

INTRODUCTION

This report presents the results of the 1999 investigations in which 1061 locations on 356 rivers and streams were surveyed in those areas indicated in Fig. 1, i.e. the Upper and Lower Shannon Catchments (26 and 25), the Suir catchment (16), the Lee/Cork Harbour catchment (19), the catchment of the Shannon Estuary South (24) and the remainder of several areas incompletely surveyed in 1998 i.e., of the Feale (23), Shannon Estuary North (27) and Moy (34) catchments.

The survey is the second 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 micro-organisms 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
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 (Pristine)	'Good'	High Diversity	Satisfactory
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, 882pp.

Table 1 General characteristics of the various Biological Quality Classes

Quality Classes	Class A		Class B	Class C	Class D	
Quality Ratings (Q)	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. 16 -Suir

Aherlow	16A01
# Anner	16A02
# Ara	16A03
Arglo	16A04
Aughnaglanny	16A05
Ballintemple Stream	16B07
Black Stream (Cashel)*	16B05
Black (Twomileborris)	16B01
Blackwater (Kilmacow)	16B02
Borrisoleigh Stream	16B06
Burncourt	16B04
Clashawley	16C01
Clodiagh (Portlaw)	16C03
Clodiagh (Tipperary)	16C02
Clonmore Stream	16C11
Clover	16C04
# Drish	16D02
Duag	16D03
Farneybridge	16F02
Fidaghta	16F01
Fishmoyne	16F03
Glasha	16G01
Glenboy	16G03
Glengalla	16G05
Halfway House Stream	16H02
Lingaun	16L01
# Moyle	16M01
Multeen	16M02
Nier	16N01
Outeragh Stream	16O01
Owenbeg (Tipperary)	16O02
Pollanassa	16P02
Rossadrehid Stream	16R06
Rossestown	16R01
Shanbally	16S01
Smartscastle Stream	16S07
Suir	16S02
Tar	16T01
Thonoge	16T02

= Having seriously polluted stretch(es) at the time of this survey

* The Black Stream (Cashel) is not shown on the OS Catchment Map.

River and Code : **AHERLOW**
Tributary of : Suir
OS Grid Ref. : S 035 280

16/A/01
OS Catchment No: 182
Date(s) Surveyed : 19/08/99

Station No.	Biological Quality Ratings (Q Values)									
	1971	1974	1976	1977	1980	1985	1988	1993	1996	1999
0040	-	-	-	-	-	-	-	4	4	4
0080	-	-	-	-	-	-	-	-	4-5	4
0100	-	-	-	-	4	4	4	4	-	-
0200	-	-	4	-	4	4	3	4	4	4
0300	-	-	-	-	4	4	3-4	4	4	4
0400	-	-	5	-	5	5	4	4	-	-
0500	-	-	-	-	5	5	4-5	4-5	4	4
0600	-	-	-	-	4	4-5	4	4	4	4
0700	-	-	4-5	-	4	5	4	4-5	4	4
0800	-	-	5	-	4	4	4	4-5	4	4-5
0900	4	4	4-5	4	4	4-5	4-5	4	4	4

Sampling Station
No. Location

0040 Ballymahony Br
0080 Br SW of Keeloges
0100 Br SW of Ardrahin
0200 Galbally Br
0300 Stagdale Br
0400 New Br

Sampling Station
No. Location

0500 Second Ford d/s New Br
0600 Br 2 km SW of Foxfort
0700 Br S of Ashgrove Ho
0800 Cappa Old Br
0900 Killardry Br

Assessment: Satisfactory at all locations again in 1999 with fair quality mostly recorded.

River and Code : **ANNER**
 Tributary of : Suir
 OS Grid Ref. : S 245 238

16/A/02
 OS Catchment No: 182
 Date(s) Surveyed : 05/07/99

Station No.	Biological Quality Ratings (Q Values)										
	1976	1977	1978	1980	1982	1985	1987	1988	1992	1996	1999
<i>Main Channel</i>											
0100	-	-	1	2	1	1	1	3	3	3	2
0300	-	-	3	2	3	2	2	3	-	-	-
0340	-	-	-	-	-	-	-	3	3	3	3-4
0500	-	1	1-2	2	3	2	2	2-3	2-3	3	3
0600	-	-	3-4	3-4	3-4	4	-	3-4	3-4	4	4
0700	-	3-4	4	3-4	3-4	4	-	3-4	4	4	4
0800	-	-	3-4	3	4	4	-	4	4	4	4
0900	-	4	3-4	4	3-4	-	-	4	4	4	4
1000	-	-	5	5	4-5	-	-	4-5	4	4	-
1100	5	-	3-4	4	4-5	-	-	4	4	4	4

Mullinahone Branch*

0500	-	1	1-2	2	3	2	2	2-3	2-3	3	3
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Sampling Station

No. Location

Main Channel

0100	Br just N of Drangan
0300	Br SW of Ballinacloghy
0340	Br d/s Mullinahone Branch
0600	Drummon Br
0700	Melbourne Br
0800	Br SW of Killusty Castle
0900	Thorny Br
1000	Br (Ford) W of Ballynevin
1100	Br nr Anner Ho

Mullinahone Branch*

0500	at Beaverstown Mill
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Assessment: Mostly satisfactory but has reverted to seriously polluted conditions N of Drangan (0100) on the main channel as a result of sewage discharges. The only other change since the 1996 survey was a minor improvement downstream of Mullinahone (0340).

