

**NS 2 FRESHWATER PEARL MUSSEL SUB-BASIN
MANAGEMENT PLANS**

**REPORT ON MORPHOLOGICAL MONITORING AND
CATCHMENT WALKOVER RISK ASSESSMENTS IN THE
NORE CATCHMENT**

September 2009

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1.0 INTRODUCTION

In order to assess the hydromorphological alterations within the Nore catchment the EPA WFD classification tool called the River Hydromorphology Assessment Technique (RHAT) was utilised by RPS. This tool was developed through the North South Share project, to classify rivers in terms of their morphology. It is a field technique which assigns a channel typology. This influences the rivers physical attributes assessed in the field. The technique assigns a morphological classification directly related to that of the WFD – high, good, moderate, poor and bad.

RHAT surveys were carried out at high risk areas located within pearl mussel populations. The methodology classifies river hydromorphology based on a departure from naturalness, and assigns a morphological classification, based on semi-quantitative criteria. It is designed to be a rapid visual assessment based on information from desktop studies, using GIS data, aerial photography, historical data and data obtained from previous field surveys as well as observations in the field.

A catchment walkover risk assessment survey sheet was also designed by the project team in conjunction with NPWS in order to focus the collation of the pressure data in the field with respect to the Freshwater Pearl Mussel. The risk sheet was divided into eight categories designed to highlight the main pressures within the catchment. The eight categories are as follows:

- Source of erosion
- Diffuse Nutrient
- Diffuse Silt
- Current Riparian Zone
- Field Drainage
- Outfalls
- Abstractions
- Barriers to Migration

Each sub-pressure within the eight categories is analysed and an overall risk assessment of High, Medium or Low is assigned to that category. The “one out all out principle” is then used to assign the river stretch or point an overall risk category. A detailed description, together with a series of photographs outlining the pressures is also taken. The risk assessment sheets will assist the project team in focussing the specific freshwater pearl mussel measures within the catchment.

Location of survey stretches and points are shown in Figure 1

2.0 METHODOLOGY

Sampling was carried out on the 20th – 24th July 2009.

2.1 RIVER HYDROMORPHOLOGY ASSESSMENT TECHNIQUE (RHAT)

Classification of hydromorphology can be used to contribute to the status classification of water bodies at high ecological status only. However, RHAT plays a vital role in identifying why a water body might be failing to achieve Good Ecological Status as it is based on the observed impact in the field. It can assist in deciding what indirect and direct efforts are needed to improve status and in helping to prevent further deterioration.

The eight criteria that are scored are:

1. Channel morphology and flow types
2. Channel vegetation
3. Substrate diversity and embeddedness
4. Channel flow status
5. Bank and bank top stability
6. Bank and bank top vegetation
7. Riparian land use
8. Floodplain connectivity

Sheet 1 of the RHAT form contains the Field Health and Safety sheet which is filled on arrival at the site. Before the field survey, a desk study is required this element of the survey was completed as part of the development of the draft sub-basin management plans. The reach identification and physical characterisation sections for each field site are recorded on Sheet 2 (see Appendix 1) with all information available from GIS and aerial photographs, including:

- a. expected stream type and the description of various stream types
- b. catchment and reach-scale pressures (these may help to identify, confirm or explain field observations);
- c. expected riparian vegetation types (for high quality status);
- d. the weather conditions on the day of the survey, and those immediately preceding the day of the survey. This information is important to interpret the effects of storm events on the survey results;
- e. the estimated stream width and the reach length to be assessed (~ 40 x width).
- f. any other notable issues (e.g. from previous surveys).

A score is allocated to each relevant attribute (the number of attributes to be assessed will depend on the stream type). Where the condition departs from the reference condition, note should be made if this condition results from a particular identifiable pressure. Where possible and where relevant, all attributes should be included in the assessment, using the assessment sheet (Sheet 3, see Appendix 1). If an attribute is not assessed, the score-summary table should be amended (cells shaded) and a note made as to why the assessment was not carried out. The WFD status can still be calculated on the basis of other attributes, but with a note that a particular attribute was omitted.

Transfer scores for individual attributes to the summary table on the survey Sheet 2. Finally the overall WFD category can be calculated using the following values:

> 0.8	= high
0.6 – 0.8	= good
0.4 – 0.6	= moderate
0.2 – 0.4	= poor
< 0.2	= bad

For the purposes of the assessment as part of the NS2 project, a high status for morphology is desirable for pearl mussel habitats. Through work carried out by the Shannon IRBD project on the Freshwater Morphology Programme of Measures Study, it was found that an observed relationship exists between biological data and a RHAT score. The study confirmed that morphological pressure can impact biology and therefore ecological status. In general, sites with RHAT scores less than 0.6 also have less than good Q scores. Similarly high levels of siltation affecting macrophyte populations are reflected by less than good RHAT scores.

Grid references were recorded at all sites using a GPS together with site photographs which were taken using a digital camera.

2.2 CATCHMENT WALKOVER RISK ASSESSMENT

During the development of the draft sub-basin management plans throughout 2008 a complete desk study was conducted of all relevant biological, water quality and pressure source data within the Nore catchment. Best use was made of all available datasets such as the pressure source data collated by the River Basin District Projects for the Article V Characterisation and Programme of Measures Studies. This work allowed the NS 2 project team to assess the catchment through the combined availability of aerial imagery and digitised pressure information. Where gaps in this data existed together with areas that required ground truthing such as physical barriers to migration and point source pressures, catchment walkover risk assessments were focussed throughout the 2009 field survey season.

The catchment walkover risk assessment sheet (See Appendix 3) covers eight main categories or pressures which are subsequently sub-divided into the various sources. Each source is ticked if present and an overall risk assessment for each pressure assigned from High to Medium to Low over the survey length or point. All eight pressures are combined to give an overall risk assessment to the catchment based on the “one out all out principle”.

3.0 RESULTS

Figure 1 indicates where the Nore RHAT assessments were carried out throughout the catchment.

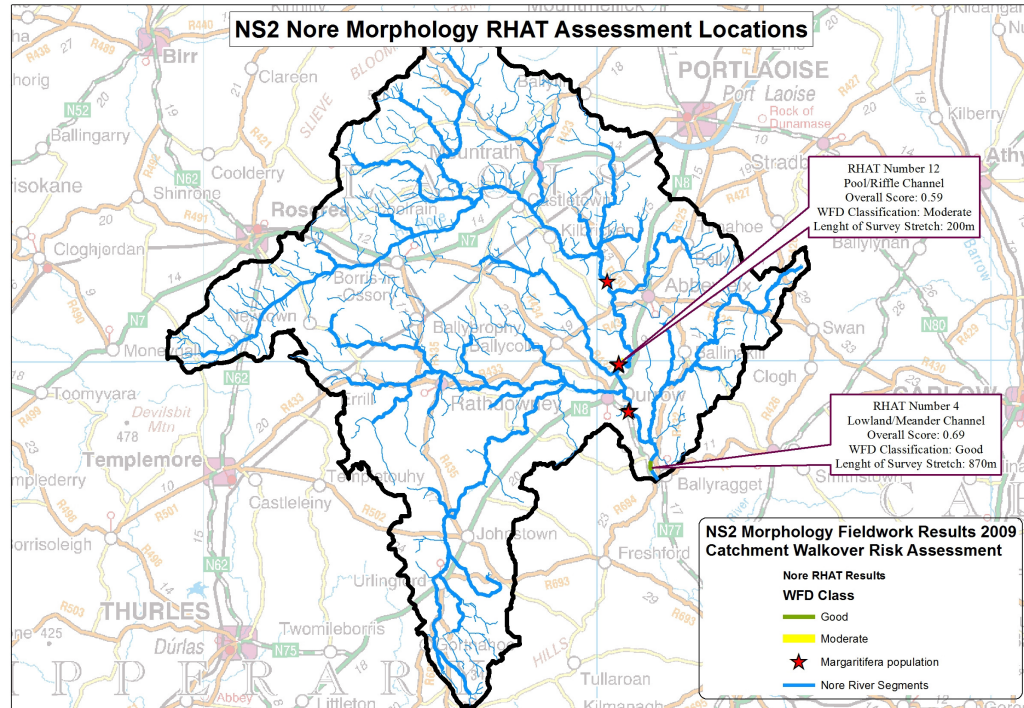


Figure 1 Morphology RHAT Assessment Locations

(The RHAT numbering system corresponds to the site code which may mean they are not sequential where a RHAT was not carried out at a particular site)

3.1 RHAT Survey Results

Two RHAT surveys were carried out throughout the Nore catchment. The results of these surveys can be found in the electronic appendix. One was deemed to be at good status and one at moderate status within the vicinity of the pearl mussel populations.

On the day in which the survey took place RHAT number 4 survey stretch was in spate. The river appears to have been resectioned and reinforced along this stretch together with some over widening and over deepening. Sewage fungus was found at the discharge point from Glanbia Creamery which is located at the end of the survey stretch. This is a lowland meandering channel which scored low on all of the attributes except for barriers to continuity which scored four out of four. Animal trampling and poaching were recorded together with high levels of suspended solids in the channel as a result the substrate condition was not visible. The riparian landcover scored the lowest

at 1.5 out of four due to the intensive landuse of improved grassland which surrounded the survey stretch with little to no buffer zone in some cases. Overall this stretch was classified as good status.

The second RHAT survey was carried out at Site 12 where access directly to the channel was quite difficult. Resectioning and reinforcement was again evident on both the left and right bank with the channel possible over deepened also. This is a lowland meandering channel with the substrate condition and channel vegetation not visible due to the high water levels on the day in which the survey took place together with the level of suspended solids in the channel. All attributes scored three out of four except for barriers to continuity which scored four out of four. Overall, this survey stretch was classified as moderate status.

Plate 3.1 Representative photographs from reach

RHAT 1 Site 4 Photo 6 	RHAT 1 Site 4 Photo 5 
RHAT 2 Site 12 Photo 1 	RHAT 2 Site 12 Photo 2 

Details in relation to photographs are tabulated in Appendix 2.

3.2 Catchment Walkover Risk Assessment Results

A total of eighty one sites were surveyed in the Nore catchment with a risk assessment carried out at forty one of these sites. The remaining forty sites were stopping points. These are locations within the catchment where information was recorded in relation to a potential risk or pressure which was not previously noted through the desk based assessments. **Figure 2** outlines the stopping point locations together with the High to Low Risk Assessment from the Catchment Walkover Risk Assessments. Twenty Four of the forty sites were considered to be high risk, fourteen classified as medium risk and the remaining three at low risk. **Figure 3** outlines the percentage at high and medium risk throughout the catchment.

