (HSE)

A detailed response by Hydro-G, to each individual Scoping Response, is provided after each Letter received. However, in overall summary, with respect to the water related aspects of the Responses to Scoping, Hydro-G offers:

- As advised by the GSI, all available GSI data have been employed in the EIA and are detailed in the EIAR, where appropriate. In the EIAR Hydro-G provided specific references to the maps and databases listed by the GSI text.

- Uisce Eireann requested that the assessment include consideration of, and detail for, potential impacts on Public Water Supplies (PWSs): Bennettsbridge PWS is to the south and Thomastown's PWS is farther south. Both schemes take water from Groundwater and the River Nore, to which the quarry is Licensed to Discharge Waters. Hydro-G engaged with multiple departments in Uisce Eireann and a full text of engagement is provided in this Appendix. In the original communications to Uisce Eireann, Hydro-G communicated the overview facts of differing Groundwater Bodies, different bedrock types and the fact that the quarry was sufficiently remote from the mapped Zones of Contribution (ZOC) to each of the PWSs. The mapped ZOCs relate primarily to the bedrock boreholes. However, there are also surface water abstractions, by virtue of the PWSs abstracting at locations on the banks of the River Nore. However, of particular note is that the quarry's Section 4 Licence Emission Limit Value (ELV) for Total Ammonia N is 0.17mg/l and the Drinking Water Regulations (2023) Parametric Value (PV) for Ammonium is 0.5 mg/l. Even allowing for the small ionic difference in converting Ammonia as N to Ammonium, the fact that the quarry's discharge ELV is approximately 1/3 of the Drinking Water PV suggests zero potential for impact. Another mitigating factor is that the flow of water in the River Nore is massive relative to the maximum ELV for the volume of discharge from the quarry (70,000 m3/d). EPA HydroTOOL model's value for the average naturalised flow rate in the River Nore immediately upstream of the quarry is **c**.3million m3/d. IF the quarry were to discharge its maximum flow volume to the river when it was in its average flow rate, the quarry's discharge would be 2% of the river flow. However, the maximum flow value reported by the EPA (NATQ1) in the River Nore at the point of the quarry's discharge is c.14million m3/d. The quarry's maximum licensed discharge is 0.5% of the maximum flow rate in the River Nore. No impact is possible. Details for each PWS and other GWSs are presented in the EIAR and the Impact is formally assessed as No Potential for Impact.

- In addition to engagement with Asset Planning, Asset Operations and Catchment Teams of Uisce Eireann, Hydro-G engaged with 'Asset Data' and received maps for water and wastewater assets along all roads near the quarry. The record of communication and the received water mains and foul network maps are presented at the end of this Appendix. There is No Potential for Impact with Uisce Eireann assets.

- The TII present commentary on many issues including geotechnics, noise, road guidance and water. The two specific water related issues are addressed after the full text of the TII email response. However, overall, Hydro-G offers that the discharge from the quarry's settlement lagoons is at a much lower elevation than the M9 and therefore no flood potential or affect is possible. Even in the largest flood events of 2009 and 2014-2015, no flooding has occurred in relation to the quarry's discharge. More detail is presented after the TII response detail.

- Impact on all wells has been considered and assessed as per the requests of the Environmental Health Office of the HSE. Other details are addressed after the presentation of the Environmental Health Officer's correspondence.

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

Geological Survey
Suirbhéireacht Gheolaíochta
Ireland | Éireann

Rory Brickenden
Quarry Consulting
Unit 3, Cedar Crescent,
Cedar Park
Westport
Co. Mayo, F28 PN47

25 February 2025

Re: Proposed extension of limestone quarry, Kilree, Sheastown, Bennettsbridge, Co Kilkenny
Your Ref: 63.01
Our Ref: 25/32

Dear Rory,
Geological Survey Ireland is the national earth science agency and is a division of the Department of the Environment, Climate and Communications. We provide independent geological information and interpretation and gather various data for that purpose. Please see our website for data availability.

With reference to your email received on the 20 February 2025, concerning the proposed extension of limestone quarry, Kilree, Sheastown, Bennettsbridge, Co Kilkenny, we recommend using our various data sets when conducting the EIAR, SEA, planning and scoping processes for developments, plans and policies. For more detailed information on how to access this data please access 'Data and Maps' Data & Maps (gsi.ie) on our 'Geoscience for planning' webpage. Use of our data or maps should be attributed correctly (please refer to each individual dataset's metadata for correct attribution).

For specific data available for Environmental Assessment and Planning topics please follow this link [Data by Environmental Assessment and Planning Topic (gsi.ie)], where you will find our data arranged by environmental assessment topic as illustrated below:

Land and soils
Soil
• Subsoils (Quaternary Geology)
• Tellus Geochemistry
• Geotechnical
Geology
• Bedrock
• Geophysics
• Bedrock & Quaternary 3D

Water
Groundwater
• Aquifers GW vulnerability, GWPSs (GWPPs)
Surface water
• Tellus Geochemistry
Estuarine & marine waters
• Marine and coastal
Flooding
• GWClimate
• Karst

Climate Change
Carbon accounting / Carbon balance
• Geothermal
• Carbon capture and storage
Climate change trends
• National coastal change assessment

Cultural Heritage
Archaeology
• Cherish
Underwater Archaeology
• Shipwrecks

Material Assets
Built Services
• Natural resources (Minerals & Aggregates)
• Active quarries

The Landscape
Landscape Appearance & Character
• Physiographic units
Historical landscapes
• Historic mines

Other Relevant Data		
Natural (Geo) hazards	*Natural heritage*	
• Landslide Susceptibility Mapping	• Geoheritage (County Geological Sites)	
• Groundwater flooding	• Dimension Stone/Stone Built Ireland	
• Coastal vulnerability		
• Subsidence		
• Radon		

Other Comments

Should development go ahead, all other factors considered, Geological Survey Ireland would much appreciate a copy of reports detailing any site investigations carried out. The data would be redacted for confidentiality and added to Geological Survey Ireland's national database of site investigation boreholes, implemented to provide a better service to the civil engineering sector. Data can be sent to the Geological Mapping Unit, at mailto:GeologicalMappingInfo@gsi.ie.

Geological Survey Ireland would request that the operator might assist our geological heritage goals with the following (and ideally this would be written into the restoration / closure plan) and be included as a condition of planning as deemed appropriate by the planning authority:

1. Allowing access to quarry faces by appropriate scientists (upon request and with due regards to Health and Safety requirements) during quarrying to check for interesting new stratigraphies / relationships as they might become exposed and to establish if the quarry site is worthy of recognition post extraction and through aftercare/restoration planning.

2. If deemed appropriate in (1) above, leaving a representative section of the quarry face at the end of the quarry life or inclusion of information panels to promote the geology to the public or develop tourism or educational resources if appropriate depending on the future use of the site. Natural exposures are few, or deeply weathered, this measure would permit on-going improvement of geological knowledge of the subsurface.

The Geoheritage Programme tries to promote a partnership between geological heritage and active quarrying, with such measures as those outlined in the 'Geological Heritage Guidelines for the Extractive Industry', which can be downloaded here. This document, written in association with Irish Concrete Federation, acts as a comprehensive guide in the sustainable extraction of natural resources while preserving the geological heritage of Ireland.

If we can be of any further help, please do not hesitate to contact me Clare Glanville, or my colleague Trish Smullen at GSIPlanning@gsi.ie.

Yours sincerely,

Dr. Clare Glanville
Senior Geologist
Geoheritage and Planning Programme
Geological Survey Ireland

Trish Smullen
Geologist
Geoheritage and Planning Programme
Geological Survey Ireland

The publicly available data referenced/presented here, should in no way be construed as Geological Survey Ireland support for or objection to the proposed development or plan. The data are made freely available to all and can be used as independent scientific data in assessments, plans or policies. It should be noted that in many cases these data are a baseline or starting point for further site specific assessments.

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Uisce Éireann
PO Box 448
South City
Delivery Office
Cork City

www.water.ie

Uisce Éireanns Ref: PN25000019089

Planning Authority: Kilkenny County Council

Issue Date: 7 March 2025

Development Location:

Kilree, Bennettsbridge, Co. Kilkenny

Development Description:

Lateral Extension of an Existing Permitted Limestone Quarry.

A Chara,

Uisce Éireann has received your pre planning request and has the following comments.

For EIA qualifying developments applicants are requested to submit an EIAR Scoping Request to Uisce Éireann at least 6 months ahead of lodging a planning application. Seeking Uisce Éireann's opinion on EIAR avoids delays within the consenting process.

1. Proximity to Abstraction Point

   The proposed development site is 5.2km upstream from a number of Uisce Éireann's abstraction points located at Knockanore. All potential impacts arising from the development proposal on Uisce Eireann's abstraction points must be identified and addressed in the EIAR.. The EIAR must include and consider all direct, indirect and cumulative effects on the abstraction points, any surface water or groundwater abstraction points where a potential hydrological and hydrogeological exists.

2. Groundwater and Dewatering

   No details have been submitted on the exact extent, methodology or depth of the excavation(s) proposed. The applicant is requested to provide full details in EIAR along with assessment of risks to groundwater. If it proposed to excavate below existing groundwater levels. the potential impacts of dewatering must be identified, modelled and addressed in the EIAR.

3. Stormwater Run Off and Hydrocarbons

The potential impacts arising from run off and hydrocarbon during construction, operational and decommissioning phases should be addressed to include mitigations against contaminants entering groundwater and surface waters via hydrological and hydrogeological pathways.

4. Servicing

   Details of how the existing quarry and extended quarry are to be serviced (water supply and wastewater) must be outlined in the planning application.

In addition to the specific items outlined above please note the following aspects of water & wastewater services which should be considered in the scope of an EIAR where relevant.

a) Where the development proposal has the potential to impact an Uisce Éireann Drinking Water Source(s), the applicant shall provide details of measures to be taken to ensure that there will be no negative impact to Uisce Éireann's Drinking Water Source(s) during the construction and operational phases of the development. Hydrological / hydrogeological pathways between the applicant's site and receiving waters should be identified as part of the report.

b) Where the development proposes the backfilling of materials, the applicant is required to include a waste sampling strategy to ensure the material is inert.

c) Mitigations should be proposed for any potential negative impacts on any water source(s) which may be in proximity to your site. These mitigations should be included in the environmental management plan and incident response plan.

d) Development proposals shall not impact public drinking water sources and/or abstraction point(s). It is a requirement of the Water Framework Directive that waters used for the abstraction of drinking water are protected to avoid deterioration in quality. Protection of drinking water source(s) from potentially adverse impacts is a priority for Uisce Éireann. It is Uisce Éireanns current policy to maintain safe and secure drinking water supplies and ensure that development will not give rise to any deterioration in water quality.

e) Impacts of the development on the capacity of water services (*i.e. do existing water services have the capacity to cater for the new development*). This is confirmed by Uisce Éireann in the form of a Confirmation of Feasibility (COF). If a development requires a connection to either a public water supply or sewage collection system, the developer is advised to submit a Pre-Connection Enquiry (PCE) enquiry to Uisce Éireann to determine the feasibility of connection to the

Uisce Éireann network. The PCE should be submitted to Uisce Éireann well in advance of lodging your application. Lodging a COF with your planning application helps avoids delays in the consenting process.

f) The applicant shall identify any upgrading of water & wastewater services infrastructure that would be required to accommodate the proposed development.

g) In relation to a development that would discharge trade effluent – any upstream treatment or attenuation of discharges required prior to discharging to an Uisce Éireann collection network.

h) In relation to the management of surface water; the potential impact of surface water discharges to combined sewer networks and potential measures to stop surface waters from combined sewers. Uisce Éireann does not permit surface waters into our sewer network.

i) Any physical impact on Uisce Éireann assets – reservoir, drinking water source, treatment works, pipes, pumping stations, discharges outfalls etc. including any relocation of assets.

j) When considering a development proposal, the applicant is advised to determine the location of public water services assets, possible connection points from the applicant's site / lands to the public network and any drinking water abstraction catchments to ensure these are included and fully assessed in any pre-planning proposals. Details, where known, can be obtained by emailing an Ordnance Survey map identifying the proposed location of the applicant's intended development to datarequests@water.ie

k) Other indicators or methodologies for identifying infrastructure located within the applicant's lands are the presence of registered wayleave agreements, visible manholes, vent stacks, valve chambers, marker posts etc. within the proposed site.

l) Any potential impacts on the assimilative capacity of receiving waters in relation to Uisce Éireann discharge outfalls including changes in dispersion / circulation characterises. Hydrological / hydrogeological pathways between the applicant's site and receiving waters should be identified within the report.

m) Any potential impact on the contributing catchment of water sources either in terms of water abstraction for the development (*and resultant potential impact*

on the capacity of the source) or the potential of the development to influence / present a risk to the quality of the water abstracted by Uisce Éireann for public supply should be identified within the report.

n) Where a development proposes to connect to an Uisce Éireann network and that network either abstracts water from or discharges wastewater to a "protected"/ sensitive area, consideration as to whether the integrity of the site / conservation objectives of the site would be compromised should be identified within the report.

o) Uisce Éireann does not permit build over of its assets. Separation distances from public infrastructure, as per Uisce Éireann's Standards, Codes and Practices must be achieved. It is the applicant's responsibility to submit a diversion enquiry to Uisce Éireann Diversions Section (diversions@water.ie) prior to construction, where a potential build over of public assets is in question and/or where the applicants proposals cannot achieve separation distances from public infrastructure as per UÉ Standards & Codes of Practice. As an applicant you are required to;

- survey the site to determine the exact location of the public assets. Any trial investigations should be carried out with the agreement and in the presence of Uisce Éireann. All queries relating to in situ public infrastructure should be directed to diversions@water.ie
- Provide evidence of separation distances between the existing Uisce Éireann assets and proposed structures, other services, trees, etc. have to be in accordance with UÉ Standards & Codes of Practice

p) Where an existing connection is on place, the applicant or developer may be required to enter into a new or revised water and/or wastewater connection agreement(s) with Uisce Éireann prior to the commencement of this development.

q) Where new connection(s) are sought, the applicant shall enter into water and/or wastewater connection agreement(s) with Uisce Éireann prior to the commencement of this development.