* Mullinahone Branch not shown on OS Catchment Map

River and Code : **ARA** **16/A/03**
Tributary of : Aherlow OS Catchment No: 182
OS Grid Ref. : S 002 296 Date(s) Surveyed : 06/08/99

Stations No.	Biological Quality Ratings (Q Values)										
	1971	1974	1976	1979	1981	1983	1985	1988	1992	1996	1999
0100	-	-	-	-	-	-	-	3-4	3	3	3
0200	-	4-5	4	3-4	3-4	3-4	3-4	3-4	3-4	3	3-4
0300	2	1	1	1	3	3	2-3	3	3	3	1-2
0400	1	1	1	1	3	3	3	3	3	-	-
0440	-	-	-	-	-	-	-	3	3-4	3	3
0500	-	-	-	3-4	3-4	3-4	4	3	3-4	3-4	3
0600	2	3	3-4	3-4	3-4	3-4	4	3-4	3	3-4	3
0700	-	-	-	4	4	4	4	4	3-4	3-4	3-4

Sampling Station
No. Location

Sampling Station
No. Location

0100	Br SE of Shronell	0440	Br NE of Lacken
0200	Br just u/s Tipperary	0500	Bansha Br
0300	1 km d/s Tipperary nr Railway Br	0600	Ara Br, 2.8 km d/s Bansha
0400	Br nr Cordangan Manor	0700	Ara Br, u/s Aherlow R confl

Assessment: Continuing unsatisfactory throughout its length with further deterioration recorded at three locations since previous survey; the most severe of which was d/s Tipperary (0300) where seriously polluted conditions were registered. The gross pollution, apparently as a result of creamery waste discharges, had not been recorded in the river for 20 years.

River and Code : **ARGLO** **16/A/04**
Tributary of : Suir OS Catchment No: 182
OS Grid Ref. : S 047 435 Date(s) Surveyed : 16/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)						
	1976	1980	1985	1988	1992	1996	1999
0100 Br nr Grangebeg Ho	-	3-4	3-4	4	4	3-4	4
0200 Arglo Br	4-5	4	3-4	4	4	4	4

Assessment: Satisfactory at both locations examined following improvement at 0100 since previous survey.

River and Code : **AUGHNAGLANNY** **16/A/05**
Tributary of : Multeen (North) OS Catchment No: 182
OS Grid Ref. : R 994 470 Date(s) Surveyed : 04/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1977	1980	1985	1988	1992	1996	1999
0100	Victoria Br	4-5	5	5	4-5	4-5	4	4-5

Assessment: Continuing satisfactory.

River and Code : **BALLINTEMPLE STREAM** **16/B/07**
Tributary of : Clashawley OS Catchment No: 182
OS Grid Ref. : S 188 372 Date(s) Surveyed : 07/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)		
		1994	1996	1999
0800	Br N of Coolmoyne Crossroads	4	4	4

Assessment: Continuing satisfactory.

River and Code : **BLACK (TWO MILE BORRIS)** **16/B/01**
Tributary of : Drish OS Catchment No: 182
OS Grid Ref. : S 192 592 Date(s) Surveyed : 21/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1980	1982	1985	1988	1992	1996	1999
0030	Black River Br	-	-	-	-	-	3-4	3-4
0090	Br W of Newhill Ho	-	-	-	4	4	4	3-4
0100	Br W of Twomileborris	3	3-4	3	4	4	4	4

Assessment: Mostly unsatisfactory (slightly polluted) following a deterioration at the Bridge West of Newhill Ho (0090) since the last survey.

River and Code : **BLACK STREAM (CASHEL)*** **16/B/05**
 Tributary of : Suir OS Catchment No: 182
 OS Grid Ref. : S 038 408 Date(s) Surveyed : 16/08/99

Sampling Stations		Biological Quality Ratings (Q Values)							
No.	Location	1978	1980	1985	1986	1988	1989	1993	1999
0100	Br 0.5 km u/s Suir R confl	1-2	2	2	3	2	2-3	3	2-3

Assessment: Continuing unsatisfactory with moderately polluted conditions.