The most common high risks categories identified were:

- Bank Erosion – evident at 58% of high risk sites
- Current Riparian Zone – evident at 50% of high risk sites

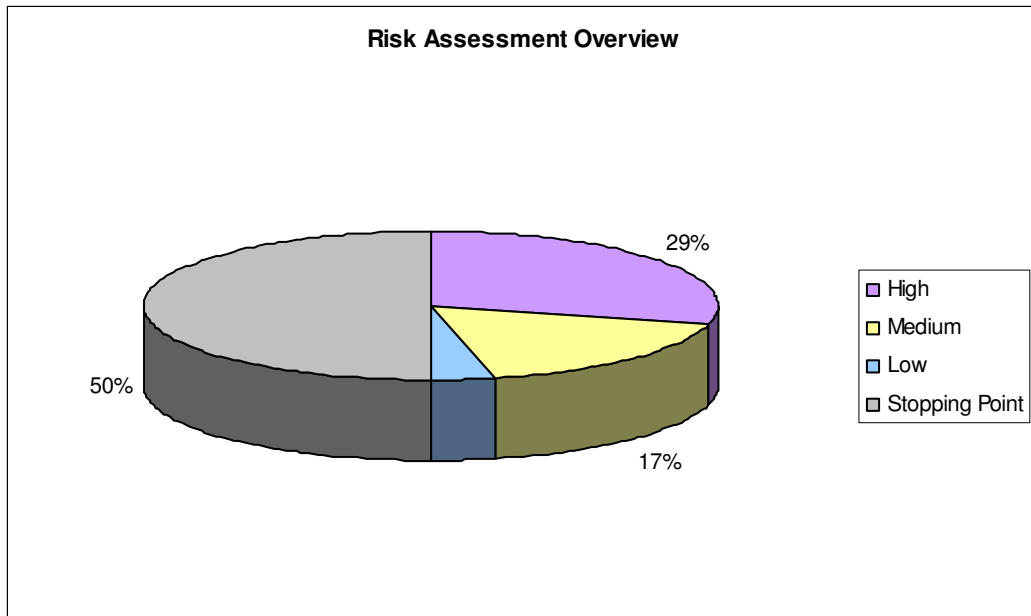
The Current Riparian Zone category of the Catchment Walkover Risk Assessment slightly varies from the seven other categories or pressures. The Current Riparian Zone is not a pressure in itself; however the aspects listed in this category are the interceptors to the pressure and convey the extent or lack of buffer provided by the riparian zone. A high risk riparian zone indicates that the pressures acting on the river are more likely to have significant impact. For example the lack of fencing along a river stretch can lead to excessive trampling and/or poaching which in turn may lead to siltation within a pearl mussel habitat. The various categories and pressures listed in the Catchment Walkover Risk Assessment sheet were designed to assist the project in focussing the measures which will be needed to combat the pressure along its pathway, rather than removing a source which may not always be possible such as intensive agriculture. Recording the Riparian Zone in terms of its current performance as a buffer is important in this regard. Current Riparian Zone has ten aspects as follows:

- Fencing
- Buffer

- Tree line at bank
- Tree line buffer
- Plantation with no buffer
- Urbanisation
- Flood Protection
- Marshy Land
- Landuse at bank
- Other Sources

Where one or any of these aspects is found to be the cause of significant impact to the riparian zone, or the channel along the stretch then this category may be assigned a high risk score. Locations where pressures were evident in the field which were not highlighted through the desk based assessment were also noted as stopping points. These points were not selected prior to fieldwork, they were opportunistic as the catchment drive through was taking place.

Figure 3 Risk Assessment Overview



The break-down of pressure categories identified as high risk are outlined in **Figure 4**

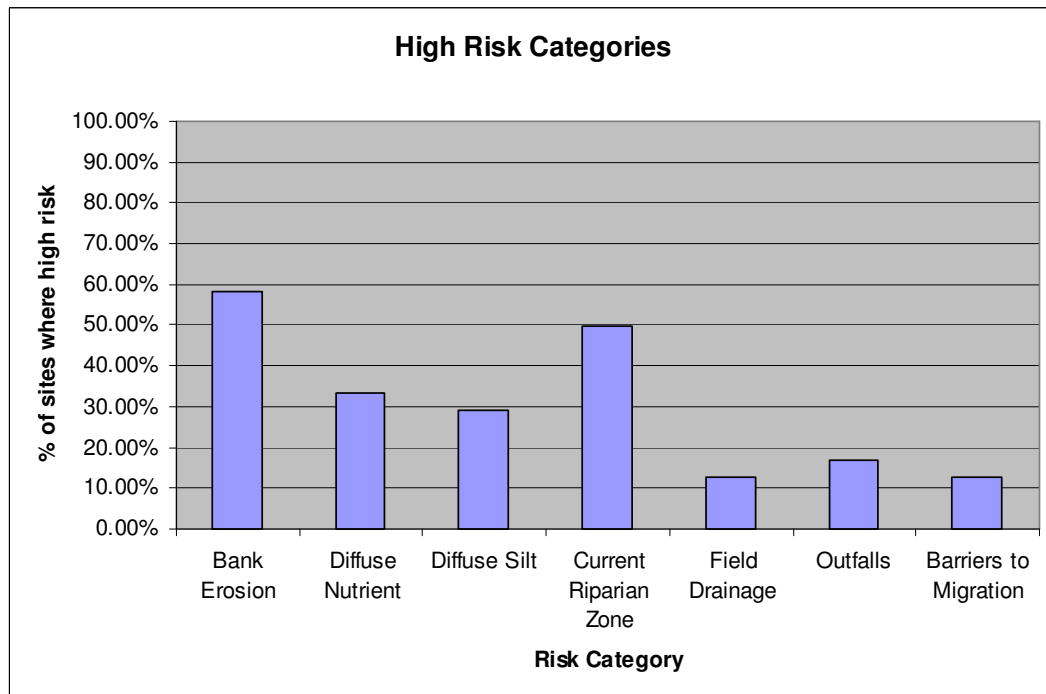


Figure 4 Breakdown of High Risk Categories

The current riparian zone category is a considerable pressure within this catchment, however this pressure generally relates to how a poor riparian zone can intensify other pressures e.g. animal trampling caused by a lack of fencing or increased diffuse nutrient as a result of an ineffective or poor buffer zone.

As a result quantitative statistics do not adequately convey the pressures that arise through a high risk riparian zone, the main issues identified were:

- A complete lack of fencing or insufficient fencing on agricultural land – within this catchment this has resulted in increased erosion from extensive animal trampling and poaching, increased nutrient enrichment from animals being within and near channel, increased silt within channel as trampling causes patches of bare sediment which is washed into the river channel. Much of this animal access is in relation to drinking water access and the lack of drinking water troughs set back from the river channel.

Plate 3.2 and 3.3 give an indication of some of the extreme cases of animal trampling and poaching which were located through the catchment walkover risk assessments. In both images the banks have become highly eroded leading to a high risk of silt input to the channel.



Plate 3.2 Taken at Site 2 (See Figure 2)



Plate 3.3 Taken at Site 23 (See Figure 2)

- A lack of adequate buffer or tree line in areas where the channel is within close proximity to commercial peat cutting or intensive agriculture, this results in an

increase in diffuse nutrient and/or silt as it is washed directly into the channel with no buffer to slow down the effect.

- The most common sources of erosion were animal trampling and bank erosion.

3.2.1 Fords/Access Points

Within the Nore catchment approximately 8 significant ford crossings were recorded. The majority of which appear to have both animal and vehicular access and some point.



Plate 3.4 Site 3



Plate 3.5 Site 1



Plate 3.6 Site 4



Plate 3.7 Site 1



Plate 3.8 Site 1



Plate 3.9 Site 2

While the access point in **Plate 3.7** is partially limiting to livestock access it is very likely to still contaminate the water and cause effects downstream. All of these ford crossings both vehicular and animal can cause sediment loss from the vehicles/animals and the access roads, leading to excessive siltation in the river.

3.2.2 Peat Cutting

The drainage of bog lands and subsequent peat extraction result in an increase in the amount of water emanating from sites both as baseflow and storm water, coupled with an increase in the area of exposed, dry soil (peat) potentially leading to large quantities of peat silt being discharged to the receiving waters. The potential for run-off of peat silt is greater during extreme rainfall events (Shannon IRBD Freshwater Morphology Programmes of Measures and Standards Study, Review of Best Practice Measures, 2008).

In addition to the impacts on adult and juvenile pearl mussels, the increased load of peat silt from peat cutting operations can seriously impact on receiving rivers through:

- Settlement on key substrates e.g. salmonid spawning and nursery areas
- Formation of secondary banks and islands which vegetate, stabilise and may alter stream morphology and hydrology
- Prevention of erosion of gravel and cobble materials from banks back into channel
- Elimination of flora and fauna

Major settlement of silt is more likely in low gradient reaches of rivers if this material consists of very fine particles.

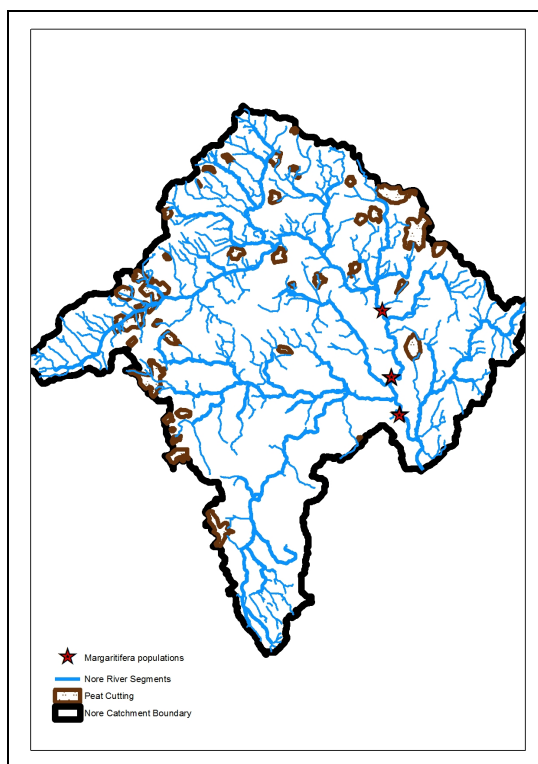


Figure 5.0 indicates the areas of peat cutting observed using aerial imagery.

Peat cutting is evident throughout the Nore catchment largely to the North and North West of the catchment. These areas of peat cutting (totalling 4200ha) are of key concern in terms of potential impact to the pearl mussels. The total area provided above and depicted in **Figure 5.0** is taken from polygons which were delineated through the desk based assessment of the 2005 Aerial Imagery.

During the 2009 catchment walkover field surveys some of these areas of peat extraction were targeted for further investigation in particular to identify areas of commercial peat extraction and those which are directly discharging to the river watercourse. This exacerbates the sediment run-off problem by providing channels for rain water, thereby transporting heavy sediment loads to the river. Furthermore, the lack of riparian zone increases the probability of excessive sediment run-off to the river.

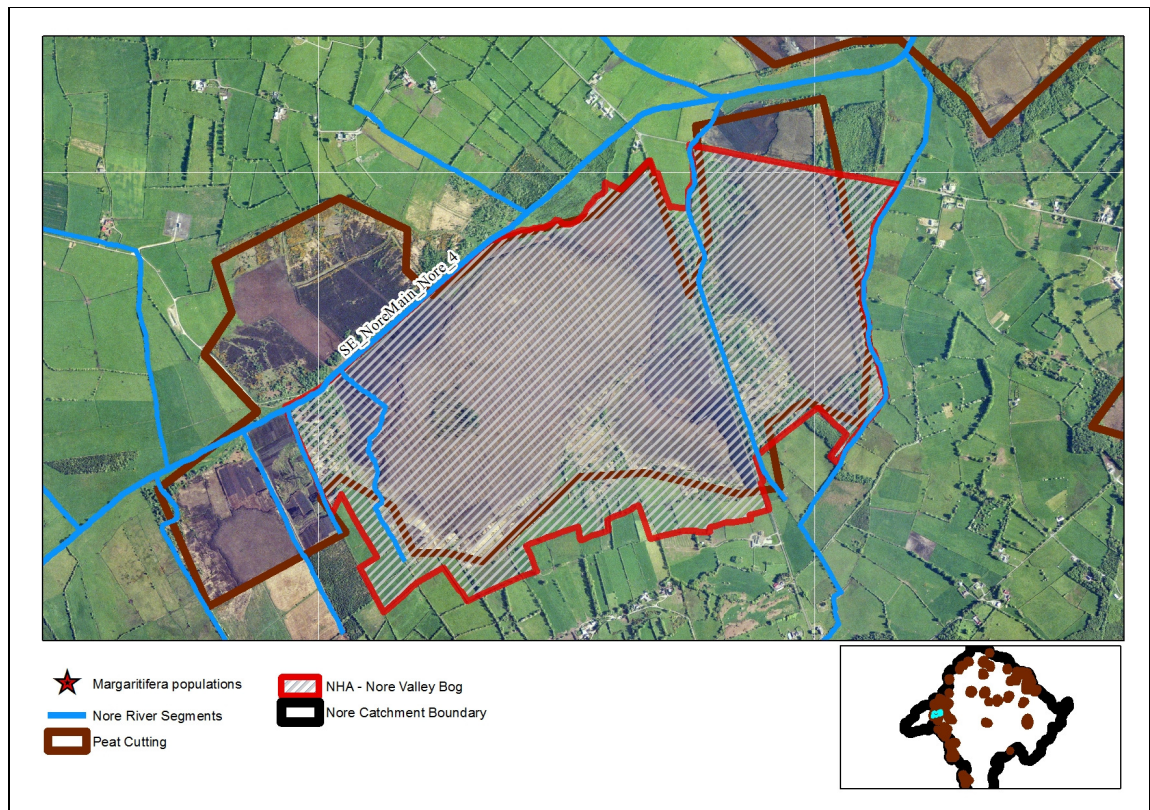


Figure 6.0 Nore Valley Bog NHA

Timoney Bog which is contained within the Nore Valley Bog NHA was found to be operating on a private basis. The extent to which the peat extraction covered would indicate that it should be IPPC licensed and operated commercially. Field investigations found no controls in place to prevent silt and nutrient input to the river watercourse and visible impacts on water quality were noted.