Queries relating to this EIAR scoping request should be directed to planning@water.ie

Dermot Phelan,

Connections Delivery Manager

Consultations with Uisce Eireann

1. **PWS Catchments and Zones of Contribution (UE Response = quarry is not in mapped zone of supply to any PWS).**
2. **Uisce Eireann Details for Bennettsbridge PWS and likely future abstractions.**
3. **Request for Discharge Volumes to the Nore (UE response = no response).**

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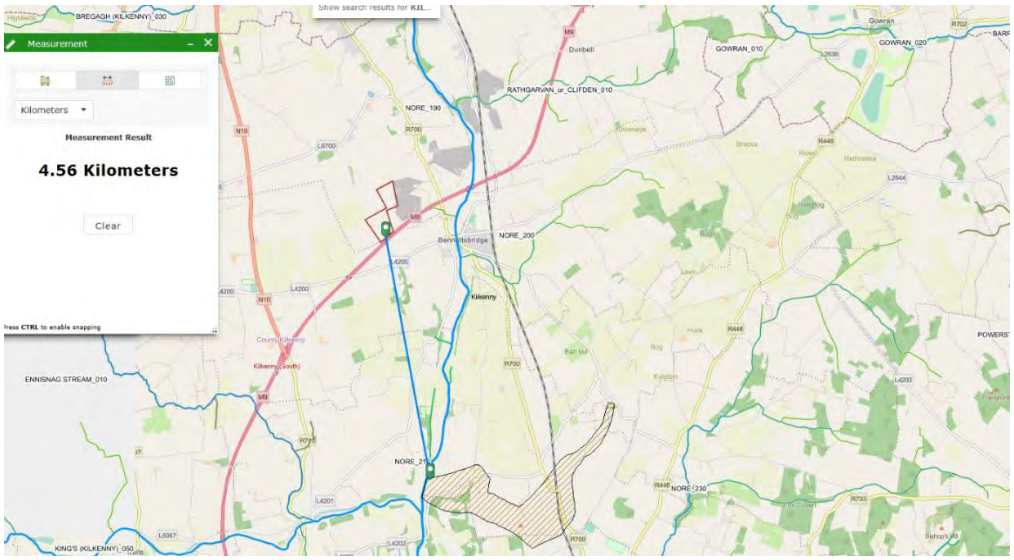
1. PWS Catchments and Zones of Contribution

From: Lorraine Gaston <lgaston@water.ie>
Sent: Tuesday 6 May 2025 08:27
To: Pamela Bartley <pamela@hydro-g.com>; Aisling McGrath(C) <aisling.mcgrath@water.ie>; Gareth O'Brien <gaobrien@water.ie>
Cc: Planning <Planning@water.ie>
Subject: RE: Bennettsbridge Limestone Quarry Planning Application 2025 - Uisce Eireann Wastewater Data Request - River Nore

Hi Pamela

The development site is not located within a UÉ surface or groundwater drinking water abstraction catchment that we have currently delineated - see below. The closest abstraction points are the 3 no. boreholes and 1 no. infiltration gallery associated with the Bennettsbridge Water Supply, located approx. 4.6 km to the south. The delineation of the surface water catchment for the infiltration gallery is yet to be completed.



Kind regards
Lorraine

Lorraine Gaston, Integrated Catchment Manager
Uisce Éireann
Colvill House, 24–26 Talbot Street, Dublin 1, D01 NP86, Ireland

From: Pamela Bartley <pamela@hydro-g.com>
Sent: Thursday 1 May 2025 09:40
To: Lorraine Gaston <lgaston@water.ie>; SourceProtectionProject <SourceProtectionProject@water.ie>; Aisling McGrath(C) <aisling.mcgrath@water.ie>; Gareth O'Brien <gaobrien@water.ie>
Cc: Planning <Planning@water.ie>
Subject: RE: Bennettsbridge Limestone Quarry Planning Application 2025 - Uisce Eireann Wastewater Data Request - River Nore

Hi Lorraine, thanks

No, Gareth and I have not been in contact on this.

I am going to simplify things here – All I want to know is – Do I just use the 2002 SPZ for the Bennettsbridge Sources (GSI County PWSS Kilkenny SPZ Report) even though it is 23 years old and the Source Protection programme (Henning Moe) drilling MAY or MAYNOT be in use?

OR

DO SPP have a modern SPZ for all the "existing Bennettsbridge and Kilmaganny WSZ comprises a well field of five boreholes, four of which are operational, and an infiltration gallery approximately 200 m in length at Knockanore, Bennettsbridge, and two boreholes at Kilmaganny."

Thanks

Pam
Dr. Pamela Bartley B.Eng., M.Sc., Ph.D.
Hydro-G
Hydro-G is the registered trading name of Bartley Hydrogeology ltd., a limited company registered to trade in Galway, Ireland. Company number 437572.

From: Lorraine Gaston <lgaston@water.ie>
Sent: Thursday, May 1, 2025 9:29 AM
To: Pamela Bartley <pamela@hydro-g.com>; SourceProtectionProject <SourceProtectionProject@water.ie>; Aisling McGrath(C) <aisling.mcgrath@water.ie>; Gareth O'Brien <gaobrien@water.ie>
Subject: RE: Bennettsbridge Limestone Quarry Planning Application 2025 - Uisce Eireann Wastewater Data Request - River Nore

Hi Pamela
This is a project specific mailbox, our general mailbox is catchments@water.ie
@Gareth O'Brien were you dealing with this query previously, would you be able to help Pamela further?

Kind regards

Lorraine

Lorraine Gaston, Integrated Catchment Manager
Uisce Éireann
Colvill House, 24–26 Talbot Street, Dublin 1, D01 NP86, Ireland

From: Pamela Bartley <pamela@hydro-g.com>
Sent: Wednesday 30 April 2025 12:21
To: SourceProtectionProject <SourceProtectionProject@water.ie>
Subject: FW: Bennettsbridge Limestone Quarry Planning Application 2025 - Uisce Eireann Wastewater Data Request - River Nore

Hi
Aisling has directed me to this email address to address answers to my queries in the email of 25th March 2025 (see thread blow). I am still asking: NOTE: the only publically available information for these sources is attached here as the County PWSS Kilkenny SPZ Report (GSI, 2002).

- There MAY have been Source Protection Programme Drilling in 2018 / 2019 / 2020 ? The Volume of Abstraction may have increased? The SPZ may have enlarged? I do believe that CDM Smith and Henning Moe MAY have drilled there for UE in the SPZ? ARE THERE MORE NEW SOURCES NOW? IF SO, WHERE?
- There MAY be plans to meet a Supply Demand Balance Programme 2044 Deficit ? Tobins are the ESP / consulting engineers for that region. MAYBE THERE ARE DRILL SITES CHOSEN REMOTE from the existing site but closer to the Bennettsbridge Limestone Quarry Site?
- [Note the UE December 2024 Capacity Register published on the www states that Bennettsbridge requires Capital Investment. https://www.water.ie/connections/developer-services/capacity-registers/water-supply-capacity-register/kilkenny. WILL THIS INCREASE the ATRACTION RATE AND WILL THIS CHANGE THE PROXXIMITY OF THE PWS to the proposed expansion of the established quarry to the west of the current quarry working area?

Thanks, Pam

Dr. Pamela Bartley B.Eng., M.Sc., Ph.D. Hydro-G

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2. Uisce Eireann Details for Bennettsbridge PWS and likely future abstractions (UE response = volumes not known at this time = not available).

From: Aisling McGrath(C) <aisling.mcgrath@water.ie>
Sent: Wednesday 30 April 2025 12:34
To: Pamela Bartley <pamela@hydro-g.com>
Cc: Connie O' Driscoll <CoODriscoll@water.ie>
Subject: RE: Bennettsbridge Limestone Quarry Planning Application 2025 - Uisce Eireann Wastewater Data Request - River Nore

Hi Pamela,

I have been advised by the Asset Strategy team that Uisce Éireann are not in a position to provide this information.

Regards **Aisling McGrath**

Development Management Planning **Uisce Éireann**
Smithlands Centre, Waterford Road, Loughboy, Co.Kilkenny R95 W023 www.water.ie

From: Pamela Bartley <pamela@hydro-g.com>
Sent: Wednesday 30 April 2025 12:19
To: Aisling McGrath(C) <aisling.mcgrath@water.ie>
Subject: RE: Bennettsbridge Limestone Quarry Planning Application 2025 - Uisce Eireann Wastewater Data Request - River Nore

Thanks Aisling

That email provides some very general info on my queries and specifically relating to the SDB Programme – but no specifics for a Quantitative Assessment. Information in the email states that "The National Water Resource Plan (NWRP) has identified that the PWS will require additional water to meet the requirements of the 2044 Dry Year Critical Period (DYCP) and aims to meet this demand entirely from groundwater sources." I am interested in numbers - How much m3/d additional? I can then work out potential extra ZOC.

Thanks

Pam
Dr. Pamela Bartley B.Eng., M.Sc., Ph.D. Hydro-G, 50 Henry St. Galway H91 FA 4X.

Hydro-G is the registered trading name of Bartley Hydrogeology ltd., a limited company registered to trade in Galway, Ireland. Company number 437572.

From: Aisling McGrath(C) <aisling.mcgrath@water.ie>
Sent: Wednesday 30 April 2025 11:50
To: Pamela Bartley <pamela@hydro-g.com>
Subject: RE: Bennettsbridge Limestone Quarry Planning Application 2025 - Uisce Eireann Wastewater Data Request - River Nore

Hi Pamela,

Uisce Eireann's Source Protection team have provided the following information in response to your queries-
The 24Hr Design Capacity for BENNETTSBRIDGE WTP is 3,280 m^3/day. This is supplied through 3 no. BHs and 1 no. infiltration gallery.

- The National Water Resource Plan notes that Bennettsbridge serves a population of 5,222
- The existing Bennettsbridge and Kilmaganny WSZ comprises a well field of five boreholes, four of which are operational, and an infiltration gallery approximately 200 m in length at Knockanore, Bennettsbridge, and two boreholes at Kilmaganny.
- No new or proposed additional abstractions within the area currently.
- The Bennettsbridge well field and infiltration gallery are located adjacent to the River Nore. The volume of water currently supplied to the public in the Bennettsbridge section of the scheme is 2,682 m^3/day on average and over 3,200 m^3/day at peak demand during dry periods. The Kilmaganny boreholes currently supply up to 408 m^3/d to the Kilmaganny section of the scheme.

- The National Water Resource Plan (NWRP) has identified that the PWS will require additional water to meet the requirements of the 2044 Dry Year Critical Period (DYCP), and aims to meet this demand entirely from groundwater sources.
- **The investigative focus for meeting additional groundwater is in the Regionally Important Aquifer north of the infiltration gallery and east of the River Nore in the townland of Woolengrange.**

If you have queries regarding this information, you can contact SourceProtectionProject@water.ie

Regards

Aisling McGrath
Development Management Planning
Uisce Éireann
Smithlands Centre, Waterford Road, Loughboy, Co.Kilkenny R95 W023

From: Aisling McGrath(C) <aisling.mcgrath@water.ie>
Sent: 26 March 2025 11:14 AM
To: Pamela Bartley <pamela@hydro-g.com>
Cc: Connie O' Driscoll <CoODriscoll@water.ie>; Ali Robinson <arobinson@water.ie>
Subject: RE: Bennettsbridge Limestone Quarry Planning Application 2025 - Uisce Eireann Consultation Response

Hi Pamela,

I will review this and get back to you.
Regards

Aisling McGrath
Development Management Planning
Uisce Éireann
Smithlands Centre, Waterford Road, Loughboy, Co.Kilkenny R95 W023 **www.water.ie**

Fom: Pamela Bartley <pamela@hydro-g.com>
Sent: Tuesday, March 25, 2025 1:45 PM
To: Planning <Planning@water.ie>
Cc: Connie O' Driscoll <CoODriscoll@water.ie>; Ali Robinson <arobinson@water.ie>
Subject: Bennettsbridge Limestone Quarry Planning Application 2025 - Uisce Eireann Consultation Response
Hello Planning at UE and Hi Connie (maybe you could direct this to a person who could share more information. Please?)

RE: the attached **Uisce Éireann's Ref:** PN25000019089

Planning Authority: Kilkenny County Council

Issue Date: 7 March 2025

Development Location: Kilree, Bennettsbridge, Co. Kilkenny

Thank you for the Response to Scoping.

The UE communication refers to "Sources at Knockanore".

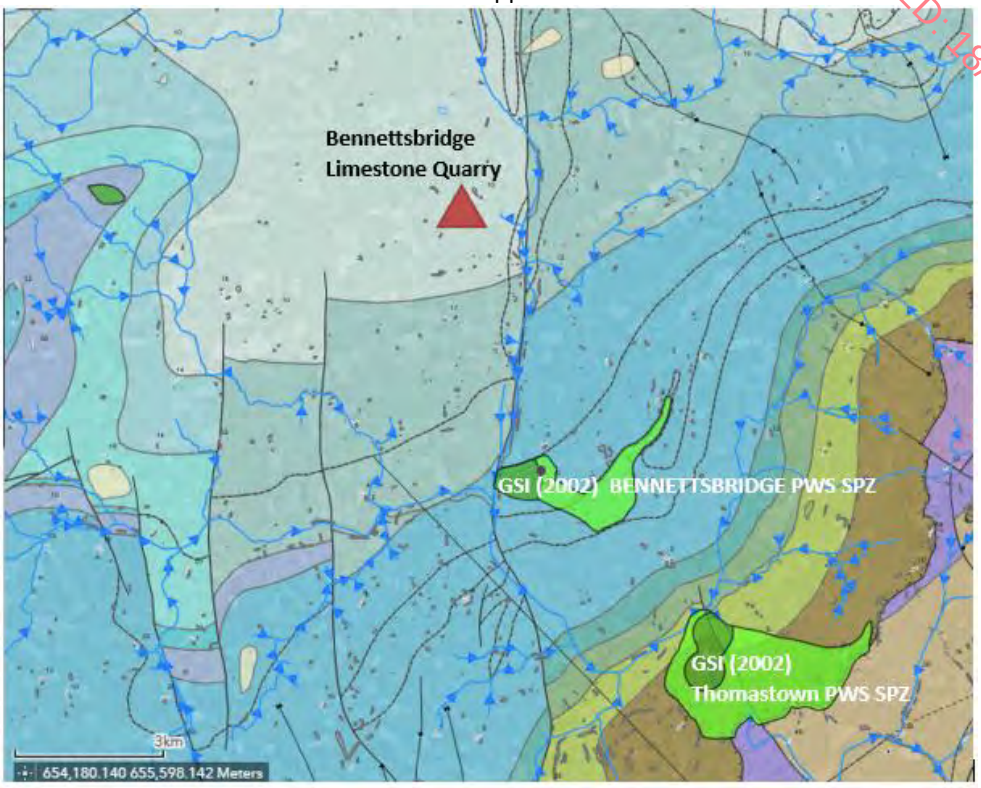
Hydro-G understands the "Sources at Knockanore" to mean the BENNETSBRIDGE PWS. If i am not correct, can you please clarify.

- Can we get more information please about the current and proposed volumes of water to be abstracted from the current sources AND **any newly proposed sources?**
- NOTE: the only publically available information for these sources is attached here as the County PWSS Kilkenny SPZ Report (GSI, 2002).
    - There MAY have been Source Protection Programme Drilling in 2018 / 2019 / 2020 ? The Volume of Abstraction may have increased? The SPZ may have enlarged? I do believe that CDM Smith and Henning Moe MAY have drilled there for UE in the SPZ? ARE THERE MORE NEW SOURCES NOW? IF SO, WHERE?
    - There MAY be plans to meet a Supply Demand Balance Programme 2044 Deficit ? Tobins are the ESP / consulting engineers for that region. MAYBE THERE ARE DRILL SITES CHOSEN REMOTE from the existing site but closer to the Bennettsbridge Limestone Quarry Site?
    - [Note the UE December 2024 Capacity Register published on the www states that Bennettsbridge requires Capital Investment. https://www.water.ie/connections/developer-services/capacity-registers/water-supply-capacity-register/kilkenny. WILL THIS INCREASET EH ABSTRACTION RATE AND WILL THIS CHANGE THE PROXXIMITY OF THE PWS SPX to the proposed expansion of the established quarry to the west of the current quarry working area?
- From a groundwater perspective, maybe i do not need to go into much detail in the Water Chapter of the EIAR for Bennettsbridge Limestone Quarry Site given that
    - Quarry is shown with a red Triangle in the Figure below.
    - Groundwater flow direction through the Quarry is from West to East, in the direction of the River Nore.
    - Groundwater flow direction to the GSI mapping for the Bennettsbridge PWS sources is GENERALLY from East to West in the direction of the River Nore. However, connection to the River Nore is also mapped and the Infiltration Gallery is detailed in the attached GSI (2002).
    - Therefore, groundwater flow direction to the quarry is in an opposite direction to that supplying the Bennettsbridge PWS sources (the ones that have publically available mapping for them, in any case).
    - The Bennettsbridge LIMESTONE site is in a different bedrock type to the PWS sources.
    - The Bennettsbridge LIMESTONE site is in a different aquifer type to the PWS sources.

