



INTERIM REPORT
ON

**THE BIOLOGICAL SURVEY
OF RIVER QUALITY**

RESULTS OF THE

1998

INVESTIGATIONS

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PREFACE

The first national biological and physico-chemical survey of the quality of Irish rivers and streams was carried out by An Foras Forbartha (AFF) in 1971. Some 2,900km of channel on the larger rivers and their more important tributaries were then surveyed and classified. In 1973 a national biological river monitoring programme was initiated and since then the survey has been steadily extended so that by 1990 virtually all of the rivers and streams depicted on the Ordnance Survey Map entitled "Rivers and their Catchment Basins" had been surveyed. Although there are very many smaller streams which are not shown on this map, those which are shown are considered to form an acceptably representative national baseline. The water quality of the 1072 rivers and streams in this baseline of approximately 13,100 kilometres is deduced from biological inspections at some 3,100 locations. For logistical reasons just a third of this baseline can be surveyed in any year and thus the total takes three years to survey.

The primary objective of the survey is the generation and dissemination of scientifically based river quality data. By reference to these data river quality and pollution trends and changes can be monitored at both local and national level. The surveys elucidate the environmental impact of all types of waste discharges and they provide a means of assessing the effects of improvements to, or deteriorations in waste treatment facilities. The survey complements the physico-chemical measurements of river quality made by the Regional Water Laboratories at Castlebar, Kilkenny and Monaghan and those of the many local authority laboratories. The physico-chemical data are needed particularly a) to assess compliance with prescribed physico-chemical standards and b) for the precise identification and quantification of pollutants in waters.

The national biological river quality survey is currently operated by the Environmental Protection Agency (EPA). This interim report continues the series issued by AFF from 1973 to 1986 and by the Environmental Research Unit (ERU) from 1989 to 1991.



INTRODUCTION

This report presents the results of the 1998 investigations in which xxx locations on xxx rivers and streams were surveyed in those areas indicated in Fig. 1, i.e. the catchments of the Bann (03), Nanny-Devlin (08), Liffey-Dublin Bay (09), Owenavorrigh (11), Slaney (12), Ballyteigue-Bannow (13), Nore (15), Colligan-Mahon(17), Laune-Maine-Dingle Bay (22), Tralee Bay-Feale (23), Shannon Estuary North (27), Mal Bay (28), Moy & Killala Bay (34), Erne (36), Lough Swilly (39) and Donagh-Moville (40).

The survey is the first in the current 3-year cycle of investigation (1998–2000) in which the national baseline of some 13,100km of river channel is to be reassessed. All available biological and physico-chemical data acquired in the previous (1995–1997) cycle are set out and discussed in a two-part report published by the Environmental Protection Agency (EPA) in 1998/9 (Lucey *et al.*, 1999 - the report and Dorris *et al.* 1998 - the data volume on floppy disk).

WATER QUALITY ASSESSMENT

General Considerations

The most commonly encountered form of pollution in this country is that arising from the discharge of biodegradable, organic wastes such as sewage, animal manure and food processing wastes. The ensuing self-purification process in the receiving waters is initially dependent on aerobic microorganisms which consume the organic material and in the process use up the available dissolved oxygen (DO). Organic matter in water, therefore, causes DO levels to fall and biochemical oxygen demand (BOD) - a measurement of the rate of microbial oxygen consumption - to increase. The measurement of the concentrations of such parameters gives a good indication of the purity or otherwise surface waters. The breakdown process liberates the many constituent elements of the polluting organic matter and of these, phosphorus and nitrogen are of particular relevance as an increased supply of these results in abnormally luxuriant growths of plants and algae, a process known as eutrophication. Eutrophication also results from the leaching of nutrient-rich waters from farm lands already saturated with N and P and particularly lands used for the disposal of wastes from the intensive animal rearing industry and by

leachate from agricultural and forestry lands in receipt of an over-supply of inorganic fertiliser. In the past 15 to 20 years soil phosphorus levels have increased so much on many beef and dairy farms that additional inputs could be discontinued for up to five years without affecting their productivity. Some indication of the current extent of the eutrophication problem may be had from the following figures: of the 3119 locations surveyed in 1995-1997 almost 1200 were assessed as being either slightly (580 locations) or moderately (601 locations) polluted and in most of these instances some degree of eutrophication was apparent.

The chemical identification of non-organic pollution requires a knowledge of the industrial or other processes involved but such pollution is normally readily detectable by on-site biological investigation. This type of pollution includes poisoning by various chemicals, e.g. sheep-dip, and by inert solids from drainage, quarrying and stone-cutting operations. A further type of pollution in this category, of importance in recent years, is acidification. This is principally encountered in base-poor (i.e., weakly buffered) afforested areas.

All types of pollution cause physico-chemical and biological changes in receiving waters and so the assessment of water quality and of water pollution may be approached from the physico-chemical or the biological aspect. In practice, a combination of both approaches is preferable to either on its own. The relationship between the biotic index and the values for key physico-chemical parameters is dealt with on a statistical basis by McGarrigle *et al.* 1992. Q-Values show a particularly good relationship with annual median phosphate values in Irish rivers.

Biological Assessment of Water Quality

In the presence of pollution, characteristic and well-documented changes are induced in the flora and fauna of rivers and streams. Particularly well documented are the changes brought about by organic pollution in the macroinvertebrate communities (i.e., the readily visible invertebrate organisms) inhabiting the substrata of the shallower, faster-flowing reaches of rivers and streams. A typical symptom of increasing pollution is a reduction in the diversity of the more pollution

sensitive organisms and an increase in the density of tolerant forms; in extreme cases all life may be obliterated. It is, therefore, possible to relate certain faunal groupings or community types to particular levels of pollution. This relationship is conveyed to the non-biologist by means of a five-point numerical scale of values (Q1 to Q5 with intermediate values to denote transitional conditions) which can be related to water quality as shown below.

Q Value	Pollution	
	Quality	Status
	Class	
Q5, Q4-5, Q4	Class A	Unpolluted
Q3-4	Class B	Slight Pollution
Q2, Q2-3	Class C	Moderate “
Q2, Q1-2, Q1	Class D	Serious “

The scheme mainly reflects the effects of biodegradable organic wastes (see above) but where a toxic effect is apparent or suspected the suffix ‘0’ is added to the biotic index (e.g. Q 1/0, 2/0 or 3/0). Class A waters are those in which problems relating to existing or potential uses are unlikely to arise; they are, therefore, regarded as being in a satisfactory condition. Classes B, C and D are to a lesser or greater extent unsatisfactory in this regard. For example, the main characteristic of Classes B and C waters is eutrophication which interferes with the amenity, abstraction or fisheries uses of such waters. Such nutrient pollution is typically to be found in the recovery zones below point sources of waste such as sewage or, as discussed above, from agricultural or forestry land. Waters assessed as slightly polluted (Class B / Q3-4) are essentially transitional between the satisfactory Class A and the less than satisfactory Classes C and D.

It was considered prudent, however, to also classify such slightly polluted waters as unsatisfactory because of the potential risk to wild game fish populations of nocturnal DO depletion which may occur in such waters, particularly in times of low flow and elevated temperature. In Class D waters excessive organic loadings cause deoxygenation and produce slime (‘sewage fungus’) growths, and as a consequence most beneficial uses may be severely curtailed or eliminated.

Table 1 (overleaf) sets out in more detail the principal characteristics of the four Water Quality Classes A to D, and the relationship between these and the Biotic Indices or Q values (Q1 to Q5).

Biological surveys are usually undertaken in the summer–autumn period (June–September) when flows are likely to be relatively low and water temperatures highest. Surveys during this period are likely, therefore, to coincide with the worst conditions to be expected in those reaches affected by waste inputs. Material for examination is obtained by a ‘kick’ sampling technique in the faster-flowing areas of the river or stream (riffles) and the examination and assessment of water quality is made on site.

Measurements of DO saturation and water temperature, as well as observations on macrophyte and algal abundance, substratum type, water appearance and other biological and physical features are also recorded, in addition to the specific information on the nature of the macroinvertebrate fauna.

In the pages which follow the biotic index ascribed to each location surveyed in the current year is set out together with the Q values recorded in the two previous surveys and following this is a brief assessment of the current quality position. A summary and explanation of the terminology employed in these assessments is set out below.

Biotic Index or ‘Q Value’	Water Quality	Sensitive Species	Condition (See Table 1)
Q5	‘Good’	High Diversity	Satisfactory (Pristine)
Q4	‘Fair’	Reduced Diversity	Satisfactory
Q3-4	‘Transitional’	One or Two Species only	Unsatisfactory
Q3	‘Doubtful’	None	Unsatisfactory
Q2	‘Poor’	None	Unsatisfactory
Q1	‘Bad’	None	Unsatisfactory

References:

Lucey, J., Bowman, J.J., Clabby, K.J., Cunningham, P., Lehane, M., MacCarthaigh, M., McGarrigle, M.L. and Toner, P.F. 1999. Water Quality in Ireland 1995-1997. Environmental Protection Agency, Wexford, 850pp.

McGarrigle, M.L., Lucey, J. and Clabby, K.J. 1992. Biological assessment of river water quality in Ireland. in: *River Water Quality — Ecological Assessment and Control*. Commission of the European Communities, EUR 14606 EN-FR, Luxembourg, 751pp.

Dorris, Y., Clabby, K.J. and Lehane, M. 1998. Water Quality in Ireland 1995-1997. Statistical Compendium of River Quality Data Environmental Protection Agency, Wexford,

Table 1 General characteristics of the various Biological Quality Classes

Quality Classes	Class A		Class B	Class C	Class D	
<i>Quality Ratings (Q)</i>	Q5	Q4	Q3-4	Q3	Q2	Q1
<i>Pollution Status</i>	Pristine, Unpolluted	Unpolluted	Slight Pollution	Moderate Pollution	Heavy Pollution	Gross Pollution
<i>Organic Waste Load</i>	None	None	Light	Considerable	Heavy	Excessive
<i>Maximum B.O.D.</i>	Low (< 3 mg/l)	Low (< 3 mg/l)	Occasionally elevated	High at times	Usually high	Usually very high
<i>Dissolved Oxygen</i>	Close to 100%	80%-120%	Fluctuates from <80% to >120%	Very unstable Potential fish-kills	Low, sometimes zero	Very low, often zero
<i>Annual Median ortho-Phosphate</i>	~0.015 mg P/l	~0.030 mg P/l	~0.045 mg P/l	~0.070 mg P/l	usually > 0.1 mg P/l	usually > 0.1 mg P/l
<i>Siltation</i>	None	May be light	May be light	May be considerable	Usually heavy	Usually very heavy and anaerobic
<i>'Sewage Fungus'</i>	Never	Never	Never	May be some	Usually abundant	May be abundant
<i>Filamentous Algae</i>	Limited development	Considerable growths Diverse communities	<i>Cladophora</i> may be abundant	<i>Cladophora</i> may be excessive	May be abundant	Usually none
<i>Macrophytes</i>	Diverse communities Limited growths	Diverse communities Considerable growths	Reduced diversity Luxuriant growths	Limited diversity Excessive growths	Tolerant species only. May be abundant.	Usually none or tolerant species only.
<i>Macroinvertebrates (from shallow riffles)</i>	Diverse communities. Normal density. Sensitive forms usually numerous.	High diversity. Increased density. Sensitive forms scarce or common.	Very high diversity. Very high density. Sensitive forms scarce.	Sensitive forms absent. Tolerant forms common. Low diversity.	Tolerant forms only. Very low diversity.	Most tolerant forms. Minimal diversity.
<i>Water Quality</i>	Highest quality	Fair quality	Variable quality	Doubtful quality	Poor quality	Bad quality
<i>Abstraction Potential</i>	Suitable for all	Suitable for all	Potential problems	Advanced treatment	Low grade abstractions	Extremely limited
<i>Fishery Potential</i>	Game fisheries	Good game fisheries	Game fish at risk	Coarse fisheries	Fish usually absent	Fish absent
<i>Amenity value</i>	Very high	High	Considerable	Reduced	Low	Zero
<i>Condition</i>	Satisfactory	Satisfactory	Transitional	Unsatisfactory	Unsatisfactory	Unsatisfactory

HYDROMETRIC AREA NO. 01

Foyle

Bunadaowen	01B01
Burn Daurnett	01B02
# Carrigans	01C01
Clogher (Finn)	01C06
Cloghroe	01C05
Cross Roads Stream	01C04
Cummirk	01C03
Deele (Donegal)	01D01
Elatagh	01E02
# Finn (Donegal)	01F01
Mourne beg	01M01
Reelan	01R01
Rough Burn	01R02
# St. Johnston ¹	01S01
Stranagappoge	01S02
Swilly Burn	01S03

Rivers denoted thus had seriously polluted stretch(es) at the time of this survey.

¹ Indicates rivers which do not appear on the OS Map entitled "Rivers and their Catchment Basins"

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
BUNADAOWEN	0100	Br u/s Mourne Beg confl	4*	3	4*	3*	24/09/98
01B01							

Assessment:

No ephemeropteran species were found in the Bunadowen in September 1998 - an indication of particularly acidic conditions. There is almost 100 percent conifer cover in the catchment.

* Indicates highly acidic conditions.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'98</i>	<i>Date 1998</i>
BURN DAURNETT	0010	Blackburn Bridge	3	3	3	2-3	24/09/98
01B02	0200	Bridge N.W. of Daisy Hill	1	2-3	2-3	2-3	24/09/98

Assessment:

The Burn Daurnett remains moderately polluted due to a water works discharge in the upper (0010) section and an industrial effluent in the lower reaches (0200).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
CARRIGANS		<i>Greenhill Branch¹</i>					
01C01	0100	Br at Greenhill	1/0	1	1-2/0	1/0	16/10/98
		<i>Main Channel</i>					
	0150	Bridge N. of Garshooey Lower	3	4	3-4	3	16/10/98
	0152	50m d/s Br N of Garshooey Lr	-	-	-	3	16/10/98
	0200	Bridge at Carrigans	2/0	3	3	2-3	16/10/98

Assessment:

Serious pollution persisted in the Greenhill Branch of the Carrigans and, following further deterioration at St. 0150, the Main Channel was moderately polluted at each of the three locations surveyed in mid October 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
CLOGHER (FINN)	0100	Bridge N.E. of Letterkillew	4-5	3-4	3-4	3	24/09/98
01C06							

Assessment:

The Clogher is quite a significant river and it should be in much better condition in view of its remote location. It is badly impacted by extensive algal mats on the substratum and by peat eroded from the catchment. It lacked sensitive invertebrate species in September 1998. What should be a clean-stone high quality river is significantly downgraded. The upper section of the river is predominantly used for forestry and sheep rearing.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
CLOGHROE	0200	Cloghroe Bridge	4	4	4	4	17/10/98
01C05	0300	Callan Bridge	5	4	-	-	-
	0400	Br d/s Callan Br	-	-	5	4-5	17/10/98

Assessment:

Satisfactory although the upper site (0200) was marred by dumping of domestic refuse.

¹ Indicates rivers which do not appear on the OS Map entitled ‘‘Rivers and their Catchment Basins’’

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
CROSS ROADS STREAM	0200	Br at Monellan Ho	-	-	4	4	25/09/98
01C04	0300	Bridge W. of Avaltygort Hill	4	4	-	-	-
	0400	Bridge at Cross Roads	2-3	3-4	-	-	-
	0500	0.2 km d/s Br at Cross Roads	-	-	3-4	3-4	25/09/98

Assessment:

As in 1997 the upper reaches (0200) of the Cross Roads Stream were satisfactory but the lower reaches (0500) were again slightly polluted by a suspected creamery effluent.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
CUMMIRK	0100	Cummirk Bridge (Upper)	5	4	4	4	17/10/98
01C03	0300	Cummirk Bridge (Lower)	4-5	4	4	4	17/10/98

Assessment:

The Cummirk was satisfactory, though quite silted due to drainage for new forestry plantations.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
DEELE (DONEGAL)	0040	Bridge N. of Aughkeely	5	4-5	4-5	4	16/10/98
01D01	0150	1st Br d/s Br near Newtown	5	4	4	-	-
	0200	2nd Br d/s Br near Newtown	4	-	-	4-5	16/10/98
	0300	Glasly Bridge	5	4	3-4	4	16/10/98
	0500	Bridge 1.5 km S.E. of Convoy	4-5	2-3	2-3	2-3	16/10/98
	0520	Ford W. of Milltown	4	4	-	-	-
	0540	Br S. of Milltown	-	-	-	4	17/10/98
	0600	Ballymonaster Bridge	4	4-5	4	4	17/10/98
	0650	Bridge in Ballindrait	4	4	4	4	17/10/98

Assessment:

The upper (0040 to 0300) and lower (0540 to 0650) reaches of the Deelee river were satisfactory in 1998 and an improvement was recorded at Glasly Bridge (0300) since 1997. Station 0200 was sampled instead of 0150 due to major road-works near Drumkeen. The section downstream of Convoy (0500) was again badly affected by discharges from the town.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
ELATAGH	0100	Br N of Stranabrack Lr	-	3	4-5	3-4	24/09/98
01E02	0300	Elatagh Bridge	5	4	4	4-5	24/09/98

Assessment:

The upper Elatagh (0100) had once again deteriorated in quality. This station also suffers from a very bad case of illegal refuse dumping. The lower section (0300) was of higher quality and in a satisfactory condition in September 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
FINN (DONEGAL)	0200	Bridge S. of Bellanamore	4-5	4	4	4-5	17/10/98
01F01	0300	d/s Cummirk R and u/s Elatagh R	5	4-5	-	-	-
	0350	Br 100 m u/s Elatagh R confl	-	-	4-5	4-5	17/10/98
	0400	Bridge due S. Of Cloghan	5	4-5	4-5	4-5	17/10/98
	0500	Br near Glenmore Railway Sta	4-5	4	4-5	4-5	17/10/98
	0600	Bridge 2.5 km u/s Ballybofey	4-5	4-5	4-5	5	17/10/98
	0800	Bridge S. of Stranorlar	3	3	3	2	17/10/98
	0900	Bridge S. of Killygordon	3-4	4	4	4	25/09/98
	1100	Castlefin Bridge	4	4	-	4-5	25/09/98

Assessment:

The upper reaches of the River Finn (0010 to 0600) had satisfactory water quality when surveyed in 1998. Some impairment of ecological quality was noted, however, due to organic mats, algal growths and siltation of the substratum. This is apparently due to the extensive drainage activities in the upper catchment related to forestry plantations. Downstream of Ballybofey/Stranorlar quality deteriorated sharply due to town discharges (0800). Although this is a large river, some 50m in width at this point, the river is seriously polluted due to these discharges with a heavy coating of sewage fungus on the river bed. The lower section (0900 to 1100) was in satisfactory condition. If the problems in Ballybofey were eliminated, however, further improvements could be expected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
MOURNE BEG	0100	Red Burn Bridge	4	4	4*	3-4*	24/09/98
01M01	0200	Bridge S.W. of Tonreagh	4	4	4*	4*	24/09/98

Assessment:

The Mourne Beg is highly acidic. The upper station (0100) lacks any acid-sensitive species and may be impacted by the extensive forestry plantations in the upper catchment.

* Indicates highly acidic conditions.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
REELAN	0200	Ford W. of Carrickagh	5	4	4-5	4	24/09/98
01R01	0500	Reelan Bridge	5	4-5	4	3-4	24/09/98

Assessment:

The Reelan is satisfactory in the upper section (0200) though quite silted and with significantly more algal cover than would be expected for a remote mountain river. The lower section (0500) was classified as slightly polluted and lacked some of the key indicator species present there in all previous samples. Activities related to tree

planting appears to be the principal problem in the catchment.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
ROUGH BURN 01R02	0200	Bridge u/s Finn River confl	-	4	4-5	3	25/09/98

Assessment:

A serious decline in water quality occurred in the Rough Burn with no sensitive species found in September 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
ST JOHNSTON ¹ 01S01	0280	Second Bridge u/s Foyle River	1-2	3	2-3	1-2	16/10/98

Assessment:

The St. Johnston River was once again seriously polluted in 1998 with abundant sewage fungus growths on the river bed indicating significant releases of highly polluting matter to the river.

¹ Indicates rivers which do not appear on the OS Map entitled "Rivers and their Catchment Basins"

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'90</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
STRANAGOPPOGE 01S02	0100	Br W Tieveragh	-	3-4	3-4	3-4	17/10/98
	0200	Bridge u/s Finn River confl	5	4	4	4-5	17/10/98

Assessment:

The upper Stranagoppoge was again slightly polluted (0100) with drainage impacts apparent - algal/organic mats coated the substratum. An improvement in quality was noted in the lower section (0200) upstream of its confluence with the Finn River.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'85</i>	<i>Q'94</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date 1998</i>
SWILLY BURN 01S03	0100	Br NE of Tullyvinny	4	3	3-4	3-4	16/10/98
	0200	Br 1.5 km SE of Raphoe	2	2-3	3	2-3	16/10/98
	0250	Br Near Massmore	3	3	-	-	-
	0300	Br due N of Ballindrait	-	-	-	3	16/10/98

Assessment:

The Swilly Burn was in an unsatisfactory (mostly moderately polluted) condition at each of the three locations surveyed in October 1998: agriculture suspected.

HYDROMETRIC AREA 03
Bann (Ulster)

Blackwater (Monaghan)	03B01
Clontibret Stream	03C01
Conawary (Lower)	03C02
Mountain Water	03M01
Scotstown	03S02

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
BLACKWATER (MONAGHAN)	0130	1.5 km d/s Scotstown Br	4	4	4	21-Jul-98
03B01	0300	1st Br d/s Ballinode	4	4	4	21-Jul-98
	0510	250m d/s Br nr Milltown	3	3-4	3	22-Jul-98
	0650	Faulkland Br (Upper)	-	2-3	3	22-Jul-98
	0800	Newmills Br	3	2-3	3	22-Jul-98

Assessment :

Despite the floods of 1998 water quality in the Blackwater was nowhere better than 'fair' (Q4). The reach downstream of Monaghan (0510) continued to be significantly polluted by suspected sewage and industrial discharges.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
CLONTIBRET STREAM	0600	Br in Clontibret	3	3	3	20-Jul-98
03C01	0900	3rd Br d/s Clontibret	3	3	3	20-Jul-98
	1200	Br NE of Castleshane Ho	3	3	3	20-Jul-98
	1400	Br E of Killyneill X-Roads	3-4	4	3	20-Jul-98

Assessment :

Following a deterioration in its lower reaches (1400) the Clontibret Stream was assessed as moderately polluted at all points surveyed in July 1998. Agriculture and sewage suspected. Sewage fungus growths were observed at 0900.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
CONAWARY (LOWER)	1100	White Br	3	3	3	20-Jul-98
03C02	1300	Br u/s Blackwater R confl	-	3	3	20-Jul-98

Assessment :

The Lower Conawary was again significantly polluted at both points surveyed in July 1998. Agriculture suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
MOUNTAIN WATER	0100	Coyle's Br	4-5	4-5	4-5	21-Jul-98
03M01	0200	Br NE of Golan	1/0	4-5	4-5	21-Jul-98
	0400	1st Br u/s Emyvale	2/0	4	4-5	21-Jul-98
	0500	Br 1.1 km d/s Emyvale	3/0	3-4	3	21-Jul-98
	0650	Br N of Glaslough	3/0	3	3	21-Jul-98

Assessment :

The quality profile of the Mountain Water in July 1998 was broadly similar to that of 1996 i.e. satisfactory to Emyvale and then considerably polluted by suspected sewage and possibly other discharges at the two lowermost stations.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
SCOTSTOWN	0200	Br S of Knockballyrone	5	5	4-5	21-Jul-98
03S02	0400	Br at Mill, S of Dromscur	4-5	4-5	4	21-Jul-98
	0500	Br u/s Scotstown Br	4-5	4-5	4-5	21-Jul-98

Assessment :

Continuing satisfactory but the absence of stoneflies at 0400 (and their presence in considerable numbers at the other two locations) indicated reduced quality at that location.