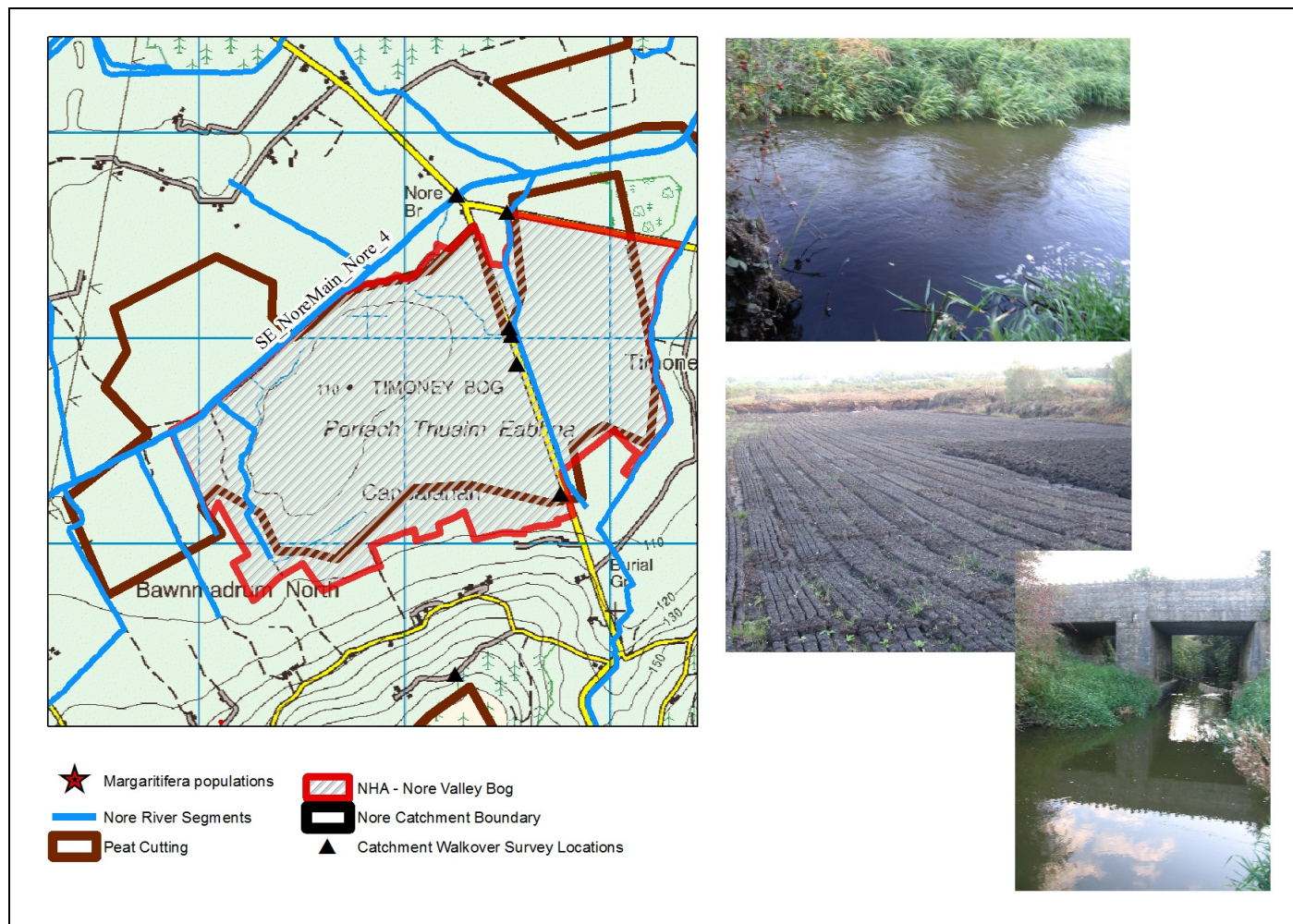


Figure 7.0 Catchment Walkover Survey locations indicating poor water quality

The Freshwater Pearl Mussel is extremely sensitive to sedimentation therefore any activity that can give rise to sediment inputs to water has the potential to impact on the species. One of the key issues for the future management of the Nore catchment and the return of the Freshwater Pearl Mussel population within this catchment to favourable conservation status is the minimisation of sediment losses arising from peat abstraction and spreading. **Figure 7** above provides an indication of the high levels of suspended solids and fine silts which can be found within the rivers of the Nore catchment in association with these peat cutting areas.

3.2.3 Point Sources

Point sources discharging nutrients, such as wastewater treatment plants, can contribute very significant nutrient and organic loads to rivers. Quarry dust and effluent can cause problems with silt pollution and, in some cases, lime pollution. Landfills and landfill leachate can be sources of surface and groundwater contamination that can find pathways to the river. Storm water drainage can be a source of silt and pollutants. All point sources identified through the desk based assessment were investigated further, where possible, through the fieldwork investigations. As part of the catchment walkover risk assessment the point sources were looked at further by the NS2 survey team.

One major point source is located directly above the pearl mussel population – Glanbia Plc which is a large dairy plant just outside Ballyraggat. It discharges above the main pearl mussel population and currently holds an IPPC licence.



Plate 3.10 outfall from Glanbia which discharges directly into the Nore main channel



Plate 3.11 outfall from Glanbia which discharges directly into the Nore main channel

Plate 3.10 and 3.11 gives an indication of the sewage fungus which was found growing on at the outfall from Glanbia at the time at which the surveys took place. License reviews should be undertaken to ensure the cooling line discharge points located on the Nore main channel are meeting their license requirements.

3.2.4 Quarries

The 2008 desk survey identified, from aerial imagery, one quarry up-stream of the pearl mussel population (see **Figure 8**). The potential risk to the pearl mussel from quarry dust, effluent or other pollution was investigated during 2009 survey season.

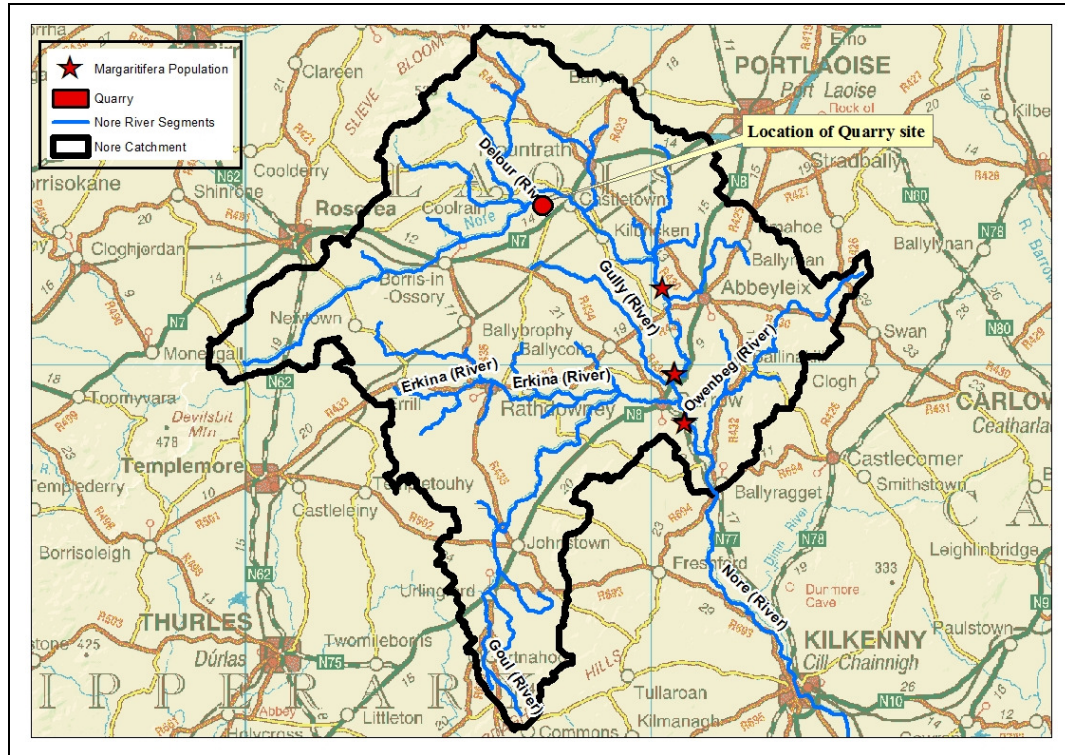


Figure 8 Location of Quarry within the catchment

The Quarry in question was Carrolls Quarry and was found to be active on the day on which the survey took place. The aerial imagery map shown in **Figure 9** gives an overview of the location of the quarry and its proximity to the river channel. A tributary of the River Nore main channel flows adjacent to the Quarry and appears to also cross through the site. Any silt or pollution discharged to this tributary could have a knock on effect on the Nore main channel, as the tributary feeds in above the Freshwater Pearl Mussel population. The survey in July 2009 comprised a visual inspection of the quarry from the adjacent road/land and of the river approximately 300 m downstream of the quarry. There was no evidence of pollutants discharging from the quarry or of sedimentation in the river on that date.

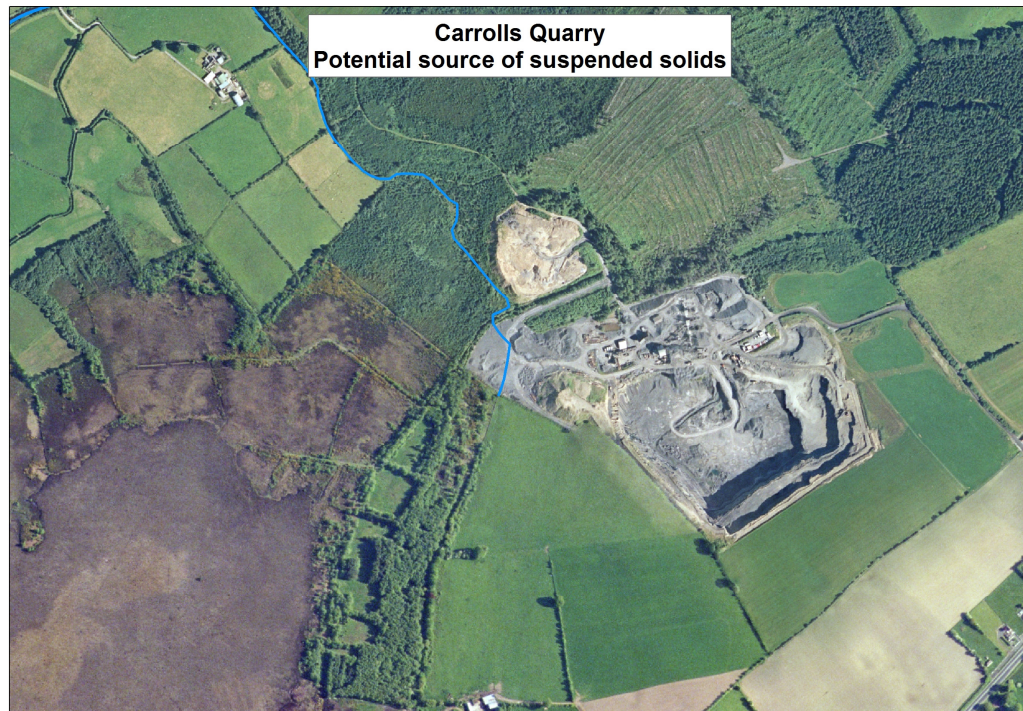


Figure 9 Aerial Imagery of Carrolls Quarry



Plate 3.12 & 3.13 Carroll's Quarry Co. Laois

The quarry is licensed under Section 261 of the Planning & Development Act 2000, under Quarry Registration Number QY005/62. Laois County Council carries out an annual site inspection of the quarry, the last one taking place on 7th September 2009. The quarry was found to be environmentally compliant on that date. Settling Ponds are used within the quarry, with the water being re-used in the quarrying process and for dust suppression. Dust & Noise monitoring also takes place within the quarry.