SNIP from GSI Groundwater Mapping – Quarry is shown with Red Triangle.

Thomastown PWS = green SPZ farthest south.

Bennettsbridge PWS SPZ = shown below at c.6km from the application site.



From a SURFACE WATER perspective, the quarry has a 2018 Discharge Licence to discharge settled and attenuated waters to the River NORE and AERs are created each year documenting compliance with the Conditions of the Licence (EN_W_78 201; Kilkenny County Council).

- The site's discharge is in full compliance with the Emission Limit values of the Licence.
- There is an OPW Flow Gauging Station at Johns Bridge in Kilkenny City and the reported 95%ile flow is 2.638 m3/s (*i.e., 227,923 m3/d)*

In the EIAR, we will submit ALL details as requested in the Scoping response from UE. I am just reaching out here to get more details about the PWS at Bennettsbridge – Abstraction Volumes now, future planned, new sources from SPP, new plans for SDB (even deficit is enough to know) – so that we can make sure that we assess on the basis of more up to date data than the 2002 SPZ published.

Thanks
Pam

Dr. Pamela Bartley B.Eng., M.Sc., Ph.D.
Hydro-G 50 Henry St Galway H91 FA 4X

From: Rory Brickenden <rbrickenden@quarryconsulting.ie>
Sent: Friday 7 March 2025 15:20
To: Pamela Bartley <pamela@hydro-g.com>
Cc: markg <markg@bbl.ie>
Subject: Bennettsbridge - Uisce Eireann Consultation Response

Hi Pamela,
Please see attached Uisce Eireann consultation response for Bennettsbridge.

Regards
Rory Brickenden B.A. MEngSc

QUARRY CONSULTING

Unit 3, Cedar Crescent, Cedar Park, Westport, Co. Mayo, F28 PN47.

3. Request for Discharge Volumes to the Nore (UE response = no response).
From: Pamela Bartley <pamela@hydro-g.com>
Sent: Wednesday 16 April 2025 06:26
To: Aisling McGrath(C) <aisling.mcgrath@water.ie>
Cc: Connie O' Driscoll <CoODriscoll@water.ie>; Ali Robinson <arobinson@water.ie>
Subject: Re: Bennettsbridge Limestone Quarry Planning Application 2025 - Uisce Eireann Wastewater Data Request - River Nore

Dear Aisling

I am writing to request different data from the Knockanore email of the 25th March, below. I still await that information. But we have time because i will not get into this properly until a couple of weeks from now. As I have said in my previous emails, Bennettsbridge have a Section 4 Discharge licence and they will have to apply for an Abstraction Licence. The Abstraction Licensing Process requires an assessment of ALL Discharges and ALL Abstractions on a River System. I will also need some more data please, if possible: IN the context of the Discharges to The River Nore - Uisce Eireann Wastewater and Stormwater Overflow (if that is a thing even measured? i don't know?) - Discharges.

The EPA (2018) DRAFT Catchment Report for the Nore provides good information for the Rivers and Towns of the River Nore and its tributaries. I have attached it for convenience and it is Tabel 1 and Figure 1 that give us an idea of what towns and villages might have UE Wastewater Assets. MAYBE THERE IS A UE WW Overview Report? Maybe you could direct me? Or to the appropriate person:

High Level Wastewater Discharge Volume Data?

- Maybe the Design PE of each WWTP is all that MIGHT be available?
- Is that available in Tabular Georeferenced format?

Thanks

Pam
Dr. Pamela Bartley B.Eng., M.Sc., Ph.D. Hydro-G 50 Henry St Galway H91 FA 4X

Hydro-G is the registered trading name of Bartley Hydrogeology ltd., a limited company registered to trade in Galway, Ireland. Company number 437572.

DATA REQUESTS Communications

Uisce Eireann Water & Wastewater Infrastructure in the Vicinity of the Quarry

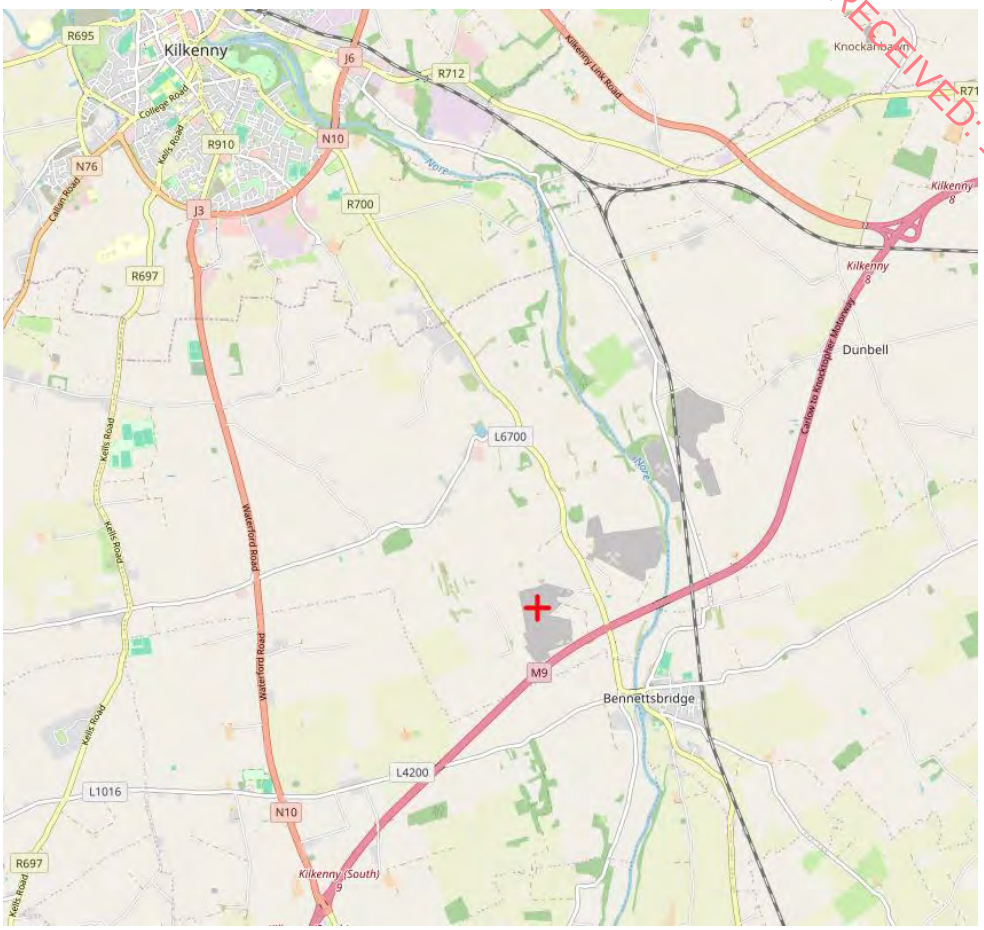
From: Pamela Bartley <pamela@hydro-g.com>
Sent: Wednesday 4 June 2025 09:39
To: Datarequests <Datarequests@water.ie>
Cc: markg <markg@bbl.ie>; Peter Kinghan <pkinghan@quarryconsulting.ie>
Subject: Bennettsbridge PWS, Co. Kilkenny - Mains Distribution Map request please

Hello Data Requests

Could i please get a water mains map of the Water Mains Distribution network for Bennettsbridge PWS in the vicinity of the established Limestone Quarry named Bennettsbridge Limestone at Kilree, Sheastown, Co. Kilkenny, R95 EY0R?

The Red cursor, in the map below, identifies Bennettsbridge Limestone. The attached Planning Drawing 2 presents the OSI map. I am specifically interested in the mains supply network along four roads, as follows:

1. From Bennettsbridge village heading north to Kilkenny, the Regional Road R700.
2. The Local Road L6700 heading west from the R700 north of the quarry.
3. From Bennettsbridge village heading west, the Local Road L4200.
4. From Jn9 on the M9, the N10 Route named 'Waterford Road' heading north to J3 on the southern periphery of Kilkenny City.



I would be happy to receive the map in any format: pdf or DWG or other. Thank you for your time.

Pamela.

Dr. Pamela Bartley. Hydro-G, 50 Henry St., Galway. H91 FA 4X. 087 8072744

Hydro-G is the registered trading name of Bartley Hydrogeology ltd., a limited company registered to trade in Galway, Ireland. Company number 437572.

From: Datarequests <Datarequests@water.ie>
Sent: Wednesday, June 11, 2025 9:34 AM
To: Pamela Bartley <pamela@hydro-g.com>
Cc: markg <markg@bbl.ie>; Peter Kinghan <pkinghan@quarryconsulting.ie>
Subject: RE: Bennettsbridge PWS, Co. Kilkenny - Mains Distribution Map request please

Hi Pamela,

Thank you for contacting Data Requests.

Data Requests supply records of Uisce Éireann Infrastructure in GIS format (i.e. **shp**, .**gdb**, .**tab**, or .**dwg**).
In order to speed up the process, we ask that you provide us with a polygon of your desired area of study in ***ING coordinates*** **(.dwg - 2013 or lower versions or .shp in ING) that outlines the extent and location of the area(s) that you require data.** Alternatively, please provide Eircode or 4 points with the extension of the area (top left, top right, bottom left, bottom right).

If you wish to proceed to acquire GIS digital data, we ask you to complete a Non Disclosure Agreement Form (1b attached). In Appendix (Page 4) Sections a-h of this form, please ensure that all sections are completed as per the outline shown in the attached guide. If a section is not relevant, please indicate this. Can you also please ensure that you detail the nature of the data you require. For example, Water Distribution **and/or** Sewer Network in .dwg, .tab or .shp format (please refer to the attached guide 1a to assist you).
For maps in **PDF,** please ignore the NDA form and reply stating you only require **PDF** maps.

Please Note:

1. Uisce Éireann is responsible for issuing Water & Wastewater **digital** data in GIS format and will issue the data in **one format only** (.shp, .gdb, .tab, .dwg or .pdf).

2. Local Authorities are responsible for maintaining and issuing Stormwater data. Uisce Éireann does not issue Stormwater data.

Attached **1b. Non-Disclosure Agreement Form** must be **signed by hand.** Please complete all required sections, namely **a to h, Description of Data, and Appendix A**. This is a legally binding document, therefore all sections must be completed, please refer to attached 1a) Guide to completing Non-Disclosure Agreement.

Disclaimers: Any maps produced using Uisce Éireann data require the appropriate disclaimer as outlined in the relevant attachment (1a).

Please Note: The average turnaround time for processing requests is 2 weeks or 10 working days, provided you have adhered to the requirements set out above.

Due to the large volume of data requests received daily, incomplete or inaccurately completed forms will result in delays to issuing data. Consequently, the sole responsibility lies with the requestor to ensure that the above guidelines are adhered to, and relevant documentation is submitted.

Should you have any questions in relation to the above, please do not hesitate to get in contact.

Kind regards,

Niall
Asset Data Coordinator - Provision

Uisce Éireann
Teach Colvill, 24-26 Sráid Thalbóid, Baile Átha Cliath 1, D01 NP86, Éire

Irish Water
Colvill House, 24-26 Talbot Street, Dublin 1, D01 NP86, Ireland
www.water.ie Facebook | Twitter | LinkedIn *Datarequests@water.ie*

From: Pamela Bartley <pamela@hydro-g.com>
Sent: Wednesday 11 June 2025 11:54
To: Datarequests <Datarequests@water.ie>
Cc: markg <markg@bbl.ie>; Peter Kinghan <pkinghan@quarryconsulting.ie>
Subject: Re: Bennettsbridge PWS, Co. Kilkenny - Mains Distribution Map request please - PDF Only

Thanks Niall

pdf only please (hence - No NDF necessary).

Ok, so i think we will need multiple pdfs because our area of interest is large.
Map 1 (pdf) = The quarry itself and immediate surroundings. **REASON =** ensure no potential for impact on Uisce Eireann Assets.

- Eircodes for Map 1 (pdf) -
    - Top Left (Northwest) = R95 XV62 (JIM FOGARTY & SONS WELL DRILLING, BODALMORE, KILKENNY)
    - Top Right (Northeast) = R95 A2F2 (SHEASTOWN, CO. KILKENNY)
    - Bottom Right (Southeast) = R95 CK71 (NICHOLAS MOSSE POTTERY LTD., BENNETTSBRIDGE, CO. KILKENNY)
    - Bottom Left (Southwest) = R95 YN26 (GREEN ACRES, DANESFORT, CO. KILKENNY)

Map 2 (pdf) = Bennettsbridge Village and Surroundings. **REASON =** Determine area served by Bennettsbridge PWS in the context of nearest population centre in radius of Quarry.

- Eircodes for Map 2 (pdf) -
    - Top Left (Northwest) = R95 TCF2 (Address: KILREE, BENNETTSBRIDGE, CO. KILKENNY)
    - Top Right (Northeast) = R95 FK46 (Address: LARRY CLEERE CONSTRUCTION, BENNETTSBRIDGE, CO. KILKENNY)
    - Bottom Right (Southeast) = R95 PN83 (Address: BARRONSLAND, BENNETTSBRIDGE, CO. KILKENNY)
    - Bottom Left (Southwest) = R95 EE95 (Address: THE FARM MAIDENHALL BENNETTSBRIDGE CO. KILKENNY)

Map 3 (pdf) = Road Network Surrounding Quarry. **REASON =** Determine area served by Bennettsbridge PWS in the context of all perimeter roads and dwellings surrounding the Quarry.