HYDROMETRIC AREA NO.8
Nanny - Devlin

Ballough Stream	08B03
Ballyboghil	08B01
# Broadmeadow	08B02
Delvin	08D01
Fairyhouse Stream	08F01
Hurley	08H01
Mosney	08M02
Nanny (Meath)	08N01
Ward	08W01

Rivers denoted thus had seriously polluted stretch(es) at the time of this survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
BALLOUGH STREAM	1400	Br W of the Five Rds	-	3	3	15-Jul-98
08B03	1600	Corduff Br	3	3	3	15-Jul-98

Assessment:

Again moderately polluted by suspected agriculture at both points when surveyed in 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
BALLYBOGHIL	1900	Br S of Trallie Lodge	-	2	3	15-Jul-98
08B01	2200	Br in Ballyboghil	3	3	3	15-Jul-98

Assessment:

Despite a marked improvement in its upper reaches (1900), the Ballyboghil river was moderately polluted at both locations surveyed in mid July 1998. Agriculture suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
BROADMEADOW	0150	Br in Ratoath	2	2	2	14-Jul-98
08B02	0300	Cookstown Br	-	1-2	3	14-Jul-98
	0400	Br 0.5km u/s Ashbourne Br	2	3	2-3	14-Jul-98
	0500	Milltown Br	1-2	1-2	1	14-Jul-98
	0600	WSW of Fieldstown Ho	3	3	2-3	14-Jul-98
	0700	Lispopple Br	3	3-4	3-4	14-Jul-98
	0800	Br nr Waterworks	3	3	2-3	15-Jul-98

Assessment:

Despite a considerable improvement at Cookstown Bridge (0300) where serious pollution had abated since 1996 the Broadmeadow was in an unsatisfactory condition over its course in July 1998. Extreme eutrophication was evident at all points and serious pollution was again recorded in Ratoath (0150) and at Milltown Bridge (0500).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
DELVIN	0080	Br W of Naul	3-4	3-4	3	16-Jul-98
08D01	0250	Br NW of Forty Acres	-	3	4	16-Jul-98
	0400	Br nr Bridgefoot House	3-4	3	4	16-Jul-98

Assessment:

A considerable improvement was apparent at the two lower stations (0250, 0400) since 1996 but the disappearance of sensitive insect species indicated a deterioration in the Naul area (0080) where large number of empty fungicide containers was observed on the river bank: the river is obviously used for mixing these and possibly other agricultural biocides.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
FAIRYHOUSE STREAM	0200	Br ESE of Glascarn	-	3	3	14-Jul-98
08F01	0500	Br at Donaghmore X-Rds	3	3	2-3/0	14-Jul-98

Assessment:

Continuing unsatisfactory due to considerable pollution of suspected agricultural origin. The absence of many insect species indicated considerable toxicity in the Donaghmore area (0500).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
HURLEY	0060	Br S of Borranstown House	-	3	3/0	15-Jul-98
08H01	0200	Br at Painestown	3	3-4	3-4	15-Jul-98
	0280	Rathfeigh Old Bridge	3	3-4	4	15-Jul-98
	0400	Just u/s Nanny R confl	3	3-4	3-4	15-Jul-98

Assessment:

Conditions were generally similar to those of 1996 i.e., generally highly eutrophic, but a slight improvement was recorded at Rathfeigh (0280). The upper reaches (0060) were again considerably polluted and toxicity was suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
MOSNEY	0100	Br S of Mosney Ho	3	3	3-4	16-Jul-98
08M02						

Assessment:

Minor improvement noted where surveyed but the stream continues to be distinctly eutrophic with abundant weed and algal growths.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
NANNY (MEATH)	0040	Folistown Br	-	2-3	2-3	16-Jul-98
08N01	0110	East Br Kentstown	3	3	2-3	16-Jul-98
	0280	Br d/s Nanny Br	3	3	3-4	16-Jul-98
	0500	Br NE of Bellewstown Ho	3-4	3	3-4	16-Jul-98
	0650	Dardistown Br	3-4	4	4	16-Jul-98
	0700	Br at Julianstown	3	3-4	3-4	16-Jul-98

Assessment:

As in 1996, the Nanny was in a generally unsatisfactory quality condition in 1998. It was silted and dirty with excessive weed and/or algal growths and large banks of silt at most locations surveyed but nevertheless some minor improvements were apparent at two locations (0280, 0500).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
WARD	0070	Coolatrath Br	2-3	2-3	2-3	14-Jul-98
08W01	0300	Br N of Killeek	3	3	3	14-Jul-98
	0610	Br d/s Scotchstone Br	3/0	3	3/0	14-Jul-98

Assessment:

Continuing unsatisfactory. Toxicity of suspected industrial origin in the Swords area (0610).

HYDROMETRIC AREA NO. 09
Liffey and Dublin Bay

Annalecka Brook	09A01
Ballydonnell Brook	09B03
Ballylow Brook	09B04
Brittas	09B02
# Camac	09C02
Clonshanbo	09C03
Cock Brook	09C04
Dodder	09D01
Douglas	09D02
Glashaboy Brook	09G02
Kilcullen Stream	09K02
Kings	09K01
Lemonstown Stream	09L03
# Liffey	09L01
Lyreen	09L02
# Mayne	09M03
# Morell ¹	09M01
# Owenadoher	09O01
Painestown ¹	09P01
Pinkeen	09P02
Rathmore Stream ¹	09R02
Rye Water	09R01
# Santry	09S01
# Tolka	09T01

¹ Denotes rivers which do not appear on the OS River Catchment Map; these are not included in the National Baseline.

Denotes rivers having seriously polluted stretch(es) at the time of this survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
ANNALECKA BROOK	0100	Annalecka Br	-	4-5	3-4	18-Aug-98
09A01						

Assessment :

Unsatisfactory in 1998 due to slight pollution of suspected forestry origin. Considerable deterioration apparent since 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
BALLYDONNELL BROOK	0100	Br u/s Ballylow Brook confl	5	4-5	4-5	18-Aug-98
09B03						

Assessment :

Biological quality continuing satisfactory. Plastic sheeting observed in the stream.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
BALLYLOW BROOK	0100	Br u/s Ballydonnell Brook confl	5	4-5	4-5	18-Aug-98
09B04						

Assessment :

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
BRITTAS	0100	Br NE of Talbotstown House	4	4	3-4*	19-Aug-98
09B02	0300	Br NNE of Moanaspick	3	4	4	19-Aug-98
	0500	Kilbride Br	3	3-4	3-4*	19-Aug-98

Assessment :

Considerable siltation was apparent at two locations (0100, 0500) in August 1998. A quarry is located near Station 0100 where conditions had deteriorated since 1996 but there was no readily apparent source for the siltation observed at Kilbride Bridge (0500). The middle reaches (0300) remained satisfactory.

*Siltation

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
CAMAC	0100	Br 1 km SW (u/s) of Saggart	4	4	3	25-Aug-98
09C02	0200	Br N of Brownsbarn	2	2	2	25-Aug-98
	0310	Riversdale Estate Br	3	2-3	2-3	26-Aug-98
	0400	Kylemore Rd Br	2	1	3	26-Aug-98
	0500	Camac Close Emmet Rd	2/0	1-2	1-2	26-Aug-98

Assessment :

Following a marked deterioration upstream of Saggart (0100) the Camac was nowhere satisfactory in late August 1998. The river was again seriously polluted below Saggart (0200) and again in its lower reaches (0500) but conditions had improved considerably at Kylemore Bridge (0400) where fish were observed and pollution was assessed as 'moderate' (Q3).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
CLONSHANBO	0300	Br N of Baltracey X-Rds	2	2-3	3	25-Aug-98
09C03	0600	Br u/s Lyreen R confl	2-3	3	3	25-Aug-98

Assessment :

Continuing moderately polluted. Local people speak of manure slurry pollution at both points surveyed.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
COCK BROOK	0100	Br NW of Kilmore	5	5	4-5	18-Aug-98
09C04						

Assessment :

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
DODDER	0010	1.3 km u/s Reservoir	5	4	5	26-Aug-98
09D01	0100	U/s Piperstown Stream	4	4-5	4-5	26-Aug-98
	0300	Old Bawn Br	3	4-5	4	26-Aug-98
	0420	New Br, Firhouse	-	4	4	26-Aug-98
	0620	Br on Springfield Ave.	3	3	3	26-Aug-98
	0800	Milltown Br	3	3	3	26-Aug-98

Assessment :

As in 1996 the Dodder was assessed as satisfactory over most of its course in late August 1998. Moderate pollution was again recorded at Rathfarnham ((0620) and Milltown (0800) but there were signs of some slight improvement at the latter location.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
DOUGLAS (LIFFEY)	0200	Br u/s King's R confl	4-5	4-5	4	18-Aug-98
09D02						

Assessment :

Sensitive species were virtually absent in 1998 and the river had become very weedy since 1996. Any further deterioration will result in this stream being classed as unsatisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
GLASHABOY BROOK	0100	Glashaboy Br	-	4	3-4*	18-Aug-98
09G02	0100	Glashaboy Br				

Assessment :

Heavy siltation reduced quality by virtually eliminating sensitive species from this stream in August 1998. Forestry activities suspected.

*Siltation

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
KILCULLEN STREAM	0800	Br E of Yellowbog	-	3	3*	20-Aug-98
09K02	1100	Br u/s Liffey R confl	-	3-4	3-4*	20-Aug-98

Assessment :

Heavy bottom siltation and suspected groundwater input adversely affect biological diversity in the Kilcullen Stream. Sensitive species were again absent from both locations and DO values were reduced to 79% in the Yellow Bog area (0800).

*Siltation plus groundwater effects.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
KING'S (LIFFEY)	0020	Ballinagee Br	4-5	4-5	4-5	18-Aug-98
09K01	0100	Br NW of Lockstown Upper	4-5	4-5	4	18-Aug-98

Assessment :

Faunal diversity lower than previously but conditions remain satisfactory at both locations.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
LEMONSTOWN STREAM	0100	Br E of Athgrean	4-5	4-5	4	19-Aug-98
09L03	0600	Br N of Ballybought	4	3-4	3-4	19-Aug-98

Assessment :

Mostly satisfactory but lower reaches again slightly polluted as in 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
LIFFEY	0100	2km NW of Sally Gap	4-5	4-5	4-5	19-Aug-98
09L01	0200	Br E of Ballysmuttan	4-5	4-5	4	19-Aug-98
	0250	0.5km d/s Ballyward Br	5	5	5	19-Aug-98
	0400	Ballymore Eustace Br	4	2-3*	3-4	19-Aug-98
	0500	1km d/s Ballymore Br	4	4	3-4*	19-Aug-98
	0600	New Br u/s Kilcullen	4-5	4	4-5	20-Aug-98
	0700	Kilcullen Br	4-5	4	4-5	20-Aug-98
	0850	Connell Ford	-	4	4	20-Aug-98
	1000	2.5 km d/s Newbridge	4	4	4-5	20-Aug-98
	1050	Victoria Br	4	4	4	20-Aug-98
	1200	Castlekeely Ford (RHS)	3-4	3-4	2	20-Aug-98
	1400	Millicent Br	3-4	3-4	3	20-Aug-98
	1500	Alexandra Br, Clane	3-4	3	3-4	24-Aug-98
	1600	Straffan Br, (RHS & Mid)	3-4	3-4	3-4	24-Aug-98
	1610	Straffan Br, (LHS)	-	1	3-4	24-Aug-98
	1700	Br in Celbridge	3	3-4	3-4	24-Aug-98
	1900	Leixlip Br (RHS)	3-4	-	3	24-Aug-98
	2100	Lucan Br	2-3	2-3	2-3	24-Aug-98

Assessment :

With the exception of a short stretch below the reservoir at Ballymore Eustace (0400, 0500), where slight pollution due to siltation and lake effects was recorded, the upper reaches of the Liffey were in a satisfactory condition in August 1998. A major deterioration was then recorded at Castlekeely Ford (1200) which is just below the Osberstown sewage treatment works: serious pollution was recorded at this location and, as in previous years the river from this point on remained in a highly eutrophic condition. Marked pollution, due to suspected waterworks and sewage works effluent discharges, was again apparent at and below Leixlip (1900, 2100). Although sewage fungus was again observed along the left hand side at Straffan (1610) below the sewage discharge conditions there had improved considerably since the 1995 survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
LYREEN	0035	Br NE of Treadstown	-	2-3	2-3	25-Aug-98
09L02	0100	Just u/s Rye Water confl	2	2	2-3	25-Aug-98

Assessment :

A slight improvement was recorded in the lower Lyreen in late August 1998 but the river remained in a very unsatisfactory condition with very heavy bottom siltation and excessive algal growths at both locations surveyed. Agriculture suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
MAYNE	0500	Hole-in-the-Wall Rd Br	3	2-3	2/0	28-Aug-98
09M03						

Assessment :

The complete absence of insects of any description indicated a toxic effect at the location surveyed on the Mayne river in late August 1998. This represents a deterioration in comparison with 1996 results.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
MORELL*	0060	(S) Br W of Tipper Ho	-	-	4	21-Aug-98
	0100	Bridge in Johnstown	4	-	3	21-Aug-98
	0150	Br NE of Sherlockstown	3	-	3*	21-Aug-98
	0300	Bridge u/s Liffey River confl	3-4	-	4	24-Aug-98

Assessment :

Satisfactory upstream of Johnstown (0060) and in lowermost reaches (0300) but moderately polluted in the village (0100) where very weedy and silted. The Morell supplies the grand Canal and it runs very low on occasion; this plus the presence of compacted marl deposits and possible carryover effects of upstream pollution is suspected as causing the complete absence of sensitive species from Station 0150.

* Compacted marl and subject to drying out.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
OWENADOHER	1100	Br SW of Delamaine Cottage	4-5	4-5	4-5	27-Aug-98
09O01	1300	Scholarstown Road Br	4	4-5	3-4*	26-Aug-98
	1700	Br u/s Dodder R confl	3/0	3	1/0	26-Aug-98

Assessment :

Mostly satisfactory but impacted by siltation arising from upstream motorway construction at Scholarstown (1300) and by severe oil pollution in the lower reaches (1700).

* Oil pollution.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
PAINESTOWN	0300	Bridge in Kill Village	3	-	3-4	24-Aug-98
09P01	0400	Painestown Br	3	-	3-4	24-Aug-98
	0500	Just u/s Morell River confl	3-4	-	4	24-Aug-98

Assessment :

Eutrophic and silted in and below Kill and recovering to a satisfactory condition in the lower reaches.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
PINKEEN	0400	Br S of Nuttstown Cross	-	3	2-3	27-Aug-98
09P02	0700	Br SE of Powerstown House	-	1	3	27-Aug-98

Assessment :

Upper reaches (0400) sluggish, overgrown and heavily silted, lower reaches also unsatisfactory but significantly improved since 1996. Agriculture suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
RATHMORE STREAM	0100	Bridge at Rathmore	3-4	-	4	21-Aug-98
09R02	0200	Bridge SW of Arthurstown	3-4	-	4-5	21-Aug-98
	0300	Bridge NE of Johnstown	3-4	-	4	21-Aug-98

Assessment :

The Rathmore Stream was in a satisfactory condition at each of the three locations surveyed in late August 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
RYE WATER	0100	Balfeaghan Br	3	3-4	3-4	25-Aug-98
09R01	0200	500 m d/s Kilcock Br	3/0	3-4	3*	25-Aug-98
	0300	Anne's Br	3-4	3-4	3	25-Aug-98
	0400	Kildare Br	3	3	3	25-Aug-98
	0500	Sandford's Br	3-4	3	3	24-Aug-98
	0600	Br in Leixlip	3-4	3	3	24-Aug-98

Assessment :

The Rye Water was assessed as slightly polluted/eutrophic in the reach upstream of Kilcock (0100) in late August 1998 but below this town the river was moderately polluted/hypertrophic at all points surveyed. In addition the river bed was very heavily silted at 0200 and 0500. Dissolved oxygen values recorded at the above locations were respectively 86, 90, 115, 123, 142 and 134 percent of saturation at the time of his survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
SANTRY	0300	Clonshaugh Rd Br	2/0	2	1-2	27-Aug-98
09S01	1100	Bettyglen	2-3	2-3/0	2/0	27-Aug-98

Assessment :

Seriously polluted at both locations surveyed in August 1998. Strong smell of detergent at Bettyglen (1100).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
TOLKA	0300	Br at Black Bull	3	2	3	27-Aug-98
09T01	0500	Rusk Br	-	2	2	27-Aug-98
	0600	Dunboyne Rd Br u/s Clonee	2-3	3	3	27-Aug-98
	0800	Mulhuddart Br	2-3	2-3	3	27-Aug-98
	1000	Abbotstown Br	2-3	3	2-3	27-Aug-98
	1100	Violet Hill Drive Finglas	1/0	3	2-3	27-Aug-98

Assessment :

Despite a significant improvement at Black Bull (0300) the Tolka in late August 1998 was in an unsatisfactory condition everywhere surveyed. The Main Channel was moderately polluted at each of the three points to Mulhuddart while in the lower reaches (1000, 1100) the indications were of moderate/serious pollution. The virtually stagnant and heavily silted Dunboyne Branch was again assessed as seriously polluted.

HYDROMETRIC AREA 11 **Owenavorragh**

#Aughboy (Courtown)	11A02
Ballyedmond	11B01
Banoge	11B02
Blackwater (Wexford)	11B03
Brackan	11B04
Clonough	11C01
Inch	11I01
Owenavorragh	11O01
Tinnock	11T01

Rivers denoted thus had seriously polluted stretch(es) at the time of this survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
AUGHBOY (COURTOWN)	0180	Br NE of Middletown Ho	3	2	1	08-Jul-98
11A02						

Assessment:

Seriously polluted. DO just 5 percent of saturation at time of this survey. Has deteriorated since the previous survey of 1995.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BALLYEDMOND	0300	Ballyedmond Br	3	3	3	08-Jul-98
11B01	0400	Cullentra Br	3	3	3	08-Jul-98

Assessment:

Has improved slightly at Ballyedmond Bridge (0300) since 1995 but no improvement evident at Cullentra Bridge (0400) where again moderately polluted by watering animals.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BANOGE	0050	Br near Killynann	5	3	4	07-Jul-98
11B02	0110	Br at E side of Gorey	3	2	2-3	07-Jul-98
	0300	Br u/s Owenavorrigh R	3	3	3	07-Jul-98

Assessment:

Following a marked improvement since 1995 the Banoge was in a satisfactory condition upstream of Gorey (0050) and a slight improvement was also apparent in the town (0110) in early July 1998 but the middle and lower reaches remained moderately polluted as a result of suspected sewage and other discharges in and below the town.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BLACKWATER (WEXFORD)		<i>West Branch</i>				
11B03	0060	Br SW of Askasilla	4	4	4	09-Jul-98
		<i>Main Channel</i>				
	0130	Br d/s Garryvadden Br	4	4	3	09-Jul-98
	0200	Br E of Blackwater at Mill	3	3	3	09-Jul-98

Assessment:

Satisfactory conditions were again recorded in the West Branch of the Blackwater (0060) but following a significant deterioration below Garryvadden Bridge (0130) the Main Channel was in a distinctly unsatisfactory condition at both locations surveyed in July 1998. Agriculture suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BRACKAN	0100	Toberanieran Br	3	4	4	08-Jul-98
11B04	0200	Essex Br	3	3	3-4*	08-Jul-98

Assessment:

Conditions remained satisfactory at Toberanieran Bridge (0100) and, although the stream bed was heavily silted and the water very turbid at Essex Bridge (0200) the fauna indicated a minor improvement in average conditions

since 1995 at that point.
Siltation

*

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
CLONOUGH		<i>North-West Branch</i>				
11C01	0035	Br d/s Ballykilty Br	2*	2-3	2-3	06-Jul-98
		<i>Main Channel</i>				
	0050	Br SW of Coolgreany	4-5	3	3	06-Jul-98
	0100	Br ENE of St Austin's Ho	1	3	3	06-Jul-98
	0300	Clonough Br	2	2-3	3	06-Jul-98

Assessment:

Agriculture and sewage are suspected as causing the considerable pollution of the Clonough River which was in a distinctly unsatisfactory condition at all points surveyed in 1998, a similar situation to that recorded in 1995.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
INCH (WEXFORD)		<i>North Branch</i>				
11I01	0040	Br u/s W Branch confl	5	3	4	07-Jul-98
		<i>Main Channel</i>				
	0095	Br in Inch	4	3	4	07-Jul-98
	0150	Br u/s Clonough R confl	3-4	3	3-4	07-Jul-98
	0200	Castletown Br	2-3	3	3	06-Jul-98

Assessment:

A marked improvement was recorded in the North Branch (0040) and the upper Main Channel (0095) but the remainder of the Inch was assessed as moderately polluted again in early July 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
OWENAVORRAGH	0080	Ballynahown Br	-	3	4	09-Jul-98
11O01	0200	Corbally Br	-	-	3-4	08-Jul-98
	0300	Br SW of Killenagh	3-4	3	3-4	08-Jul-98
	0400	Br SE of Ballycanew	4	3-4	3-4	08-Jul-98
	0500	Br N of Ballinamona	3-4	3-4	3-4	08-Jul-98
	0580	Br just u/s Banoge R confl	4	3-4	3-4	07-Jul-98
	0700	Ballinatray Br	4	4	3-4	07-Jul-98

Assessment:

Following a considerable improvement at Ballynahown Bridge (0080), the uppermost and lowermost reaches of the Owenavorrigh river were in a satisfactory condition in July 1998 but for most of its course the river was assessed as slightly polluted/eutrophic. Agriculture and sewage suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
TINNOCK	0400	Br u/s Inch R confl	3	3	3	07-Jul-98
11T01						

Assessment:

Unsatisfactory. Moderate pollution again indicated at the point surveyed in 1998.