A significant number of additional quarries have been identified within the Nore catchment through the mapping of point sources for the South Eastern River Basin Management Plan. The relevant local authorities must examine and review, as required, all authorised quarry discharges by 22nd December 2011 to ensure the environmental objectives of the Freshwater Pearl Mussel Regulations are achieved and all pollution incidents are avoided.

4.0 CONCLUSIONS

The Nore sub-basin catchment appears to be in an over all poor condition from a morphological point of view. Both stretches which were surveyed using the EPA River Hydromorphological Assessment Technique were classified lower than that which is required by a fully functioning Freshwater Pearl Mussel Population. As these surveys are carried out within the vicinity of the Freshwater Pearl Mussel Habitat it is a direct indication that the ecological condition of this habitat has been impaired.

The high levels of suspended solids which were noted throughout the catchment are also an indication of the pressure which this system is under. The intensive landuse and point pressures are also causing pressure on both the pearl mussel and its habitat and adding to the overall unfavourable conservation status within the Nore catchment.

APPENDIX A

RHAT Field Sheet

Field Health and Safety sheet

River Name _____ Site Code _____ Date _____

1 = Low risk 5 = High risk

Please circle applicable number

PARKING	1	2	3	4	5
FENCES/BARRIERS	1	2	3	4	5
GROUND STABILITY	1	2	3	4	5
DENSE VEGETATION	1	2	3	4	5
BANK STEEPNESS OR STABILITY	1	2	3	4	5
RISK FROM ANIMALS	1	2	3	4	5
PHONE COVERAGE	1	2	3	4	5

Previous RHS/RAT/RHAT surveys - year and code _____

Details of access _____

RHAT (VERSION 2)

TRIBUTARY / MAIN CHANNEL*

Site Identification

River Name _____ Site Code _____

Nearest WFD site FF10 _____

Water Body ID _____ Start U / S or D / S*

First IGR _____ Last IGR _____

Bank surveyed from L / R / Both / in-Channel*

Desk-study notes	Field Notes						
ACTION TO TAKE PRIOR TO FIELDWORK General overall shape of river Check weirs, impoundments etc. on catchment	River type Date						
Floodplain connectivity and land use Expected river type Rain last week Estimated river width Estimated survey length Riparian land cover(s) River Agency designated? Other comments including geology - limestone / siliceous / peat*	Time Surveyors Weather conditions now Estimated river width (m) (average 3 readings) Estimated survey length (m) (40 X wetted width) Estimated river depth (m) Channel characteristics (e.g. different stream types on the reach)						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">RESULTS</td><td style="width: 70%;"></td></tr> <tr> <td>Hydromorph score</td><td></td></tr> <tr> <td>WFD class</td><td></td></tr> </table>	RESULTS		Hydromorph score		WFD class		Pressures *Circle as appropriate
RESULTS							
Hydromorph score							
WFD class							

Photograph details include IGR or approximate location

N.B. The survey length should be 40x the wetted width with a minimal stretch of 160m but not exceeding 1km.

NS RHAT

Anthropogenic Impacts

River Name _____ Site Code _____ Date _____

Feature	Tick if present, record as E if > 30%
Resectioning	None ☐ Left bank ☐ Right bank ☐
Reinforcement	None ☐ Left bank ☐ Right bank ☐
Embankments NO*	LB ☐ RB ☐ Set back LB ☐ SB RB ☐
Culverts**	Y / N / Unknown*
Over deepening	Y / N / Unknown*
Wver widened	Y / N / Unknown*
Narrowing	Y / N / Unknown*
Fords**	Y / N*
	Major / Intermediate / Minor
Bridges** NO*	
Weirs** NO*	
Fish Pass** NO*	

Physical features or resource use if applicable. *

Deflectors / Jetties / Arterial drainage / Side channels / Mid channel bar / Field Drains / Mill Race

Navigation / Fishing / Recreation / Forestry/ Urban / Industry / HEP

Trashline present (height __ m) above water / Buffer zone (LBm / RBm back from water edge)

Other observations - Invasives - Trees - Birds - Pollution indicators - Invertebrates*

Rhododendron / Himalayan Balsam / Japanese Knotweed / Giant hogweed / Snowberry / Cherry-Laurel/ Gunnera

Sycamore / Beech / Conifers / Oak / Ash / Alder / Willow / Birch / Hazel / Hawthorn / Blackthorn / Holly

Heron / Sand martin / Grey wagtail / Dippers / Kingfishers /

Sewage fungus / Diatomaceous algae / Oil / Cladophora / Vaucheria / Dumping / Silt on Substrate

Other comments:

* Circle as appropriate E - extensive. ** Tally as appropriate. LB - left bank / RB - right bank

RHAT RIVER HYDROMORPHOLOGY ASSESSMENT TECHNIQUE

Field Assessment of Morphological Condition

River Name _____ Site Code _____ Date _____

If river in spate ignore 3 and 4 but deduct individual scores from overall if either feature not visible. Greyed boxes may be scored but note why in Comments/Notes.

	Bedrock	Cascade / Step-pool	Pool-riffle-glide	Lowland Meandering
1. Channel form and flow types	4	4	4	4
2. Channel vegetation	4	4	4	4
3. Substrate condition	4	4	4	4
4. Barriers to continuity	4	4	4	4
5. Bank structure & stability L+R	4	4	4	4
6. Bank vegetation L+R	4	4	4	4
7. Riparian land cover L+R	4	4	4	4
8. Floodplain connectivity L+R	4	4	4	4
TOTAL	32	32	32	32
Hydromorph Score *				
WFD class **				

* Hydromorph score - Assessment score = Maximum Possible score

** WFD Class
 > 0.8 = high
 >0.6 – 0.8 = good
 >0.4 – 0.6 = moderate
 >0.2 - 0.4 = poor
 < 0.2 = bad.

SHEET 5

NOTES

APPENDIX 2

PHOTOGRAPHS

Photographs of site locations and catchment pressures on the Nore River and tributaries 2009. All field work photographs can be found in the accompanying electronic appendix.

Overall Risk * uses the “one out all out” principle

Site No.	Catchment Name	Location	X	Y	Photo No.	Bank Erosion	Diffuse Nutrient	Diffuse Silt	Field Drainage	Outfalls	Abstraction	Barriers to Migration	Current Riparian Zone	Overall Risk*	Pressure/Photo Details
1	Nore	Castlemarket Bridge	245769	178087	1	High	Medium	Medium	Medium	Low	Low	High	High	High	Looking upstream from road bridge
1	Nore	Castlemarket Bridge	245769	178087	2	High	Medium	Medium	Medium	Low	Low	High	High	High	Looking upstream evidence of disturbance and field clearance on right bank - Gunnera present, slight embankment
1	Nore	Castlemarket Bridge	245769	178087	3	High	Medium	Medium	Medium	Low	Low	High	High	High	Looking downstream from road bridge, river in spate, highly discoloured
1	Nore	Castlemarket Bridge	245769	178087	4	High	Medium	Medium	Medium	Low	Low	High	High	High	Silage bales in right bank, no buffer (245767, 178092)
1	Nore	Castlemarket Bridge	245769	178087	5	High	Medium	Medium	Medium	Low	Low	High	High	High	On right bank cattle access point created, in channel fence to contain cattle, poaching and trampling along right bank at 245781, 178098. Gunnera on right bank
1	Nore	Castlemarket Bridge	245769	178087	6	High	Medium	Medium	Medium	Low	Low	High	High	High	On right bank cattle access point created, in channel fence to contain cattle, poaching and trampling along right bank at 245781, 178098. Gunnera on right bank
2	Nore	Loughill Bridge	247116	179086	1	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Left bank - loose rubble, unstable bank appears to have been cleared - associated with one off housing

															behind it
2	Nore	Loughill Bridge	247116	179086	2	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Weir across channel, river in spate heavily discoloured
2	Nore	Loughill Bridge	247116	179086	3	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Looking upstream from road bridge
2	Nore	Loughill Bridge	247116	179086	4	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Eroding banks upstream on right bank
2	Nore	Loughill Bridge	247116	179086	5	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Storm drain entering on left bank just under bridge at 247116, 179082
2	Nore	Loughill Bridge	247116	179086	6	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Side tributary/channel entering on left bank at 247128, 179081 Ford behind it with machinery tyre marks
2	Nore	Loughill Bridge	247116	179086	7	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Cattle trampling/ poaching on left bank at 247128, 179081
2	Nore	Loughill Bridge	247116	179086	8	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Ford access on right bank at 247129, 179086
2	Nore	Loughill Bridge	247116	179086	9	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Silt plume in main channel at 247129, 170986
3	Nore	Ironmills Bridge	247379	179658	1	High	Medium	Low	Medium	Low	Low		Medium	High	Looking downstream from road bridge
3	Nore	Ironmills Bridge	247379	179658	2	High	Medium	Low	Medium	Low	Low		Medium	High	Scouring on left bank just downstream at bridge 247379, 179658
3	Nore	Ironmills Bridge	247379	179658	3	High	Medium	Low	Medium	Low	Low		Medium	High	Ford/Cattle access with poaching on left bank just upstream at bridge again fenced under bridge to prevent cattle moving

															downstream or upstream at 247383, 179664
3	Nore	Ironmills Bridge	247379	179658	4	High	Medium	Low	Medium	Low	Low		Medium	High	Slotted house and silage bit approximately 100m back from left bank
4	Nore	Nore	244065	171505	1	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Starting point taken on right bank at 244065, 171505
4	Nore	Nore	244065	171505	2	Medium	Medium	Low	Low	High	Low	Low	Medium	High	244056, 171518 gauging station/ flow on right bank
4	Nore	Nore	244065	171505	3	Medium	Medium	Low	Low	High	Low	Low	Medium	High	244056, 171518 gauging station/ flow on right bank
4	Nore	Nore	244065	171505	4	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Riparian landcover, narrow buffer on left bank at 244037, 171547
4	Nore	Nore	244065	171505	5	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Possible cattle path
4	Nore	Nore	244065	171505	6	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Cattle poaching/trampl ing on left bank at 243979, 171787
4	Nore	Nore	244065	171505	7	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Bank erosion on right bank at 243979, 171787
4	Nore	Nore	244065	171505	8	Medium	Medium	Low	Low	High	Low	Low	Medium	High	243984, 171875. Overhanging tress on right bank, bare earth underneath
4	Nore	Nore	244065	171505	9	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Possible cattle allowed to shelter under trees (243977, 171946)
4	Nore	Nore	244065	171505	10	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Looking upstream, rise on right bank ((243977, 171946)
4	Nore	Nore	244065	171505	11	Medium	Medium	Low	Low	High	Low	Low	Medium	High	243973, 171986 cattle poaching on left bank
4	Nore	Nore	244065	171505	12	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Outfall Glanbia (243972, 172083)
4	Nore	Nore	244065	171505	13	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Outfall Glanbia (243972, 172083)