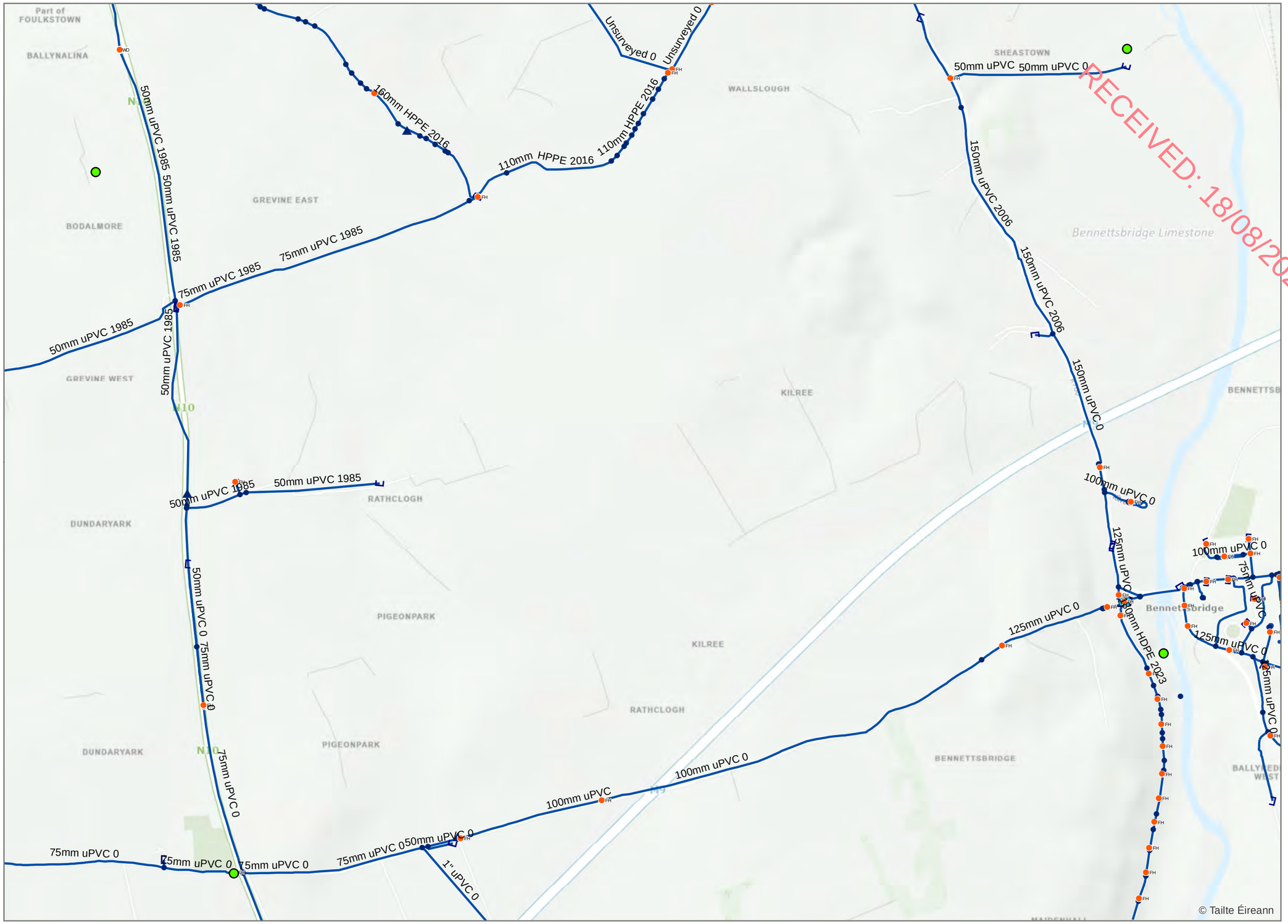
- Eircodes for Map 3 (pdf) -
    - Top Left (Northwest) = R95 T028 (6 KILREE COURT, KILREE, KILKENNY)
    - Top Right (Northeast) = R95 A2F2 (SHEASTOWN, CO. KILKENNY)
    - Bottom Right (Southeast) = R95 W329 (KILREE, BENNETTSBRIDGE, CO. KILKENNY)

- Bottom Left (Southwest) = R95 N205 (RATHCLOUGH HOUSE, RATHCLOGH, DANESFORT, CO. KILKENNY)

PERHAPS Uisce Eireann will need to break this up into more than 3 pdf maps? Obviously, that is fine with us.

Thanks for your time,
Pamela

Dr. Pamela Bartley, B.Eng., M.Sc., Ph.D., Hydro-G, 50 Henry St, Galway. H91 FA 4X. 087 8072744



Uisce Éireann
Irish Water

Legend

Water Hydrants
- Fire Hydrant
- Washout

Pump Stations
- Pump Stations

Water Network Structures
- Water Network Structures

Water Fittings
- Cap
- Other Fitting

Water Mains(Irish Water Owned)
- Potable Water

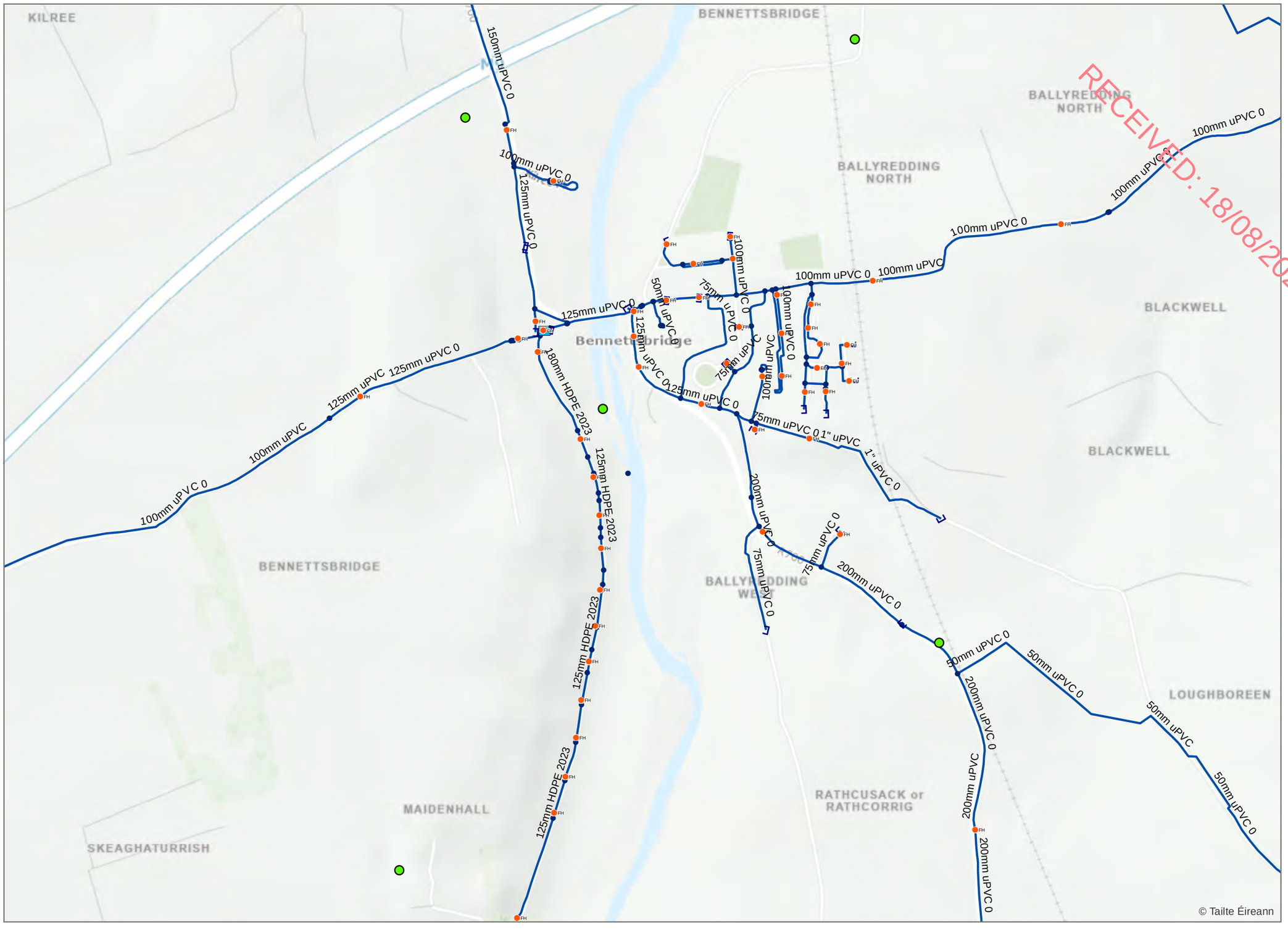
0 120 240 480 m

Coordinate System: TM65 Irish Grid
Projection: Transverse Mercator

Scale @ A3:	1:14,792
Drawing No.:	IW-AGG-2018-000
Drawn By:	NM
Checked By:	<Add Name>
Approved By:	<Add Name>
Drawn Date	11/06/2025
Checked Date:	<dd/mm/yyyy>
Approved Date:	<dd/mm/yyyy>

N

Water Network



Uisce Éireann
Irish Water

Legend

Water Hydrants
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Water Network Structures
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Water Mains(Irish Water Owned)
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0 80 160 320 m

Coordinate System: TM65 Irish Grid
Projection: Transverse Mercator

Scale @ A3:	1:9,861
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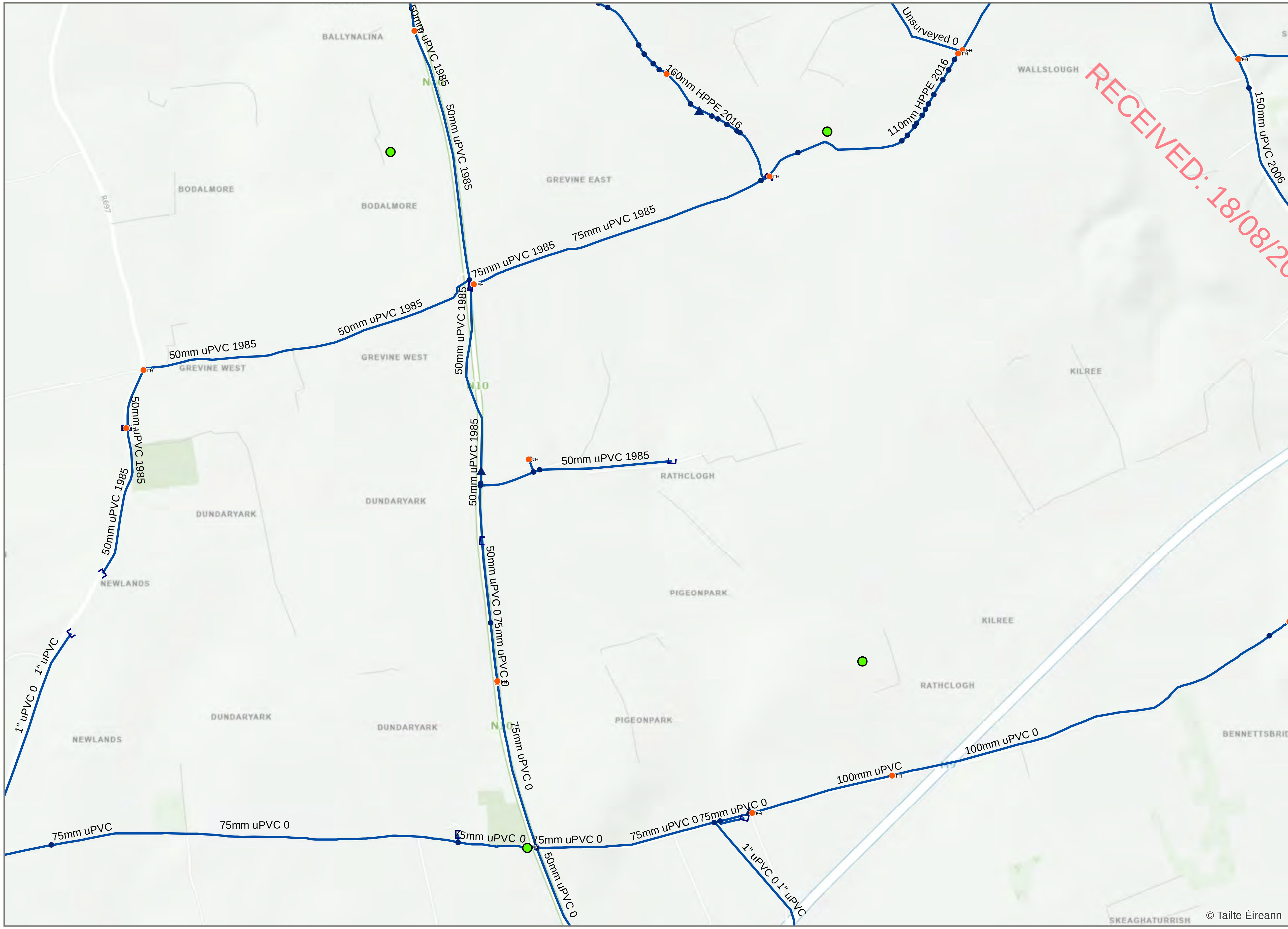
Checked By:	<Add Name>
Approved By:	<Add Name>
Drawn Date	11/06/2025
Checked Date:	<dd/mm/yyyy>
Approved Date:	<dd/mm/yyyy>

N

Water Network



N

Water Network

Uisce Éireann
Irish Water

Legend

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- WO Washout

Pump Stations
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0 120 240 480 m

Coordinate System: TM65 Irish Grid
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Scale @ A3:	1:15,000
Drawing No.:	IW-AGG-2018-000
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Checked By:	<Add Name>
Approved By:	<Add Name>
Drawn Date	11/06/2025
Checked Date:	<dd/mm/yyyy>
Approved Date:	<dd/mm/yyyy>

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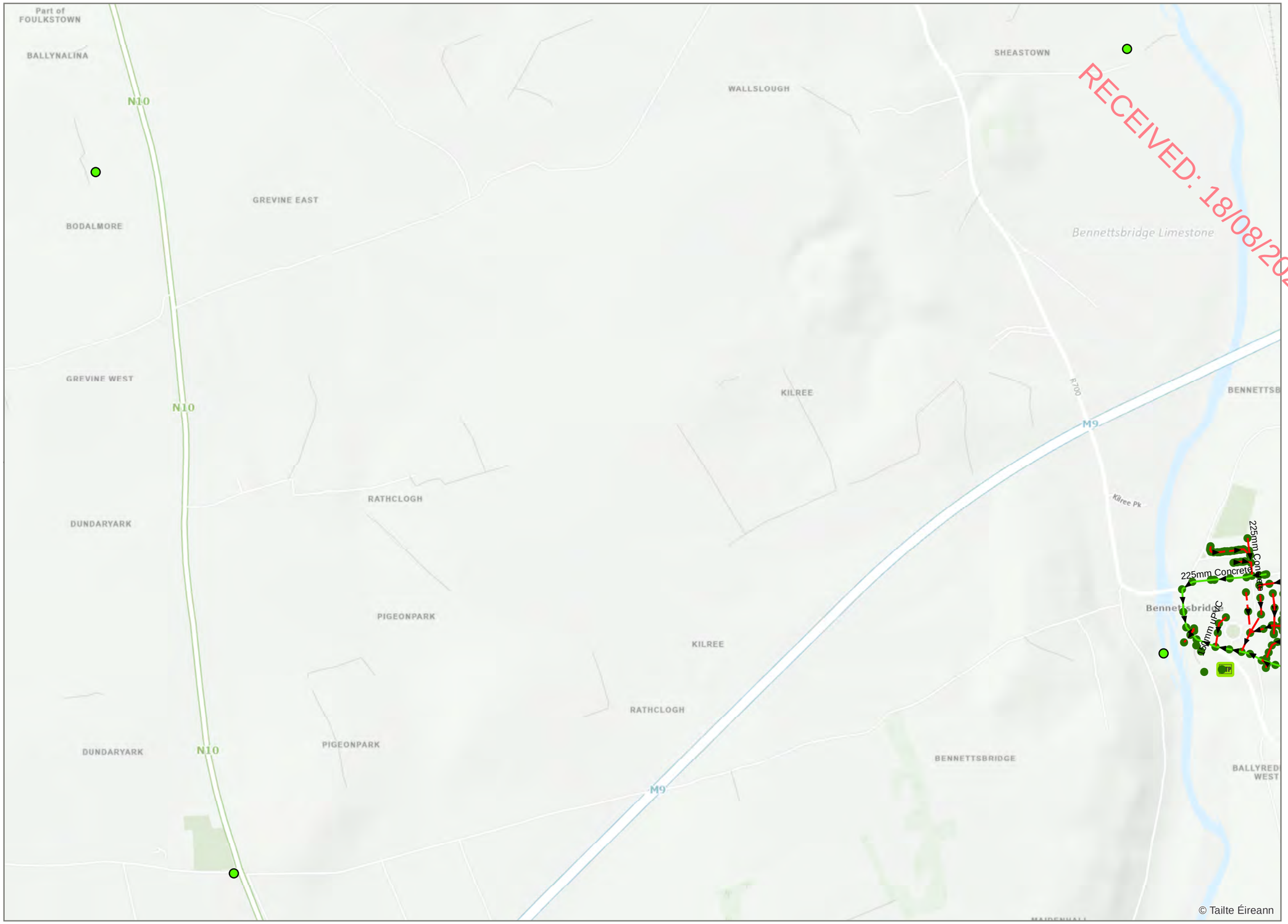