HYDROMETRIC AREA 12

Slaney and Wexford Harbour

Askinvillar Stream	12A03
Ballingale Stream	12B06
Ballycarney Stream	12B07
Bann	12B01
Blacklion Stream	12B04
Blackwater Stream (Bann)	12B08
Boro	12B02
Borris Stream	12B05
Browns beck Brook	12B03
Camolin Stream	12C08
Carrigower	12C06
Clody	12C03
Coolboy Stream	12C07
Corbally Stream	12C04
Derreen	12D01
Derry	12D02
Douglas (Ballon)	12D03
Douglas (Kiltegan)	12D04
Glasha (Slaney)	12G01
Killeen Stream (Boro)	12K03
Knicken	12K01
Lask	12L01
Little Slaney	12L02
Mine	12M01
Rosnastraw Stream	12R01
Shillelagh	12S01
Slaney	12S02
Sow	12S03
Tinnacross Stream	12T01
Tinnokilla Stream	12T02
Urrin	12U01

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
ASKINVILLAR STREAM	0200	Askinvillar Br	4-5	4	4-5	01-Sep-98
12A03						

Assessment:

Continuing satisfactory. Siltation not as pronounced as in 1995.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BALLINGALE STREAM	0300	Ballycadden Br	4	3	3-4	16-Sep-98
12B06	0500	Br S of Curraduff X-Rds	3-4	-	4	16-Sep-98
	0900	Br u/s Slaney R confl	4-5	4	4-5	03-Sep-98

Assessment:

The Ballingale Stream was in a mostly satisfactory condition when surveyed in September 1998. The upper reaches (0300) had improved since 1995 but weed-growth was still excessive and siltation considerable at that location.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BALLYCARNEY STREAM	0400	Br d/s Tinnashrule Br	4	3-4	4-5	02-Sep-98
12B07	0700	Br u/s Slaney R confl	3-4	4	4	03-Sep-98

Assessment:

Quality in the Tinnashrule area had considerably improved since 1995 and as a consequence conditions were satisfactory at both locations surveyed in early September 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BANN						
12B01	0100	Pallis Br	3-4	4	4-5	31-Aug-98
	0200	Br at Hollyfort	4	4-5	4-5	31-Aug-98
	0400	Margerry's Br	4-5	-	4-5	31-Aug-98
	0440	1km u/s Island Br	-	4-5	4	31-Aug-98
	0600	Milshoge Br	4	3-4	3	01-Sep-98
	0900	Doran's Br	3	3-4	3-4	01-Sep-98
	1000	Bann Br	3-4	4	4-5	01-Sep-98

Assessment:

The river Bann was in a mostly satisfactory condition when surveyed in 1998 but it was significantly polluted at Milshoge Bridge (0600) with carryover effects to Doran's Bridge (0900). Sewage suspected. Weed growth was luxuriant from the Lask river confluence (0440) onwards.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BLACKLION STR (CARLOW)	0200	Br at Blacklion	4-5	4	4	11-Sep-98
12B04	0300	Br nr Glebe House	-	-	3-4	11-Sep-98
	0400	Br u/s Derreen R confl	4-5	4	-	-

Assessment:

As indicated by the relatively heavy siltation, this stream appears to be affected by tillage at Blacklion (0200) but despite this and the considerably enhanced weed growth at both locations surveyed quality conditions in the stream remain satisfactory for the present.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BLACKWATER STREAM (BANN)	0200	Blackwater Br	4	4	3-4	31-Aug-98
12B08						

Assessment:

This stream was heavily silted with cattle manure at the location surveyed in late August 1998. Quality had deteriorated slightly since the 1995 survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BORO	0040	Tomanine Br	3-4	3	3*	02-Sep-98
12B02	0080	Boro Br	4	3-4	3-4*	02-Sep-98
	0200	Ballymackesy Br	3-4	3-4	3-4*	03-Sep-98
	0340	2nd Br d/s Ballyeden Br	4	4	3-4*	03-Sep-98
	0400	Br NW of Wilton Castle	4	4	3-4*	03-Sep-98
	0600	Kilcarbry Br	4	4	3	03-Sep-98

Assessment:

The Boro river was in an unsatisfactory condition in early September 1998. The river was heavily silted and very weedy at most points surveyed and sensitive species were not observed at the upper and lowermost locations. Conditions have deteriorated further since 1995.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BORRIS STREAM	0300	Br u/s Slaney R confl	4	4	4-5	16-Sep-98
12B05						

Assessment:

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BROWN'S BECK BROOK	0200	Br WNW of Donard	4	4	4-5	09-Sep-98
12B03						

Assessment:

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
CAMOLIN STREAM	0300	Br u/s Bay Br	3	4-5	4-5	01-Sep-98
12C08						

Assessment:

Continuing satisfactory despite turbidity and considerable weed growth.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
CARRIGOWER	0300	Merginstown Br	-	3-4	4	09-Sep-98
12C06	0600	Br d/s Whitestown Br	4-5	4-5	4-5	09-Sep-98

Assessment:

As in 1995, luxuriant macrophyte and algal growth indicated some considerable eutrophication in the middle reaches of the Carrigower (0300) in September 1998. Lower reaches (0600) remaining satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
CLODY	0080	Br d/s confl of N & S branches	4-5	4	4-5	16-Sep-98
12C03	0200	Ford (Br) 3km u/s Bunclody	4-5	4	4-5	16-Sep-98
	0300	Clody Br, Bunclody	3-4	3/0	4-5	16-Sep-98

Assessment:

Following a very marked improvement at Bunclody (0300) the Clody river was in a satisfactory condition at all points surveyed in mid-September 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
COOLBOY STREAM	0200	Br SW of Greenfort	4	4	4	15-Sep-98
12C07	0700	Lattin Br	-	4-5	4-5	15-Sep-98

Assessment:

Satisfactory at both locations surveyed in 1998 but increased macrophyte growth pointed to enhanced nutrient input in the Greenfort area (0200) which is downstream of coniferous forestry plantations.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
CORBALLY STREAM	0200	Kilcormick Br	1	3-4	3	09-Jul-98
12C04	0400	Ballymoty Br	-	3	4-5	10-Jul-98
	0600	Cooladine Br	-	4	4-5	10-Jul-98
	0900	Br u/s Slaney R confl	3	4	4	10-Jul-98

Assessment:

As in all previous surveys since 1987, the Corbally Stream was in an unsatisfactory condition at Kilcormick Bridge (0200) in July 1998. Following a significant recovery from serious agricultural pollution here in 1994 the stream had almost completely recovered in 1995 but the latest survey indicates a reversal of this trend. Following improvements at Ballymoty Bridge (0400) conditions were satisfactory and from this point onwards.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
DERREEN	0050	Br SW of Toorboy	5	4	4-5	10-Sep-98
12D01	0150	Br NE of Ballykilmurray Lr	-	4	5	10-Sep-98
	0300	Hacketstown Br	3	4	4-5	10-Sep-98
	0420	Br d/s Saulsford Br	3	4-5	4	10-Sep-98
	0500	Acaun Br	4	4	4	10-Sep-98
	0550	Knockeen Br	4	-	4	17-Sep-98
	0600	Knockloe Br	4	3-4	4-5	17-Sep-98
	0800	Ford u/s Slaney R confl	4	3-4	4-5	17-Sep-98

Assessment:

Further significant improvements were recorded in the lower Derreen river (0600, 0800) in September 1998 when the river was in a satisfactory condition at all points surveyed. Lower reaches becoming weedy, however.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
DERRY	0100	Cross Br	4	4	4-5	04-Sep-98
12D02	0200	Tinahely Br	4-5	4-5	4-5	04-Sep-98
	0350	Greenahll Br	4-5	4	4-5	14-Sep-98
	0500	Shillelagh Br	3-4	4	4-5	15-Sep-98
	0700	Balisland Br	4	3-4/0	4-5	15-Sep-98
	0800	Ford N of Garryhasten	4	3-4	4	05-Sep-98
	1000	Just u/s Slaney R confl	4	4-5	4-5	16-Sep-98

Assessment:

The Derry river was in a satisfactory quality condition at all points surveyed in 1998; this reflects considerable improvements at two points in the lower river i.e., Balisland Bridge (0700) and Garryhasten (0800). The latter location was notable for its pronounced weed growth as was Cross Bridge (0100) in the upper reaches.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
DOUGLAS (BALLON)		<i>Main Channel</i>				
12D03	0100	Myshall Br	3-4	3-4	4	14-Sep-98
		<i>Ballaghmore Distributary</i>				
	0160	Br u/s Main Channel confl	3/0	3	3-4	14-Sep-98
	0200	Sragh Br	4	3	3-4	14-Sep-98
	0400	Castlegrace Br	3-4	3	3-4	11-Sep-98

Assessment:

The summer floods of 1998 were undoubtedly of major significance in the achievement of an overall higher quality profile in the Douglas river which was assessed as satisfactory at Myshall bridge (0100) and just slightly polluted at the remaining locations surveyed.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
DOUGLAS (KILTEGAN)	0300	Highpark Br	-	3	4-5	10-Sep-98
12D04	0700	Lucas Br	4-5	4	4	10-Sep-98

Assessment:

A marked improvement was recorded at Highpark Bridge (0300) in September 1998. The indications of moderate pollution recorded there in 1995 were no longer evident and conditions were assessed as satisfactory as they were also at Lucas Bridge (0700) in the lower reaches.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
GLASHA (SLANEY)	0100	Br S of Gorteen	-	3-4	4	16-Aug-98
12G01	0200	Coolattin Br	4-5	3/0	4	16-Aug-98

Assessment:

Following a marked improvement at Coolattin Bridge (0200) and an abatement of slight pollution south of Gorteen (0100) the Glasha river was once again in a satisfactory condition at both locations surveyed in 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
KILLEEN STREAM (BORO)	0200	Milltown Br	3-4	3	3	02-Sep-98
12K03	0400	Garraun Br	4	3	3	02-Sep-98

Assessment:

This stream was again considerably polluted by suspected farmyard waste in 1998.

Also known as the Milltown Stream.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
KNICKEEN	0100	Br NE of Golier	5	5	-	-
12K01	0250	Br W of Ballyvaghan	-	-	5	09-Sep-98

Assessment:

Highest quality. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
LASK	0080	Br NW of Craan	3	3-4	3	31-Aug-98
12L01	0100	Br NE of Craanford	-	-	3-4	31-Aug-98
	0300	Br u/s Bann R confl	3-4	4-5	3-4	31-Aug-98

Assessment:

Following a marked and widespread deterioration the Lask river was in an unsatisfactory condition at each of the three locations surveyed in 1998. A wide bank of silt had appeared in the Craan area (0080) and the stream bed was contaminated with a reddish-brown deposit resembling manure slurry in its lower reaches (0300).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
LITTLE SLANEY	0100	Br S of Coan	5	4	5	09-Sep-98
12L02	0300	Rostyduff Br	5	-	-	-
	0400	Ford d/s Rostyduff Br	-	-	5	09-Sep-98

Assessment:

Satisfactory. In flood when surveyed.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
MINE	0200	Money Br	4-5	3-4	4	15-Sep-98
12M01	0400	Tombreen Br	3-4	3-4	3	15-Sep-98
	0600	Ballingate Br	4	3-4	3-4	15-Sep-98

Assessment:

Following a slight improvement the upper reaches (0200) were satisfactory in 1998 but considerable pollution by cattle manure was noted at Station 0400 and the lower reaches (0600) were again slightly polluted.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
ROSTRASTRAW STREAM	0200	Br u/s Rosnastraw Br	4	4	4	14-Sep-98
12R01	0400	Kilcommon Br	3	3	3	14-Sep-98

Assessment:

Upper reaches (0200) weedy but satisfactory. Lower reaches (0400) polluted by suspected agricultural activities.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
SHILLELAGH	0500	Br us Derry R confl	-	3-4/0	4-5	15-Sep-98
12S01						

Assessment:

Satisfactory and considerably improved since the previous survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
SLANEY	0100	Seskin Br	5	4-5	5	09-Sep-98
12S02	0200	Kelsha Br	5	5	4-5	09-Sep-98
	0400	Waterloo Br	4-5	4-5	5	18-Sep-98
	0600	Tuckmill Br	4-5	4-5	5	21-Sep-98
	0700	Just d/s Baltinglass Br	3	4-5	4-5	21-Sep-98
	0770	Maiden's Ford	-	4-5	4-5	21-Sep-98
	0900	Ford u/s Rathvilly	4	4	4	21-Sep-98
	1020	1km d/s Rathvilly Br	4	4-5	4-5	21-Sep-98
	1100	Rathmore Br	4	4-5	4-5	21-Sep-98
	1200	Moatabower Br	4	4-5	4-5	21-Sep-98
	1290	0.5km u/s Tullow Br	4	4	4-5	21-Sep-98
	1400	Ford 3km d/s Tullow Br	3-4	3-4	3-4	17-Sep-98
	1530	W of Ballinastraw	3-4	3-4	4	17-Sep-98
	1600	Kilcarry Br	3-4	3-4	4-5	17-Sep-98
	1800	Slaney Br Bunclody	4	3-4	4-5	17-Sep-98
	2000	1.3km d/s Clohamon Br	3	3-4	3-4	17-Sep-98
	2100	Ballycarney Br	3	3-4	3-4	18-Sep-98
	2220	Just W of Salsborough Br	-	3-4	4	18-Sep-98

SLANEY Continued

Assessment:

The high flows of 1998 have been of considerable benefit to the Slaney. This is particularly apparent below Tullow and Clohamon where the estimated length of slightly polluted channel has been reduced to five and thirteen kilometres, respectively. This is in marked contrast to the 1995 situation when the entire 49 kilometre freshwater reach from Tullow to below Enniscorthy was assessed as slightly polluted/eutrophic.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
SOW	0100	Ballinkeel Br	3*	3-4	3	09-Jul-98
12S03	0250	Aughgarr Br	-	-	3-4	09-Jul-98
	0370	Randalsmill Br	-	4	4	09-Jul-98
	0400	Br NW of Edenvale Ho	4	-	-	-

Assessment:

Sensitive species were not observed at Ballinkeel Bridge (0100) where the river bed was very heavily silted and the DO was reduced to 70% of saturation. A gradual recovery then became evident so that by the time Randalsmill (0370) was reached quality had improved to 'Fair'. Overall condition unsatisfactory and somewhat worse than in 1995. Agriculture suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
TINNACROSS STREAM	0400	Carrigeen Br	3-4	3-4	3	01-Sep-98
12T01	0500	Tinnacross Br	4	4	3-4	01-Sep-98
	0600	Br u/s Salsborough Br	4	4	4	10-Jul-98

Assessment:

As with the Sow River (above) the upper Tinnacross Stream was devoid of sensitive species, was very heavily silted (banks of silt) and had a significantly reduced DO content (71% at Station 0400) in early September 1998. It then recovered over the next 7 kilometres to reach a satisfactory level of quality at Station 0600. Overall condition unsatisfactory and worse than in 1995. Agriculture suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
TINNOKILLA STREAM	0200	Spring Br	3	4	4	03-Sep-98
12T02	0700	Br NE of Tinokilla	3-4	4-5	4	03-Sep-98

Assessment:

Satisfactory but could be better.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
URRIN	0050	Ballycrystal Br	5	4-5	5	01-Sep-98
12U01	0200	Buck's Br	4-5	4-5	4-5	02-Sep-98
	0250	Br S of Curraghgrague	4-5	3-4	4-5	02-Sep-98
	0300	Kiltrea Br	4-5	3/0	4-5	02-Sep-98
	0360	Verona Br	5	3-4	4-5	02-Sep-98
	0500	John's Br	4-5	3-4	3-4	02-Sep-98

Assessment:

Quality in the Urrin river improved considerably in 1998 when all but the lowermost reaches were in a satisfactory condition. Improvement was most striking at Kiltrea Bridge (0300) where the toxicity of 1995 was no longer evident. The situation at John's Bridge, Enniscorthy (0500) was unusual and may reflect a non-organic influence.

HYDROMETRIC AREA NO. 13

Ballyteigue-Bannow

Battlestown	13B04
Bridgetown (Wexford)	13B01
Cleristown	13C04
Corock	13C01
Duncormick	12D01
Mulmontry	13M01
Owenduff (Wexford)	13O01
Tintern Abbey Stream	13T01

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
BATTLESTOWN STREAM	0500	Br NE of Ballygow	3	3	4	28-Sep-98
13B04						

Assessment :

Satisfactory with significant improvement over previous surveys when moderately polluted by farm slurry.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
BRIDGETOWN (WEXFORD)	0020	Gainstown Br	4	2-3	3-4	02-Oct-98
13B01	0050	Br d/s E Br nr Sleadagh Ho	3	-	-	02-Oct-98
	0070	Br SE of Ballycappoge	3-4	-	-	02-Oct-98
	0080	Br E of Common	-	3-4	3-4	02-Oct-98

Assessment :

Both locations unsatisfactory, due to slightly polluted conditions, but with some amelioration at the uppermost one (0020) since the previous survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
CLERISTOWN STREAM	0200	Brownstown Br	3	4	3-4	02-Oct-98
13C04	0400	Br u/s Bridgetown River confl	4	3	3-4	02-Oct-98

Assessment :

Both locations unsatisfactory, due to slightly polluted conditions, with some deterioration at uppermost one (0200) since previous survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
COROCK	0020	Aughaloe Br	4	3	3-4	29-Sep-98
13C01	0080	Cullenstown Br	4-5	4	4	29-Sep-98
	0100	Br E of Foulkesmill	3-4	4	4	29-Sep-98
	0150	SSW of Coolcliffe Ho	4	4	4	29-Sep-98

Assessment :

Mostly satisfactory. The only change since previous examination was some amelioration in conditions, from moderate to slight pollution, at the uppermost location (0020).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
DUNCORMICK	0200	Br NE of Ballynagale Ho	2	2-3	2-3	01-Oct-98
13D01	0280	Tullycanna Br	3	3-4	3	01-Oct-98
	0350	(W) Br near Duncormick Rly St	3-4	4	3-4	01-Oct-98

Assessment :

Unsatisfactory, due to slight and moderate pollution, with deterioration since previous examination at two of the three locations examined.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
MULMONTY	0300	Browncastle Br	4	3-4	3-4	01-Oct-98
13M01	0500	Tottenhamgreen Br	4-5	4	4	01-Oct-98
	0700	Goff's Br	4	4-5	4	01-Oct-98

Assessment :

Mostly satisfactory but with slight pollution at one of the three locations examined (0300). No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
OWENDUFF (WEXFORD)	0020	Ballynabola Br (Old)	4	3-4	4	29-Sep-98
13O01	0050	Br near Carnagh Ho	4	4	4	29-Sep-98
	0060	Rathnageeragh Br	4	4	4	29-Sep-98
	0180	Mullinderry Br	4	3-4	4	29-Sep-98
	0240	Taylorstown Br	4	4	4	29-Sep-98

Assessment :

Satisfactory following improvement at two locations (0020; 0180) since previous survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
TINTERN ABBEY STREAM	0900	Br near Tintern Abbey	3	3	3	28-Sep-98
13T01						

Assessment :

Continuing unsatisfactory.

HYDROMETRIC AREA NO. 15

Nore

Arigna	15A01
Arrigle	15A02
Ballyroan	15B01
Bregagh	15B02
Brownstown Stream	15B04
Caherlesk Stream	15C12
Cappanacloghy	15C06
Castlecomer Stream	15C01
Clogh	15C03
Cloghnagh	15C04
Delour	15D01
Desart Stream	15D04
Dinin	15D02
Donaghmore Stream	15D03
Ennisnag Stream	15E02
Erkina	15E01
Glory	15G01
Gorteenahilla	15G08
Goul	15G02
Gully	15G03
Killeen	15K01
King's	15K02
Lisdowney	15L02
Mountrath	15M01
Muckalee	15M02
Munster	15M03
Nore	15N01
Nuenna	15N02
Owveg (Nore)	15O01
Rathdowney Stream	15R03
Tonet	15T01

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
ARIGNA (KILKENNY)	0400	Arigna Br	4-5	3-4	3-4	14-Jul-98
15A01						

Assessment:

Again less than satisfactory when examined in July 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
ARRIGLE	0100	Br W of Ballyconnaught	3-4	3-4	3-4	17-Jul-98
15A02	0250	Br WSW of Bohilla	4	4	4	17-Jul-98
	0300	Br u/s Nore River confl	3-4	4	4	17-Jul-98

Assessment:

No change since previous survey with uppermost location continuing slightly polluted.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BALLYROAN	0100	Sallagh Br	3-4	4	3-4	05-Aug-98
15B01	0150	Ballydine Br	4	3-4	3-4	05-Aug-98
	0200	Gloreen Br	4	3	3	05-Aug-98

Assessment:

Unsatisfactory due to slight pollution of suspected agricultural origin upstream of Abbeyleix (0100, 0150) and to moderate pollution by suspected sewage discharges below the town (0200).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BREGAGH (KILKENNY)	0080	Br NW of Aughtanny	-	3	3-4	28-Aug-98
15B02	0350	Brewery Br	2-3	3	3	28-Aug-98

Assessment:

Continuing unsatisfactory, with slight and moderate pollution, although some improvement was recorded at the first of the two locations examined in August 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
BROWNSTOWN STREAM	0800	Br S of Brownstown	3	3	3-4	28-Aug-98
15B04	1100	Br u/s Nore R confl	3-4	4	3-4	28-Aug-98

Assessment:

Both locations were eutrophic when sampled in August 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
CAHERLESK STREAM	0200	Br near Ballytobin House	3	-	-	
15C12	0400	Br u/s King's R confl	-	3	3	23-Jul-98

Assessment:

Continuing moderately polluted.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
CAPPANACLOGHY		<i>Main Channel</i>				
15C06	0400	Br E of Clooncullen	3	2	3	24-Jul-98
	0700	The Hollow Br	3	3	4	24-Jul-98
	0900	Br E of Cromoge	-	3	4	24-Jul-98
		<i>Coole Tributary</i>				
	1100	Br S of Coole	2-3	2-3	3-4	24-Jul-98

Assessment:

Significant improvements were recorded at all locations surveyed in the wet summer of 1998 but unsatisfactory conditions persisted in the upper reaches of the Main Channel (0400) and in the tributary from Coole (1100).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
CASTLECOMER STREAM	0100	Br at N end of Castlecomer	4	4	4	25Aug98
15C01						

Assessment:

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
CLOGH	0200	Slatt Br	4	3-4	4	25-Aug-98
15C03	0400	Ford (Br) d/s Clogh Br	-	3-4	3-4	25-Aug-98

Assessment:

Improved at Slatt Bridge (0200) where quality assessed as 'Fair' but slight pollution again recorded in the lower reaches (0400) in late August 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
CLOGHNAGH	0300	Br W of Maudlin	3-4	3-4	4	24-Aug-98
15C04	0400	Br u/s Dinin R confl	4-5	4	4	24-Aug-98

Assessment:

Following a slight improvement at Station 0300 the lower Cloghnagh River was assessed as satisfactory ('Fair' quality) at both locations surveyed in August 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
DELOUR	0060	Br at Sallybrook	5	5	4-5	04-Aug-98
15D01	0150	Br u/s Delour Br	-	3-4*	4	04-Aug-98
	0400	Derrynaseera Br	4-5	4-5	4-5	04-Aug-98

Assessment:

Following an improvement at 0150, which was slightly polluted by a tributary stream in 1995, satisfactory conditions were recorded at all locations examined in 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
DESART STREAM	0300	Br S of Desart Demesne	3	3	3-4	21-Jul-98
15D04	0500	Br d/s Br SE of Knockreagh	2	2-3	3-4	21-Jul-98

Assessment:

Continuing unsatisfactory despite improvement, from moderate to slight pollution, at both locations.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
DININ (NORE)		<i>North Branch</i>				
15D02	0080	Killeen Br	3	3	3	25-Aug-98
	0200	Massford Br	-	3-4	4	25-Aug-98
	0300	Br in Castlecomer	4	3-4	4	25-Aug-98
	0400	Dysart Br	-	4	3-4	26-Aug-98
		<i>South Branch</i>				
	0450	Black Br	4-5	4	3-4	26-Aug-98
	0500	Br S of Uskerty Wood	-	4	4	26-Aug-98
	0600	Dysart Br	4	3-4	4	26-Aug-98
		<i>Main Channel</i>				
	0700	Lisnafunshion	3-4	3-4	4	26-Aug-98
	0760	Br E of Jenkinstown Ho	3-4	3-4	4	26-Aug-98
	0800	Dinin Br	4	4	4	26-Aug-98

Assessment:

North Branch mostly unsatisfactory due to pollution by suspected farm wastes, particularly in its upper reaches (0080). South Branch mostly satisfactory and improved somewhat at Dysart Bridge (0600). Main Channel also improved and satisfactory. The overall situation in 1998 was one of improvement when compared with the low flow conditions of 1995.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
DONAGHMORE STREAM	0400	Br d/s Brockry Br	3-4	3	4	15-Jul-98
15D03	0700	Br in Donaghmore	3-4	3	4	15-Jul-98

Assessment:

Following the abatement of moderate pollution at both locations examined, the Donaghmore Stream was in a satisfactory quality condition in July 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
ENNISNAG STREAM	0700	Br in Ennisnag	4	3-4*	3-4	23-Jul-98
15E02						

Assessment:

Continuing eutrophic at the only location assessed.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
ERKINA	0040	Br NW of Templequain	3-4	3	3-4	16-Jul-98
15E01	0100	Br SE of Beechmount	4	4	3-4	16-Jul-98
	0200	Coneyburrow Br	3	2-3	3-4	16-Jul-98
	0300	Carrick Br	3-4	3	3-4	16-Jul-98
	0400	Br near Black Island	-	4	4	16-Jul-98
	0550	Durrow Br	3-4	3-4	4	16-Jul-98

Assessment:

Despite improvements at several locations, particularly at Coneyburrow Bridge (0200), the Erkina was in a mostly unsatisfactory condition due to continuing slight pollution from agricultural, sewage and industrial sources.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
GLORY	0045	0.1 km d/s Br N of Kilmaganny	3	1	2-3	23-Jul-98
15G01	0100	Br SE of Rogerstown Br	4	3-4	4	23-Jul-98
	0200	Br E of Raheen	3-4	3	3-4	23-Jul-98
	0300	Br u/s King's R confl	4	3	4	23-Jul-98

Assessment:

Following an overall improvement, the Glory river was assessed as satisfactory at two of the four locations surveyed in 1998 (0100, 0300) but although improved considerably below Kilmaganny (0045) since 1995, conditions there remained unsatisfactory due to continuing significant pollution by suspected sewage discharges.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
GORTEENAHILLA	0300	Br N of Balleen	4	3	3	14-Jul-98
15G08						

Assessment:

There has not been any change in the moderately polluted status of the Gorteenahilla since previous survey. Farm wastes accessing the stream by a drain at the location examined cause or contribute to these conditions.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
GOUL		<i>Ballymacdonnell Branch</i>				
15G02	0080	Br u/s confl with Main Channel	3-4	3	3-4	10-Jul-98
		<i>Main Channel</i>				
	0250	Br 2 km NW of Johnstown	3	3	3	10-Jul-98
	0300	Fertagh Br	3-4	3-4	3-4	10-Jul-98
	0360	2nd Br u/s Aghmacart Br	-	3-4	4	10-Jul-98
	0450	Maynebog Br	4	4	4	10-Jul-98
	0500	Br near Newtown Mills	4	3-4	3-4	10-Jul-98

Assessment:

The Goul river was again moderately polluted below Johnstown (0250) and it continued to be distinctly eutrophic over much of the remainder of its course in 1998 but improvements were recorded at two locations (0080, 0360) since the previous survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
GULLY	0060	Gully Br (Upper)	3-4	3-4	3-4	20-Jul-98
15G03	0100	Br 1 km NE of Ballycuddahy	4	3	4	20-Jul-98
	0200	Gully Br	4	3-4	4	20-Jul-98
	0300	Colooney Br	4	4	4	20-Jul-98

Assessment:

Following improvements at two locations (0100, 0200) the Gully was in a mostly satisfactory condition when surveyed in July 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
KILLEEN	0200	Br NE of Cappanarrow	5	4-5	4-5	04-Aug-98
15K01	0400	Br u/s Delour River	5	5	4-5	04-Aug-98

Assessment:

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
KING'S (KILKENNY)		<i>West Branch</i>				
15K02	0040	Br u/s confl with East Branch	4-5	4	4	27-Aug-98
		<i>East Branch</i>				
	0060	Br SE of Garranacool	3-4	4	3-4	27-Aug-98
		<i>Main Channel</i>				
	0200	At Garrynoe	3	4	3-4	27-Aug-98
	0250	Second Br u/s Island's Br	3-4	-	4	27-Aug-98
	0500	Br in Callan	3-4	3	3-4	27-Aug-98
	0600	2 km d/s Callan - nr Old Mill	3	-	3-4	27-Aug-98
	0700	Br 3.8 km u/s Kells	3-4	3-4	3-4	27-Aug-98
	0850	Near Kellsborough House	3-4	3	3-4	27-Aug-98
	0900	Br N of Stonyford (Ennisnag)	3-4	3	3	28-Aug-98

Assessment:

Mostly unsatisfactory due to widespread slight pollution with moderate pollution at the bridge in Ennisnag (0900) where sewage was observed leaking from a pipe. Just two of the nine locations assessed, 0040 on the West Branch and 0250 on the Main Channel were found to be satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
LISDOWNEY STREAM	0100	Br N of Lisdowney Cross Rds	-	4	3-4	20-Jul-98
15L02						

Assessment:

The only location examined was assessed as slightly polluted in July 1998: this represents a deterioration from satisfactory conditions recorded there in the low flow summer of 1995.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
MOUNTRATH	0050	Br E of Drin	-	4	4-5	07-Aug-98
15M01	0100	Br near Rushin House	4	4	4	07-Aug-98
	0160	Rushin Br	4	4	4	07-Aug-98
	0300	Forest Br	4	4	3-4	07-Aug-98

Assessment:

Continuing mostly satisfactory but a slight deterioration was recorded in the lower reaches (0300) in early August 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
MUCKALEE	0100	Br N of Cloghpook	4-5	4	4-5	24-Jul-98
15M02	0200	Br u/s Dinin R confl	4	4	4	24-Aug-98

Assessment:

Continuing satisfactory at both locations.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
MUNSTER		<i>East Branch</i>				
15M03	0250	Br at Oldtown	3-4	dry	3-4	21-Jul-98
	0400	Br E of Graigue	4	dry	4	21-Jul-98
	0450	Br u/s Main Channnel	4	3-4	3-4	21-Jul-98
		<i>Main Channel</i>				
	0540	Br WSW of Killeen	3-4	-	4	21-Jul-98
	0600	Br SW of Kilbraghan	4-5	dry	3-4	21-Jul-98
	0700	Br u/s King's R confl	4	dry	4	21-Jul-98

Assessment:

Much of the East Branch was assessed as eutrophic while the Main Channel was in a generally satisfactory condition at the time of this survey in August 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
NUENNA	0100	Br d/s Clomantagh	3-4	3-4	3-4	14-Jul-98
15N02	0300	1km d/s Freshford	3	3	3	14-Jul-98
	0400	Br near Cooleeshal	4	3-4	4	14-Jul-98

Assessment:

Despite a minor improvement in its lower reaches (0400) the Nuenna in 1998 was in a similar, mostly unsatisfactory, condition to that recorded in 1991.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
NORE	0030	Br SW of Clonakenny	-	3	4	24-Sep-98
15N01	0080	Nore Br	3-4	3-4	3-4	24-Sep-98
	0200	Nore Br, SE of Roscrea	4	3	3-4	24-Sep-98
	0300	Quaker's Br	3-4	3-4	3-4	24-Sep-98
	0400	New Br, WNW of Borris	4	4	3-4	24-Sep-98
	0500	Br S of Coolrain	-	4*	4	24-Sep-98
	0580	Danganroe Br	-	3-4	3-4	23-Sep-98
	0700	Br nr Kilbricken House	4	4	3-4	23-Sep-98
	0900	Poorman's Br	4	4	3-4	23-Sep-98
	1100	Watercastle Br	4-5	3-4	3-4	23-Sep-98
	1300	Tallyho Br	4	3-4	4	23-Sep-98
	1450	Br in Ballyragget	3-4	3-4	4	23-Sep-98
	1600	Lismaine Br	4	3-4	4	22-Sep-98
	1700	Threecastles Br	4	4	4	22-Sep-98
	1800	1 km u/s Green's Br, Kilkenny	4	4	4-5	22-Sep-98
	1950	Fennessy's Mill (Ossory Br)	3-4	3-4	3-4	22-Sep-98
	2000	NE of Warrington, d/s Kilkenny	4	3	3-4	22-Sep-98
	2120	1 km d/s Bennettsbridge	4	4	4	22-Sep-98
	2200	Ballylinch Br	4	3-4	3-4	21-Sep-98
	2305	Thomastown Br (LHS)	2	2	3	21-Sep-98
	2310	Thomastown Br (RHS)	3-4	3-4	3-4	21-Sep-98
	2320	1 km d/s Thomastown Br	-	3	3-4	21-Sep-98
	2400	Brownsbarn Br	3-4	3-4	4	21-Sep-98

Assessment:

Despite minor improvements at seven locations, just nine of the 23 points examined were assessed as being in a satisfactory condition in late September 1998; this is a reflection of the widespread eutrophication which continues to affect much of the Nore. Significant quality improvements were recorded at two locations, however; these were in the uppermost (0030) and lower (2305) reaches where moderate and serious pollution, respectively, had abated. The latter was a partial recovery only, moderate pollution persisting at Thomastown Bridge. The reach from Durrow (1300) to Kilkenny (1800) is notable having been assessed as satisfactory at each location surveyed.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date '98</i>
OWVEG (NORE)	0050	Br W of Spink	4	-	3-4	09-Jul-98
15O01	0080	Boleybeg Br	-	3	3-4	09-Jul-98
	0100	Dysart Wooden Br	4	-	-	
	0160	Br WNW of Boleybawn	-	4	3-4	09-Jul-98
	0200	Ironmills Br	4	-	-	
	0280	Castlemarket Br	-	4	4	09-Jul-98
	0300	Rosconnell Br	4	-	-	
	0400	Br E of Attanagh	-	4	4	09-Jul-98

Assessment:

Upper and middle reaches distinctly eutrophic, lower reaches (0280, 0400) remaining satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	Q'93	Q'95	Q'98	<i>Date '98</i>
RATHDOWNEY STREAM		<i>Castletown Tributary*</i>				
15R03	0100	Br nr Cody's Castle	3	3	dry	15-Jul-98
		<i>Mount Pleasant Tributary*</i>				
	0300	Br u/s Castletown Trib confl	3	3	3	15-Jul-98
		<i>Main Channel</i>				
	0500	Br W of Whiteswall	3-4	dry	dry	15-Jul-98
	0700	Br W of Glasha Crossroads	4-5	4	3-4	15-Jul-98
	1000	Br at S end of Rathdowney	3	3	3-4	15-Jul-98

Assessment:

As in previous surveys, the Mount Pleasant tributary of the Rathdowney Stream was again moderately polluted at the point surveyed (0300) in 1998 and the main channel was assessed as slightly polluted at both locations surveyed. The Castletown tributary was dry where examined (0100) as was the upper main channel (0500); open cast mining activities in the catchment may be associated with the lack of flow at these points.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	Q'91	Q'95	Q'98	<i>Date '98</i>
TONET	0200	Br N of Keeloge North	4-5	4-5	4-5	05-Aug-98
15T01	0400	Rosshaclonagh Br	4-5	4-5	4-5	05-Aug-98
	0600	Anatrim Br	4-5	4	4	05-Aug-98

Assessment:

Continuing satisfactory with no significant change in conditions since first surveyed in 1987.

HYDROMETRIC AREA NO. 17
Colligan-Mahon

Araglin (Colligan)	17A01
Brickey	17B01
Colligan	17C01
Dalligan	17D01
# Dunhill	17D02
Leperstown Stream	17L01
Mahon	17M01
Morrigen	17M02
Tay	17T01

Rivers denoted thus had seriously polluted stretch(es) at the time of this survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
ARAGLIN (COLLIGAN)	0300	Coum Br	4-5	4-5	4-5	08-Sep-98
17A01	0400	Br u/s Colligan R confl	4	4-5	4-5	08-Sep-98

Assessment:

Satisfactory. No change

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
BRICKEY	0030	Canty Br	3	-	-	10-Sep-98
17B01	0050	Knockmahon Br	-	3	3	10-Sep-98
	0070	Drehidatogher Br	3*	-	-	10-Sep-98
	0090	Br u/s Twomile Br	3-4	3-4	3-4	10-Sep-98

Assessment:

Continuing unsatisfactory due to moderate (0050) and slight (0090) pollution.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
COLLIGAN		<i>West Branch</i>				
17C01	0090	Scart Br (West)	4	4-5	4-5	08-Sep-98
		<i>East Branch</i>				
	0100	Scart Br (East)	4	4-5	4-5	08-Sep-98
		<i>Main Channel</i>				
	0150	Br ESE of Lackandarra	-	4-5	4-5	08-Sep-98
	0180	Colligan Br	4	4-5	4-5	08-Sep-98
	0250	Br nr Killadangan	4	4	4	08-Sep-98

Assessment:

Satisfactory with no change since previous examination.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
DALLIGAN	0050	Br E of Carricknafinnoge	4	4	4	10-Sep-98
17D01	0100	Br at Shanbally	4	3-4	4	10-Sep-98
	0300	New Br, u/s Ballyvoyle Br	4	3-4	4	10-Sep-98

Assessment:

Since 1996 improvements at two locations (0100, 0300) have restored overall quality to a satisfactory ('Fair') condition.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
DUNHILL	0100	Ballyphilip Br	2-3	3	2	25-Sep-98
17D02	0200	Br W of Dunhill Lodge	3	3	3-4	25-Sep-98

Assessment:

Unsatisfactory at both locations surveyed. Has further deteriorated at Ballyphilip Bridge (0100) where seriously polluted by sewage in late September 1998. Lower reaches (0200) slightly polluted and somewhat better than in 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
LEPERSTOWN STREAM	0300	Br W of Leperstown	3	3	3	25-Sep-98
17L01						

Assessment:

Continuing unsatisfactory due to moderate levels of pollution at the location surveyed.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
MAHON	0100	Mahon Br, Furraleigh	4	4	4	11-Sep-98
17M01	0140	Br S of Ballyboy	3	4	4	11-Sep-98
	0180	Br in Kilmacthomas	4	-	-	11-Sep-98
	0200	Br just S of Kilmacthomas	3	4	3-4	11-Sep-98
	0300	Aughshemus Br	4	4	4	11-Sep-98
	0350	ENE of Seafield Ho	4	4	4	11-Sep-98

Assessment:

As in previous years, water quality in the Mahon in September 1998 was nowhere better than 'Fair'. The reach below Kilmacthomas (0200) had deteriorated again and was slightly polluted at the time of the recent survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
MORRAGEN	0100	Rahoughtragh Br	4	3-4	3-4	25-Sep-98
17M02	0200	Kilnagrange Br	4	4	4	25-Sep-98

Assessment:

As in 1996, this small stream was again slightly polluted in its upper reaches (0100) and in a 'Fair' quality condition in its lower.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
TAY	0050	Aughnacurra Br	4-5	4-5	4	11-Sep-98
17T01	0100	Br NE of Lemybrien	4-5	4	4	11-Sep-98
	0250	Br nr Durrow Ho	-	4-5	4	11-Sep-98
	0400	Stradbally Br	4	4	4	11-Sep-98

Assessment:

Continuing satisfactory with no significant change since last survey; small amounts of domestic sewage continue to reach the river, from the right-hand side, immediately downstream of Stradbally Bridge (0400).

HYDROMETRIC AREA NO. 22
Laune-Maine-Dingle Bay

Beheenagh	22B01
Behy	22B02
Brown Flesk	22B03
Caragh	22C02
Carhan	22C03
Coomnacarrig	22C06
Cottoners	22C05
Crinnagh	22C07
Croaghane	22C09
Deenagh	22D01
Derreen	22D02
Dogue	22D03
Emlagh	22E01
Fahaduff	22F09
Ferta	22F01
Finglas (Laune)	22F03
Finow	22F04
Flesk	22F02
Gaddagh	22G01
Gearhameen	22G03
Glantane	22G07
Groin	22G08
Gweestin	22G06
Laune	22L01
Little Maine	22L02
Loe	22L03
Loo	22L04
Maine	22M01
Meelagh	22M02
Milltown	22M03
Owenalondrig	22O01
Owenascaul	22O02
Owenreagh	22O03
Owenroe (Caragh)	22O04
Owgarriff	22O06
Owneykeagh	22O05
Quagmire	22Q01
Shanowen (Maine)	22S01

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
BEHEENAGH	0400	Br N of Gortderrig	4-5	4-5	4	28-Jul-98
22B01	0600	Br u/s Owneykeagh R confl	4	4	4	28-Jul-98

Assessment:

Satisfactory. No significant change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
BEHY (KERRY)		<i>Coomnacronia Lake Branch</i>				
22B02	0300	Br W of Ballynakilly Br	4-5	4	4	15-Sep-98
		<i>Coomaglaslaw Branch</i>				
	0400	First Br d/s Coomaglaslaw L	4-5	4	4-5	15-Sep-98
		<i>Main Channel</i>				
	0800	Second Br d/s Coomasaharn L	4	4	4	15-Sep-98
	1000	Ballynakilly Br	4-5	4	4-5	15-Sep-98
	1300	Behy Br	4-5	4-5	4-5	15-Sep-98

Assessment:

Satisfactory. No significant change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
BROWN FLESK	0050	Br u/s Barna Stream confl	4	4-5	4-5	07-Oct-98
22B03	0100	Rice Br	2-3	3-4	3-4	07-Oct-98
	0200	Twiss Br	3	4	3-4	07-Oct-98
	0300	Flesk Br, Currow	4	3-4	4	07-Oct-98
	0400	O'Connell Br	4	3-4	4	07-Oct-98
	0500	Br u/s Maine R confl	4	4	4	07-Oct-98

Assessment:

Mostly satisfactory but with slight pollution at two of the five monitoring sites in 1998; overall net improvement since 1996. An intermittent discharge of milk wastes some 50m downstream of Flesk Bridge, Currow (0300) could lead to further pollution of the river.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
CARAGH	0200	Br SW of Cloghfune	4	4	4-5	16-Sep-98
22C02	0400	Foot-bridge d/s Owenroe R confl	5	4-5	4-5	16-Sep-98
	0600	Blackstones Br	5	5	5	16-Sep-98
	0680	1.2km u/s Caragh Br	4	3-4	3-4	16-Sep-98

Assessment:

Mostly satisfactory but, as in 1996, quality reduced downstream of Lough Caragh (0680).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
CARHAN	0090	Br u/s Br N of Canburrin	-	4	-	
22C03	0100	Br N of Canburrin	-	-	3-4	14-Sep-98
	0200	Foot-bridge S of Bahagh	4	4	4	14-Sep-98

Assessment:

Upper reaches (0100) eutrophic, lower reaches remaining satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
COTTONER'S (LAUNE)	0100	Br W of Breanlee	4-5	4-5	4-5	30-Jul-98
22C05	0400	Br N of Glancuttaun Lower	4-5	4-5	4-5	30-Jul-98
	0600	Br u/s Laune R confl	4	3-4	3-4	30-Jul-98

Assessment:

Mostly satisfactory but again eutrophic at final location (0600) which is approximately 0.2km upstream of the Laune River confluence.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
COOMNACARRIG	0300	Dromalonnhurt Br	4	4-5	4-5	16-Sep-98
22C06						

Assessment:

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
CRINNAGH	0200	Cromaglan Br	5	5	5	17-Sep-98
22C07						

Assessment:

High ecological quality again recorded.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
CROAGHANE	0100	Sheheree Br	4	4	4	04-Sep-98
22C09						

Assessment:

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
DEENAGH	0045	Br NE of Tulloram	3-4	3	3	28-Jul-98
22D01	0100	Br near Woodpark	4	4-5	4	28-Jul-98
	0200	Deenagh Br	4	4	4	28-Jul-98
	0600	Br just u/s L Leane	4-5	4	4	28-Jul-98

Assessment:

Moderate pollution again recorded in upper reaches (0045) in July 1998: remainder of river continuing satisfactory ('Fair' quality.)