4	Nore	Nore	244065	171505	14	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Outfall Glanbia (243972, 172083)
4	Nore	Nore	244065	171505	15	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Monitoring point
4	Nore	Nore	244065	171505	16	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Monitoring point
4	Nore	Nore	244065	171505	17	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Inspection chamber
4	Nore	Nore	244065	171505	18	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Right bank cleared to a point at 243975, 172104
4	Nore	Nore	244065	171505	19	Medium	Medium	Low	Low	High	Low	Low	Medium	High	Up past Glanbia from right bank 243993, 172176
11	Nore	Durrow Town	240870	177470	1	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Looking downstream from road bridge old stone bridge
11	Nore	Durrow Town	240870	177470	2	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Looking upstream from road bridge excessive ranunculus
11	Nore	Durrow Town	240870	177470	3	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Ranunculus and macrophyte growth
11	Nore	Durrow Town	240870	177470	4	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Reinforced right bank
11	Nore	Durrow Town	240870	177470	5	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Looking upstream from left bank at 240842, 177494
11	Nore	Durrow Town	240870	177470	6	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Looking downstream from left bank at 240830, 177498.
11	Nore	Durrow Town	240870	177470	7	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Lack of buffer on right bank 240767, 177509 grasses clipping, garden backing onto bank
11	Nore	Durrow Town	240870	177470	8	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Water access are? Horses 240737, 177503
11	Nore	Durrow Town	240870	177470	9	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Looking downstream from end point (240611, 177491)
11	Nore	Durrow Town	240870	177470	10	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Looking upstream from end point (240611, 177491)
11	Nore	Durrow Town	240870	177470	11	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Staff gauge on right bank

11	Nore	Durrow Town	240870	177470	12	Medium	Medium	Low	Low	Medium	Low	Low	Medium	Medium	Outfall/Culvert at new bridge
12	Nore	Nore	241861	179719	1	Low	Low	Low	Low	Low	Low	Low	Medium	Medium	View looking downstream
12	Nore	Nore	241861	179719	2	Low	Low	Low	Low	Low	Low	Low	Medium	Medium	View looking upstream
13	Nore	Nore	252519	183634	1	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Bridge
13	Nore	Nore	252519	183634	2	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Bridge apron and concessive scour, bed and bank (252582, 183618)
13	Nore	Nore	252519	183634	3	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Storm drain (252591, 183634)
13	Nore	Nore	252519	183634	4	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	View upstream
13	Nore	Nore	252519	183634	5	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Trampling exposed soil on right bank
13	Nore	Nore	252519	183634	6	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Tributary entering watercourse - sediment drop (plume)
13	Nore	Nore	252519	183634	7	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Substrate
13	Nore	Nore	252519	183634	8	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Substrate (252537, 183582)
13	Nore	Nore	252519	183634	9	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Land use on right bank - forestry in background
13	Nore	Nore	252519	183634	10	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	View downstream from right bank - large bridge apron
13	Nore	Nore	252519	183634	11	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Culvert entering on left bank
13	Nore	Nore	252519	183634	12	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Animal trampling on right bank
13	Nore	Nore	252519	183634	13	High	Medium	Medium	Medium	Medium	Low	Medium	Medium	High	View upstream from bridge.
14	Nore	Nore Tributary	250690	184791	1	High	High	Medium	Medium	Low	Low	Low	Medium	High	Left bank - erosion - no riparian
14	Nore	Nore Tributary	250690	184791	2	High	High	Medium	Medium	Low	Low	Low	Medium	High	Left bank - land drain into field
14	Nore	Nore Tributary	250690	184791	3	High	High	Medium	Medium	Low	Low	Low	Medium	High	View downstream from bridge
14	Nore	Nore Tributary	250690	184791	4	High	High	Medium	Medium	Low	Low	Low	Medium	High	Tree living further downstream
14	Nore	Nore Tributary	250690	184791	5	High	High	Medium	Medium	Low	Low	Low	Medium	High	Gunnera on right bank

14	Nore	Nore Tributary	250690	184791	6	High	High	Medium	Medium	Low	Low	Low	Medium	High	Erosion on left bank
14	Nore	Nore Tributary	250690	184791	7	High	High	Medium	Medium	Low	Low	Low	Medium	High	Gate entrance to field (250673, 184770)
14	Nore	Nore Tributary	250690	184791	8	High	High	Medium	Medium	Low	Low	Low	Medium	High	Farm (250663, 184766)
14	Nore	Nore Tributary	250690	184791	9	High	High	Medium	Medium	Low	Low	Low	Medium	High	Ditch entering river
14	Nore	Nore Tributary	250690	184791	10	High	High	Medium	Medium	Low	Low	Low	Medium	High	Ditch entering river
15	Nore	Nore Tributary	247980	181021	1										View downstream from bridge
15	Nore	Nore Tributary	247980	181021	2										View upstream from bridge
15	Nore	Nore Tributary	247980	181021	3										Sediment at bridge piers
15	Nore	Nore Tributary	247980	181021	4										Outfall to river under bridge (247977, 181025)
15	Nore	Nore Tributary	247980	181021	5										Ditch from Laois County Council monitoring house (247998, 181053) (pump house)
15	Nore	Nore Tributary	247980	181021	6										Pump house - possible abstraction?
15	Nore	Nore Tributary	247980	181021	7										Door to pump house. Poison Gas Chlorine (247979, 181062)
16	Nore	Nore Tributary	245694	183387	1	Low	Medium	Low	Medium	Medium	Low	Low	Medium	Medium	View upstream - good filter - in channel vegetation beneficial
16	Nore	Nore Tributary	245694	183387	2	Low	Medium	Low	Medium	Medium	Low	Low	Medium	Medium	Arable land on left bank
16	Nore	Nore Tributary	245694	183387	3	Low	Medium	Low	Medium	Medium	Low	Low	Medium	Medium	Outfall just downstream of bridge on right bank
16	Nore	Nore Tributary	245694	183387	4	Low	Medium	Low	Medium	Medium	Low	Low	Medium	Medium	Pumphouse - small abstractions? (245688, 183390)

16	Nore	Nore Tributary	245694	183387	5	Low	Medium	Low	Medium	Medium	Low	Low	Medium	Medium	Ditch leading to outfall
16	Nore	Nore Tributary	245694	183387	6	Low	Medium	Low	Medium	Medium	Low	Low	Medium	Medium	Large growth - culvert over ditch (245659, 183405)
16	Nore	Nore Tributary	245694	183387	7	Low	Medium	Low	Medium	Medium	Low	Low	Medium	Medium	Very clear water downstream of in channel vegetation
16	Nore	Nore Tributary	245694	183387	8	Low	Medium	Low	Medium	Medium	Low	Low	Medium	Medium	Road drain to ditch (245671, 183400)
16	Nore	Nore Tributary	245694	183387	9	Low	Medium	Low	Medium	Medium	Low	Low	Medium	Medium	Fenced off tree line bank
17	Nore	Nore Tributary	243529	183965	1	High	Medium	Medium	Medium	High	Low	Medium	High	High	View upstream from N8 Road Bridge
17	Nore	Nore Tributary	243529	183965	2	High	Medium	Medium	Medium	High	Low	Medium	High	High	Heavy tree growth looking upstream from bridge
17	Nore	Nore Tributary	243529	183965	3	High	Medium	Medium	Medium	High	Low	Medium	High	High	Litter dumping
17	Nore	Nore Tributary	243529	183965	4	High	Medium	Medium	Medium	High	Low	Medium	High	High	Bare bank on left bank
17	Nore	Nore Tributary	243529	183965	5	High	Medium	Medium	Medium	High	Low	Medium	High	High	N8 looking
17	Nore	Nore Tributary	243529	183965	6	High	Medium	Medium	Medium	High	Low	Medium	High	High	Twin culverts under N8
17	Nore	Nore Tributary	243529	183965	7	High	Medium	Medium	Medium	High	Low	Medium	High	High	Storm drains (243511, 183979)
17	Nore	Nore Tributary	243529	183965	8	High	Medium	Medium	Medium	High	Low	Medium	High	High	Twin culvert outlet (243508, 183976)
18	Nore	Nore Tributary	243139	185596	1	High	High	High	Medium	Medium	Low	Medium	High	High	View upstream - large garden on left bank. No buffer - grass cuttings on bank
18	Nore	Nore Tributary	243139	185596	2	High	High	High	Medium	Medium	Low	Medium	High	High	Grass cuttings
18	Nore	Nore Tributary	243139	185596	3	High	High	High	Medium	Medium	Low	Medium	High	High	Trash grille on bridge culvert and land drain from garden
18	Nore	Nore Tributary	243139	185596	4	High	High	High	Medium	Medium	Low	Medium	High	High	View downstream from road (animal trampling) -

															fencing (243125, 185615)
18	Nore	Nore Tributary	243139	185596	5	High	High	High	Medium	Medium	Low	Medium	High	High	Discharge (Outfall) - check (disused)
18	Nore	Nore Tributary	243139	185596	6	High	High	High	Medium	Medium	Low	Medium	High	High	Industrial estate above watercourse
19	Nore	Nore Tributary	243811	186655	1	Medium	Medium	Medium	Medium	Low	Low	Low	Medium	Medium	River downstream from road bridge
19	Nore	Nore Tributary	243811	186655	2	Medium	Medium	Medium	Medium	Low	Low	Low	Medium	Medium	Large growth on right bank
19	Nore	Nore Tributary	243811	186655	3	Medium	Medium	Medium	Medium	Low	Low	Low	Medium	Medium	N8 Main Road crosses tributary
19	Nore	Nore Tributary	243811	186655	4	Medium	Medium	Medium	Medium	Low	Low	Low	Medium	Medium	Upstream landuse
19	Nore	Nore Tributary	243811	186655	5	Medium	Medium	Medium	Medium	Low	Low	Low	Medium	Medium	View upstream from bridge
19	Nore	Nore Tributary	243811	186655	6	Medium	Medium	Medium	Medium	Low	Low	Low	Medium	Medium	View of channel
19	Nore	Nore Tributary	243811	186655	7	Medium	Medium	Medium	Medium	Low	Low	Low	Medium	Medium	Culvert under N8
20	Nore	Ballyroan	246698	188695	1	High	High	High	Low	Low	Low	Low	High	High	Downstream from bridge
20	Nore	Ballyroan	246698	188695	2	High	High	High	Low	Low	Low	Low	High	High	Dump yard downstream right bank
20	Nore	Ballyroan	246698	188695	3	High	High	High	Low	Low	Low	Low	High	High	Upstream from bridge
20	Nore	Ballyroan	246698	188695	4	High	High	High	Low	Low	Low	Low	High	High	Flooded field (upstream right bank) with trampling and Gunnera
20	Nore	Ballyroan	246698	188695	5	High	High	High	Low	Low	Low	Low	High	High	Flooded field (upstream right bank) with trampling and Gunnera
20	Nore	Ballyroan	246698	188695	6	High	High	High	Low	Low	Low	Low	High	High	Drain/ditch from field downstream right bank
21	Nore	Colt	243347	189837	1	Low	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Downstream from bridge
21	Nore	Colt	243347	189837	2	Low	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Abstraction
21	Nore	Colt	243347	189837	3	Low	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Upstream from bridge

21	Nore	Colt	243347	189837	4	Low	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Grazing in field along downstream right bank
22	Nore	Mountain Feady	242042	186957	1	Low	Low	Low	Low	Low	Low	Low	Low	Low	Downstream from bridge
22	Nore	Mountain Feady	242042	186957	2	Low	Low	Low	Low	Low	Low	Low	Low	Low	Upstream from bridge
23	Nore		241593	193746	1	High	Medium	Medium	Low	Low	Low	Low	High	High	Upstream from bridge
23	Nore		241593	193746	2	High	Medium	Medium	Low	Low	Low	Low	High	High	Downstream from bridge
23	Nore		241593	193746	3	High	Medium	Medium	Low	Low	Low	Low	High	High	Trampling into downstream left bank
23	Nore		241593	193746	4	High	Medium	Medium	Low	Low	Low	Low	High	High	Cattle crossing over channel at bridge, downstream
23	Nore		241593	193746	5	High	Medium	Medium	Low	Low	Low	Low	High	High	Cattle crossing over channel at bridge, downstream
24	Nore	Cloncourse Bridge	241188	195438	1	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Upstream from bridge
24	Nore	Cloncourse Bridge	241188	195438	2	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Bridge construction, upstream left bank
24	Nore	Cloncourse Bridge	241188	195438	3	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Road works
24	Nore	Cloncourse Bridge	241188	195438	4	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Clearance into downstream right bank
24	Nore	Cloncourse Bridge	241188	195438	5	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Downstream from bridge
86	Nore	Boston Bridge	234144	177762	1	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Downstream from bridge
86	Nore	Boston Bridge	234144	177762	2	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Downstream left bank
86	Nore	Boston Bridge	234144	177762	3	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Downstream right bank
86	Nore	Boston Bridge	234144	177762	4	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Upstream from bridge
86	Nore	Boston Bridge	234144	177762	5	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Site entrance for motorway works (234125, 177707)