RECEIVED: 18/08/2025

Uisce Éireann
Irish Water

Legend

Sewer Gravity Mains (Irish Water owned)

Liquid Type

- Combined
- Foul

Sewer Manholes

Manhole Type

- Standard
- Treatment plant

0 120 240 480 m

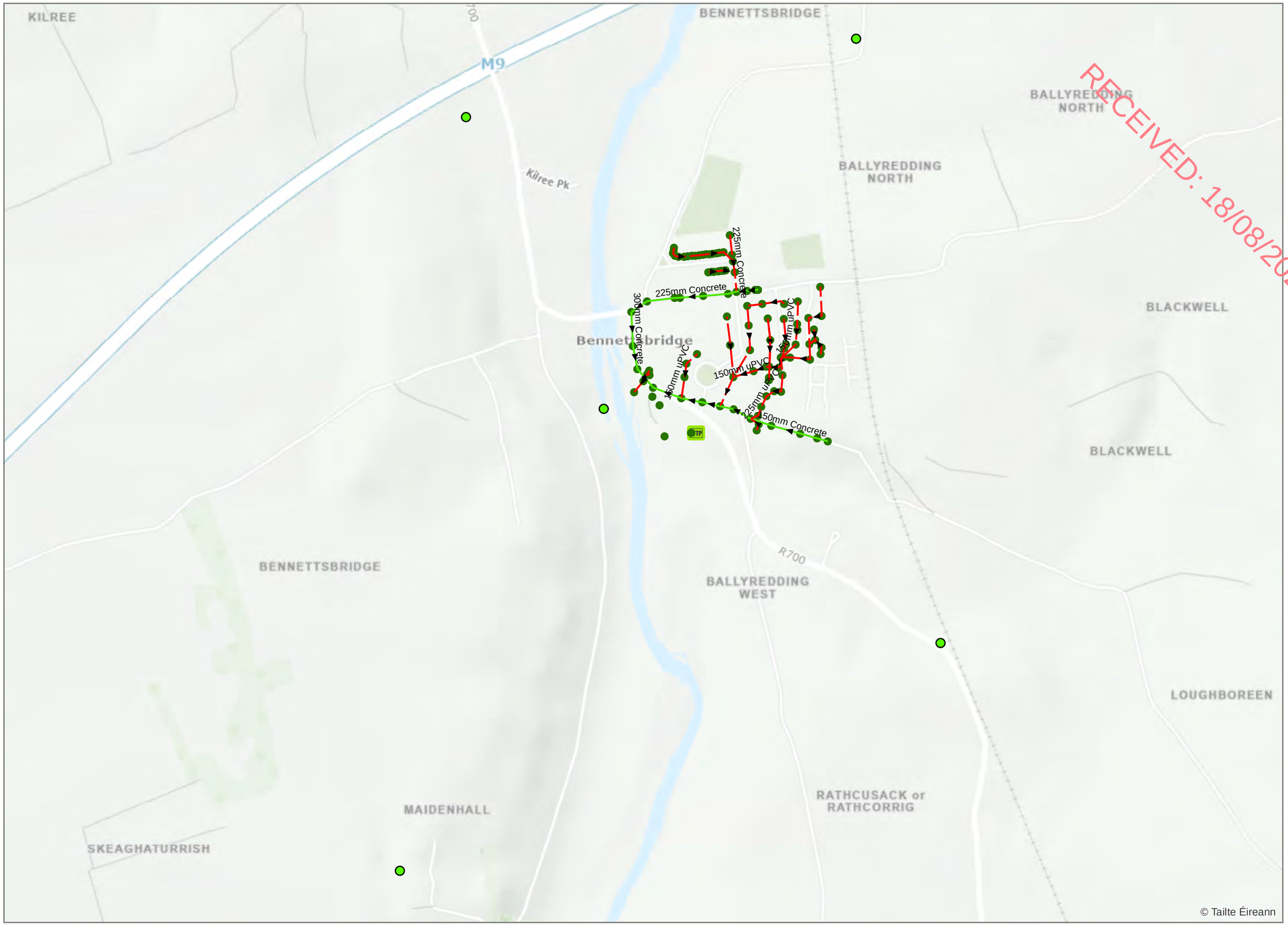
Coordinate System: TM65 Irish Grid
Projection: Transverse Mercator

Scale @ A3:	**1:14,792**
Drawing No.:	**IW-AGG-2018-000**
Drawn By:	**NM**
Checked By:	**<Add Name>**
Approved By:	**<Add Name>**
Drawn Date	**11/06/2025**
Checked Date:	**<dd/mm/yyyy>**
Approved Date:	**<dd/mm/yyyy>**

DRAFT

N

Sewer Network



RECEIVED: 18/08/2025

Uisce Éireann
Irish Water

Legend

Sewer Gravity Mains (Irish Water owned)

Liquid Type

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0 80 160 320 m

Coordinate System: TM65 Irish Grid
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Scale @ A3:	**1:9,861**
Drawing No.:	**IW-AGG-2018-000**
Drawn By:	**NM**
Checked By:	**<Add Name>**
Approved By:	**<Add Name>**
Drawn Date	**11/06/2025**
Checked Date:	**<dd/mm/yyyy>**
Approved Date:	**<dd/mm/yyyy>**

DRAFT

N

Sewer Network

From:	Rory Brickenden
To:	Pamela Bartley
Cc:	markg
Subject:	FW: TII Ref: TII25-130488 - Lateral Extension of an Existing Permitted Limestone Quarry Kilree, Bennettsbridge, Co. Kilkenny
Date:	Monday 10 March 2025 15:41:11
Attachments:	image001.png

Hi Pamala,

Please see email below which shows TII's preplanning consultation response for Bennettsbridge. They mention flooding on the M9 and not impacting the M9 independent drainage scheme.

Regards,

Rory Brickenden
B.A. MEngSc

QUARRY CONSULTING

Unit 3, Cedar Crescent, Cedar Park, Westport, Co. Mayo, F28 PN47.

Email: rbrickenden@quarryconsulting.ie
Tel: + 353 87 607 5989

From: INFO <Information@tii.ie>
Sent: 10 March 2025 15:22
To: Rory Brickenden <rbrickenden@quarryconsulting.ie>
Subject: TII Ref: TII25-130488 - Lateral Extension of an Existing Permitted Limestone Quarry Kilree, Bennettsbridge, Co. Kilkenny

Dear Mr. Brickenden,

Thank you for your correspondence of 20 February 2025 regarding the above. Transport Infrastructure Ireland's (TII's) position in relation to your enquiry is as follows.

TII will endeavour to consider and respond to planning applications referred to it, given its status and duties as a statutory consultee under the Planning Acts. The approach to be adopted by TII in making such submissions or comments will seek to uphold official policy and guidelines, as outlined in the Section 28 Ministerial Guidelines 'Spatial Planning and National Roads Guidelines for Planning Authorities' (DoECLG, 2012). Regard should also be had to other relevant guidance available at www.TII.ie.

The issuing of this correspondence is provided as best practice guidance only and does not prejudice TII's statutory right to make any observations, requests for further information, objections or appeals, following the examination of any valid planning application referred.

National Strategic Outcome 2 of the National Planning Framework includes the objective to maintain the strategic capacity and safety of the national road network. In addition, Chapter 7 'Enhanced Regional Accessibility' of the National Development Plan, 2021 – 2030, sets out the key sectoral priority of maintaining Ireland's existing national road network to a robust and safe standard for users. This requirement is further reflected in the publication of the National Investment Framework for Transport in Ireland and also the existing Statutory Section 28 'Spatial Planning and National Roads Guidelines for Planning Authorities'.

With respect to EIAR Scoping issues, the recommendations indicated below provide only general guidance for the preparation of an EIAR, which may affect the national road network.

The developer should have regard, inter alia, to the following:

The development site is located immediately north of the M9 motorway and the area that the proposed quarry extends into also adjoins the M9motorway with the EIAR Scoping Report confirming that the M9 motorway forms the southernmost boundary of the site.

As set down in the 'DoECLG Spatial Planning and National Roads Guidelines', (2012), it is in the public interest that the national road network continues to serve its intended strategic purpose. The EIAR should identify the methods/techniques proposed for any works traversing/in proximity to the national road network in order to demonstrate that the development can proceed complementary to safeguarding the capacity, safety and operational efficiency of that network.

While it is acknowledged that Section 6.9 of the EIAR Scoping Report addresses 'Transportation', the assessment outlined appears to concentrate primarily on traffic impact and does not also consider impacts of quarrying activity generally on the adjoining M9, motorway. This should be addressed in the EIAR.

TII is of the opinion that geotechnical assessment of quarrying impacts on the adjoining M9 Motorway should be considered in any subsequent EIAR and shall include for an appropriate setback from the M9 motorway and demonstrate no impacts on the motorway reservation including subsurface, alignment, pavement and screening bunds.

In addition, the EUIAR should consider and assess:

1. Mitigation of potential dust and debris impacts on the adjoining M9.
2. Geotechnical assessment and monitoring to maintain the physical integrity of, and mitigate potential impact on, the M9 and the motorway reservation and all related motorway infrastructure.
3. Appropriate control of discharge from any holding ponds/lagoons such that flooding of the adjoining M9 does not occur.
4. The M9 drainage regime is an independent drainage regime and shall not be impacted nor affected by the proposed development.

- Consultations should be had with the relevant Local Authority/National Roads Design

Office, with regard to the locations of existing and future national road schemes in the area.

- TII would be specifically concerned as to potential significant impacts the development would have on the national road network (and junctions with national roads) in the proximity of the proposed development, including the potential haul route.

- The developer should assess visual impacts from existing national roads.

- The developer should have regard to any EIAR/EIS and all conditions and/or modifications imposed by An Bord Pleanála regarding road schemes in the area. The developer should, in particular, have regard to any potential cumulative impacts.

- The developer, in preparing EIAR, should have regard to TII Publications (formerly DMRB and the Manual of Contract Documents for Road Works).

- The EIAR should have regard to TII's Environmental Assessment and Construction Guidelines, including the Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes (National Road Authority (NRA), 2014).

- The EIAR should consider the 'European Communities (Environmental Noise) Regulations, 2018, (S.I. no. 549 of 2018)', and, in particular, how the development will affect future action plans by the relevant competent authority. The developer may need to consider the incorporation of noise barriers to reduce noise impacts (see 'Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes (NRA, 2014)').

- It would be important that, where appropriate, subject to meeting the appropriate thresholds and criteria and having regard to best practice, a Traffic and Transport Assessment (TTA) be carried out in accordance with relevant guidelines, noting traffic volumes attending the site and traffic routes to/from the site, with reference to impacts on the national road network and junctions of lower category roads with national roads.

In relation to national roads, TII's 'Traffic and Transport Assessment Guidelines' (2014) should be referred to in relation to proposed development with potential impacts on the national road network. The scheme promoter is also advised to have regard to Section 2.2 of TII's TTA Guidelines, which addresses requirements for sub-threshold TTA.

Any improvements required to facilitate development should be identified. It will be the responsibility of the developer to pay for the costs of any improvements to national roads to facilitate the private development proposed, as TII will not be responsible for such costs.

- The designers are asked to consult TII Publications to determine whether a Road Safety Audit is required.

- In the interests of maintaining the safety and standard of the national road network, the EIAR should identify the methods/techniques proposed for any works traversing/in proximity to the national road network.

- TII recommends that the applicant/developer should clearly identify haul routes proposed and fully assess the network to be traversed. Where abnormal 'weight' loads are a feature of the development, e.g., turbine or substation components, separate structure approvals/permits and other licences may be required in connection with the proposed haul route. All national road structures on the haul route through all the relevant County Council administrative areas should be checked by the applicant/developer to confirm their capacity to accommodate any abnormal 'weight' load proposed. Any requirements for 'Exceptional Abnormal Loads' should also be addressed in accordance with TII Publications.

In addition, the haul route should be assessed to confirm capacity to accommodate abnormal 'length' loads and any temporary works required are identified.

The national road network is managed by a combination of PPP Concessions, Motorway Maintenance and Renewal Contractors (MMaRC) and local road authorities, in association with TII.

The applicant/developer should also consult with all PPP Companies, MMaRC Contractors and road authorities over which the haul route traverses, to ascertain any operational requirements, including delivery timetabling, etc., to ensure that the strategic function of the national road network is safeguarded.

Where temporary works within any MMaRC Boundary are required to facilitate the transport of turbine components to site, the applicant/developer shall contact thirdpartyworks@tii.ie in advance, as a works specific Deed of Indemnity will be needed by TII before the works can take place.

Additionally, any damage caused to the pavement on the existing national road arising from any temporary works due to the turning movement of abnormal loads (e.g., tearing of the surface course, etc.) shall be rectified in accordance with TII Pavement Standards and details in this regard shall be agreed with the road authority prior to the commencement of any development on site.

Any Road Safety Audit requirements should be addressed.

Notwithstanding any of the above, the developer should be aware that this list is non-exhaustive, thus site and development specific issues should be addressed in accordance with best practice.

I hope that this information is of assistance to you.

Yours sincerely,

_____

Suzanne Cahill
Regulatory & Administration Executive

From: Rory Brickenden
Sent: Thursday 20 February 2025 11:58

To: Rory Brickenden
Subject: Preplanning Consultation

> You don't often get email from rbrickenden@quarryconsulting.ie. Learn why this is important

Dear Sir / Madam,

Please find attached a Preplanning Consultation document in relation to the following development:

- Local Authority: Kilkenny Co Co;
- Applicant: Bennettsbridge Limestone;
- Proposed Development: Lateral Extension of an Existing Permitted Limestone Quarry
- Address: Kilree, Bennettsbridge, Co. Kilkenny

We look forward to your response.

Regards,

Rory Brickenden
B.A. MEngSc

QUARRY CONSULTING

Unit 3, Cedar Crescent, Cedar Park, Westport, Co. Mayo, F28 PN47.

Email: rbrickenden@quarryconsulting.ie
Tel: + 353 87 607 5989

De réir pholasaí BIÉ An Ceart gan a bheith Ceangailte, má tá an ríomhphost seo á fháil agat lasmuigh de na gnáthuaireanta oibre, nílim ag súil le freagra ná le gníomh uait lasmuigh de do ghnáthuaireanta oibre féin mura bhfuil sé ráite go soiléir go bhfuil gá gníomhú go práinneach.