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
DERREEN (KERRY)	0100	Derreen Br	4	4	4	14-Sep-98
22D02						

Assessment:

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
DOGUE	0300	Ford d/s Carker Branch confl	3	4	4	18-Sep-98
22D03	0400	Br u/s Brown Flesk R confl	4	4	4	18-Sep-98

Assessment:

Satisfactory at both locations. No change since last survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
EMLAGH	0200	Br W of Emlagh	4-5	4-5	4-5	03-Sep-98
22E01	0400	Br S of Ballycullane	4-5	4-5	4-5	03-Sep-98

Assessment:

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
FERTA		<i>North Branch</i>				
22F01	0100	Br WSW of Coulagh	4-5	4-5	4-5	15-Sep-98
		<i>South Branch</i>				
	0500	Br at Toon	4-5	4	4-5	15-Sep-98
		<i>Main Channel</i>				
	0700	Br ENE of Derreenmoira	4-5	4	4	15-Sep-98
	1000	Deelis Br	3-4	3-4	3-4	15-Sep-98

Assessment:

Mostly satisfactory. No significant change since previous survey with the final location (1000), which is just downstream of a sand/gravel quarry, continuing to show some impact on macroinvertebrate fauna.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
FLESK (KERRY)	0010	1.6km d/s Fords NW of Cummeenabuddoge	4-5	5	3-4	05-Oct-98
22F02	0040	Ford (Br) near Clydagh Lodge	4-5	4-5	4-5	05-Oct-98
	0060	Poulgorm Br	5	5	5	05-Oct-98
	0100	Br nr Glenflesk	5	5	5	06-Oct-98
	0200	Flesk Br, Gortahoosh	4	4	4	06-Oct-98
	0250	Ford NE of Faghcullia	4	4-5	4-5	06-Oct-98
	0300	Flesk Br, S of Killarney LHS	4-5	4-5	4	06-Oct-98
	0310	Flesk Br, S of Killarney RHS	3	4-5	3-4	06-Oct-98

Assessment:

Satisfactory apart from uppermost (0010) and lowermost (0310) locations where slightly polluted due respectively to forestry fertiliser spraying and overflow from sewage treatment works.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
FINGLAS (LAUNE)	0400	Cappagh Br	5	4-5	4	29-Jul-98
22F03	0700	Meanus Br	4	4-5	4	29-Jul-98

Assessment:

Continuing satisfactory despite slight reduction in biological diversity at both locations since 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
FINOW	0100	Br 0.3km u/s L Guitane	5	5	5	31-Jul-98
22F04	0300	Ford (Br) u/s Flesk R confl	4-5	4-5	4-5	31-Jul-98

Assessment:

Satisfactory. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
FAHADUFF	0200	Br NE of Portduff	3-4	4	4	31-Aug-98
22F09	0400	Br u/s Maine R confl	3-4	3-4	4	31-Aug-98

Assessment:

Satisfactory. Quality improved in lower reaches (0400) since 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
GADDAGH	0300	Ford SW of Gortboy	4-5	4-5	5	30-Jul-98
22G01	0400	Gaddagh Br	4	4-5	4-5	30-Jul-98
	0500	Gortnaskarry Br	4-5	4	3-4	30-Jul-98

Assessment:

Continuing mostly satisfactory but has deteriorated in lowermost reaches (0500) where slight pollution recorded in late July 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
GEARHAMEEN	0100	Br N of Cockow	5	4	4-5	17-Sep-98
22G03	0300	Br u/s Owenreagh R confl	4-5	4-5	4-5	17-Sep-98

Assessment:

Continuing satisfactory at the two locations examined in autumn 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
GWEESTIN	0300	Dooneen Br	4	4	4-5	29-Jul-98
22G06	0600	Gweestin Br	4	3-4	3-4	29-Jul-98
	0900	Br u/s Listry Br	4	4	4	29-Jul-98
	1200	Gweestin Br	3	2-3	3	29-Jul-98

Assessment:

Two of the four locations sampled were again less than satisfactory due respectively to slight (0600) and moderate (1200) pollution.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
GLANTANE	0200	Leaha Br	3-4	4	4	18-Sep-98
22G07						

Assessment:

Satisfactory. No change since last survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
GROIN	0300	Br E of White Gate Crossroads	4	4-5	4	03-Sep-98
22G08						

Assessment:

Satisfactory. No significant change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
LAUNE	0200	Beaufort Br	4	4	4	06-Oct-98
22L01	0300	Ballymalis Castle	4	4	4	06-Oct-98
	0400	1.5km d/s Gweestin R confl	3-4	3-4	3-4	06-Oct-98

Assessment:

Mostly satisfactory but continuing slightly polluted downstream of Gweestin River confluence (0400). No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
LITTLE MAINE	0500	Br near Fairy Gate	4	4-5	4	31-Aug-98
22L02	1000	Br u/s Maine R confl	3-4	4	3-4	01-Sep-98

Assessment:

Satisfactory at one of the two locations examined in 1998; slightly polluted at the other sample station (1000) which represents a deterioration since 1996 and a reversion to 1994 conditions.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
LOE	0100	Br just d/s Black Lake	3-4	4-5	4-5	29-Jul-98
22L03	0400	Br u/s Laune R confl	4	4	4	29-Jul-98

Assessment:

Satisfactory. No change since previous survey of 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
LOO	0100	Agnanus Br	4	4	4	06-Oct-98
22L04	0400	Loo Br	4	4	3-4	06-Oct-98

Assessment:

Formerly satisfactory at both locations but a deterioration, to a slightly polluted condition, was recorded at the lowermost sample site (0400) in 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
MAINE	0200	(East) Br S of Castleisland	3-4	3-4	3-4	03-Sep-98
22M01	0400	Br 2km d/s Castleisland	3-4	3	3	03-Sep-98
	0500	Br NW of Currans	4	3-4	3-4	03-Sep-98
	0700	Maine Br (Lower)	4	3-4	4	03-Sep-98

Assessment:

Continuing mostly unsatisfactory due to widespread eutrophication. Lower reaches (0700) somewhat improved since 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
MEELAGH	0100	Br u/s Caragh R confl	4-5	4-5	4-5	16-Sep-98
22M02						

Assessment:

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
MILLTOWN (KERRY)	0110	Br W of Glens Br	-	4	4	02-Sep-98
22M03	0200	Br d/s Glens Br	3	4	4	02-Sep-98
	0300	Ford E of Kilfountain	3	3	3	02-Sep-98

Assessment:

Quality continuing generally 'Fair' but lower reaches (0300) again moderately polluted by suspected fish-farm effluents.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
OWENALONDRIG	0200	Br d/s Fairy Glen	4	4	4	02-Sep-98
22O01	0500	Br in Foheraghmore	4	3-4	4	02-Sep-98

Assessment:

Satisfactory. Has improved at lowermost location (0500) since 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
OWENASCAUL	0800	Br 1.6km u/s Anascaul	4	4-5	4-5	02-Sep-98
22O02	1000	Br 1.3km d/s Anascaul	4-5	4-5	4-5	02-Sep-98

Assessment:

As indicated by the high biological diversity, water quality remains satisfactory in the Owenascaul river but since the previous survey the pearl mussel (a protected species) has not been observed upstream of Anascaul (0800) apparently as a result of site disturbance at that location.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
OWENREAGH	0100	Br E of Greagnagreana	4-5	4-5	4-5	17-Sep-98
22O03	0200	Just u/s trib from Looscaunagh L	4-5	4-5	4-5	17-Sep-98
	0400	Br u/s Upper Lake	5	5	5	17-Sep-98

Assessment:

Continuing satisfactory. 'Good' quality persists in lower reaches (0400).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
OWENROE (CARAGH)	0200	1.1km u/s Caragh R confl	4	4	4-5	16-Sep-98
22O04						

Assessment:

Continuing satisfactory where sampled which is about four kilometres downstream of Cloon Lough.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
OWGARRIFF (FINOW)	0100	Owgarriiff Br	5	4-5	4	03-Jul-98
22O06						

Assessment:

Continuing satisfactory despite some signs of enrichment which may have been due to lake effect from Lough Garagarry some three and a half kilometres upstream..

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
OWNEYKEAGH	0200	Br WNW of Drom	4-5	4-5	4-5	28-Jul-98
22O05	0400	Br u/s Flesk R confl	4	4-5	4-5	28-Jul-98

Assessment:

Satisfactory. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
QUAGMIRE	0200	Br d/s Tooreennamult Br	4	4-5	4-5	27-Jul-98
22Q01	0400	Annagh Br	4	4	4-5	27-Jul-98

Assessment:

Satisfactory. No significant change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
SHANOWEN (KERRY)	0020	Second Br d/s Cloone R confl	3	3	3-4	04-Sep-98
22S01	0100	Ford (Br) u/s Maine R confl	3-4	4	4	04-Sep-98

Assessment:

Some improvement was recorded in the upper reaches (0020) of the Shanowen river in 1998 but slight pollution persisted there. The taking of stones and gravel, by local farmers, from the river bed and banks is leading to instability at that location also. Lower reaches continuing satisfactory.

HYDROMETRIC AREA NO. 23
Tralee Bay - Feale

Allaghaun	23A01
Breanagh	23B02
Brick	23B03
Caher (Limerick)	23C01
Clydagh (Feale)	23C03
Feale	23F01
Feohanagh	23F02
Finglas	23F03
Galey	23G01
Glashaconcore	23G02
Glashoreag	23G03
Glenacarney	23G06
Glennahoo	23G05
Knockfinnisk	23K02
Lee (Tralee)	23L01
Lyracrumpane	23L02
Milltown House Stream	23M04
Oolagh	23O01
Owencashla	23O02
Owenmore	23O03
Owennafeana	23O04
Owveg	23O05
Scorid	23S01
Smearlagh	23S02
Tarmon Stream	23T03
Tullaleague	23T01
Tyshe	23T02

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
ALLAGHAUN	0200	Br S of Dromore	-	4-5	4	18-Aug-98
23A01	0400	Tour Br	4	4-5	4	18-Aug-98
	0500	Br N of Glengort	4	4	4	18-Aug-98
	0700	Ford NW of Devonroad Stn	-	-	4	18-Aug-98
	0900	Allaghaun Br	4	4	4	18-Aug-98

Assessment:

Continuing satisfactory with no significant change since last sampled.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
BREANAGH	0100	Br S of Cappa Br	-	4	4	13-Oct-98
23B02	0300	Breanagh Br	4	3-4	4	13-Oct-98

Assessment:

Satisfactory following improvement in lower reaches (0300) since last survey; the situation at that location (Breanagh Bridge) could again be threatened due to an overflow from a septic tank immediately upstream on the right-hand side.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
BRICK	0100	Br SE of Glanballyma	4	4-5	4	20-Aug-98
23B03	0300	Shanow Br	4	4	4	20-Aug-98
	0400	Br W of Garrynagore	4	3-4	3-4	20-Aug-98

Assessment:

Mostly satisfactory but continuing eutrophic at the final location (0400). No significant change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
CAHER (LIMERICK)	0100	Caher Br	4-5	4-5	4	18-Aug-98
23C01	0200	Br u/s Feale River confl	4-5	-	-	
	0300	Just u/s Feale R confl	-	4	4	18-Aug-98

Assessment:

Satisfactory. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
CLYDAGH (FEALE)	0200	Scalp Br	4	4-5	4	18-Aug-98
23C03	0500	Clydagh Br	4	4-5	4	18-Aug-98

Assessment:

Satisfactory. No significant change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
FEALE	0020	Br at Rockchapel	4-5	4-5	4	09-Oct-98
23F01	0040	Ford u/s Breanagh R confl	-	4-5	4-5	09-Oct-98
	0120	Just d/s Caher R confl	-	4	4	09-Oct-98
	0200	Wellesley Br	4-5	4-5	4-5	08-Oct-98
	0310	0.2 km d/s Abbeyfeale Br (RHS)	4	2	3	08-Oct-98
	0320	0.2 km d/s Abbeyfeale Br (LHS)	4	4	4	08-Oct-98
	0500	Br ENE of Duagh Ho	4-5	4	4	08-Oct-98
	0550	Trieneragh	-	4	4	08-Oct-98
	0600	Listowel Br	4	3-4	4	08-Oct-98
	0700	2 km d/s Listowel Br (RHS)	3	3	3	08-Oct-98
	0710	2 km d/s Listowel Br (LHS)	4	3-4	4	08-Oct-98
	0725	0.1km d/s Racecourse Foot-bridge	-	-	3-4	08-Oct-98
	0800	Br at Finuge	3	3	3	08-Oct-98

Assessment:

Following a marked improvement below Abbeyfeale (0310) where serious pollution had abated, the river was in a mostly satisfactory condition when surveyed in October 1998. No such improvement was apparent downstream of Listowel (0700) or in the lower reaches (0800) where moderately polluted conditions persisted.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
FEOHANAGH	0100	Ballybrack Br	5	5	5	02-Sep-98
23F02	0300	0.5 km u/s Ballyganneenbeg Br	4-5	-	-	02-Sep-98
	0500	Br at Feohanagh	4-5	4	4	02-Sep-98

Assessment:

Satisfactory. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
FINGLAS	0400	Br d/s Curraduff Br	5	5	4-5	01-Sep-98
23F03						

Assessment:

Satisfactory. No significant change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'99</i>	<i>Date 1999</i>
GALEY	0100	Athea Br	4	4	4	01-Jul-99
23G01	0200	Br d/s Athea	4	4	4	01-Jul-99
	0300	Ahavoher Br	3-4	3-4	3-4	01-Jul-99
	0400	Galey Br	3-4	3-4	3-4	01-Jul-99
	0450	Br SW of Pollagh	-	4	4	01-Jul-99
	0500	Shrone Br	3	3	3-4	01-Jul-99
	0700	Br d/s Inch Br	3	3	3	01-Jul-99

Assessment:

Despite a minor improvement at Shrone Bridge (0500) the Galey river was in a generally overenriched condition when surveyed in July 1999; as in 1996 just three of the seven locations surveyed were satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
GLASHACOONCORE	0100	Br WSW of Meenyvoughaun	-	4-5	4	20-Aug-98
23G02	0200	Glashaconcore Br	4	4	4	20-Aug-98

Assessment:

Continuing satisfactory but small amounts of diesel oil reaching the river at the lowermost location (0200) could threaten this situation.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
GLASHOREAG	0200	Ivy Br	4	4	3-4	19-Aug-98
23G03						

Assessment:

Slightly polluted due to small amounts of farm slurry reaching the river from a pipe located on the right-hand side of the river some 50m upstream of Ivy Bridge.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
GLENACARNEY	0300	Br u/s Feale R confl	4	4-5	4	13-Oct-98
23G06						

Assessment:

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
GLENAHOO	0200	Br u/s Scorid R confl	4-5	4-5	4-5	01-Sep-98
23G05						

Assessment:

Continuing satisfactory at the only location examined which is approximately 150m upstream of the confluence with the Scorid River.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'99</i>	<i>Date 1999</i>
KNOCKFINNISK	0100	Br u/s Galey R confl	4	4	4	01-Jul-99
23K02						

Assessment:

Continuing satisfactory at the only location examined which is approximately one kilometre upstream of the Galey River confluence.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
LEE (TRALEE)	0030	Ahnambraher Br (RHS)	3	2	3	19-Aug-98
23L01	0035	Ahnambraher Br (LHS)	3	4	3	19-Aug-98
	0050	Br SE of Caherbreagh	4	4	3-4	19-Aug-98
	0100	2nd Br d/s Ballymullen Mills	4	3	3	19-Aug-98

Assessment:

Since 1996 serious pollution had abated at 0030 but, following deteriorations at 0035 and 0050, the Lee was in an unsatisfactory (moderately polluted) condition at most of the locations examined in 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
LYRACRUMPANE	0100	Br u/s Smearlagh R confl	4	4	4	19-Aug-98
23L02						

Assessment:

Continuing satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
MILLTOWN HOUSE STREAM	0100	Br E of Milltown Ho	4	3	4	20-Aug-98
23M04						

Assessment:

Satisfactory at the only location examined which represents an improvement since the previous survey and a reversion to conditions first recorded there in 1994.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
OOLAGH	0200	Br u/s Oolagh Br	-	4-5	4	17-Aug-98
23O01	0500	Br u/s Feale R confl	4	4	4	17-Aug-98

Assessment:

Continuing satisfactory despite signs of enrichment at the final location (0500).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
OWENCASHLA	0300	First Br u/s Sea	4-5	4-5	4-5	01-Sep-98
23O02						

Assessment:

Satisfactory with no change in water quality. Refuse was being burned unattended on the bank of the river at the time of the survey; this included large amounts of used cooking oil and other materials from the catering or restaurant trade.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
OWENMORE (KERRY)	0100	Br d/s L Cruttia	5	5	4-5	01-Sep-98
23O03	0200	0.5 km d/s L Gal	5	4-5	4-5	01-Sep-98
	0300	Br at Boherboy	5	5	5	01-Sep-98

Assessment:

Satisfactory. Moderate amounts of filamentous algae are consistently recorded downstream of Lough Gal (0200).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
OWENNAFEANA	0100	Teer Br	4-5	4-5	4-5	01-Sep-98
23O04						

Assessment:

Satisfactory. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
OWVEG (KERRY)	0200	Owveg Br	4	4	4	21-Aug-98
23O05	0350	Ford just d/s Tullaleague R confl	4	4	4	21-Aug-98
	0500	Bateman's Br	4	4	4	21-Aug-98

Assessment:

Satisfactory. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
SCORID	0100	Kilmore Br	4-5	-	-	
23S01	0200	Ford d/s Kilmore Br	-	4-5	4-5	01-Sep-98
	0300	Br u/s Glennahoo R confl	4-5	-	-	

Assessment:

Satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
SMEARLAGH	0300	Br SE of Reanagowan Crossroads	-	4-5	4	19-Aug-98
23S02	0400	Br u/s Lyracrumpane R confl	4	4-5	4-5	19-Aug-98
	0500	Br NE of Gortacloghane	4	4	4	19-Aug-98
	0700	Ford (Br) u/s Feale R confl (LHS)	4	4	4	19-Aug-98
	0710	Ford (Br) u/s Feale R confl (RHS)	3	4	4	19-Aug-98

Assessment:

Satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'99</i>	<i>Date 1999</i>
TARMON STREAM	0500	Gabbets Br	3-4	3	3	01-Jul-99
23T03						

Assessment:

Continuing highly eutrophic.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
TULLALEAGUE	0100	Talbots Br	4	3-4	3-4	21-Aug-98
23T01						

Assessment:

Known locally as the Knocknagashel Stream, the only location (0100) examined was again slightly polluted.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
TYSHE	0100	Monoona Br	1	3	-	
23T02	0400	West Br, Ardfert	3	3	3	20-Aug-98
	0500	Br nr Banna House	3	3	-	

Assessment:

Continuing moderately polluted where examined.

HYDROMETRIC AREA NO. 27

Shannon Estuary North

(BALLYNACALLY)	27B04
BROADFORD	27B02
(CROMPAUN (WEST))	27C05
CARROWNANELLY	27C07
CASTLELODGE	27C01
CLAREEN (FERGUS)	27C06
(CLOON)	27C02
CLOONDANAGH LOUGH STREAM	27C13
CLOONEEN (CLARE)	27C03
CLOVERHILL STREAM	27C10
CRAGGAUNBOY	27C04
CRATLOE	27C07
CROMPAUN (EAST)	27C09
CULLAUN	27C14
(DOONAHA)	27D01
DRUMINSHIN	27D02
FERGUS	27F01
GOURNA	27G02
HELL	27H01
INCH (CLARE)	27I01
KILLADYSERT STREAM	27K03
KILLURAN	27K01
KILMORE NORTH STREAM	27K04
LISKENNY	27L01
MILL BROOK	27M03
(MOYARTA)	27M01
MOYASTA	27M04
MOYREE	27M02
O'CALLAGHANSMILLS	27O03
OWENOGARNEY	27O01
(OWENSLIEVE)	27O02
RINE	27R01
SHALLEE	27S01
SPANCELHILL	27S03
(WOOD)	27W01

Rivers shown in brackets were not surveyed in 1998; to be surveyed in 1999

River and Code	St. No.	Station Location	Q'91	Q'96	Q'98	Date '98
BROADFORD 27C07	0300	Just u/s South Branch confl	5	4-5	5	15-Oct-98
	0500	Scott's Bridge	5	2-3	3	15-Oct-98
	0600	Near Graffa Bridge	4	4	4	15-Oct-98
	0800	Bridge u/s Doon Lough	4	4	4	15-Oct-98

Assessment:

The upper Broadford (0300) was of good quality, but quality was again doubtful at Scott's Bridge (0500). The lower section was satisfactory in 1998.

River and Code	St. No.	Station Location	Q'91	Q'97	Q'98	Date '98
CARROWNANELLY 27C07	0300	Br SE of Kilbreckanbeg Ho	-	-	3	15-Oct-98
	0400	Bridge N.W. of Glenard House	2-3	3	4	15-Oct-98

Assessment:

The upper reaches of the Carrownanelly River (0300) were moderately polluted at the time of this survey in 1998 but a significant improvement was recorded in the lower river (0400) where the moderate pollution of 1997 had completely abated.

River and Code	St. No.	Station Location	Q'91	Q'97	Q'98	Date '98
CASTLELODGE 27C01	0300	Bridge N.E. of Derry	3	2-3	3	05-Oct-98
	0700	Bridge u/s Lough Aslaun	4	3	3	05-Oct-98
	0900	Bridge u/s Muckanagh Lough	4	3	2-3	05-Oct-98

Assessment:

As in 1997, the Castlodge River was moderately polluted over its length when surveyed in October 1998. This is a very unsatisfactory situation particularly as the river flows into a lake - Muckanagh Lough.

River and Code	St. No.	Station Location	Q'91	Q'97	Q'98	Date '98
CLAREEN (FERGUS) 27C06		<i>Main Channel</i>				08-Oct-98
	0540	Br just S Killerk	-	4	4	08-Oct-98
	0600	Clareen Bridge	3	3	3	08-Oct-98
		<i>Ballymacooda Lough Branch</i>				08-Oct-98
	0300	Bridge N.E. of Darragh	3	-	-	08-Oct-98
	0500	Bridge d/s Rathmeehan Bridge	2-3	-	4	08-Oct-98

Assessment:

By comparison with the situation in 1991, the lower reaches of the Ballymacooda Branch of the Clareen River (0500) were much improved and quality there was assessed as satisfactory in early August 1998. No such

improvement was apparent, however, in the lower Main Channel (0600) where moderate pollution was again recorded.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
CLOONDANAGH LOUGH STR.	0300	Bridge near Lisfeean	3-4	3	3-4	13-Oct-98
27C13						

Assessment:

This stream was slightly polluted in October 1998 and as such it had slightly improved in comparison with its 1996 condition.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
CLOONEEN (CLARE)	0200	Bridge E.N.E. of Carrowreagh	3	3	3	06/10/98
27C03	0300	N.W. of Kiltoraght Glebe Ho	4	4	4	06/10/98

Assessment:

The upper Clooneen was moderately polluted (0200) with a poor quality fauna and an oil slick on the water surface. The lower section (0300) was satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'98</i>	<i>Date '98</i>
CLOVERHILL STREAM	0600	Bridge near Glebe House	2-3	3	14-Oct-98
27C10					

Assessment:

As in 1991, this Owenogarney tributary was again moderately polluted at the location surveyed in October 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
CRAGGAUNBOY	0200	Br d/s Trib ex L Nagowan	4	-	4	07-Oct-98
27C04	0300	Br SE of L. Nagowan	-	4	-	07-Oct-98
	0600	Bridge u/s Fergus River	4	3-4	4	07-Oct-98

Assessment:

Satisfactory at both points surveyed and slightly improved in its lower reaches since 1997.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'98</i>	<i>Date '98</i>
CRATLOE	0100	Bridge N.E. of Cratloe Wood	5	-	14-Oct-98
27C08	0300	Second Bridge u/s Shannon R	3-4	4-5	14-Oct-98

Assessment:

Satisfactory where surveyed and much improved in comparison with its condition in 1991.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'98</i>	<i>Date '98</i>
CROMPAUN (EAST)	0300	Cappateemore Bridge	-	4-5	14-Oct-98
27C09	0400	Br W of Knockalisheen	5	-	14-Oct-98
	0500	Bridge S.W. of Knockalisheen	-	-	14-Oct-98
	0600	Meelick Bridge	4-5	4-5	14-Oct-98

Assessment:

Satisfactory at both sites surveyed in October 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'96</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
CULLAUN	0100	Cullaun Bridge	3-4	3/0	4	15-Oct-98

Assessment:

Following a serious fish kill in 1997, the Cullaun River had recovered to a satisfactory condition by mid-October 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
DRUMINSHIN	0500	Bridge u/s Ballycullinan L	4	4	3-4	07-Oct-98
27D02						

Assessment:

The Druminshin River, a tributary of Ballycullinan Lough, had declined in quality in comparison with its 1997 condition.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
FERGUS		<i>Main Channel</i>				
27F01	0100	Poplar Bridge	4	3-4	4	07/10/98
	0200	Riverstown Bridge	4	4	4	07/10/98
	0300	Bridge in Corofin	4	3-4	4-5	07/10/98
	0350	Second Bridge d/s L Atedaun	4	Dry	4	07/10/98
	0400	Addroon Bridge	4	4	4	07/10/98
	0500	Nutfield Bridge	4	4	4	07/10/98
	0600	Drehidnagower Bridge	4	4	4	08/10/98
	0700	Bridge near Clonroad House	4	3-4	3-4	07/10/98
		<i>Distributary at Ennis</i>				
	0590	Corravarrin Br	3	3	2-3	07/10/98