87	Nore	Templequinn Bridge	223212	175544	1	High	High	High	Medium	Low	Medium	Low	High	High	Upstream from bridge
87	Nore	Templequinn Bridge	223212	175544	2	High	High	High	Medium	Low	Medium	Low	High	High	Trampling/crossing upstream right bank (including outfall)
87	Nore	Templequinn Bridge	223212	175544	3	High	High	High	Medium	Low	Medium	Low	High	High	Trampling/crossing upstream left bank
87	Nore	Templequinn Bridge	223212	175544	4	High	High	High	Medium	Low	Medium	Low	High	High	Downstream from bridge
87	Nore	Templequinn Bridge	223212	175544	5	High	High	High	Medium	Low	Medium	Low	High	High	Abstraction
87	Nore	Templequinn Bridge	223212	175544	6	High	High	High	Medium	Low	Medium	Low	High	High	Trampling into downstream right bank
87	Nore	Templequinn Bridge	223212	175544	7	High	High	High	Medium	Low	Medium	Low	High	High	Trampling into downstream left bank
88	Nore	Tullyvaulty	228828	168501	1	Medium	High	High	Low	Low	Low	Low	High	High	Upstream from bridge
88	Nore	Tullyvaulty	228828	168501	2	Medium	High	High	Low	Low	Low	Low	High	High	Field ditch, left bank at bridge
88	Nore	Tullyvaulty	228828	168501	3	Medium	High	High	Low	Low	Low	Low	High	High	Downstream from bridge
88	Nore	Tullyvaulty	228828	168501	4	Medium	High	High	Low	Low	Low	Low	High	High	Temporary abstraction
88	Nore	Tullyvaulty	228828	168501	5	Medium	High	High	Low	Low	Low	Low	High	High	Trees felled, downstream left bank
89	Nore	River Goul	228302	166794	1	High	Medium	Medium	Low	Low	Low	Low	Medium	High	Upstream from bridge
89	Nore	River Goul	228302	166794	2	High	Medium	Medium	Low	Low	Low	Low	Medium	High	Bridge construction, upstream left bank
89	Nore	River Goul	228302	166794	3	High	Medium	Medium	Low	Low	Low	Low	Medium	High	Bridge construction, upstream left bank
89	Nore	River Goul	228302	166794	4	High	Medium	Medium	Low	Low	Low	Low	Medium	High	Bridge construction, downstream left bank
89	Nore	River Goul	228302	166794	5	High	Medium	Medium	Low	Low	Low	Low	Medium	High	Bridge construction, downstream left bank
89	Nore	River Goul	228302	166794	6	High	Medium	Medium	Low	Low	Low	Low	Medium	High	Downstream from bridge
90	Nore		226932	166323	1	High	Medium	Medium	Low	Low	Low	Low	Medium	High	Downstream from

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90	Nore		226932	166323	2	High	Medium	Medium	Low	Low	Low	Low	Medium	High	Upstream from bridge
90	Nore		226932	166323	3	High	Medium	Medium	Low	Low	Low	Low	Medium	High	Bridge construction, upstream right bank
90	Nore		226932	166323	4	High	Medium	Medium	Low	Low	Low	Low	Medium	High	Forestry downstream
91	Nore	Borrismore	230086	163522	1	Low	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Upstream from bridge
91	Nore	Borrismore	230086	163522	2	Low	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Bridge construction, upstream left bank
91	Nore	Borrismore	230086	163522	3	Low	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Downstream from bridge, left bank
91	Nore	Borrismore	230086	163522	4	Low	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Downstream on right bank (230109, 163551)
91	Nore	Borrismore	230086	163522	5	Low	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Downstream on right bank (230109, 163551)
92	Nore	Urlingford Town	228189	163228	1	Medium	Medium	Medium	Low	Medium	Low	Low	Medium	Medium	Bridge construction
92	Nore	Urlingford Town	228189	163228	2	Medium	Medium	Medium	Low	Medium	Low	Low	Medium	Medium	Upstream
92	Nore	Urlingford Town	228189	163228	3	Medium	Medium	Medium	Low	Medium	Low	Low	Medium	Medium	Abstractions at bridge
92	Nore	Urlingford Town	228189	163228	4	Medium	Medium	Medium	Low	Medium	Low	Low	Medium	Medium	Chicks
92	Nore	Urlingford Town	228189	163228	5	Medium	Medium	Medium	Low	Medium	Low	Low	Medium	Medium	Outfall from left bank
93	Nore		229227	159327	1	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Upstream bridge
93	Nore		229227	159327	2	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Cattle trampling/crossing
93	Nore		229227	159327	3	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Downstream from bridge
93	Nore		229227	159327	4	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Bridge construction
93	Nore		229227	159327	5	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Ditch from adjacent field
93	Nore		229227	159327	6	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Unknown wall structure, downstream right bank
94	Nore	Sally Bog	227542	158113	1	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Road/Track drainage, left bank

															(227542, 158077)
94	Nore	Sally Bog	227542	158113	2	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Upstream from drainage, left bank (227542, 158077)
94	Nore	Sally Bog	227542	158113	3	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Downstream from bridge, left bank (227542, 158077)
94	Nore	Sally Bog	227542	158113	4	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Field entrance, right bank at bridge
94	Nore	Sally Bog	227542	158113	5	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Downstream from bridge (227542, 158113)
94	Nore	Sally Bog	227542	158113	6	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Abstraction (sewer) in field off left bank, downstream
94	Nore	Sally Bog	227542	158113	7	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Drainage off lane (227536, 158128)
95	Nore	Trahga	227944	160546	1	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Upstream from bridge
95	Nore	Trahga	227944	160546	2	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Upstream from bridge
95	Nore	Trahga	227944	160546	3	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Downstream from bridge
95	Nore	Trahga	227944	160546	4	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Garden on right bank upstream
95	Nore	Trahga	227944	160546	5	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Land piled upstream left bank
95	Nore	Trahga	227944	160546	6	Medium	Medium	Medium	Low	Low	Low	Low	High	High	Bridge construction
96	Nore	Ballydavin Bridge	231848	173999	1	Low	Low	Low	Low	Low	Medium	Low	Low	Medium	Upstream from bridge
96	Nore	Ballydavin Bridge	231848	173999	2	Low	Low	Low	Low	Low	Medium	Low	Low	Medium	Downstream from bridge
96	Nore	Ballydavin Bridge	231848	173999	3	Low	Low	Low	Low	Low	Medium	Low	Low	Medium	Abstraction huts adjacent to small stone weir
96	Nore	Ballydavin Bridge	231848	173999	4	Low	Low	Low	Low	Low	Medium	Low	Low	Medium	Abstraction huts adjacent to small stone weir
96	Nore	Ballydavin Bridge	231848	173999	5	Low	Low	Low	Low	Low	Medium	Low	Low	Medium	Cattle trough extraction (upstream on left bank)
97	Nore	Aghmacart Bridge	233029	173949	1	Medium	Medium	Medium	High	Low	Low	High	High	High	Upstream from bridge

97	Nore	Aghmacart Bridge	233029	173949	2	Medium	Medium	Medium	High	Low	Low	High	High	High	Weir/barrier (232975, 173916)
97	Nore	Aghmacart Bridge	233029	173949	3	Medium	Medium	Medium	High	Low	Low	High	High	High	Weir/barrier (232975, 173916)
97	Nore	Aghmacart Bridge	233029	173949	4	Medium	Medium	Medium	High	Low	Low	High	High	High	Weir/barrier (232975, 173916)
97	Nore	Aghmacart Bridge	233029	173949	5	Medium	Medium	Medium	High	Low	Low	High	High	High	Upstream from Weir
97	Nore	Aghmacart Bridge	233029	173949	6	Medium	Medium	Medium	High	Low	Low	High	High	High	Leech
97	Nore	Aghmacart Bridge	233029	173949	7	Medium	Medium	Medium	High	Low	Low	High	High	High	Leech
97	Nore	Aghmacart Bridge	233029	173949	8	Medium	Medium	Medium	High	Low	Low	High	High	High	Construction of bridge
97	Nore	Aghmacart Bridge	233029	173949	9	Medium	Medium	Medium	High	Low	Low	High	High	High	Downstream from bridge
97	Nore	Aghmacart Bridge	233029	173949	10	Medium	Medium	Medium	High	Low	Low	High	High	High	Second channel? Downstream from bridge (233048, 174007)
98	Nore	Newtown	237397	175778	1	High	Medium	Medium	Medium	Low	Low	Low	Medium	High	Upstream from bridge
98	Nore	Newtown	237397	175778	2	High	Medium	Medium	Medium	Low	Low	Low	Medium	High	Upstream from bridge
98	Nore	Newtown	237397	175778	3	High	Medium	Medium	Medium	Low	Low	Low	Medium	High	Possible trampling and crossing upstream
98	Nore	Newtown	237397	175778	4	High	Medium	Medium	Medium	Low	Low	Low	Medium	High	Downstream from bridge (limited visual)
98	Nore	Newtown	237397	175778	5	High	Medium	Medium	Medium	Low	Low	Low	Medium	High	Ford downstream
99	Nore	Glashagal Bridge	244755	174238	1	High	High	High	Low	Low	Low	Low	High	High	Downstream from bridge
99	Nore	Glashagal Bridge	244755	174238	2	High	High	High	Low	Low	Low	Low	High	High	Upstream from bridge
99	Nore	Glashagal Bridge	244755	174238	3	High	High	High	Low	Low	Low	Low	High	High	Trampling into left bank (upstream of bridge)
99	Nore	Glashagal Bridge	244755	174238	4	High	High	High	Low	Low	Low	Low	High	High	Trampling into left bank (upstream of bridge)
100	Nore	Ballyragget	244574	172711	1	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Upstream from bridge
100	Nore	Ballyragget	244574	172711	2	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Garden plantation - upstream on left

															bank
100	Nore	Ballyragget	244574	172711	3	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Downstream from bridge (under trees)
100	Nore	Ballyragget	244574	172711	4	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Trampling upstream to downstream, left bank
100	Nore	Ballyragget	244574	172711	5	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Abstraction to cattle water trough
100	Nore	Ballyragget	244574	172711	6	Medium	Medium	Medium	Low	Low	Low	Low	Medium	Medium	Abstraction to cattle water trough
101	Nore	Tributory of Mountain River	36677	97929	1	Low	Low	Low	Low	Low	Low	Low	Low	Low	
101	Nore	Tributory of Mountain River	36677	97929	2	Low	Low	Low	Low	Low	Low	Low	Low	Low	
101	Nore	Tributory of Mountain River	36677	97929	3	Low	Low	Low	Low	Low	Low	Low	Low	Low	
101	Nore	Tributory of Mountain River	36677	97929	4	Low	Low	Low	Low	Low	Low	Low	Low	Low	
101	Nore	Tributory of Mountain River	36677	97929	5	Low	Low	Low	Low	Low	Low	Low	Low	Low	
102	Nore	Castletown	34127	92066	1	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	2	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	3	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	4	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	5	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	6	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	7	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	8	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	9	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	10	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	11	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	12	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	13	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
102	Nore	Castletown	34127	92066	14	Medium	Low	Low	Low	Low	Low	Medium	Low	Medium	
SP22	Nore		18949	87391	1										(unsure where exactly) ? @ the

														abbey
SP22	Nore		18949	87391	2									(unsure where exactly) ? @ the abbey
	Nore		18953	87393	1									5 photos of private peat cutting - some areas are less than 50 hectares and large cutting rest mainly private
SP23	Nore		18953	87393	2									5 photos of private peat cutting - some areas are less than 50 hectares and large cutting rest mainly private
SP23	Nore		18953	87393	3									5 photos of private peat cutting - some areas are less than 50 hectares and large cutting rest mainly private
SP23	Nore		18953	87393	4									5 photos of private peat cutting - some areas are less than 50 hectares and large cutting rest mainly private
SP23	Nore		18953	87393	5									5 photos of private peat cutting - some areas are less than 50 hectares and large cutting rest mainly private
SP23	Nore		18953	87393	6									5 photos of private peat cutting - some areas are less than 50 hectares and large cutting rest mainly private
SP23	Nore		18953	87393	7									5 photos of private peat cutting - some areas are less than 50

														hectares and large cutting rest mainly private
Site 4	Nore		17637	85729	9									2 of drainage from bog followed this. Leads into stream between 2 bogs along road. No treatment of discharge anywhere - no sedimentation
Site 4	Nore		17637	85729	10									2 of drainage from bog followed this. Leads into stream between 2 bogs along road. No treatment of discharge anywhere - no sedimentation
Site 4	Nore		17633	85800	11									As stream enters Nore, stream is completely coloured - dark blue/dark brown in peat sediment. There is a visible plume as it enters Nore see photos 1-4 of plume & 1-5 of bog
Site 4	Nore		17633	85800	12									As stream enters Nore, stream is completely coloured - dark blue/dark brown in peat sediment. There is a visible plume as it enters Nore see photos 1-4 of plume & 1-5 of bog
Site 4	Nore		17633	85800	13									As stream enters Nore, stream is completely coloured - dark blue/dark brown in peat sediment. There is a visible plume as it enters