TII processes personal data provided to it in accordance with its Data Protection Notice available at https://www.tii.ie/about/about-tii/Data-Protection/

Próiseálann BIÉ sonraí pearsanta a sholáthraítear dó i gcomhréir lena Fhógra ar Chosaint Sonraí atá ar fáil ag https://www.tii.ie/about/about-tii/Data-Protection/?set-lang=ga

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Córas r-phoist BIE: Tá an ríomhphost seo agus aon chomhaid a tharchuirtear leis faoi rún agus beartaithe lena n-úsáid ag an duine aonair nó ag an eintiteas a bhfuil siad dírithe chuige/chuici amháin. Más rud é go bhfuair tú an ríomhphost seo trí bhotún, cuir sin in iúil do postmaster@tii.ie, le do thoil, agus scrios an ríomhphost bunaidh agus aon cheangaltáin.

In accordance with TII's Right to Disconnect policy, if you are receiving this email outside of normal working hours, I do not expect a response or action outside of your own working hours unless it is clearly noted as requiring urgent attention.

De réir pholasaí BIÉ An Ceart gan a bheith Ceangailte, má tá an ríomhphost seo á fháil agat lasmuigh de na gnáthuaireanta oibre, nílim ag súil le freagra ná le gníomh uait lasmuigh de do ghnáthuaireanta oibre féin mura bhfuil sé ráite go soiléir go bhfuil gá gníomhú go práinneach.

TII processes personal data provided to it in accordance with its Data Protection Notice available at https://www.tii.ie/about/about-tii/Data-Protection/

Próiseálann BIÉ sonraí pearsanta a sholáthraítear dó i gcomhréir lena Fhógra ar Chosaint Sonraí atá ar fáil ag https://www.tii.ie/about/about-tii/Data-Protection/?set-lang=ga

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the original including attachments.

Córas r-phoist BIE: Tá an ríomhphost seo agus aon chomhaid a tharchuirtear leis faoi rún agus beartaithe lena n-úsáid ag an duine aonair nó ag an eintiteas a bhfuil siad dírithe chuige/chuici amháin. Más rud é go bhfuair tú an ríomhphost seo trí bhotún, cuir sin in iúil do postmaster@tii.ie, le do thoil, agus scrios an ríomhphost bunaidh agus aon cheangaltáin.

Response to TII

TII requested that the discharge from any holding ponds/lagoons is managed so that flooding of the adjoining M9 does not occur.

- The quarry discharges waters arising in the void, under licence. All impacts of the Licence were appropriately considered by the Environment Section of Kilkenny County Council in the initial phases of work at the quarry and in a site initiated 'Review' in 2017. During that review, all aspects of the River Nore and its associated relevant tributary's hydrological system was duly considered. No flooding has since, or ever, occurred.

- Given that the proposed western extension area already drains to the operational quarry and that only two benches are proposed in the new application area, no significant increases are envisaged.

- Secondly, in relation to water, TII requested that the M9 drainage regime should not be impacted nor affected by the proposed development.

- Hydro-G offers that the quarry operated in advance of the construction of the M9 motorway and therefore, the M9's drainage system will have incorporated the site in its drainage network design.

- The M9 is significantly elevated above the quarry's settlement lagoon system and discharge route, so much so that there is a bridge over the R700 to allow the M9 to convey traffic above the road that connects Bennettsbridge to Kilkenny.

- The discharge from the quarry's settlement lagoons is at a much lower elevation than the M9 and therefore no flood potential or affect is possible.

- Even in the GSI mapping for the most recent **extreme** flood events nationally (2009 and 2014-2015), no flood incidents occurred in relation to the quarry's discharge.

- Neither do the OPW nor TII report or communicate any incidences of flooding associated with the quarry's discharge and the M9 in response to ordinary rainfall patterns.

- Physically, on an elevation basis, a flood relationship is just not possible. On a plan map basis, the quarry and the M9 are located close to each other, as are many of the quarries used during the construction of the motorway network. However, on a Cross Sectional Drawing basis, there is adequate and appropriate separation between the quarry and the M9 and its associated drainage system.

- Whilst the M9's drainage network may be at a lower elevation than the M9, it is well understood professionally that the Motorway Storm Network Designs account for a high degree of design security.

- The issue of the M9's proximity to the quarry was addressed at the Further Information stage of the PL18/858, which was subsequently granted permission.

An tOifig Náisiúnta um Sláint Chomhshaoil
Feidhmeannacht na Seirbhíse Sláinte,Urlár 2,
Teach na Darach, Ascaill na Teile
Páirc na Mílaoise, An Nás,
Co. Chill Dara

National Office for Environmental Health Services
2nd Floor, Oak House, Lime Tree Avenue
Millennium Park, Naas, Co. Kildare
Eircode: W91KDC2
Env.CCNSU@hse.ie

HSE EIA Scoping

Environmental Health Service Submission Report

Date: 26/03/2025

Our reference: EHIS 4647

Report to: Quarry consulting Unit 3, Cedar Crescent, Cedar Park, Westport, Co. Mayo, F28 PN47.**Email:**rbrickenden@quarryconsulting.ie

Type of Consultation: EIA Scoping

Proposed development: EIA Scoping Application Proposed Lateral Extension of an Existing Permitted Limestone Quarry At Kilree, Sheastown, Bennettsbridge, Co. Kilkenny

Details of the application were circulated to the following HSE stakeholders on the 21st of February 2025:

- HSE South Emergency Management
- National Capital Estates Office – Regional AND
- Director of National Health Protection
- REO Dublin & South East

Introduction and Proposed site location

The application site is located in the townland of Kilree, Bennettsbridge, Co Kilkenny, situated approximately 1.5km northwest of the village of Bennettsbridge and approximately 7km south of Kilkenny City. The site is approximately 32km southwest of Carlow Town 38km north of Waterford, and 44km east of Enniscorthy. The existing permitted limestone quarry comprises a c. 36 Ha quarry operated by Bennettsbridge Limestone. Access to the site is from a minor road (L26322) that branches from the R700 regional road that links Bennettsbridge Village with Kilkenny City. To the east of the existing quarry there is an office building, weighbridge and wheelwash located near the entrance to the quarry. The M9 motorway forms the southernmost boundary.

The proposed development will involve the stripping and removal of topsoil and overburden. These soils will be placed in storage berms around the perimeter of the proposed quarry extension and any excess will be sold as engineered fill. The aggregate would be extracted using conventional quarry methods through drilling and blasting, as per the existing quarry development. The material would then be loaded onto dump trucks and taken to the existing processing plant within the existing permitted quarry (mobile or fixed crushers and screens). Industry standard slope angles, bench heights, and bench widths will continue to be used for extraction operations at the site. There is approximately 19 MTs of aggregate stone available for extraction in the proposed lateral quarry extension area.

Previous Planning Applications

The following applications relate to the application site: 85/419: Provided for the development of a sand and gravel pit for a ten year period. 433/89: Provided for the retention of office accommodation – namely offices, canteen facilities, staff washrooms and associated septic tank. 99/1161; ABP Reference 120270:

Provided for additional site infrastructure comprising a wheel-wash; landscaped berms and boundary treatment; lime and asphalt plants; and crushing plant on the floor of the quarry.

01/726 and 04/129: modified the opening hours of the Irish Asphalt facility permitted under Kilkenny County Council Reg. Ref. 99/1161; ABP Reference 120270; 03/75: provided for the development of a precast facility with modified access road, landscaped berms and planting.
03/1532: Provided for alterations to the approved pre-cast facility.
04/1806: Provided for the development of a precast stockyard and associated mobile crane (13m tall). This permission was not acted upon and has ceased to have effect in 2009.
05/127: Provided for the retention of a landscaped screening mound adjacent to the settlement lagoon and the screeening berms on the boundary of the site. An Bord Pleanála Ref. SU10. SU0122: Substitute consent was granted for an area of approximately 9.5Ha. An Bord Pleanála Ref. QD10.QD0001 Refused: Section 37L application for the deepening of existing quarry, modifications to Condition No. 2 of PL 10.120270.
17/316: Permitted the continuation of quarrying and extraction of rock.
18/150: Permitted Lagan Macadam to operate an asphalt plant at the quarry.
18/858: The development consists of a total area of 36.5 Hectares comprising of the following: Deepening of 13.4 hectares which was previously subject to rock extraction down to 12mOD; Removal of overburden, construction of screening berms and extraction of rock down to 30mOD from a greenfield area consisting of 8.5 hectares; Continuation of use of 11.6 hectares consisting of processing infrastructure (crushing, screening & lime plant), offices, workshop, canteens and toilet facilities , weighbridges, wheelwash facilities, fuel storage area and switch room, settlement lagoons, entrance, haul roads, ESB sub-station and all other ancillary facilities; Continuation of use of existing pre-cast manufacturing facility and associated ancillary works for manufacturing of concrete products, batching of lime products and general storage of products and plant on an area of 3.0 hectares; Landscaping and restoration of the site and all associated ancillary facilities/works; The Applicant is seeking a 20 year permission as part of the planning application.

Planning History

Ground water monitoring

It is worth noting that Condition 9 of Planning Application 17/316 (extract below) requested that within 4 weeks of the final date of grant of this permission, the developer shall submit for the written agreement of the Planning Authority a detailed groundwater monitoring programme to monitor groundwater levels both on and off site. The programme shall include details of the locations of all wells to be monitoring and frequency of monitoring events. The results of that monitoring programme should be made available to the NEHS /submitted to the local planning authority for review.

An Bord Pleanála Ref. SU10.SU0122 - An application for substitute consent, along with a remedial EIS and NIS, was lodged with An Bord Pleanála by the quarry owner in September 2014 and subsequently granted for the regularisation of a 9.5 hectare area within the quarry site.

An Bord Pleanala Ref QD10.QD0001 – An application lodged with An Bord Pleanala under Section 37L of the Planning and Development Act 2000, as amended, in respect of Deepening of existing quarry to a depth of minus 6 metres AOD over 14.03 hectares, modifications to condition no. 2 of PL10.120270 thereby extending the life of the quarry by 25 years and the implementation of a restoration plan on this site. The decision issued on this application was to refuse this application on the following grounds;

1. The Board is not satisfied, based on the information submitted with the application, that the further development of this quarry, including the deepening of the existing excavation (which is already significantly below the water table), would not give rise to further dewatering from the quarry which would result in the lowering of the water table in the vicinity of the quarry, with potential adverse impacts on groundwater dependant wells in the vicinity. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.
2. Based on the information submitted with the application, and in the absence of definitive information relating to the underlying geology and hydrogeology, the Board is not satisfied that the potential impact of dewatering arising from the further development of this quarry, and consequent increased volume of waters to be discharged off site, which ultimately discharge into the River Barrow, would not undermine the treatment capacity of the existing lagoon particularly in relation to suspended solids. Accordingly, on the basis of the information provided with the application, including the screening report for Appropriate Assessment (Stage 1) and the data and modelling provided in the submitted Environmental Impact Statement, and in the light of the above considerations, the Board is not satisfied, beyond reasonable scientific doubt, that the proposed development, individually, or in combination with other plans and projects, would not adversely affect the integrity of the River Barrow and Nore Special Area of Conservation (site code 002162), in view of the qualifying interests and conservation objectives of this site. In such circumstances, the Board is precluded from granting planning permission.

Unauthorised Development
ENF14/042 – Unauthorised quarrying of lands and associated unauthorised developments at Kilree, Bennettsbridge, Co. Kilkenny.

Quarry Depth/Below water table level

The above extract details past concerns regarding the extent of the depth of the quarrying significantly below the water table level. The NEHS recommends that this should be fully assessed and addressed within the application.

General Scoping Introduction

The following documents should be taken into consideration when preparing the Environmental Impact Assessment Report:

- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment

https://www.housing.gov.ie/sites/default/files/publications/files/guidelines_for_planning_authoriti es_and_an_bord_pleanála_on_carrying_out_eia_-_august_2018.pdf

- EU publication: Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report, EU, 2017

  http://ec.europa.eu/environment/eia/pdf/EIA_guidance_EIA_report_final.pdf
- Adoption of the Directive (2014/52/EU) in April 2014 initiated a review of the National Guidance for EIA and the EIAR accompanying a planning application.

- New guidelines can be seen at:

https://www.epa.ie/publications/monitoring--assessment/assessment/guidelines-on-theinformation-to-be-contained-in-environmental-impact-assessment.php

The introduction of the new Guidance is supported by a Webinar produced by the EPA and can be found at:

https://www.youtube.com/embed/ejKVFUztxBY

Generally the Environmental Impact Assessment should examine all likely significant impacts and provide the following information for each:

a) Description of the receiving environment
b) The nature and scale of the impact
c) An assessment of the significance of the impact
d) Proposed mitigation measures
e) Residual impacts

Directive 2014/52/EU has an enhanced requirement to assess likely significant impacts on Population and Human Health. It is the experience of the National Environmental Health Service (NEHS) that impacts on human health are often inadequately assessed in EIAs in Ireland. It is recommended that the wider determinants of health and wellbeing are considered in a proportionate manner when considering the EIA. Guidance on wider determinants of health can be found at www.publichealth.ie

In considering the measures to be employed by the developer to minimise the potential impacts of the proposed development to human health, reference was made by the EHS to the EPA's 'Environmental Management Guidelines on the

Environmental Management in the Extractive Industry (Non-Scheduled Minerals) 2006'
It is recommended that an Environmental Management System (EMS) is put in place, with training of all site staff. There should be on-going review of the effectiveness of the EMS. The EMS should be devised in accordance with international standards such as ISO 14001 2015 and EU EMAS (1993).

In addition to any likely significant negative impacts from the proposed development, any positive likely significant impacts should also be assessed.

As this is **an existing quarry**, a review should be undertaken of compliance with any current planning conditions and any complaints received and any action taken to resolve complaints. Particularly around noise and dust emissions and use of the local road network as part of the activities of the existing quarry. Because this is an application for the operation of an existing development the predictive methodology routinely employed in EIA can be supported by actual data of operation of the existing quarry. Therefore, any assessment of likely significant impacts from the continued use should be supported by data of actual impacts during the operation phase of the current development.

This assessment should include the effectiveness of any existing mitigation measures and identify where mitigation should be continued and/or reviewed. The public consultation should include consultation on how the existing quarry might or might not be impacting on local communities.

The HSE will consider the final EIAR accompanying the planning application and will make comments to An Bord Pleanála/Local Planning Authority on the methodology used for assessing the likely significant impacts and the evaluation criteria used in assessing the significance of the impact.

The National Environmental Health Service (NEHS) recommends that the following matters are included and assessed in the EIAR:

- Public Consultation
- Population and Human Health
- Water (Hydrology and Hydrogeology)
- Land and Soils
- Air, Dust and Odour
- Climate Change and Opportunity for Health Gain
- Noise and Vibration
- Waste Management
- Ancillary Facilities
- Cumulative Impacts

Public Consultation

The applicant should consider the appointment of a community liaison officer. Early and meaningful public consultation with the local community should be carried out to ensure all potentially significant impacts have been adequately addressed. All parties affected by the proposed development, including those who may benefit financially from the project, must be fully informed of what the proposal entails especially with regard to potential impacts on surrounding areas. Sensitive receptors and other stake-holders should be identified to ensure all necessary and appropriate mitigation measures are put in place to avoid any complaints about the proposed quarry development in the future.
Meaningful public consultation, where the local community is fully informed of the proposed development must be undertaken. Members of the public should be given sufficient opportunities to express their views on the proposed development.