Assessment:

Quality improvements were recorded in 1998 at Poplar Bridge (0100) and in Corofin (0300) but conditions were unchanged in the lower river. The distributary in Ennis was again moderately polluted at Corravarrin Bridge (0590).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'98</i>	<i>Date '98</i>
GOURNA	0100	Bridge N. of Corlea	5	4-5	14-Oct-98
27G02	0400	Bridge N.W. of Ballyroe	4-5	-	14-Oct-98
	0600	Br u/s Owenogarney R confl	5	5	14-Oct-98

Assessment:

Water quality continued to be of a high standard in the Gournna River, a tributary of the Owenogarney River, in 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
HELL	0100	Rylane Bridge	4	-	-	13-Oct-98
27H01	0200	Bridge at Carrahan	4	3-4	4	13-Oct-98
	0300	Sandhill Bridge	4	-	-	13-Oct-98
	0400	Hell Bridge	3-4	3	4	13-Oct-98

Assessment:

Quality was assessed as 'Fair' at both locations surveyed in the Hell River in 1998, a significant improvement since 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
INCH (CLARE)	0200	Kilmaley Bridge	4-5	4-5	4	08-Oct-98
27I01	0400	Bridge in Rathkerry	4	5	4	08-Oct-98
	0600	Inch Bridge	4	4-5	4	08-Oct-98
	0800	Claureen Bridge	4	4	4	08-Oct-98

Assessment:

Satisfactory at all points sampled although a decline in quality was noted in comparison with the previous year in the upper and middle sections.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
KILMORE NORTH STREAM 27K04	0400	Bridge u/s Clooneen River	3	4	4	06-Oct-98

Assessment:

Satisfactory where surveyed. No change since 1997.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
LISKENNY 27L01	0070	Third Br u/s Wyndham's Br	2-3	-	3	15-Oct-98
	0100	Wyndham's Bridge	3	2-3	3	15-Oct-98
	0200	Bridge u/s L Cullynaheeda	4	3	3	15-Oct-98

Assessment:

The Liskenny River was moderately polluted at the three sites examined in 1998. It continues to be impacted by agricultural discharges.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
MILL BROOK 27M03	0700	Third Br d/s Br at Derryboy	-	-	4	07-Oct-98
	0800	Br nr Derrycalliff Lr (side road)	4	4	-	07-Oct-98
	1000	Bridge u/s Inchicronan Lough	4-5	-	4	07-Oct-98
	1100	Ballyline Bridge	4	4	4	07-Oct-98

Assessment:

'Fair' quality was again recorded at each of the three locations surveyed in 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
MOYREE 27M02	0300	Bridge u/s Bunnahow Lough	5	4-5	4-5	06-Oct-98
	0600	Bridge near Lughid House	4-5	4	4	06-Oct-98
	0700	Bridge u/s Fergus River	4	4-5	4-5	06-Oct-98

Assessment:

Water quality was satisfactory in the Moyree River in 1998 with no change in comparison with 1997.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
O'CALLAGHANSMILLS 27O03	0300	Bridge d/s Doon Lough	4	4	4	15-Oct-98

Assessment:

Quality was assessed as 'Fair' at the location surveyed in the lower river in 1998. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
OWENOGARNEY 27O01	0100	Br u/s Ballymacdonnell Br	5	-	5	14/10/98
	0200	Ballymacdonnell Bridge	5	5	-	
	0300	Bridge u/s Doon Lough	5	5	4	14/10/98
	0400	Woodfield Bridge	4	4	4	14/10/98
	0700	Pollagh Bridge	4	4	4	14/10/98
	0900	Annagore Bridge	-	4	4	15/10/98
	1000	Sixmilebridge	3-4	4	-	
	1100	Oil Mill Bridge	4	-	4	15/10/98

Assessment:

As in 1997, the Owenogarney River was in a satisfactory quality condition over its length in 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date '98</i>
RINE 27R01	0200	Bridge W.S.W. of Commons	5	4	4-5	13/10/98
	0500	Eyrehill Bridge	4-5	4-5	4-5	13/10/98
	0700	Bridge near Moymore	3	4	4	13/10/98
	1100	Creevagh Bridge (New)	4	4	4-5	13/10/98
	1300	Ford u/s Ardsollus Bridge	4	3-4	4	13/10/98
	1500	Blackweir Bridge	4	-	4	13/10/98

Assessment:

The Rine was satisfactory over its length in 1998. An improvement was noted at Station 1100 which had been affected by a fish-kill emanating from the Cullaun (qv) in 1997.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
SHALLEE 27S01	0100	Bridge N. of Ballyknock	3-4	4	4	08-Oct-98
	0300	Bridge N.E. of Erinagh	3-4	4	4	08-Oct-98
	0500	Bridge d/s Lough Cleggan	3-4	4	3-4	08-Oct-98

Assessment:

The upper reaches of the Shallee River (0100, 0300) were satisfactory, but a deterioration was noted at the lower site examined (0500) in comparison with 1997.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'91</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
SPANCELHILL 27S03	0200	Bridge near Spancelhill	4	4	5	16/10/98
	0400	Br d/s Aughavaddy Bridge	3-4	4	4	15/10/98

Assessment:

Satisfactory.

HYDROMETRIC AREA 34 **Moy and Killala Bay**

Addergoole	34A01	# Leaffony	34L01
		Lenyvee	34L06
# Bar Deela	34B02	Little (Strade)	34L02
Behy (N. Mayo)	34B08	Loughanaboll	34L07
Bellanamean	34B04	# Lough Muck Stream	34L05
# Bellawaddy	34B05	Lough Naminoo Stream	34L04
# Breaghwy	34B06		
# Brusna (N. Mayo)	34B07	Mad	34M04
		Manulla	34M01
Callow Loughs Stream	34C08	Meander	34M05
Carroward	34C09	Moy	34M02
Carrowkerribly Lough Stream	34C07	Mullaghanoe	34M03
Castlebar	34C01		
# Cloonaghmore	34C03	Oughtagh	34O05
Cloonlavis	34C10	Owenaher	34O01
Clydagh (Castlebar)	34C05	Owengarve (Sligo)	34O03
Corroy ¹	34C06 ¹	Owenlobnaglaur	34O04
Crumlin (Lough Cullin)	34C11		
		Pollagh	34P01
Deel (Crossmolina)	24D01		
# Duvowen (Cloonaghmore)	34D03	Shanvolahan	34S01
		# Slieveclaur	34S06
Eignagh	34E01	# Sonnagh	34S02
		# Spaddagh	34S03
Glenree	34G01	Strade	34S04
Glore (Mayo)	34G02		
Gweestion	34G03	Trimoge	34T01
		Tubbercurry ¹	34T02 ¹
		Yellow (Foxford)	34Y01
		Yellow (Knock)	34Y02

indicates rivers inadvertently omitted in 1998. These will be surveyed in 1999.

¹ indicates rivers not shown on the O.S. map entitled "Rivers and their Catchment Basins"

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
BEHY (NORTH MAYO)	0300	Bridge S.W. of Oatlands House	5	3*	5	5	03/11/98
34B08	0400	Behy Bridge	5	4	4-5	3-4/0	03/11/98

Assessment :

Biological quality in the Behy was in satisfactory condition when sampled in November 1998. The upper station was of very high quality. While the fauna at the lower station was of good quality a significant surface oil slick was noted at Behy Bridge (0400) and for some distance upstream.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
BELLANAMEAN	0200	Br 1.5 km NE of L. Naskea	-	4	4-5	4	19/08/98
34B04	0300	Bridge N. of Belclare	5	5	-	-	-
	0500	Bridge u/s Eignagh River	4-5	3-4	4-5	4-5	19/08/98

Assessment :

Satisfactory in August 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
CALLOW LOUGHS STREAM	0300	Bridge u/s Yellow River	4	4-5	4	4-5	21/09/98
34C08							

Assessment :

Satisfactory, with an improvement noted in comparison with 1995.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
CARROWARD	0300	Bridge N.W. of Bohola	4-5	4-5	4	4	02/11/98
34C09	0700	Br 0.5 km u/s Moy R confl	-	3*	4	4-5	02/11/98

Assessment :

The Carroward was satisfactory at both sites sampled in 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
CARROWKERIBLY L. STREAM	0300	Br u/s Ballymore L.	-	-	4-5	4-5	03/11/98
34C07	0400	Bridge near Ardrass	4-5	4-5	4-5	4-5	03/11/98
	0600	Bridge u/s Moy River confl	4	3-4	4	4	01/10/98

Assessment :

This Moy tributary was satisfactory when sampled in 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
CASTLEBAR	0020	Br near Graffa More	4-5	4	5	4-5	30/07/98
34C01	0030	Br u/s Islandeady L	4	4-5	4	4	30/07/98
	0100	Lake Lawn, u/s Castlebar	4	4	3-4	3-4	30/07/98
	0200	Br 2.5 km d/s Castlebar	3	3	3	3	30/07/98
	0300	Br N. of Turlough Park	3	3	3	3	30/07/98
	0400	Br 1 km W. of Ballyvary	3-4	3-4	3	4	30/07/98
	0500	Bridge at Fisherhill	4	4	3-4	4-5	30/07/98

Assessment :

The Castlebar River sites upstream of Islandeady Lake and Lough Lannagh (0020-0030) were satisfactory and little change was noted in comparison with 1995. Slight pollution was noted again immediately downstream of Lough Lannagh (0100) and moderate pollution downstream of Castlebar as far as Turlough Park (0200,0300). A major improvement was noted in the lower section of the river (0400,0500). It is believed that this is due to the new phosphorus removal plant installed in the Castlebar waste water treatment plant. The fact that a greater improvement was not found immediately downstream of the treatment works (0200) is disappointing. The nature of the pollution at that point, however, suggested that the problem related primarily to storm overflows, i.e. wastes reaching the river that had not been properly treated. Thus, a big reduction in P loading from the sewage works has occurred due to the new P removal process and this is very noticeable in the lower sections of the river which are much less eutrophic now than heretofore. However there are some new problems within the town of Castlebar (perhaps due to the rapid expansion in house building and industrial development). A major programme is under way to upgrade the sewerage in the town and to ensure that storm overflow problems are minimised.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'94</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
CLOONLAVIS	0100	Bridge W of Knockbaun	4	3	4	26/08/98
34C10	0300	Bridge u/s Yellow R confluence	4	4	4	26/08/98

Assessment :

Satisfactory at both sites sampled. An improvement was noted in the upper Cloonlavis (0100).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
CLYDAGH (CASTLEBAR)		<i>East Branch</i>					
34C05	0015	E. of Burren	4-5	4-5	4-5	4-5	28/07/98
		<i>Main Channel</i>					
	0030	Br u/s confl of East Branch	5	5	5	5	28/07/98
	0050	Bridge N.W. of Naspleenagh L	5	5	-	-	
	0070	Ford nr Srahnalee	-	-	4-5	4	28/07/98
	0140	Br nr Mill S.W. of Ballyguin	3-4	4-5	4	4-5	28/07/98
	0200	Br at Old Mill S. of Cashel	3	4-5	4	4	28/07/87

Assessment :

The Clydagh was satisfactory over its length. A notable drop in quality was apparent at Srahnalee (0070) in comparison with 1995. An improvement was noted, however, at station 0140.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
CORROY*	0100	Bridge u/s Corroy Factory	3	4	-	4	02/10/98
34C06	0200	Bridge u/s Moy River confl	3-4	3-4	3-4	3-4	02/10/98

Assessment :

The Corroy is quite eutrophic in nature. Slight pollution was again noted in the lower section in particular when surveyed in October 1998.

* Not shown on O.S. Catchment Map: Not a Baseline River.

<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
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River and Code

CRUMLIN (LOUGH CULLIN)	0300	Bridge u/s Lough Cullin	4-5	-	3-4	4	28/07/98
34C11							

Assessment :

Water quality in the Crumlin River had improved in comparison with 1995 although it may not be achieving its full potential in terms of ecological quality.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
DEEL (CROSSMOLINA)	0006	Bridge at Keenagh	5	4-5	4-5	4	28/09/98
34D01	0010	Deel Bridge	4-5	4-5	4	4	28/09/98
	0025	Ford S.W. of Knockbrack	4-5	4	4	3-4	28/09/98
	0100	Ford E. of Ballycarroon House	4-5	4-5	4	4-5	28/09/98
	0200	800 m d/s Crossmolina Bridge	4-5	4-5	-	4	02/10/98
	0250	NW Rectory near old Abbey	-	-	3	-	28/09/98
	0300	Knockadangan Bridge	4	5	3-4	4	02/10/98
	0400	Bridge at Castle Gore	4-5	4-5	4	4-5	02/10/98

Assessment :

The River Deel is the main tributary of Lough Conn. The upper Deel (0006) at Keenagh is impacted by a combination of forestry plantations and sheep overgrazing which have given rise to significant siltation, extensive algal growths and leaching of iron which should not occur in this type of upland river. The river is fast flowing and sufficiently well aerated to compensate for the obvious impacts on the system and the invertebrate fauna do not appear to be seriously impacted. Salmonid spawning gravels, however, may be subjected to adverse impacts. A significant drop in quality was noted at Station 0025 in comparison with 1995 where extensive populations of the filter feeder black fly larvae (Simuliidae) were noted on weeds and stones. The lower section upstream of Crossmolina (0100) was satisfactory and so also were the three stations downstream of Crossmolina waste water treatment works. While signs of the impact of the sewage works discharge could be seen, a range of sensitive insect types were present including Perla, Ephemera danica and Ecdyonurus (0200). The Knockadangan Bridge site (0300) had improved in comparison with 1995 but moderate algal growths and high dissolved oxygen levels (120% saturation) were signs that quality is still impaired. A new sewage treatment works is proposed for Crossmolina including a phosphorus removal stage resulting from the recommendations of the Lough Conn Action Committee aimed at improving the water quality of Lough Conn. Combined with a range of measures aimed at farm pollution, forestry, Bord na Mona and septic tanks, recent improvements in water quality have been noted in comparison with the early 1990s.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
EIGNAGH	0100	Bridge 1.5 km d/s Lough Talt	5	5	4-5	4-5	18/08/98
34E01	0200	Bridge in Aclare	4-5	4-5	4	4	18/08/98
	0300	Bridge u/s Moy River conf	4-5	4-5	4	4-5	18/08/98

Assessment :

The River Eignagh, fed by an outflow from Lough Talt, was satisfactory at all locations. An improvement was noted in the lower section upstream of its confluence with the River Moy (0300).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
GLENREE	0020	Bridge near Carrownaglogh	-	5	4-5	5	03/11/98
34G01	0050	Bridge 2 km E. of Cloonta	5	5	5	-	-
	0053	Br. SE of Cloonta	-	-	-	4-5	03/11/98
	0060	0.7 km u/s Brusna R confluence	-	5	4-5	5	03/11/98
	0100	Ford u/s Rathkip	5	4-5	-	-	-
	0200	Bunree Bridge	4	4-5	4-5	4	03/11/98

Assessment :

Satisfactory in November 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
GLORE (MAYO)	0010	Bridge u/s Island Lough	3-4	3-4	3	-	
34G02	0050	Br 1.5 km S.W. of Bruff X-Rds	4	4-5	4	4-5	26/08/98
	0100	Bridge near Cloonfallagh	4	4-5	-	-	-
	0110	Br NW of Cloonfallagh (main rd)	-	-	-	4	26/08/98
	0200	Glore Bridge	4	4	4	4	26/08/98

Assessment :

The Glore River was satisfactory at all locations sampled in August 1998. This is a highly calcareous river with extensive calcareous deposits and characteristic liverwort flora particularly (Station 0200). It is, however, somewhat eutrophic and has a very diverse flora.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
GWEESTION	0050	Br 3 km u/s Ballymiles Br	4	4	-	-	-
34G03	0080	Ford at Lismiraun	-	-	3-4	4	20/08/98
	0200	Scarrownageeragh Bridge	5	4-5	4	4	20/08/98

Assessment :

The Gweestion River was in satisfactory condition in August 1998. An improvement in quality was noted in the upper section (0080) but still with moderate algal growths indicating reasonably eutrophic conditions. The lower section (0200) has suffered the loss of the key indicator species, *Perla*, which was present in all previous samples taken apart from that of 1980. It is to be hoped that this is only a temporary situation rather than an indication of ongoing decline in ecological quality.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
LENYVEE	0300	Bridge u/s Owenaher River	4-5	4-5	4-5	4-5	18/08/98
34L06							

Assessment :

The Lenyvee is a tributary of the Owenaher (qv). This mountain river remains in good condition. The catchment has extensive mature forest plantations and moorland.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
LITTLE (STRADE)	0300 ??	Br NW Sraheens	-	-	4-5	4-5	02/11/98
34L02	0500	Bridge N. of Knockatemple	4	4-5	4-5	4-5	02/11/98

Assessment :

No change since 1995 with good quality at both sites examined.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
LOUGHANABOLL	0100	Bridge u/s Owenaher River	4-5	5	4	4-5	18/08/98
34L07							

Assessment :

Quality had improved somewhat in comparison with 1995. This is an upland river with extensive forest plantations including zones that had been clear-felled recently. Aerial fertiliser application was noted here in 1995.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
LOUGHNAMINOO STREAM	0100	Balla: Br on Castlebar Road	4	4	3-4	4	27/08/98
34L04	0200	Br 600 m d/s Samp Stat 0100	1-2	3-4	1	3-4	27/08/98

Assessment :

A general improvement in water quality was noted in the Loughnaminoo Stream. The upper section upstream of the Balla sewage treatment plant had improved vis a vis 1995 to satisfactory quality. A major improvement was noted at Station 0200 which is approximately 200m downstream of the plant outfall. This section is now classified as slightly polluted as opposed to seriously polluted in 1995.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
MAD	0100	Bridge u/s Moy River confl	5	3-4	3	3	17/08/98
34M04							

Assessment :

Water quality problems continue in the Mad River which is a tributary of the upper River Moy. This upland catchment has extensive forestry plantations plus sheep and cattle grazing. This river has suffered a serious decline in comparison with the baseline survey in 1989.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
MANULLA	0100	Ballinfad Bridge	4-5	4	4	4-5	27/08/98
34M01	0200	Bridge at Ballycarra	5	4-5	4	4-5	27/08/98
	0300	Manulla Bridge	4-5	3-4	4	4	27/08/98
	0500	Bridge u/s Castlebar River	4	3-4	3	4	27/08/98

Assessment :

The Manulla has improved in quality over its length, in comparison with 1998, and now all sites are classified as satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
MEANDER	0300	Bridge S.W. of Mayo	3	4	4	4	27/08/98
34M05	0400	Br N.N.W. of Rathnacreeva	3-4	4-5	3	4	27/08/98

Assessment :

Water quality in the Meander was satisfactory in 1998 with a definite improvement in comparison with 1995.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
MOY	0050	Bridge at Cornaleck	5	5	4-5	4-5	17/08/98
34M02	0100	Bridge S.E. of Cloonacool	5	5	4-5	5	17/08/98
	0300	Annagh Bridge	5	5	4-5	4-5	18/08/98
	0400	Bridge at Banada	4-5	3	3	4-5	24/08/98
	0420	Ford N. of Ballygallagart	5	4-5	4	4	30/09/98
	0470	Ford near Bellanacurra	4	4	4	4	30/09/98
	0500	Cloonacannana Bridge	5	4	4-5	4-5	30/09/98
	0610	Br near Cloongullaun (LHS)	4	3	4	4	01/10/98
	0650	Ford 2 km u/s Gweestion River	4	4-5	4-5	4-5	01/10/98
	0700	Ballylahan Bridge	4	4-5	4-5	4	01/10/98
	0750	At Bleanmore	-	-	5	5	01/10/98
	0770	U/s Foxford Br LHS	-	-	4	4	01/10/98
	0800	1 km N of Foxford (RHS)	3	3	3	3	01/10/98
	0850	Near Bunnafinglas	4-5	4-5	4-5	4-5	01/10/98
	0900	U/s Corroy R - nr Hollywood Ho	4-5	4-5	4	4-5	02/10/98
	0960	500 m d/s Corroy River confl	4	-	4	4	02/10/98
	1050	1 km u/s Ardnaree Br (LHS)	4	3*	3-4	4	02/10/98

Assessment :

The upper Moy (0050 to 0300) maintained its high quality in 1998. An improvement was noted at Station 0400, Banada Bridge, where a forestry plantation had previously given rise to problems. The section from Ballynagallagart to the Gweestion River (qv) confluence maintained satisfactory quality (Stations 0420 to 0650); with no change in comparison with 1995. A complaint was received regarding a surface oil slick in the section downstream of Ballylahan Bridge (0700). The oil was not apparent at the time of sampling and quality was satisfactory at the time of sampling. Station 0750 at Bleanmore, above the Lough Cullin outflow, once again had a high diversity with a range of highly sensitive invertebrate species present. It is encouraging to see such high quality in the mid reaches of a large river such as the Moy (width 40 to 50m at this point). In Foxford, a drop in quality was noted downstream of the Lough Cullin outflow and moderate pollution was again recorded downstream of the sewage outfall - this impact is confined to a limited stretch below the town particularly on the right hand side of the river. The remainder of the river is deep and slower flowing (0850 to 1050) and quality is satisfactory to Ballina. An improvement noted in Ballina upstream of the weir at Ardnaree Bridge (1050).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
MULLAGHANOE		<i>Charlestown Branch*</i>					
34M03	0100	Bridge W.N.W. of Bellahy	3	4	2-3	2-3	25/08/98
		<i>Main Channel</i>					
	0140	Bridge N of Cloonmeen West	-	3	3	4	25/08/98
	0180	Bridge N. of Charlestown	4	4	-	-	
	0190	0.2 km d/s Charlestown Branch	-	-	3	3-4	25/08/98
	0200	Bridge at Cloonlaughil	3-4	4	-	-	
	0220	Br SW of Cully Cross Roads	-	-	3	3-4	25/08/98
	0250	Br W. of Cully Cross Roads	4	-	-	-	
	0300	Bridge 1 km u/s Moy River	3-4	4	3-4	3-4	25/08/98

Assessment :

The Mullaghanoe was again moderately polluted immediately downstream of Charlestown (0100). The main channel was satisfactory upstream of the confluence with the Charlestown Branch (0140). The lower section was eutrophic but showed some improvements in comparison with 1995; improving from moderate to slight pollution at Stations 0190 and 0220. The river is still quite eutrophic and the changes may reflect the fact that 1995 was a much drier summer than 1998. The most dramatic change in the river was the appearance of extensive growths of *Ranunculus*, the common water crowfoot. This plant is widespread in rivers over most of Ireland but is largely absent from the more western and north-western rivers. This is the first occurrence of the plant in the Moy system. Its rapid spread in the Mullaghanoe between 1995 and 1998 is quite dramatic and may even be a cause for concern although many scientists regard *Ranunculus* as a sign of good water quality.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
OUGH TAGH	0300	Br near Carrowgowan House	-	4	4	4	02/11/98
34O05	0400	Bridge u/s Moy River confl	4	4-5	4	4	02/11/98