														Nore see photos 1-4 of plune & 1-5 of bog
Site 4	Nore		17633	85800	14									As stream enters Nore, stream is completely coloured - dark blue/dark brown in peat sediment. There is a visible plune as it enters Nore see photos 1-4 of plune & 1-5 of bog
Site 4	Nore		17233	85718	20									Nore bridge d/s of large bog. Fine grey sediment (not peat) significant algae on river bed from nutrients possibly peatlands. Compare to u/s station i.e. site 2
Site 4	Nore		17233	85718	21									Nore bridge d/s of large bog. Fine grey sediment (not peat) significant algae on river bed from nutrients possibly peatlands. Compare to u/s station i.e. site 2
Site 4	Nore		17233	85718	22									Nore bridge d/s of large bog. Fine grey sediment (not peat) significant algae on river bed from nutrients possibly peatlands. Compare to u/s station i.e. site 2
Site 4	Nore		17233	85718	23									Nore bridge d/s of large bog. Fine grey sediment (not peat) significant algae on river bed from nutrients

[illegible]

[illegible]

[illegible]

														214210, 182901
Site 2	Nore		214204	182900	6									managed ditch looking R.B u/s (d/s of bridge)
Site 2	Nore		214287	183068	7									managed ditch R.B flowing into river @ 214287, 183068
SP 7	Nore		217245	183366	1									Pressure - conifer plantation stopping point (217245, 183366) Forestry - conifer plantation some cut but mostly intact
SP 8	Nore	Start of Timoney bog	217756	184243	1									Start of Timoney bog - Private Land Owner T.Deegan
SP 8	Nore	Start of Timoney bog	217756	184243	2									Start of Timoney bog - Private Land Owner T.Deegan
SP 8	Nore	Start of Timoney bog	217756	184243	3									Start of Timoney bog - Private Land Owner T.Deegan
SP 8	Nore	Start of Timoney bog	217756	184243	4									Start of Timoney bog - Private Land Owner T.Deegan
SP 8	Nore	Start of Timoney bog	217543	184875	5									photo of turf - other contact (087-3117008) guy that saves plots of turf - Private land owner T.Deegan
SP 8	Nore	Start of Timoney bog	217543	184875	6									same grid of turf cutting - Private Land owner T.Deegan
SP 8	Nore	Start of Timoney bog	217543	184875	7									Private Land Owner - T.Deegan
SP 8	Nore	Start of Timoney bog	217543	184875	8									Private Land Owner - T.Deegan
SP 8	Nore	Start of Timoney bog	217543	184875	9									Private Land Owner - T.Deegan
SP 8	Nore	Start of Timoney bog	217543	184875	10									Private Land Owner - T.Deegan

Site 3	Nore	Timoney bog - Tributary of the Nore	217508	185052	1									Stream diverting away from roadside
	Nore	Timoney bog - Tributary of the Nore	217508	185052	2									Overview of stream above
	Nore	Timoney bog - Tributary of the Nore	217497	185612	3									Culverted down looking u/s end out of tributary @ 217497, 185612
	Nore	Timoney bog - Tributary of the Nore	217508	185052	4									End point of tributary looking d/s
SP 9	Nore		217520	185015	1									Culverted drainage connecting drainage under road near peat across to area of tributary @ 217520, 185015 - photo of pipe
Site 4 KF	Nore	Nore bridge	217251	185698	1	Low	High	High	Low	Low	Low	Low	Low	Upstream shot from bridge
Site 4 KF	Nore	Nore bridge	217251	185698	2	Low	High	High	Low	Low	Low	Low	Low	Downstream shot from bridge
Site 4 KF	Nore	Nore bridge	217251	185698	3	Low	High	High	Low	Low	Low	Low	Low	Poaching downstream on left bank
Site 4 KF	Nore	Nore bridge	217251	185698	4	Low	High	High	Low	Low	Low	Low	Low	View from bank
Site 4 KF	Nore	Nore bridge	217251	185698	5	Low	High	High	Low	Low	Low	Low	Low	Excessive trampling and poaching along river bank
Site 4 KF	Nore	Nore bridge	217251	185698	6	Low	High	High	Low	Low	Low	Low	Low	Construction adjacent to river
Site 4 KF	Nore	Nore bridge	217251	185698	7	Low	High	High	Low	Low	Low	Low	Low	Construction adjacent to river
Site 5 KF	Nore	Taken at road bridge	221533	188718	1	Medium	Low	Low	Low	Low	Medium	Low	Low	Upstream shot from bridge
Site 5 KF	Nore		221533	188718	2	Medium	Low	Low	Low	Low	Medium	Low	Low	Downstream view from bridge
Site 5 KF	Nore		221533	188718	3	Medium	Low	Low	Low	Low	Medium	Low	Low	Box culvert under bridge and abstraction pipes
Site 5 KF	Nore		221533	188718	4	Medium	Low	Low	Low	Low	Medium	Low	Low	Abstraction pipes
Site 5 KF	Nore		221533	188718	5	Medium	Low	Low	Low	Low	Medium	Low	Low	Abstraction pipes

Site 5 KF	Nore		221533	188718	6	Medium	Low	Low	Low	Low	Medium	Low	Low		Poaching on river bank
Site 5 KF	Nore		221533	188718	7	Medium	Low	Low	Low	Low	Medium	Low	Low		Ford crossing (animal)
Site 5 KF	Nore		221533	188718	8	Medium	Low	Low	Low	Low	Medium	Low	Low		Box culvert under second bridge
Site 5 KF	Nore		221604	188663	9	Medium	Low	Low	Low	Low	Medium	Low	Low		View upstream from second bridge
Site 5 KF	Nore		221533	188718	10	Medium	Low	Low	Low	Low	Medium	Low	Low		Vehicular access to river channel
SP 10	Nore	New bridge	223727	187851	1	Low	Medium	High	High	Low	Low	Low	Low		Upstream shot taken from bridge
SP 10	Nore	New bridge	223727	187851	2	Low	Medium	High	High	Low	Low	Low	Low		Upstream shot taken from bridge
SP 10	Nore	New bridge	223727	187851	3	Low	Medium	High	High	Low	Low	Low	Low		Trampling & poaching on right bank upstream
SP 10	Nore	New bridge	223727	187851	4	Low	Medium	High	High	Low	Low	Low	Low		Drainage coming from settlement lagoon upstream on right bank
SP 10	Nore	New bridge	223727	187851	5	Low	Medium	High	High	Low	Low	Low	Low		Macrophyte growth
SP 10	Nore	New bridge	223727	187851	6	Low	Medium	High	High	Low	Low	Low	Low		Bridge Structure
SP 10	Nore	New bridge	223727	187851	7	Low	Medium	High	High	Low	Low	Low	Low		Bridge Structure
SP 10	Nore	New bridge	223727	187851	8	Low	Medium	High	High	Low	Low	Low	Low		Culverted drainage from settlement pond which flows into stream
Site 6 KF	Nore		225292	187648	1	Medium		Medium	Low	Low	Low	Medium	Low		View downstream
Site 6 KF	Nore		225336	187678	2	Medium		Medium	Low	Low	Low	Medium	Low		View looking downstream
Site 6 KF	Nore		225336	187678	3	Medium		Medium	Low	Low	Low	Medium	Low		View upstream from road bridge
Site 6 KF	Nore		225336	187678	4	Medium		Medium	Low	Low	Low	Medium	Low		View upstream from road bridge
Site 7 KF	Nore	Erkina River	226181	180872	1	Medium	Low	Low	High	High	Low	Low	Medium		Upstream shot from bridge
Site 7 KF	Nore	Erkina River	226181	180872	2	Medium	Low	Low	High	High	Low	Low	Medium		Downstream shot from bridge
Site 7 KF	Nore	Erkina River	226170	180877	3	Medium	Low	Low	High	High	Low	Low	Medium		Land drains entering on left bank upstream
Site 7 KF	Nore	Erkina River	226170	180877	4	Medium	Low	Low	High	High	Low	Low	Medium		Poaching upstream on left bank
Site 7 KF	Nore	Erkina River	226170	180877	5	Medium	Low	Low	High	High	Low	Low	Medium		Bridge Structure

Site 7 KF	Nore	Erkina River	226170	180877	6	Medium	Low	Low	High	High	Low	Low	Medium		Bridge apron upstream on right bank
Site 7 KF	Nore	Erkina River	226170	180877	7	Medium	Low	Low	High	High	Low	Low	Medium		Bridge apron and culvert
Site 8 KF	Nore	Erkina River	226753	180166	1	Medium	Low	Low	Low	High	Low	Low	Medium		Looking downstream from bridge
Site 8 KF	Nore	Erkina River	226753	180166	2	Medium	Low	Low	Low	High	Low	Low	Medium		Looking downstream from bridge, overhanging house extension
Site 8 KF	Nore	Erkina River	226752	180125	3	Medium	Low	Low	Low	High	Low	Low	Medium		Gate of pub/house which leads to river
Site 8 KF	Nore	Erkina River	226752	180125	4	Medium	Low	Low	Low	High	Low	Low	Medium		Faryard on right bank downstream overlooking river
Site 8 KF	Nore	Erkina River	226752	180125	5	Medium	Low	Low	Low	High	Low	Low	Medium		Macrophyte growth in channel
Site 8 KF	Nore	Erkina River	226752	180125	6	Medium	Low	Low	Low	High	Low	Low	Medium		Drainage pipe from yard
Site 8 KF	Nore	Erkina River	226752	180125	7	Medium	Low	Low	Low	High	Low	Low	Medium		Yard in background
Site 8 KF	Nore	Erkina River	226752	180125	8	Medium	Low	Low	Low	High	Low	Low	Medium		Second outlet pipe from yard
Site 8 KF	Nore	Erkina River	226752	180125	9	Medium	Low	Low	Low	High	Low	Low	Medium		Outlet pipe from yard with fine silt build up in the channel
Site 8 KF	Nore	Erkina River	226749	180168	10	Medium	Low	Low	Low	High	Low	Low	Medium		View downstream towards bridge with bare earth on the right bank
Site 8 KF	Nore	Erkina River	226752	180125	11	Medium	Low	Low	Low	High	Low	Low	Medium		View of bank where trampling/poaching has taken place.
Site 8 KF	Nore	Erkina River	226749	180189	12	Medium	Low	Low	Low	High	Low	Low	Medium		Straightened channel
Site 8 KF	Nore	Erkina River	226745	180239	13	Medium	Low	Low	Low	High	Low	Low	Medium		Looking upstream towards Mooneys pub. Striahtened channel, morphological altered
Site 9 KF	Nore	Main channel Erkina River	226677	178754	1	Low	Low	Low	Low	Low	Low	Low	Low		View upstream from bridge