The Environmental Impact Assessment Report (EIAR) should clearly demonstrate the link between public consultations and how those consultations have influenced the decision-making process in the EIA. The EIAR should state the period of planning permission sought, the length of time construction estimated, and if it is anticipated that the development will be decommissioned or will continue to operate (following any further planning consent) at the end of this period of planning permission (should permission be granted).

Population Health / human health

The opinion of the National Environmental Health Service (NEHS) is that the assessment of likely significant effects on Population and Human Health should be a proportionate assessment specific to the proposed development and to the Population and Human Health likely to be significantly affected by the proposed development
If assessment is made of likely significant effects on wider determinants of health or health inequalities, then this should be done in a proportionate manner with a demonstration of a likely significant effect as a direct result of the proposed development.
The preferred methodology for assessing likely significant effects on Population and Human Health is a source, pathway, receptor model; based on emissions through environmental media and population exposure. This approach is supported by the EPA issued National Guidance (known as the EIAR Guidance): Guidelines on the information to be contained in Environmental Impact Assessment Reports, 2022 https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022_Web.pdf
In assessing likely significant effects on Population and Human Health any proposed mitigation measures should be identified. The residual impact should evaluated against a recognised Health Protection Standard.

Whilst current EIAR guidance recognises the requirement to identify sensitive receptors within the assessment process, it should be clear that this is within a Population Health approach and not an individual person approach.
It is therefore the opinion of the NEHS that a Population Health approach would not consider the likely significant effects on the sensitivity of an individual human receptor, but the sensitivity of the established land use or service provision.

Water (Hydrology and Hydrogeology)

The proposed development has the potential to have a significant impact on the quality of both surface and ground water.
All drinking water sources, both surface and ground water, must be identified. Public and Group Water Scheme sources and supplies should be identified in addition to any private wells supplying potable water to houses in the vicinity of the proposed development. Measures to ensure that all sources and supplies are protected should be described.

Water monitoring results should be reviewed and where there is indication of contamination or significant dewatering of drinking water supplies additional mitigation should be agreed with the Planning Authority. The effectiveness of the additional mitigation should be verified through a sampling programme. Any wells identified as a drinking water supply and located within 150m of the gravel extraction facility are sampled prior to the commencement of extension works. Sampling parameters should be agreed with the Local Authority. These wells should also be sampled at least biannually during the extraction period and once within the first year following cessation of operations on site to establish if there are any changes in water quality.
The National Environmental Health Service recommends that a walk-over survey of the site is undertaken in addition to a desktop analysis of Geological Survey of Ireland data in order to identify the location of private wells used for drinking water purposes. Any potential significant impacts to drinking water sources should be assessed. Details of bedrock, overburden, vulnerability, groundwater flows, aquifers and catchment areas should be considered when assessing potential impacts and any proposed mitigation measures.

Decommissioning /site restoration

The submission of a Site Restoration Plan, which includes a timeframe for undertaking restoration works, and actual works detail is included as a condition of planning permission, if granted.

To minimise the risk of future water safety issues, consideration be given to an alternative restoration plan for the quarry void involving filling the void and restoring it to agricultural use or as a public amenity.
As a minimum, regard should be had to the guidance issued by the Health and

Safety Authority's on 'Quarrying – Trespass, Boundary Fencing and Prevention of Drowning'. To discourage trespassers a barrier of sufficient height and strength should be installed around the perimeter of the proposed water-filled void. Barriers should be inspected regularly and maintained in good condition.
Potential for future health gain from the restoration of the proposed development should be included in the EIAR.

Assessment of Consideration of Alternatives

The EIAR should consider an assessment of alternatives should be assessed as part of the EIAR.

Noise & Vibration

The potential impacts for noise and vibration from the proposed development on all noise sensitive locations must be clearly identified in the EIAR. The EIAR must also consider the appropriateness and effectiveness of all proposed mitigation measures to minimise noise and vibration. A baseline noise monitoring survey should be undertaken to establish the existing background noise levels. Noise from any existing industry /quarries or any potential sources in the area should not be included as part of the back ground levels.

Air Quality

An air quality assessment should be carried out following procedures described in the publications by the EPA and using the methodology outlined in the guidance documents published by the USEPA. An air dispersion model was created using input data which consisted of information on the physical environment, design details from all emission sources on-site and five full years of meteorological data.

Due to the nature of the construction works, generation of airborne dust has the potential to have significant impacts on sensitive receptors. Day to day activities have the potential to give rise to elevated dust levels if activities associated with extraction, processing, manufacturing of quarry products and transportation of product to market are not managed efficiently. The action of wind over dry ground can lead to particles being carried in the air. Processing can act as a point source of dust as it has the potential to generate dust emissions in a defined location. Aggregate stockpiled at the end of each conveyor attached to the processing plant is also a potential source of dust blow during dry windy conditions. This activity will be undertaken on a daily basis which will results in a slight impact on the air environment within the quarry boundary. Fugitive dust emissions generated during the aggregate processing, screening and stockpiling of material is confined to the zone within the quarry void. Vehicle movements on the internal access/haul roads are a source of dust blow as emissions can increase rapidly in proportion to vehicle speed and traffic volume.

A **Construction Environmental Management Plan** (CEMP) should be included in the EIAR which details dust control and mitigation measures:
Measures should include:

- Sweeping of hard road surfaces
- Provision of a water bowser on site, regular spraying of haul roads
- Wheel washing facilities at site exit
- Restrict speed on site
- Provide covers to all delivery trucks to minimise dust generation
- Inspect and clean public roads in the vicinity if necessary
- Material stockpiling provided with adequate protection from the wind
- Dust monitoring at the site boundary
- Truck inspection and maintenance plan
- Details of a road maintenance agreement between the operator and the Local Roads Authority to clarify responsibility for the upkeep and repair of access roads during the construction phase of the project.

Ancillary Facilities

The EIAR should include details of the location of all site office, construction compound, fuel storage depot, sanitary accommodation and canteen, wheel washing/ vehicle washing, First Aid facilities, disposal of wastewater and the provision of a potable water supply to the site canteen.

Climate

The EIA should assess factors that contribute to climate change as a result of the development and should identify any mitigation or sustainability measures that can be incorporated into the development.

Cumulative Impacts

All existing or proposed Quarries/ industry or developments/housing in the vicinity should be clearly identified in the EIAR. The impact on sensitive receptors of the proposed development combined with any other developments in the vicinity should be considered. The EIAR should include a detailed assessment of any likely significant cumulative impacts of the new proposed Quarry application.

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Water related Aspects of the Environmental Health Services response to Scoping and Hydro-G Response (Water)

- The Impact Tables at the end of the EIAR Water Chapter incorporate all Assessment, Potential Affects, Risk and Mitigation information.

- The Project Team are experienced and competent in EIA, and the associated legislative requirements, and the production of the subsequent EIA Reports (EIARs) to enable communication of sufficient detail to enable the Competent Authority to complete their determinations.

- **Addressing Past Concerns and Subsequent Permissions:** We acknowledge past concerns related to previous planning applications for the quarry. However, these have been thoroughly addressed in subsequent permissions granted for a 2-bench quarry (17/316) and a 3-bench quarry (18/858). The site is sanctioned to manage groundwater and surface water arising. The impact is documented in the documentations supporting the grants of permission.

- **Groundwater Monitoring and Reporting:** The latest results from the quarry's Annual Groundwater Monitoring Plan (GMP) are included in this response (please refer to the attached GMP reports in Appendix 8.3 Site Data). These results consistently show no adverse impacts, affirming the effectiveness of the quarry's existing water management practices.

- **Addressing Population and Human Health Concerns:** In response to the recommendations concerning the potential impacts on population and human health, the Environmental Impact Assessment Report (EIAR) includes a detailed analysis of the wider determinants of health such as air and water quality, noise levels, and local traffic conditions.

- **Community Liaison and Public Consultation:** The quarry is a long-standing business in the community and employs many people. The quarry and its neighbours have existed side by side for almost 40 years. This is not a greenfield site. Community Liaison is an ongoing active part of the quarry's functioning.

- The only source of risk to human health is the onsite wastewater treatment plant and associated discharge. The wastewater system serves the same population equivalent as a single domestic residence. The site's sanitary services are EPA (2021) Code of Practice compliant and were subject to rigorous evaluation by Kilkenny County Council under historic planning permissions and subsequently sanctioned. Refer to Appendix 8.4 for details of the wastewater system.

- It is noted that the specific language in the HSE response to scoping could be interpreted as a perception in the Environmental Health Services of the HSE that contamination from quarries is tolerated by the law in Ireland. This is not the case and this was demonstrated by a thorough evaluation of local area groundwater quality, as is reproduced in Appendix 8.2 – Site Monitoring Data. The Conditions of the Section 4 Licence preclude impact. Refer to Appendix 8.2.

- The site has a legal, current, and legislatively defensible Section 4 Licence to Discharge waters arising at the quarry. The Conditions of the Licence are strict and the site has demonstrated monthly compliance since the issue of the licence in 2018. The hydrochemical concentrations specified in the Emission Limit Values (ELVs) preclude contamination of waters. IF the site were to carry out any action across the site that would result in contamination, then that contamination would appear in the discharge and immediately communicated to Kilkenny County Council.

    - The most significant point is that there are 7 years of reporting the Annual Environmental report to Kilkenny County Council (AERS 2018 – 2024), refer to Appendix 8.3 of this EIAR Appendices Series, with respect to the licensed discharge from the site. Information demonstrates compliance with the Conditions set down by Kilkenny County Council in their legal mechanism to

ensure no contamination of the receiving environment.

- Results presented in the Appendix 8.2 Site Monitoring data for the River Nore demonstrate that the discharge results in no change in the river's hydrochemistry relative to upstream and downstream of the discharge.

- Similarly, the long-term EPA record for hydrochemical quality on the River Nore, upstream and downstream of the discharge, provides evidence that the discharge presents no negative impact. Refer to Appendix 8.7 for National Agency Water Quality Data (Section 2. Appendix 8.7).

- It must be understood that the waters discharged from the quarry are an integration of groundwater arising at the site and surface water runoff arising from rainfall. Therefore, the compliant characteristic of the discharge, relative to its Condition ELVs, also indicates a compliant and acceptable groundwater quality.

- Overall, there is Zero Risk presented by the site to groundwater for reasons expanded upon in the EIAR.

- A Quantitative Water Balance suggests that there is no net loss from the low flow Condition, or any flow Condition, of the associated River Nore hydrological system because the 'abstraction' of waters from the floor of the quarry, after appropriate settlement time, becomes a Discharge returning the waters to the same hydrological system.

In overall summary, the 'Source > Pathway > Receptor Model' has been applied by virtue of the application of the UK EA Dewatering Impact Appraisal Process and, in combination with the demonstrated compliance with the controlling Conditions of the Section 4 Discharge Licence, enables a conclusion of no residual risk.

Appendix 8.9 Impact Effect Assessment Methodologies & Detail

This appendix provides a logical work through of the procedure for determining likely Effects and completing the Impacts Section of the EIAR's Water Chapter so that all activities are listed from the enabling, operational and restoration phases and for each activity the potential Effects on the water environment are listed and mitigation measures applied to each. For each mitigation measure, residual impacts are then evaluated following consideration of application of the mitigation measure.

1. Legislation and Guidance

As previously stated, the complete list of Guidance and Legislation employed in the completion of this work was presented in Appendix 8.3.

- This EIA was completed in accordance with enacted EU and Irish legislation pertaining to Environmental Impact Assessment (Directive 2014/52/EU, meaning the EIA Directive and Irish EIA Regulations (2018, as amended 2020).
- The Impact Assessment was completed with reference to Guidance relating to EIA and the preparation of EIA Reports, which includes the EU (2017); Department of Housing, Planning and Local Government (2018) and EPA (2022) on Guidelines on the information to be contained in Environmental Impact Assessment Reports.
- Criteria for assessing importance of site attributes and their magnitude of importance were taken from the NRA Guidelines (NRA, 2008) and 'Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements' (IGI, 2013).

The tools and structure of Impact Assessment are presented here. Industry Standard Tables for rating of the Importance of Criteria, Potential Impacts, Mitigation Measure, Residual Impacts are now presented.

2. Significance of Impact

Unless otherwise stated, the EPA's method (2022) of determining the significance of impacts has been applied. There are three components to Table 3.4 of EPA (2022) and they relate to Effects under headings as follows:

I. **Quality, Significance, Extent and Context of Effects**
II. **Probability & Duration of Effects**
III. **Types of Effects**

Each of the components **of EPA (2022)'s Table 3.4** is presented here labelled as Table 1 (a), (b) and (c).

Table 1 (a) - Criteria and Terminology to be Used in Description of Effects: Quality, Significance, Extent and Context of Effects (EPA, 2022, Table 3.4)

Quality of Effects It is important to inform the non-specialist reader whether an effect is positive, negative or neutral	**Positive Effects** A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
	Neutral Effects No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
	Negative/adverse Effects A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing nuisance).
Describing the Significance of Effects "Significance' is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful (also see *Determining Significance* below.).	**Imperceptible** An effect capable of measurement but without significant consequences.
	Not significant An effect which causes noticeable[2] changes in the character of the environment but without significant consequences.
	Slight Effects An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
	Moderate Effects An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
	Significant Effects An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
	Very Significant An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
	Profound Effects An effect which obliterates sensitive characteristics
Describing the Extent and Context of Effects Context can affect the perception of significance. It is important to establish if the effect is unique or, perhaps, commonly or increasingly experienced.	**Extent** Describe the size of the area, the number of sites, and the proportion of a population affected by an effect.
	Context Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)

As described in Table 1 (a), above.

- The Quality of Effects can be **Positive, Neutral** or **Negative/Adverse.**
- The Significance of Effects are described in Table 1 (a), above, under seven generalised degrees, which are described in EPA (2022) Table 3.4 as follows:

1) **Imperceptible:** An impact capable of measurement but without noticeable consequences.
2) **Not Significant:** An effect which causes noticeable changes in the character of the environment but without significant consequences.

3) **Slight:** An impact which causes noticeable changes in the character of the environment without affecting its sensitivities.
4) **Moderate:** An impact that alters the character of the environment in a manner consistent with existing and emerging trends.
5) **Significant:** An impact, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
6) **Very Significant:** An effect which, by its character, magnitude, duration or intensity, significantly alters most of a sensitive aspect of the environment.
7) **Profound:** An impact which obliterates sensitive characteristics.

- As shown in Table 1 (a), the Extent and Context of the Effect must also be described.

Table 1 (b) - Criteria and Terminology to be Used in Description of Effects: Probability & Duration of Effects (EPA, 2022, Table 3.4 continued)

Describing the Probability of Effects Descriptions of effects should establish how likely it is that the predicted effects will occur so that the CA can take a view of the balance of risk over advantage when making a decision.	**Likely Effects** The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
	Unlikely Effects The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Describing the Duration and Frequency of Effects 'Duration' is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful.	**Momentary Effects** Effects lasting from seconds to minutes.
	Brief Effects Effects lasting less than a day.
	Temporary Effects Effects lasting less than a year.
	Short-term Effects Effects lasting one to seven years.
	Medium-term Effects Effects lasting seven to fifteen years.
	Long-term Effects Effects lasting fifteen to sixty years.
	Permanent Effects Effects lasting over sixty years.
	Reversible Effects Effects that can be undone, for example through remediation or restoration.
	Frequency of Effects Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually).