Assessment :

The Oughtagh was unchanged remaining in satisfactory condition.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
OWENAH ER	0050	Ford E. of Zion Hill	5	4-5	4-5	4-5	18/08/98
34O01	0100	Bellanagraugh Bridge	5	5	4-5	4-5	18/08/98

Assessment :

Quality remains high at both sites sampled on the Owenaher in September 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
OWENGARVE (SLIGO)	0010	Bridge at Derrynabrock	4-5	5	4-5	4-5	19/08/98
34O03	0050	Ford N.W. of Srah Upper	4-5	4-5	4-5	5	19/08/98
	0100	Bridge in Curry	4	5	4-5	5	19/08/98
	0200	Bridge u/s Moy River confl	5	5	4-5	3-4	19/08/99

Assessment :

The upper sections of the Owengarve were of high quality (0010, 0050, 0100) with some improvement on 1995. The lowermost site (0200), however, showed definite signs of impairment as indicated by a very large black fly larvae population (*Simuliidae*). Agricultural wastes are suspected as the source of the problem here.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
OWENLOBNAGLAUR	0200	Bridge W. of Parkroe	4-5	4-5	4-5	4	24/08/98
34O04							

Assessment :

Satisfactory, though a slight loss in quality was apparent when sampled in August 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
POLLAGH	0100	Linban Bridge (Geeslaun R)	4	3-4	4-5	3-4	21/08/98
34P01	0200	Bridge at Pollagh	4	4-5	4	4	21/08/98
	0260	(Br) NW of Cloonkedagh	-	-	3	3-4	25/08/98
	0300	Bridge u/s Gweestion River	4	3-4	4	4	26/08/98

Assessment :

The Pollagh suffered a serious loss in quality at Station 0100 in 1998 with quality dropping from Q4-5 to Q3-4. Quality at Pollagh Bridge (0200) was satisfactory and a slight improvement was noted downstream of Kiltimagh at Station 0260, though this section was still quite eutrophic. The lower section upstream of the Gweestion River was satisfactory and unchanged since 1995.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
SHANVOLAHAN		<i>West Branch</i>					
34S01	0100	Eskeragh Bridge	3	4	4	4	12/10/98
		<i>Main Channel</i>					
	0300	Bridge S.W. of Coolturk	4-5	3-4	3	4	12/10/98
	0400	Just u/s Deel River confl	4-5	4	4	4-5	12/10/98

Assessment :

The Shanvolahan flows through a region of raised bog which has been extensively planted with conifers and grazed by sheep. Some improvements were noted in comparison with 1995, but the river is still quite impacted by peat silt erosion and quite extensive algal growths. Thus while water quality is satisfactory the upper reaches in particular are of lower ecological quality than they should be.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
STRADE	0800	Bridge u/s Moy River confl	4-5	4-5	4-5	4-5	02/11/98
34S04							

Assessment :

Satisfactory, no change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
TRIMOGE	0200	Ford just W. of Kilkelly	4	3-4	4	3	20/08/98
34T01	0300	Bridge S.W. of Rinn Lough	4-5	4-5	4	4-5	20/08/98
	0400	Kinaff Bridge	-	4-5	-	4	20/08/98
	0500	Bridge u/s Gweestion River	5	4-5	4	-	-

Assessment :

The upper section of the Trimoge (0200) just downstream of Kilkelly sewage treatment works suffered a decline in quality in comparison with 1995. The middle and lower sections (0300 and 0400) were satisfactory in August 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
TUBBERCURRY*	0050	Br 1 km W. of Tubbercurry	2	2	2	2-3	24/08/98
34T02	0200	Br just u/s Moy River	3	3	3	3	24/08/98

Assessment :

The Tubbercurry was moderately polluted again downstream of Tubbercurry (0050) and remained polluted to its confluence with the Moy (0200).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
YELLOW (FOXFORD)	0100	Ford W. of Corlee	5	5	5	5	21/09/98
34Y01	0400	Bridge u/s Moy River confl	5	5	4-5	4-5	21/09/98

Assessment :

Quality remains high in the Yellow (Foxford) with no change since 1995.

- Not shown on O.S. Catchment Map: Not a Baseline River.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'89</i>	<i>Q'93</i>	<i>Q'95</i>	<i>Q'98</i>	<i>Date 1998</i>
YELLOW (KNOCK)		<i>Derrykin Lough Branch</i>					
34Y02	0255	120 m d/s Br S.W. of Eden	3	3-4	2	2-3	28/08/98
	0275	Bridge N.E. of Faughil	3	4	3	4	28/08/98
		<i>Main Channel</i>					
	0290	Bridge S.E. of Kiltimagh	3-4	4	3-4	4	28/08/98
	0400	Bridge just u/s Cuiltybo L	4	4-5	4	4	28/08/98

Assessment :

The stretch immediately below the Knock sewage outfall (0255) remains moderately polluted. The middle and lower sections were satisfactory (0275, 0290, 0400) when sampled in August 1998.

HYDROMETRIC AREA NO. 36

Erne

Aghacashlaun	36A03
Aghnacliffe Stream	36A06
Annadale Stream	36A05
Annalee	36A02
Avaghon Lake Stream	36A07
Bawnboy	36B07
Blackwater (Newtowngore)	36B04
Blackwater (Swanlinbar)	36B03
Bunnoe	36B05
Cavan	26C02
Conawary (Upper)	36C11
Cornavannoge	36C04
Cullies	36C03
Dromore	36D02
Drumane Stream	36D04
Erne	36E01
Finn (Monaghan)	36F01
Knappagh	36K01
Laheen Stream	36L02
Laragh	36L01
Legga Stream	36L03
Madabawn	36M02
Magherarney	36M01
Maghery	36M03
Owensallagh	36O01
Rag	36R01
Roo	36R02
Stradone	36S02
Swanlinbar	36S01
Templeport Stream	36T01
Waterfoot	36W03
# Yellow (Ballinamore)	36Y01

Rivers denoted thus had seriously polluted stretch(es) at the time of this survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
AGHACASHLAUN	0300	Br N of Derrinkeher	4-5	5	4-5	13-Oct-98
36A03	0500	Br N of Drumgud	4-5	4-5	4-5	13-Oct-98

Assessment:

The river was in flood at the time of this survey but sensitive species were present in sufficient numbers in the sample to indicate satisfactory quality conditions.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
AGHNACLIFFE STREAM	0400	1st Br u/s L Gowna	4-5	4-5	4-5	12-Oct-98
36A06						

Assessment:

Continuing satisfactory. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
ANNADALE STREAM	0300	Br NE of Carrickaport	4-5	4	4	13-Oct-98
36A05	0500	Br SW of Annadale	4	4	3	13-Oct-98

Assessment:

Mostly satisfactory but lower reaches (0500) devoid of sensitive species which were previously recorded there.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
ANNALEE	0080	2nd Br u/s L Sillan	3-4	3-4	4-5	24-Jul-98
36A02	0150	2nd Br d/s L Sillan	3-4	3	3	30-Sep-98
	0250	1st Br d/s L Tacker	3-4	4	3-4	25-Sep-98
	0350	Br nr Ann's Fort	4	4	3-4	25-Sep-98
	0500	New Grove Br	4-5	4-5	3	25-Sep-98
	0600	Br SE of Fort William	4	4-5	3-4	25-Sep-98
	0800	Br NW of Rakenny Ho	4-5	4-5	4	25-Sep-98
	0900	Ballynallon Br	4	4	4	24-Sep-98
	1000	Ballyhaise Br	4	4	4	24-Sep-98
	1150	Br nr Curraghanoe	4-5	4-5	4	24-Sep-98
	1350	0.2km u/s Cavan R confl	4	3-4	4	24-Sep-98
	1400	0.2km d/s Cavan R confl	4	3-4	3-4	24-Sep-98

Assessment:

A marked improvement was recorded upstream of Lough Sillan (0080) in 1998 but, as in 1997, the river was again assessed as moderately polluted immediately below this lake (0150) and slightly polluted below the Cavan River confluence (1400). A considerable deterioration was indicated at New Grove Bridge (0500) where the river bed was very heavily silted and minor deteriorations were recorded below Lough Tacker (0250) and at Ann's Fort (0350) and Fort William (0600). It seems likely that the very wet summer of 1998 may have contributed to the observed deterioration by increasing the load of animal manure reaching the river in run-off from waterlogged lands.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
AVAGHON LAKE STREAM	0200	2nd Br d/s L Avaghon	3	3	3	23-Jul-98
36A07	0600	Br u/s Dromore R confl	3-4	3	3	24-Jul-98

Assessment:

Moderately polluted again in 1998. Agriculture suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
BAWNBOY	0300	1st Br u/s Brackley L	4-5	4-5	5	01-Oct-98
36B07	0500	Br u/s Bellaboy L	4-5	4	4	01-Oct-98

Assessment:

Satisfactory at both locations surveyed in 1998. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
BLACKWATER (NEWTOWNGORE)		<i>Derradda Branch</i>				
36B04	0040	Br W of Drumderg	5	4-5	4-5	14-Oct-98
		<i>Main Channel</i>				
	0180	Br W of Knockmore	5	5	4-5	14-Oct-98
	0200	Br NE of Sradrinan	4-5	4-5	4	15-Oct-98
	0400	Br d/s Blackwater Br	5	5	4	15-Oct-98
	0600	Br u/s Ballymagauran L	4	4	4-5	15-Oct-98

Assessment:

Satisfactory. Quality in Main Channel mostly 'Fair'.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
BLACKWATER (SWANLINBAR)	0400	Br SE of Gorteen	4-5	4	4-5	14-Oct-98
36B03						

Assessment:

Satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
BUNNOE	0090	Rly Br Aghadrumkeen	3	3	3-4	23-Jul-98
36B05	0110	50 m d/s St 0100	3	3	3*	28-Sep-98
	0500	Br W of Killynenagh L	3-4	3-4	3-4	28-Sep-98
	0700	Br u/s Annalee R confl	4	3-4	3-4	01-Oct-98

Assessment:

Minor improvement noted in upper reaches (0090) but slight pollution widespread. Very heavy siltation at 0110.

Unsatisfactory.

*Silt.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
CAVAN		<i>Shantemon Lake Branch</i>				
36C02	0040	Br nr Breffni Park	3-4	3	4	29-Sep-98
		<i>Main Channel</i>				
	0085	Br N of Killycannon	3-4	4-5	4	29-Sep-98
	0300	Br d/s St 0200	3	2-3	2-3	29-Sep-98
	0400	Br u/s Annalee R confl	3	2-3	2-3	24-Sep-98

Assessment:

The Shantemon Lake Branch had improved since 1997 and it was in a satisfactory condition at the location sampled near Breffni Park (0040) in late September 1998. The Main Channel was in much the same situation as in 1997 i.e., satisfactory upstream of Cavan (0085) and then significantly polluted by suspected sewage discharges below the town (0300, 0400).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
CONAWARY (Upper)	0500	Br d/s Greagh Lough Branch	-	-	3	20-Jul-98
36C11	0700	Br N of Roosky	-	4	3-4	20-Jul-98

Assessment:

Unsatisfactory, particularly in middle reaches (0500) where no sensitive species observed. Agriculture suspected. This part of the river was wrongly coded in our 1996 report where it was included with the Lower Conawary (03C02).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
CORNAVANNAGE	0400	Br NW of Ardvarney	4-5	5	4-5	14-Oct-98
36C04	0600	Br u/s L Macnean	4-5	5	4-5	14-Oct-98

Assessment:

The Cornavannage river was in high flood when surveyed in mid-October 1998 but sufficient biological information was available to indicate satisfactory quality conditions at both locations sampled.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
CULLIES	0300	Br u/s Gulladoo L	3	3	3-4	12-Oct-98
36C03	0550	Br u/s Drumhart L	3-4	3-4	3	12-Oct-98
	0600	Br nr Kilbrackan Ho	3-4	3-4	3	12-Oct-98
	0650	Br d/s Laheen L	3-4	3-4	3-4	13-Oct-98
	0750	Br d/s Disert L	3-4	3-4	3	13-Oct-98
	0900	New Br	2-3	2-3	3	13-Oct-98

Assessment:

Unsatisfactory again at all points surveyed due to suspected agriculture and lake effects upstream of Killeshandra and to sewage and industrial inputs below the town.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
DRUMANE STREAM	0200	Br 3km W of Ballyconnell	5	5	5	01-Oct-98
36D04	0500	Br u/s Woodford R confl	4-5	-	4	01-Oct-98

Assessment:

Quality reduced in lower reaches (0500) but satisfactory at both locations surveyed in early October 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
DROMORE		<i>Lough Major Branch</i>				
36D02	0015	Br NE of Corryloan L (RHS)	4	4-5	4	23-Jul-98
	0016	Br NE of Corryloan L (LHS)	-	1	4	
	0036	Br d/s Ballintra Br	4	3-4	3-4	23-Jul-98
	0200	Br d/s L Major	3	2-3	3	23-Jul-98
		<i>Main Channel</i>				
	0075	Br SW of Bartley's Grove	-	3	3	23-Jul-98
	0090	Br SE of Edenaferkin	3-4	3-4	3-4	23-Jul-98
	0150	Br in Ballybay	3	3-4	3-4	23-Jul-98
	0300	Balladian Br	3-4	3	3	15-Oct-98
	0500	Ballynascarva Br	3	3	3	15-Oct-98
	0700	Br W of Clementstown	3	3-4	3	15-Oct-98
	0900	Killycreeny Br (Mid)	4	4	4-5	15-Oct-98
	0910	Killycreeny Bridge (RHS)	-	-	3	15-Oct-98

Assessment:

The Dromore river was in a generally unsatisfactory condition when surveyed in 1998 but some changes were noted. As in 1997 pollution effects were most pronounced in the Bartley's Grove area (0075), and also downstream Lough Major (0200) where DO was reduced to just 67 percent of saturation as well as below Ballybay at Balladian and Ballynascarva Bridges (0300,0500) and downstream of Dromore lake at Clementstown (0700).

A major improvement was recorded in the Lough Major Branch (0016) where the serious silage pollution reported in 1997 had abated but a deterioration was recorded at Killycreeny Bridge (0910) where a two to three metre wide band of sewage fungus was observed along the right hand side of the river. Dairy wastes suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
ERNE	0100	Br 3km SW of Crosskeys	4	4	4	23-Sep-98
36E01	0200	Derrin Br	4-5	4	3-4	23-Sep-98
	0400	Br at Carrigan	3-4	3-4	3-4	23-Sep-98
	0500	Legwee Br	3-4	3-4	3-4	23-Sep-98
	0700	Kilsarn Br	4	4	3-4	23-Sep-98
	0900	Dingin's Br	3	3	3	23-Sep-98
	1000	Br E of Corlismore	4	4	4	23-Sep-98
	1100	Bellahillan Br	4	4	4	24-Sep-98
	1400	Br at Kilconny, Belturbet (RHS)	3-4	3	3	01-Oct-98
	1410	Kilconny Belturbet (LHS)	-	-	3	01-Oct-98

Assessment:

Water quality in the upper (0100) and middle reaches (1000, 1100) of the Erne continued to be of a satisfactory standard in 1998 but, as in 1997, the symptoms of slight pollution/eutrophication were again widespread and moderate pollution effects were once more evident below Lough Gowna (at Station 0900 where the DO saturation was reduced to just 66 percent) and at both sides of the river in Belturbet (1400, 1410).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
FINN (MONAGHAN)	0010	Br at Mill NW of Kilcreen	4-5	4-5	4	22-Jul-98
36F01	0080	E of Aghafin Lough	4	3	4	28-Sep-98
	0100	Stone Br	4	3-4	4	17-Aug-98
	0200	Annamakiff Br	4	3	3-4	15-Oct-98
	0400	Scarvy Br	3	3-4	3-4	16-Oct-98
	0500	Cumber Br	3	3	3	16-Oct-98

Assessment:

Following a marked improvement in its upper reaches (0080, 0100) the Finn river was in a satisfactory condition in the reach upstream of the Magherarney confluence when surveyed in 1998, but it then became slightly polluted/eutrophic below this river and, as in all previous surveys since 1973, conditions deteriorated further below Clones where it was once again assessed as moderately polluted at Cumber Bridge (0500).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
KNAPPAGH	0200	Br u/s Bellatrain L	3	3	3	24-Jul-98
36K01	0400	Lackan Br	3-4	3	3	24-Jul-98
	0700	Br u/s Annalee R confl	3-4	3-4	3	30-Sep-98

Assessment:

Unsatisfactory due to widespread moderate pollution of suspected agricultural origin. River bed and weed very dirty in 1998. Has deteriorated further in lower reaches (0700) since 1997.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
LAHEEN STREAM	0300	Br W of Aghavilla	4	4	4	12-Oct-98
36L02	0600	Br SW of Drummercross	3-4	3-4	3	13-Oct-98
	0800	Br u/s Cullies R confl	3-4	3-4	3	13-Oct-98

Assessment:

Upper reaches (0300) continuing satisfactory, middle and lower reaches (0600, 0800) moderately polluted and as such in worse condition than in 1997.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
LARAGH	0015	1st Br d/s Acanon Lough	3-4	3	3	29-Sep-98
36L01	0030	Br WSW of Knockataggart	-	-	4-5	29-Sep-98
	0050	Br 1.5km E of Laragh	4-5	4-5	4	29-Sep-98
	0080	Br in Laragh	4-5	4-5	4-5	29-Sep-98
	0200	Shanns Br Lisclone	3-4	4-5	4-5	29-Sep-98
	0400	Main Rd Br u/s Annalee R	4-5	4-5	4-5	29-Sep-98

Assessment:

Mostly satisfactory but remaining moderately polluted immediately below Acanon Lake in late July 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
LEGGA STREAM	0300	1st Br d/s Doogary L	3	4	3	12-Oct-98
36L03	0600	Br d/s Gortermone Lough	3	3	3	12-Oct-98
	0700	Br u/s Gulladoo Lough	3	4	3	12-Oct-98

Assessment:

The absence of sensitive macroinvertebrates from Stations 0300 and 0600 and the almost complete absence of any insect nymphs at 0700 indicated unsatisfactory environmental conditions throughout the Legga Stream which had been dredged in 1997 and remained heavily silted at all locations in October 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
MADABAWN STREAM		<i>East Branch</i>				
36M02	0070	S Br Canningstown	4	3-4	3-4	30-Sep-98
	0200	Br 1km S of Drumcondra	4	4	3	30-Sep-98
		<i>Main Channel</i>				
	0600	Br u/s Annalee R confl	4	4	4	30-Sep-98

Assessment:

The Main Channel continued to be in a satisfactory condition where surveyed (0600) but conditions had deteriorated significantly in the lower East Branch (0200) since 1997.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
MAGHERARNEY	0150	Br E of Smithborough	3	3	3	20-Jul-98
36M01	0200	Magherarney Br	3	3	3	20-Jul-98

Assessment:

Unsatisfactory. Significantly polluted at both locations surveyed. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
MAGHERY	0200	Br SW of Kilmore L	3-4	3	3	22-Jul-98
36M03	0900	Wat's Br	-	3	3	22-Jul-98
	1200	Hagan's Br	3	3	3	23-Jul-98

Assessment:

Moderately polluted again in 1998 at each of the three locations surveyed. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
OWENSALLAGH	0500	Br E of Drumcor	5	5	3-4*	01-Oct-98
36O01						

Assessment:

Several sensitive mayfly species, formerly present, were absent from the location surveyed in early October 1998 but the complete disappearance of the mayfly *Baetis rhodani* suggests the Owensallagh may be affected by increasing acidity.

* Suspected acidity effects.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
RAG (CAVAN)	0800	Br u/s Tee L Lr	3	3	3-4	01-Oct-98
36R01						

Assessment:

Slightly polluted by eutrophic lake wash-out at both points surveyed in 1998. Has distinctly improved since 1997.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
ROO	0200	Br W of Barran	4-5	4	4	14-Oct-98
36R02	0400	Br SE of Upper Thornhill House	-	-	3-4	14-Oct-98
	0500	Br u/s L Macnean	4	-	-	

Assessment:

Middle reaches (0200) again satisfactory but newly surveyed area (0400) dirty due to suspected agricultural wastes.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
STRADONE	0075	2nd Br d/s L Alion	3-4	4	3-4	30-Sep-98
36S02	0200	Br u/s Laragh R confl	4-5	4	3-4	30-Sep-98

Assessment:

Slight pollution recorded at both points surveyed in 1998. Lake and agricultural effects suspected.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
SWANLINBAR	0100	Br nr Altbrean	5	5	5	14-Oct-98
36S01	0300	0.6km d/s Swanlinbar Br	4-5	4-5	4-5	14-Oct-98

Assessment:

No pollution. No change.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
TEMPLEPORT LAKE STREAM	0600	Br u/s Templeport L	3	3	4	01-Oct-98
36T01						

Assessment:

Satisfactory and much improved since 1997.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
WATERFOOT	0500	Glenmore Br	4	-	?	
36W03	0600	Br W of Bannus L	4	-	?	

Assessment:

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'93</i>	<i>Q'97</i>	<i>Q'98</i>	<i>Date '98</i>
YELLOW (BALLINAMORE)	0050	Br nr Stralongford	4	4	2/0	02-Oct-98
36Y01	0100	Br E of Boggaun	-	-	4	02-Oct-98
	0200	Br SE of Greaghglass	5	4-5	4	02-Oct-98

Assessment:

Severe acid effects due to suspected forestry run-off were indicated by the low faunal density, the poor diversity and the complete absence of acid sensitive species which were present in high numbers at the first location (0050) in 1997. Conditions were satisfactory at the other two locations surveyed.

HYDROMETRIC AREA NO. 40
Donagh-Moville

Ballyboe	40B03
Ballyhallan	40B01
*Bredagh	40B02
Cabry	40C03
Clonmany	40C01
Cloontagh	40C04
Culdaff	40C02
*Donagh	40D01
Drung	40D02
Glennagannon	40G01
Keenagh	40K01
Long Glen	40L01
Lough Nastackan Stream	40L03
*Malin Stream	40M01
Portaleen Stream	40P02
Roosky	40S05
Shivnagh	40S05
Straid	40S01

* Indicates rivers which were seriously polluted at the time of this survey.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
BALLYBOE	0400	Bridge S.E. of Malin	4	4	4	4	10/09/98
40B03							

Assessment:

Satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
BALLYHALLAN	0100	Bridge S.W. of Tirhoran	4-5	3	4-5	-	-
40B01	0200	Bridge u/s Clonmany River	5	4	4-5	5	09/09/98

Assessment:

Satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
BREDAGH	0200	Moglass Bridge	4-5	3	4-5	4	15/10/98
40B02	0400	Moville Bridge	2	1	1	1-2	15/10/98

Assessment:

The upper Bredagh is in satisfactory condition, although not as good as 1996. The lowermost section in Moville remains seriously polluted.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
CABRY	0200	Bridge u/s Lough Foyle	5	4	5	4	15/10/98
40C03							

Assessment:

Satisfactory, but a deterioration was noted in comparison with 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
CLONMANY	0100	Meendoran Bridge	4	3	3-4	4	09/09/98
40C01	0200	Bridge W. of Clonmany	3-4	4	4	4	09/09/98

Assessment:

An improvement was noted in the upper Clonmany (0100) which had previously been affected by water treatment effluents. While satisfactory, some turbidity and alum deposits were noted at this site. The lower section in Clonmany was satisfactory in September 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
CLOONTAGH 40C04	0400	Gortaran Bridge	4-5	4	4-5	4	09/09/98

Assessment:
Satisfactory.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
CULDAFF 40C02	0050	Bridge near Ballynamona	2-3	4	3-4	3	15/10/98
	0100	Gleneely Bridge	3	4	4	4	15/10/98
	0150	Bridge near Holmes	4	4	3-4	3-4	15/10/98

Assessment:

The upper Culdaff (0050) was again polluted by agricultural sources. A recovery in the middle section (0100) is followed by a decline to slightly polluted conditions in the lower reach (0150).