Site 9 KF	Nore	Main channel Erkina River	226677	178754	2	Low	Low	Low	Low	Low	Low	Low	Low	View downstream from bridge
Site 9 KF	Nore	Main channel Erkina River	226677	178754	3	Low	Low	Low	Low	Low	Low	Low	Low	Poaching on right bank upstream
Site 9 KF	Nore	Main channel Erkina River	226677	178754	4	Low	Low	Low	Low	Low	Low	Low	Low	Bridge Structure
Site 9 KF	Nore	Main channel Erkina River	226677	178754	5	Low	Low	Low	Low	Low	Low	Low	Low	Treatment works
Site 10 KF	Nore	Tributary of Erkina River	228038	178323	1	Low	High	Low	Low		Low	High	High	Looking upstream from bridge
Site 10 KF	Nore	Tributary of Erkina River	228038	178323	2	Low	High	Low	Low		Low	High	High	Looking downstream from bridge
Site 10 KF	Nore	Tributary of Erkina River	227985	178317	3	Low	High	Low	Low		Low	High	High	Outfall pipe - possible sewage effluent
Site 10 KF	Nore	Tributary of Erkina River	228036	178317	4	Low	High	Low	Low		Low	High	High	Second outfall pipe
Site 10 KF	Nore	Tributary of Erkina River	228036	178310	5	Low	High	Low	Low		Low	High	High	Third outfall pipe
Site 10 KF	Nore	Tributary of Erkina River	228039	178297	6	Low	High	Low	Low		Low	High	High	Sewage pipe
Site 10 KF	Nore	Tributary of Erkina River	228039	178297	7	Low	High	Low	Low		Low	High	High	Second sewage pipe upstream on left bank
Site 10 KF	Nore	Tributary of Erkina River	228046	178252	8	Low	High	Low	Low		Low	High	High	River culverted under road
Site 10 KF	Nore	Tributary of Erkina River	228046	178252	9	Low	High	Low	Low		Low	High	High	Looking downstream on right bank from town
Site 10 KF	Nore	Tributary of Erkina River	228052	178354	10	Low	High	Low	Low		Low	High	High	Looking from right bank at in channel structure. Possible drinking water pipe
Site 10 KF	Nore	Tributary of Erkina River	228052	178354	11	Low	High	Low	Low		Low	High	High	Large impoundment downstream of in channel structure
Site 10 KF	Nore	Tributary of Erkina River	228052	178354	12	Low	High	Low	Low		Low	High	High	Sluice or outlet which leads to significant length of culverted channel under the meat factory

Site 11 KF	Nore	Site near Erill Town	220917	178524	1									Striaightened channel looking downstream
Site 11 KF	Nore	Site near Erill Town	220917	178524	2									Photo under bridge showing channalisation
Site 11 KF	Nore	Site near Erill Town	220917	178524	3									photo showing bank clearance and 2 culverts
Site 11 KF	Nore	Site near Erill Town	220917	178524	4									photo showing upstream right bank poaching
Site 11 KF	Nore	Site near Erill Town	220914	178546	5									photo showing new pipework infrastructure for possible abstraction
Site 11 KF	Nore	Site near Erill Town	220911	178550	6									photo of pumphouse on left bank upstream asociated with asbtraction
Site 19	Nore	Trib to Nore	219957	183419	1									upstream view from bridge
Site 19	Nore	Trib to Nore	219957	183419	2									view of culverted river - water stangnant
Site 20 KF	Nore	Nore Main Channel	221068	186963	1									upstream view from bridge
Site 20 KF	Nore	Nore Main Channel	221068	186963	2									downstream view from bridge
Site 20 KF	Nore	Nore Main Channel	221068	186963	3									poaching upstream on right bank
Site 20 KF	Nore	Nore Main Channel	221068	186963	4									bank erosion and animal trampling downstream on left bank
Site 20 KF	Nore	Nore Main Channel	221077	186968	5									culverted tributary flowing in to river downstream on right bank
Site 20 KF	Nore	Nore Main Channel	221077	186968	6									bridge structure
Site 20 KF	Nore	Nore Main Channel	221077	186968	7									bridge apron
Site 21 KF	Nore	Trib to Nore at Mondrehid	224392	190475	1									upstream veiw from bridge

Site 21 KF	Nore	Trib to Nore at Mondrehid	224392	190475	2									Downstream view from bridge
Site 21 KF	Nore	Trib to Nore at Mondrehid	224392	190475	3									Downstream view from bridge from inside culvert
Site 21 KF	Nore	Trib to Nore at Mondrehid	224377	190481	4									inflowing drainage ustream on left bank
Site 21 KF	Nore	Trib to Nore at Mondrehid	224392	190475	5									fungus attached to marcophytes and river bed
SP 11	Nore	Bogland	219621	184597	1									small scale private bog
SP 11	Nore	Bogland	219621	184597	2									small scale private bog
SP 11	Nore	Bogland	219621	184597	3									major land clearance for motorway works
SP 12	Nore	Intact forestry	226367	190461	1									Intact plantation
SP 13	Nore	Quarry	227844	190656	1									photo of quarry
SP 13	Nore	Quarry	227844	190656	2									photo of quarry
Site 22 KF	Nore	Coolraine	229171	192240	1									upstream bridge structure
Site 22 KF	Nore	Coolraine	229171	192240	2									upstream view from bridge
Site 22 KF	Nore	Coolraine	229171	192240	3									downstream veiw from bridge
Site 22 KF	Nore	Coolraine	229156	192229	4									pipd outfall upstream in right bank
Site 23 KF	Nore	Trib to Nore	237870	194506	1									anstraction downstream and showing culvert
Site 23 KF	Nore	Trib to Nore	237870	194506	2									poaching on left bank downstream
Site 23 KF	Nore	Trib to Nore	237870	194506	3									downstream view of river
Site 23 KF	Nore	Trib to Nore	237885	194516	4									upsteram view of river
SP 14	Nore	Bogland	238134	194515	1									illegal dumping of waste in old bog
SP 14	Nore	Bogland	238500	194685	2									bog on left side of road is undergoing natural regeneration
SP 14	Nore	Bogland	238500	194685	3									bog on right side of raod has limited private use but at

														not significant level.
SP 15	Nore	Trib of Nore	239450	194162	1									river flowing under culverted pipe as part of new motorway construction
Site 24 KF	Nore	Mountrath River	235457	194223	1									outfall pipe from saw mill downstream on left bank
Site 24 KF	Nore	Mountrath River	235457	194223	2									upstream view of river
Site 24 KF	Nore	Mountrath River	235457	194223	3									downstream view of river
Site 24 KF	Nore	Mountrath River	235489	194199	4									discharge pipe with significant flow from saw mill
Site 24 KF	Nore	Mountrath River	225409	194327	5									weird downstream from town bridge
Site 24 KF	Nore	Mountrath River	235318	194411	6									embankment walls upstream towards town bridge
Site 24 KF	Nore	Mountrath River	235240	194476	7									photo looking upstream at town bridge
Site 24 KF	Nore	Mountrath River	235240	194476	8									photo looking u/s from town bridge on N7
Site 24 KF	Nore	Mountrath River	235240	194476	9									possible CSO on left bank upstream of n7 bridge
SP 16	Nore	old bogland	237557	189478	1									old bogland naturally turning to scrub. No pressures here.
Site 25 KF	Nore	Trib to Nore	238158	188924	1									downstream view of culvert under road
Site 25 KF	Nore	Trib to Nore	238158	188924	2									land drain/perforated pipe on left bank downstream
Site 25 KF	Nore	Trib to Nore	238107	189050	3									view of farmyard drainage
Site 26 KF	Nore	Trib to Nore	237416	188015	1									upstream view from bridge
Site 26 KF	Nore	Trib to Nore	237416	188015	2									downstream view from bridge

															drainage entering channel downstream rightbank
Site 26 KF	Nore	Trib to Nore	237416	188015	3										pipes on bridge
Site 27 KF	Nore	Gully Bridge	239018	182576	1										view upstream
Site 27 KF	Nore	Gully Bridge	239018	182576	2										view downsteram
Site 27 KF	Nore	Gully Bridge	239018	182576	3										view downstream
Site 27 KF	Nore	Gully Bridge	239018	182576	4										upstream view from bridge
Site 28 KF	Nore	Rathmakelly	235628	179148	1										downstream view from bridge
Site 28 KF	Nore	Rathmakelly	235628	179148	2										downstream view of round culvert at bridge
Site 28 KF	Nore	Rathmakelly	235628	179148	3										drainage via culvert entering river
Site 28 KF	Nore	Rathmakelly	235842	179758	4										looking uphill at clearing in forest. Has turned in to natural scrub
SP 17	Nore	Forestry in Slieve Blooms	223994	196949	1										looking uphill at clearing in forest. Has turned in to natural scrub
SP 18	Nore	Forestry in Slieve Blooms	220606	195331	1										hillside scrub
SP 19	Nore	Forestry in Slieve Blooms	230703	199805	1										looking uphill at clearing in forest. Has turned in to natural scrub
SP 20	Nore	Forestry in Slieve Blooms	225707	199978	1										looking uphill at clearing in forest. Has turned in to natural scrub
SP 21	Nore	Forestry in Slieve Blooms Laois Offaly Boundary	226906	203926	1										looking uphill at clearing in forest. Has turned in to natural scrub
SP 21	Nore	Forestry in Slieve Blooms Laois Offaly Boundary	226906	203926	2										looking uphill at clearing in forest. Has turned in to natural scrub

SP 21	Nore	Forestry in Slieve Blooms Laois Offaly Boundary	226906	203926	3										looking uphill at clearning in forest. Has turned in to natural scrub
SP 22	Nore	Forestry in Slieve Blooms Laois Offaly Boundary	227619	203064	1										looking uphill at clearning in forest. Has turned in to natural scrub
SP 22	Nore	Forestry in Slieve Blooms Laois Offaly Boundary	227619	203064	2										looking uphill at clearning in forest. Has turned in to natural scrub

Appendix 3 – Catchment Walkover Risk Assessment Survey Sheet

	Present?		Grid Reference of specific pressure	No.of Photographs	Comments
	Yes	No			
Source of Erosion					
Bank erosion					
Land clearance					
In river clearance					
Arable ploughing					
Animal trampling					
Fords					
Channel manipulation					
Hard bank protection measures					
Other sources					
Overall Risk	High	Medium	Low		
Diffuse Nutrient					
Arable					
Grazing					
Improved grassland					
Silage					
Forestry					
Housing					
Industry and associated works					
Other sources					
Overall Risk	High	Medium	Low		
Diffuse Silt					
Arable					
Grazing					
Over-grazing					
Improved grassland (Re-seeding)					
Forest					
Silage					
Industry					
Construction stages					
Housing					
Infilling					
Peat cutting					
Quarries					
Other sources					
Overall Risk	High	Medium	Low		

	Present?		Grid Reference of specific pressure	No. of Photographs	Comments
	Yes	No			
Current Riparian Zone					
Fencing					
Buffer					
Tree line at bank					
Tree line buffer					
Plantation with no buffer					
Urbanisation					
Flood protection					
Marshy land					
Landuse at bank					
Other sources					
Overall Risk	High	Medium	Low		
Field Drainage					
Ditch managed					
Ditch unmanaged					
Drainage on high slope					
Drainage on low slope					
Land drainage (perforated pipes)					
Other sources					
Overall Risk	High	Medium	Low		
Outfalls					
Industrial discharges					
Storm drains					
Culvert outfalls					
Other sources					
Overall Risk	High	Medium	Low		
Abstractions					
Small					
Large					
Overall Risk	High	Medium	Low		
Barriers to migration					
Culverts					
Bridge aprons					
Weirs					
Stone weirs					
Other sources					
Overall Risk	High	Medium	Low		