As described in Table 1 (b), above, EPA (2022) requires statements on the Probability, Duration and Frequency of Effects.

Table 1 (c) - Criteria and Terminology to be Used in Description of Effects: Types of Effects (EPA, 2022, Table 3.4 continued)

Describing the Types of Effects	**Indirect Effects (a.k.a. Secondary or Off-site Effects)** Effects on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway.
	Cumulative Effects The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.
	'Do-nothing Effects' The environment as it would be in the future should the subject project not be carried out.
	'Worst-case' Effects The effects arising from a project in the case where mitigation measures substantially fail.
	Indeterminable Effects When the full consequences of a change in the environment cannot be described.
	Irreversible Effects When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
	Residual Effects The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
	Synergistic Effects Where the resultant effect is of greater significance than the sum of its constituents (e.g. combination of SOx and NOx to produce smog).

As described in Table 1 (c), above, EPA (2022) requires a professional interpretation Describing the Types of Effects. Examples of the Types of Effects include, as follows:

- Indirect
- Cumulative
- Do Nothing
- Worst Case
- Indeterminable
- Irreversible
- Residual
- Synergistic

3. Significance of Effects

Using the definitions for the degree of impact significance outlined above, the methodology for combining project information was presented in EPA (2022), after SNH (2018), as their Figure 3.5 and is reproduced here as **Plate 1**.

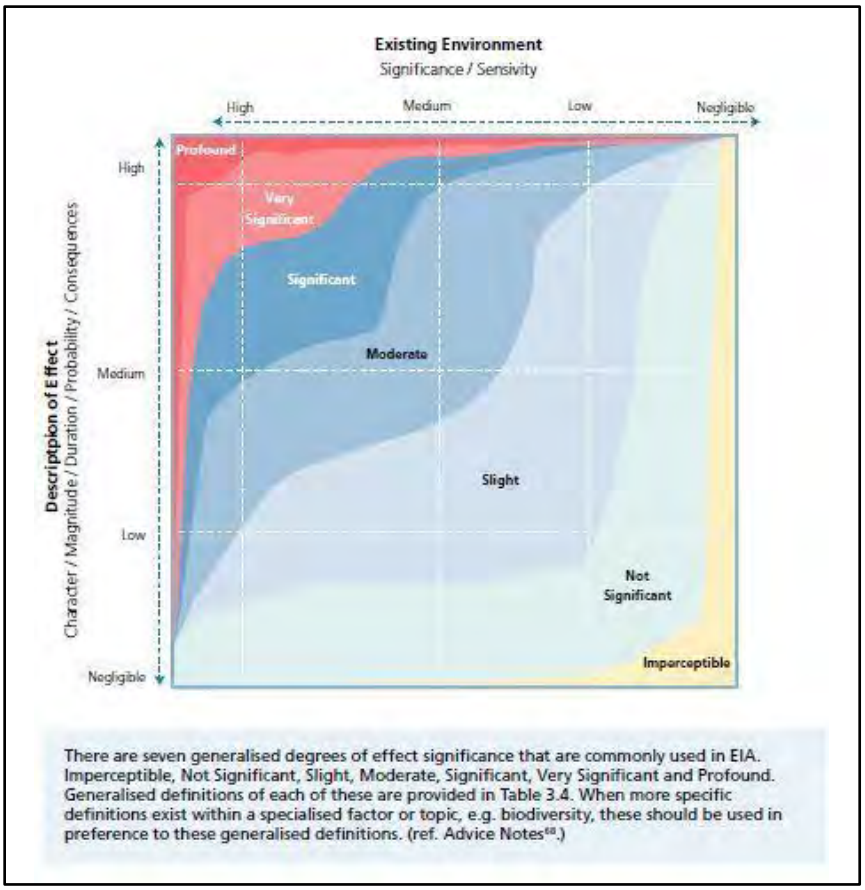

Plate 1 - EPA's Chart Showing 'Indicative' Typical Classifications of the Significance of Effects (EPA, 2022) as adapted from SNH (2018).

4. Hydrological and Hydrogeological Impact Assessment

The assessment of impacts within this chapter is carried out with respect to the hydrogeological and hydrological environment. Within this chapter, potential impacts are considered to be effects of the proposed development's resultant changes to the environment.

Criteria for assessing importance of site attributes and their magnitude of importance were evaluated using NRA Guidelines (NRA, 2008) [as prescribed in 'Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements' (IGI, 2013)]. NRA rating criteria uses the same significance terminology as the EPA. However, the NRA & IGI Guidance suggest intermediate steps to justify using that terminology, as follows:

- **Step 1:** Quantify the Importance of a feature for hydrology and hydrogeology.
- **Step 2:** Estimate the Magnitude of the impact on the feature from the proposed development.
- **Step 3:** Determine the Significance of the impact on the feature from the matrix based on the Importance of the feature and the Magnitude of the impact.

IGI (2013) and NRA (2008) tables of significance to this study are presented here as Table 2These frameworks for assessment have been applied in the EIA relating to Water and Geology.

STEP 1:

The Criteria for Rating Site Importance of Hydrological Features (NRA, 2008) is presented in Table 2.

Table 2 Criteria for Rating Site Importance of Hydrological Features (NRA, 2008)

Importance of Attribute	Criteria	Example
Extremely High	Attribute has a high quality, or value on an international scale.	• River, wetland or surface water body ecosystem protected by EU legislation, e.g. 'European sites' designated under the Habitats Regulations or 'Salmonid waters' designated pursuant to the European Communities (Quality of Salmonid Waters) Regulations
Very High	Attribute has a high quality or value on a regional or national scale.	• River, wetland or surface water body ecosystem protected by national legislation – NHA status • Regionally important potable water source supplying > 2,500 homes • Quality Class A (Biotic Index Q4, Q5) • Floodplain protecting more than 50 residential or commercial properties from flooding • Nationally important amenity site for wide range of leisure activities
High	Attribute has a high quality or value on a local scale.	• Salmon fishery • Locally important potable water source supplying > 1000 homes • Quality Class B (Biotic Index Q3-Q4) • Floodplain protecting between 5 and 50 residential or commercial properties from flooding • Locally important amenity site for wide range of leisure activities
Medium	Attribute has a medium quality or value on a local scale.	• Coarse fishery • Local potable water source supplying >50 homes • Quality Class C (Biotic Index Q3, Q2-3) • Floodplain protecting between 1 and 5 residential or commercial properties from flooding
Low	Attribute has a low quality or value on a local scale.	• Locally important amenity site for small range of leisure activities • Local potable water source supplying <50 homes • Quality Class D (Biotic Index Q2, Q1) • Floodplain protecting 1 residential or commercial property from flooding • Amenity site used by small numbers of local people

The application of the NRA's (2008) criteria (Table 2) to the site under consideration enables an 'Importance Attribute' conclusion, as follows:

- With reference to hydrology, the site is licensed to discharge waters to the River Nore SAC, SPA and Salmonid Regulations water. On the basis of NRA (2008) criteria (Table 2, above), the Importance of the Attribute is 'Extremely High'.

The Criteria for Rating Site Importance of Hydrogeological Features (IGI, 2013) is presented in Table 3.

Table 3 Criteria for Rating Site Importance of Hydrogeological Features (IGI, 2013, Table C3)

Importance of Attribute	Criteria	Example
Extremely High	**Attribute has a high quality, significance or value on an international scale.**	• **Groundwater supports river, wetland or surface water body ecosystem protected by EU legislation, e.g. SAC or SPA status**
Very High	Attribute has a high quality, significance or value on a regional or national scale.	• Regionally important aquifer with multiple wellfields. Groundwater supports river, wetland or surface water body ecosystem protected by national legislation – NHA status
High	Attribute has a high quality, significance or value on a local scale.	• Regionally important aquifer. Groundwater provides large proportion of base flow to local rivers Locally important potable water source supplying >1000 homes Outer source protection area for regionally important water source Inner source protection area for locally important water source
Medium	Attribute has a medium quality, significance or value on a local scale.	• Locally important aquifer. Potable water source supplying >50 homes
Low	Attribute has a low quality, significance or value on a local scale.	• Poor bedrock aquifer. Potable water source supplying < 50 homes

The application of the IGI's (2013) criteria (Table 3) to the site under consideration enables an 'Importance Attribute' conclusion, as follows:

- With reference to hydrogeology, the aquifer associated with the site is deemed to be an attribute of '**Extremely High' Importance Rating** because it is mapped as a Regionally Important Karst Aquifer and, by virtue of the Section 4 licence it has a direct hydrological connection to the River Nore Conservation Objective Surface Water.

STEP 2:

Using the Importance Criteria ratings of Table 3, the Criteria for Estimating the Magnitude of Impact on a Hydrogeology Attribute is provided in the IGI (2013) Guidance as shown in Table 4.

Table 4 Criteria for Estimating Magnitude of Impact on Hydrogeology Attribute (IGI, 2013, Table C5)

Impact Type	Magnitude	Example
Adverse	Negligible	• No measurable changes in attribute
	Small	• **Removal of small proportion of aquifer** • Changes to aquifer or unsaturated zone resulting in minor change to water supply springs and wells, river baseflow or ecosystems. Potential low risk of pollution to groundwater from routine run-off. Calculated risk of serious pollution incident >0.5% annually.
	Moderate	• Removal of moderate proportion of aquifer • Changes to aquifer or unsaturated zone resulting in moderate change to existing water supply springs and wells, river baseflow or ecosystems Potential medium risk of pollution to groundwater from routine runoff Calculated risk of serious pollution incident >1% annually
	Large	• Removal of large proportion of aquifer • Changes to aquifer or unsaturated zone resulting in extensive change to existing water supply springs and wells, river baseflow or ecosystems Potential high risk of pollution to groundwater from routine runoff Calculated risk of serious pollution incident >2% annually
Beneficial	Minor	Minor enhancement of aquifer
	Moderate	Moderate enhancement of aquifer
	Major	Major enhancement of aquifer

With respect to Baseline Information for the site and the detail of Table 4:

- The Regionally Important Karst Aquifer is mapped by the GSI as having an area of 2,343.31 km^2, which is broadly equivalent to 2,343,310,000 m^2.
- The total area of the quarry site is 61 ha, which is equivalent to 610,000 m2.
- The area of the site relative to the area of the aquifer is 0.03%.

The use of criteria listed in Table 4 suggests that the proposed development may have a Potential Impact of **'Adverse'**, rather than 'Beneficial' and the Magnitude of Impact on the HYDROGEOLOGY Attribute (**Regionally Important Aquifer**), could be concluded, as **'Small'** based on the potential for removal of a **'small proportion of aquifer'**, **'minor changes to water supply springs and wells and river baseflow**' and a **'Potential Low Risk of Pollution to Groundwater from routine runoff'.**

The conclusion on the potential Magnitude of Impact on Hydrogeology is **'Small, Adverse'**.

STEP 3:

Using the IGI's (2013) Assessment Tables, the outcomes of Tables 3 and 4 are used to rate the potential Significance of the impact on the Aquifer.

Table 5 Criteria for Rating of Significant Environmental Impacts (IGI, 2013, Table C6)

Importance of Attribute	Magnitude of Impact			
	Negligible	**Small**	Moderate	Large
Extremely High	Imperceptible	**Significant**	Profound	Profound
Very High	Imperceptible	Significant/Moderate	Profound/Significant	Profound
High	Imperceptible	Moderate/Slight	Significant/Moderate	Severe/Significant
Medium	Imperceptible	Slight	Moderate	Significant
Low	Imperceptible	Imperceptible	Slight	Slight/Moderate

Considering the 'Extremely High' Importance of Attribute (Table 3) and the 'Adverse-Small' magnitude of Impact (Table 4), the overall potential outcome on hydrogeological receptors, in the absence of Mitigation Measures, could be '**SIGNIFICANT**' (Table 5).

The application of criteria, as outlined in Tables 1 to 5, above, to the specifics of the study area provides a framework for general screening of the likely impact to the hydrological and hydrogeological environment. The methodology involves the identification of all the potential receptors within the site boundary and surrounding environment. This information is gathered during the desk study, site walkover, site investigation and monitoring phases of the study.

Upon collation and consideration of all project information for the site and macro scale, an Impact Assessment is completed and reported under headings, as follows:

- Potential Impacts
- Mitigation Measures
- Residual Impacts
- Do Nothing
- Cumulative Impacts
- Transboundary Impacts
- Dewatering Impact Appraisal (UK Environment Agency)
- SAC Protection Measures

Refer to the Main Body of the EIAR for the detail of the Impact Assessment specific to the site under consideration.

A description of the UK Environment Agency's Dewatering Impact Appraisal is provided separately in the next Appendix.

Appendix 8.10 Dewatering Impact Appraisal Methodology (UK EA)

In addition to the application of Irish Guidelines as outlined in EPA (2022) and NRA (2008), and in the absence of Irish Guidance specifically focussed on quarries and hydrogeology, the work presented in this EIAR Section has also applied UK practical guidance as published by the UK Environment Agency (the public body equivalent of the Irish EPA). The UK Guidance provides a 'Hydrogeological impact appraisal for dewatering abstractions' (Boak, R. et. al. (2007) and the approach is succinctly outlined by the EA as follows:

> "The methodology for hydrogeological impact appraisal (HIA) is designed to fit into the Environment Agency's abstraction licensing process. It is also designed to operate within the Environment Agency's approach to environmental risk assessment, so that the effort involved in undertaking HIA in a given situation can be matched to the risk of environmental impact associated with the dewatering. The HIA methodology can be summarised in terms of the following 14 steps:
>
> - Step 1: Establish the regional water resource status.
> - Step 2: Develop a conceptual model for the abstraction and the surrounding area.
> - Step 3: Identify all potential water features that are susceptible to flow impacts.
> - Step 4: Apportion the likely flow impacts to the water features.
> - Step 5: Allow for the mitigating effects of any discharges to arrive at net flow impacts.
> - Step 6: Assess the significance of the net flow impacts.
> - Step 7: Define the search area for drawdown impacts.
> - Step 8: Identify all features in the search area that could be impacted by drawdown.
> - Step 9: For all these features, predict the likely drawdown impacts.
> - Step 10: Allow for the effects of measures taken to mitigate the drawdown impacts.
> - Step 11: Assess the significance of the net drawdown impacts.
> - Step 12: Assess the water quality impacts.
> - Step 13: If necessary, redesign the mitigation measures to minimise the impacts.
> - Step 14: Develop a monitoring strategy.
>
> The steps are not intended to be prescriptive, and the level of effort expended on each step can be matched to the situation. Some steps will be a formality for many applications, but it is important that the same thought-process occurs every time, to ensure consistency. The methodology depends heavily on the development of a good conceptual model of the dewatering operation and the surrounding aquifer. The steps of the methodology are followed iteratively, within a structure with three tiers, and the procedure continues until the required level of confidence is achieved. Advice is also given on how to undertake HIA in karstic aquifers and fractured crystalline rocks." Boak, R. et. al. (2007).

Hydro-G has applied the UK Environment Agency's step wise process in order to present a Step Wise assessment of the potential for impact that might arise in response to the proposed development and its interaction with the water environment and Conservation Objective sites of the region.