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
DONAGH 40D01	0020	Minehill Bridge	5	4-5	-	-	
	0040	Br d/s Johnston's Br	-	-	4-5	4-5	9/9/98
	0100	Bridge u/s Carndonagh Br	4-5	4	4-5	4-5	10/09/98
	0300	1.5 km d/s Carndonagh Br	1	1	1	-	
	0310	Millrace Str nr St 0300	-	Dry	-	1	10/09/98
	0400	Corvish Bridge	1	2-3	1-2	1-2	10/09/98

Assessment:

The upper section of the Carndonagh River is of high quality (0040, 0100). The section downstream of Carndonagh town, however, is still seriously polluted.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
DRUNG 40D02	0200	Bridge at Drung	4	4-5	4	3-4	15/10/98

Assessment:

Slightly polluted. Quality had declined in the Drung River when surveyed in October 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
GLENNAGANNON 40G01	0010	Bridge d/s Lough Inn	4-5	4	-	-	-
	0015	SE Carrowreagh (Bridge)	-	-	4-5	5	10/09/98
	0100	Bridge E. of Carndonagh	4	4	3-4	4	10/09/98
	0200	Strawbridge Bridge	4	4-5	4-5	4	10/09/98

Assessment:

The Glennagannon River was in satisfactory condition in September 1998 and had improved in quality at Stations 0015 and 0100.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
KEENAGH	0200	Hugh Roe's Bridge	5	5	4	4	14/10/98
40K01	0400	Bridge at Ford S. of Carnmalin	5	4-5	4	4	15/10/98

Assessment:

The Keenagh River, Malin Head, was satisfactory with no change since 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
LONG GLEN	0200	Br u/s Sea (Kinnagoe Bay)	-	4	4-5	3	15/10/98
40L01							

Assessment:

The Long Glen River had declined in quality in comparison with 1994 and 1996 when previously surveyed.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
LOUGH NASTACKAN	0400	Br u/s Sea (Tramore Bay)	-	4-5	3	4-5	15/10/98
STREAM							
40L03							

Assessment:

An improvement was noted in the Lough Nastackan Stream in October 1998 and quality had recovered to the level recorded in 1994.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
MALIN STREAM	0200	Bridge N. of Malin	4	4	-	1/0	10/09/98
40M01	0270	300 m u/s Br W of Malin	-	-	-	1	10/09/98
	0300	Bridge W. of Malin	3-4	-	-	1	10/09/98

Assessment:

The Malin Stream was suffering from a severe agricultural discharge when sampled in September 1998. Toxic conditions were apparent in the upper section close to the source of the discharge (0200)

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'94</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
PORTALEEN	0100	Portaleen Bridge	-	3	4	4	15/10/98
40P02							

Assessment:

The Portaleen retained satisfactory status in 1998.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
ROOSKY 40R01	0300	First Bridge u/s Lough Foyle	2	1/0	1-2	2-3	15/10/98

Assessment:

A slight improvement was noted in the Roosky but the river is still moderately polluted.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
SHIVNAGH 40S05	0400	Br SE Cloghglass	-	-	3	4	09/09/98

Assessment:

The Shivenagh, a Clonmany (qv) tributary is now satisfactory, having improved in comparison with 1996.

<i>River and Code</i>	<i>St. No.</i>	<i>Station Location</i>	<i>Q'87</i>	<i>Q'93</i>	<i>Q'96</i>	<i>Q'98</i>	<i>Date 1998</i>
STRAID 40S01	0100	Craignahorna Bridge	5	-	4	4-5	09/09/98
	0400	1 km d/s Strath's Bridge	5	4	4-5	4	09/09/98

Assessment:

The Straid was in satisfactory condition in September 1998.

REFERENCES:

Lucey, J., Bowman, J.J., Clabby, K.J., Cunningham, P., Lehane, M., MacCarthaigh, M., McGarrigle, M.L. and Toner, P.F. 1999. *Water Quality in Ireland 1995-1997*. Environmental Protection Agency, Wexford, 850pp.

McGarrigle, M.L., Lucey, J. and Clabby, K.J. 1992. Biological assessment of river water quality in Ireland. in: *River Water Quality — Ecological Assessment and Control*. Commission of the European Communities, EUR 14606 EN-FR, Luxembourg, 751pp.

Dorris, Y., Clabby, K.J. and Lehane, M. 1998.

Water Quality in Ireland 1995-1997. Statistical Compendium of River Quality Data Environmental Protection Agency, Wexford, 882pp.

Note on Alternative River Names

The great majority of the names assigned to rivers in this Report are those shown on the One-Inch and Half-Inch Ordnance Survey Maps and which are in everyday usage. However, in many instances the maps denote different reaches of rivers by separate names, at times without there being an obvious boundary between the designations. In addition, very many of the rivers (major watercourses such as the Barrow, Erne or Shannon excepted) will have local names which do not find their way onto official maps or records. Clearly, the topic is one of great complexity and one which is unlikely ever to be covered definitively.

The names adopted in this Report reflect the usages of the monitoring agencies, national and local, and are considered to be the most reasonable choices. It is recognised that some of the designations are arbitrary, but this is unavoidable. However, where the compilers of this Report are aware of alternative river names details have been presented in the table below. It should be noted that some of such alternative river names may, on maps or in local usage, refer to specific reaches rather than to rivers as a whole.

River Name	River Name Adopted in Report
ACORE	<i>See MONEFELIM [14/M/03]</i>
AFFICK	<i>See RINE [27/R/01]</i>
AGHASLANE	<i>See AGHACASHLAUN [36/A/03]</i>
AHACLARE	<i>See OWENOGARNEY [27/O/01]</i>
AHAPHUCA	<i>See SHEEP [18/S/03]</i>
ALTDERG	<i>See OWENMORE [MAYO] [33/O/04]</i>
ALTNACALLY STREAM	<i>See GWEEBARRA [38/G/02]</i>
ANNAGH [GALWAY]	<i>See BOLEYNEENDORRISH [29/B/04]</i>
ANNAMOE	<i>See AVONMORE [10/A/05]</i>
ARAGLEN	<i>See OWENTARAGLIN [18/O/09]</i>
ARDSOLLUS	<i>See RINE [27/R/01]</i>
ARDULTAGH	<i>See KILCROW [25/K/01]</i>
ATTYCHRAAN	<i>See FUNSHION [18/F/05]</i>
AUGHASLANE	<i>See AGHACASHLAUN [36/A/03]</i>
AUGHAVARIA	<i>See BILBOA [25/B/03]</i>
BACK BURN	<i>See MILL [DONEGAL] [39/M/02]</i>
BALLINLOUGH (Longford)	<i>See RHINE (26/R/04)</i>
BALLINTRILLICK	<i>See BALLAGHNATRILLICK [35/B/02]</i>
BALLYBEG [TIPPERARY]	<i>See BREAGAGH [TIPP] [16/B/03]</i>
BALLYGRIFFY	<i>See SHALLEE [27/S/01]</i>
BALLYMACDONNELL	<i>See OWENOGARNEY [27/O/01]</i>
BALLYMAHON [SUIR]	<i>See FARNEYBRIDGE [16/F/02]</i>
BALLYNAHOW	<i>See FARNEYBRIDGE [16/F/02]</i>
BALTRACEY	<i>See CLONSHANBO [09/C/03]</i>
BARDINCH	<i>See SULLANE [19/S/02]</i>
BARNES	<i>See ESKE [37/E/05]</i>
BARORA	<i>See Moynalty (07M03)</i>
BARRA	<i>See GWEEBARRA [38/G/02]</i>
BAURERAGH	<i>See SHEEN [21/S/01]</i>
BAUTEOGE	<i>See STRADBALLY [14/S/02]</i>
BAWNUFF	<i>See OWENDUFF [BLACKSOD] [33/O/01]</i>
BEALBOY	<i>See YELLOW [FOXFORD] [34/Y/01]</i>
BEALNACARRA	<i>See RECESS [31/R/01]</i>

Alternative River Names [Continued]

River Name

BELLADOOAN
 BELVIEW
 BLACK [DRISH]
 BLACK [KILDARE/LAOIS]
 BLACK [LOUTH]
 BOHERBAUN
 BOOLAHALLAGH
 BOOLYREE
 BREANOGE
 BROCKAGH
 BUINGEA
 BUNGOSTEEN
 BUNOWEN [SUCK]
 BUNRATTY
 CAHER
 CALVERSTOWN STREAM
 CAMOWEN
 CAPPAGH [FLESK]
 CARHEENY
 CARN
 CARNAHORNA
 CARROWBEG [WESTPORT]
 CARROWKEEL [DEALAGH]
 CASTLE
 CASTLEPOOK
 CLADDAGH
 CLARE [TIPPERARY]
 CLARIN
 CLAUREEN [CLARE]
 CLOGHATANNY
 CLOGHER BURN
 CLOGHOGE RIVER
 CLONARD
 CLONBROCK
 CLONYMEATH
 CLOON [MAYO]
 CLOONARD
 CLOONASCRAUGH
 CLYDAGH [KERRY]
 COARSE
 COOKSTOWN
 COORACLARE
 CORBAUN
 CORKER
 CORDUFF
 CORLEA
 CORRIES
 CORRYDOO
 CUONTY (SLIGO/FERMANAGH)
 COUMNAGUN
 CREGGAN

River Name Adopted in Report

See BREAGHWY [34/B/06]
See ATHBOY [07/A/01]
See DRISH [16/D/02]
See FIGILE [14/F01]
See RASKEAGH [06/R/02]
See TULLY STREAM [14/T/02]
See FINISK [18/F/02]
See RINE [27/R/01]
See AUGHBOY [WEXFORD] [11/A/02]
See OWENNABROCKAGH [32/O/04]
See CUMMER [19/C/02]
See STRAGAR [37/S/02]
See AHASCRAUGH [26/A/01]
See OWENOGARNEY [27/O/01]
See GRANNEY [SHANNON] [25/G/04]
See KILCULLEN STREAM [09/K/02]
See CRANA [39/C/02]
See FINOW [22/F/04]
See MOYREE [27/M/02]
See CLOONALAGHAN [33/C/01]
See FAYMORE [38/F/01]
See WESTPORT [32/W/01]
See DEALAGH [28/D/01]
See CULLIES [36/C/03]
See BREGOGE [18/B/04]
See SWANLINBAR [36/S/01]
See ANNAGH [TIPPERARY] [25/A/02]
See CLARINBRIDGE [29/C/02]
See INCH [CLARE] [27/I/01]
See MOATE STREAM [25/M/05]
See CLOGHER [FINN] [01/C/06]
See AVONMORE [10/A/05]
See KINNEGAD [07/K/01]
See AHASCRAUGH [26/A/01]
See KNIGHTSBROOK [07/K/02]
See AILLE [MAYO] [30/A/02]
See FRANCIS [26/F/05]
See BALLINURE [26/B/01]
See FLESK [KERRY] [22/F/02]
See OWENGARVE [SLIGO] [34/O/03]
See GLENCULLEN [10/G/02]
See DOONBEG [28/D/02]
See RHINE [26/C/08]
See OILY [37/O/01]
See BALLOUGH STREAM [08/B/03]
See BLEACH [25/B/07]
See BACK [BORRIS] [14/B/06]
See CARTRON [33/C/02]
See KILCOO [35/K/04]
See OWENOGARNEY [27/O/01]
See CASTLETOWN [06/C/01]

Alternative River Names [Continued]

River Name

CROAGH
CROLLY
CROMOGE
CRONAMUCK
CRONANTY BURN
CROWAGH
CRUMLIN [CORRIB]
CRUMPAUN (LAOIS)
CUCKOO STREAM
CULLEEN
CULLENAGH
CULLYHANNA
CULLY STREAM
CURMEEN STREAM
CUSH
CUSHALING
DANGAN
DANGANSALLAGH
DEANSGRANGE STREAM
DERRY [ROCHFORTBRIDGE]
DERRYPATRICK
DERRYRAANE
DININ [BARROW]
DONARD BROOK
DOONANALLA
DOOYERTHA
DRUMSILLAGH
DUNDONNELL STREAM
DUNKELLIN
DURRUS
EEL WEIR STREAM
FINSHENAGH STREAM
FORKHILL
FRIAR'S LOUGH STREAM
FUARAWN
FURROOR
GALLANAGH STREAM
GARRA
GEESLAUN
GLANAGEENTY
GLANMORE
GLASHA (LAOIS)
GLASHA STREAM (BARROW)
GLENDREE
GLENEELY
GLENGLOSH
GLENMALURE
GLENNADEEGAN
GLENOMRA
GLENNTOGHER
GLENUMMERA

River Name Adopted in Report

See BUNCROWEY [35/B/09]
See GWEEDORE [38/G/03]
See FISHMOYNE [16/F/03]
See CLOGHER [FINN] [01/C/06]
See CRONANIV BURN [38/C/06]
See BUNCROWEY [35/B/09]
See DOOGHTA [30/D/02]
See Killeen Stream [14/K/04]
See MAYNE [09/M/03]
See LEAFFONY [34/L/01]
See INAGH [ENNISTYMON] [28/I/01]
See CASTLETOWN [06/C/01]
See SMALL (25/S/05)
See CLYDA [18/C/02]
See Triogue [14T01]
See FIGILE [14/F/01]
See KNIGHTSBROOK [07/K/02]
See FINNOW [FOHERISH] [19/F/01]
See KILL OF THE GRANGE [10/K/02]
See ROCHFORTBRIDGE STR.[07/R/04]
See BOYCETOWN [07/B/03]
See O'CALLAGHANSMILLS [27/O/03]
See BLACK [BORRIS] [14/B/06]
See BROWNS BECK BROOK [12/B/03]
See OWENNAYLE (26/O/05)
See RAFORD [29/R/01]
See Mountrice 25/M/03
See KILLEGLAN [26/K/04]
See KILCOLGAN [29/K/01]
See FOUR MILE WATER [21/F/02]
See KILTACLARE STREAM [26/K/06]
See CLONSHIRE [24/C/03]
See KILCURRY [06/K/02]
See LORRHA STREAM [25/L/05]
See CLAREEN STREAM (25C13)
See INCH [CLARE] [27/I/01]
See CONAWARY [03/C/02]
See DRUMCONRATH [06/D/04]
See POLLAGH [34/P/01]
See LITTLE MAINE [22/L/02]
See CROANSHAGH [21/C/05]
See DUNRALLY STREAM [14D05]
See LEVITSTOWN STREAM [14/L/02]
See CLOGHAUN [25/C/07]
See CULDAFF [40/C/02]
See BEALANABRACK [30]
See AVONBEG [10/A/04]
See TARSAGHAUNMORE [33/T/01]
See BROADFORD [27/B/02]
See DONAGH [40/D/01]
See BUNDORRAGHA [32/B/01]

Alternative River Names [Continued]

River Name

GLOREEN
GORT
GORTLOUGHRA
GRAIGUE
GRANGE [ROSCOMMON]
GREYGROVE
HARTWELL STREAM
HOLLYMOUNT
INCHALUGHOGHE
IRE
ISKULE STREAM
IVALE
KEELOGYBOY STREAM
KERRY
KILGORMAN
KILL [LIFFEY]
KILLACLOGHER
KILLEEN STREAM
KILLEGAR
KILLEGAR STREAM
KILLIMOR
KILLINAPARSON STREAM
KILLORAN
KILMAINHAM
KILMALEY
KILTHA
KILWARDEN
LABBADISH
LAGAN
LATOON
LAVALLY
LEGAN STREAM
LISFARRELL STREAM
LOUGH ALICK STREAM
LOUGH TALT
LOUGHEA
LOUGHINN
MEENATOMISH
MILL [GALWAY]
MOANAHA
MOINEEN
MONGAGH
MOONEEN
MOYNALVY
MUINGERROON NORTH STREAM
MULKEAR [TIPPERARY]
MULLAHEERA
NEWBRIDGE
OILTIAUGH BROOK
OULYSALLIS
OWBAUN

River Name Adopted in Report

See BALLYROAN [15/B/01]
See CANNAHOWNA [29/C/01]
See OVVANE [CORK] [21/O/07]
See AWBEG [BUTTEVANT] [18/A/05]
See OWENUR [26/O/06]
See DOONBEG [28/D/02]
See RATHMORE STREAM [09/R/02]
See MOYREE [27/M/02]
See OWENOGARNEY [27/O/01]
See ISKE SULLAS [16/I/01]
See ALLAGHAUN [23/A/01]
See RATHCOOL [18/R/01]
See WILLSBOROUGH STREAM [35/W/01]
See GLENGARRIFF [21/G/03]
See INCH [WEXFORD] [11/I/01]
See PAINESTOWN [09/P/01]
See ABBERT [30/A/01]
See MILLTOWN STREAM [12/M/02]
See CULLIES [36/C/03]
See LAHEEN STREAM [36/L/02]
See KILCROW [25/K/01]
See COUNTY [LAOIS/OFFALY] [25/C/21]
See KILCROW [25/K/01]
See DEE [06/D/01]
See INCH [CLARE] [27/I/01]
See WOMANAGH [19/W/01]
See KINNEGAD [07/K/01]
See LESLIE HILL STREAM [39/L/05]
See GLYDE [06/G/02]
See RINE [27/R/01]
See CLARINBRIDGE [29/C/02]
See LENAMORE STREAM [26/L/06]
See CLOONCOOSE STREAM [26/C/20]
See CORROY [34/C/06]
See EIGHNAGH [34/E/01]
See GRANAY [SHANNON] [25/G/04]
See GLENNAGANNON [40/G/01]
See CRANA [39/C/02]
See CLARINBRIDGE [29/C/02]
See NENAGH [25/N/01]
See BISHOP'S L. STREAM [26/B/13]
See CASTLEJORDAN [07/C/04]
See BUNOW [25/B/25]
See KNIGHTSBROOK [07/K/02]
See BELLANABOY [33/B/07]
See NEWPORT [TIPPERARY] [25/N/02]
See DEEL [NEWCASTLEWEST] [24/D/02]
See CULLIES [36/C/03]
See KNICKEEN [12/K/01]
See DIRTY [20/D/01]
See OWBEG [ROUGH TY] [21/O/02]

Alternative River Names [Continued]

River Name

See STRAID [40/S/01]

OWENACHARRA
OWENAGLAGGIN
OWENALTDERRY
OWENBEAGH
OWENBEG [CALABBER]
OWENBEG [NORE]
OWENBOY [COOLANEY]
OWENCAM
OWENDUFF [SLIGO]
OWENGARR
OWENINY
OWENKILLEW
OWENMORE [BALLINA]
OWENMORE [CLIFDEN]
OWENMORE [CLOONAGHMORE]
OWENMORE [ERRIFF]
OWENNASHRONE
OWENROE [MOYNALTY]
OWENROE [OWENTOCKER]
OWENYKEEVAN
PARK
POLLARDSTOWN STREAM
POULANEIGH
QUIN
RAMPART
RAMPART STREAM
RATHROE
RATTY
RIVERSTOWN
ROSNAMUCKYDUFF
SCARDAN
SCARRIFF
SCRAMOGE [SOUTH]
SHANOW
SHANOWEN [DONEGAL]
SHEAN
SHIVEN [NORTH]
SKIVILEEN
SLIEVENOHERA
SOOLVANE
SRUELL
SRUHANACROW MORE
STONESTOWN
STRANAGARTAN STREAM
TICKNOCK STREAM
TIMOGUE
TIMAHOE
TOGHER
TOMEEN
TOOR BROOK

River Name Adopted in Report OWENABINDERG

See INNY [26/I/01]
See NAD [18/N/01]
See RAY [38/R/01]
See OWENVEAGH [38/O/14]
See CALABBER [38/C]
See OWVEG [NORE] [15/O/01]
See OWENBEG [COOLANEY] [35/O/01]
See CULDAFF [40/C/02]
See DUNNEILL [35/D/06]
See BUNDORRAGHA [32/B/01]
See OWENMORE [MAYO] [33/O/04]
See MILL [DONEGAL] [39/M/02]
See GLENREE [34/G/01]
See RECESS [31/R/01]
See CLOONAGHMORE [34/C/03]
See ERRIFF [32/E/01]
See LEE [CORK] [19/L/03]
See Moynalty (07M03)
See OWENTOCKER [38/O/06]
See FINNED [35/F/01]
See NADREEGEEL L.STREAM [07/N/01]
See CLONCUMBER STREAM [14C17]
See BREAGAGH [TIPP.] [16/B/03]
See RINE [27/R/01]
See BLACKWATER [KELLS] [07/B/01]
See NEWMARKET STREAM [18/N/02]
See BREAGHWY [34/B/06]
See OWENOGARNEY [27/O/01]
See BIG [LOUTH] [06/B/01]
See BELLAWADDY [34/B/05]
See OWENMORE[MANORHAMILTON][35/O/02]
See GRANEY 25/G/04
See LISSAPHOBLE [26/L/04]
See BRICK [23/B/03]
See DUNTALLY [38/D/03]
See SHEEN [21/S/01]
See KILLIAN [26/K/01]
See CREEGH [28/C/02]
See KILLEENGARRIFF [25/K/02]
See FARNEYBRIDGE [16/F/02]
See EANYMORE WATER [37/E/02]
See SHALLOGAN [38/S/03]
See STONYFORD [07/S/02]
See GLEN [CARRICK] [37/G/01]
See TEMPLERAINY STREAM [10/T/04]
See CROOKED [STRADBALLY] 14C02
See STRADBALLY [14S02]
See DOUGLAS [BRIDE] [18/D/02]
See RINE [27/R/01]
See LEMONSTOWN STREAM [09/L/03]

Alternative River Names [Continued]

River Name

TOOREEN
TOORMORE (Mayo)
TRAMORE [CORK]
TREMBLESTOWN
TROUGH
TUAM
TULLYVALLAN
TURRA
TWO MILE WATER
WHITE [LIMERICK]
WHITEHOUSE

River Name Adopted in Report

See COOLEEN [28/C/05]
See CASTLEBAR [34/C/01]
See DOUGLAS [LEE] [19/D/05]
See ATHBOY [07/A/01]
See BLACKWATER [CLARE] [25/B/06]
See NANNY [TUAM] [30/N/01]
See CASTLETOWN [06/C/01]
See BOLEYNEENDORRISH [29/B/04]
See ABBEY [36/A/01]
See OWVANE [LIMERICK] [24/O/02]
See STRAID [40/S]