*The Black Stream is not shown on the OS Catchment Map

River and Code : **BLACKWATER (KILMACOW)** **16/B/02**
 Tributary of : Suir OS Catchment No: 182
 OS Grid Ref. : S 586 141 Date(s) Surveyed : 27/09/99

Sampling Stations		Biological Quality Ratings (Q Values)						
No.	Location	1976	1981	1985	1988	1992	1996	1999
0060	Br d/s Derrylacky R confl	-	-	-	4	4	4	4
0080	Br to W of Mullinavat	-	-	-	4	4	4	4
0100	Br S of Mullinavat (on Trib)	-	5	3-4	4	4	-	-
0200	Nr Clonassy Wood (Scart)	-	4	4	4	4-5	4-5	4
0300	Dangan Br	4	5	3-4	3	3-4	4	4
0400	Foot-bridge at Kilmacow	-	5	4-5	4	4	-	-
0450	Br SE of Kilmacow	-	-	-	4	4	4	3-4

Assessment: Mostly satisfactory but with some loss of quality, to slight pollution, at final location (0450) since last survey.

River and Code : **BORRISOLEIGH STREAM** **16/B/06**
Tributary of : Fishmoyne OS Catchment No: 182
OS Grid Ref. : S 042 639 Date(s) Surveyed : 01/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1980	1981	1988	1992	1996	1999
0200	Br NE of Ballyduff	-	-	-	-	4	4
0400	Ballyroan Br	-	-	4	4	4	4
0600	Br 0.5 km SE of Borrisoleigh	3	4	3	2-3	2-3	3
0700	Br u/s Fishmoyne R confl	-	-	3-4	3	3	3

Assessment: Continuing satisfactory upstream of Borrisoleigh and moderately polluted downstream of the town.

River and Code : **BURN COURT** **16/B/04**
Tributary of : Shanbally OS Catchment No: 182
OS Grid Ref. : R 974 177 Date(s) Surveyed : 20/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1992	1996	1999
0100	Glengarra Br	4-5	4-5	5	4-5
0300	Burncourt Old Br	4-5	4-5	4-5	4

Assessment: Continuing satisfactory despite some minor loss of ecological quality at both locations since the last survey.

River and Code : **CLASHAWLEY** **16/C/01**
Tributary of : Anner OS Catchment No: 182
OS Grid Ref. : S 246 303 Date(s) Surveyed : 07/07/99

Sampling Stations Biological Quality Ratings (Q Values)
No. Location **1976 1978 1980 1981 1983 1988 1992 1996 1999**

Killenaule Branch

0100	Br 1 km S of Killenaule	-	3	2	2-3	3	3	2-3	3	2-3
0200	Br nr St. Johnston Castle	-	4-5	-	4-5	4	4-5	4	3-4	4
0300	Saucestown Bridge	-	3-4	-	5	4-5	4	4	3-4	4

Main Channel

0050	Br SW of Cathaganstown	-	-	-	-	-	4	4	3-4	4
0080	Br at Farranaleen Sta	-	-	-	-	-	4	4	4	3-4
0400	Br at Ballybough	4	4-5	-	4	4	3-4	4	4	4
0470	1 km d/s Killenaule Branch	-	-	-	-	-	2-3	3	3	2-3
0500	Br 2 km SE of Fethard	2	1	3-4	4	4	4	3-4	-	-
0600	Loughcapple Br	-	4-5	-	5	4	4	4	4	4

Assessment: Mostly satisfactory but continuing moderately polluted by suspected sewage discharges below Killenaule (0100) and Fethard (0470).

River and Code : **CLODIAGH (PORTLAW)** **16/C/03**
Tributary of : Suir OS Catchment No: 182
OS Grid Ref. : S 487 156 Date(s) Surveyed : 19/07/99

Stations Biological Quality Ratings (Q Values)

No.	1971	1975	1978	1980	1982	1984	1986	1988	1993	1996	1999
0040	-	-	-	-	-	-	-	4	4	4	4-5
0100	-	-	5	-	-	-	4-5	4-5	3	3-4	4-5
0200	-	-	5	-	-	-	4-5	4-5	4-5	4-5	4
0300	5	5	5	-	-	5	4-5	4	4	3-4	3
0400	-	5	5	-	-	5	3-4	4-5	4-5	4-5	3-4
0700	-	2-3	4-5	3	3-4	3-4	4-5	4	4-5	-	-
0750	-	-	-	-	-	-	-	-	-	4-5	4

Sampling Station

No. Location

0040 Br NE of Ballycullane
0100 Br E of Shanakill Ho
0200 Br W of Munsburrow
0300 Clonea Br

Sampling Station

No. Location

0400 Lowry's Br
0700 Portlaw Br (RHS)
0750 Just d/s Portlaw Br

Assessment: Mostly satisfactory but further deterioration recorded since the previous survey at Clonea Bridge (0300) due to sewage discharges and at Lowry's Bridge (0400) due to agricultural pollution; significant improvement registered at 0100 where previously slightly polluted by farm waste.

River and Code : **CLODIAGH (TIPPERARY)** **16/C/02**
Tributary of : Suir OS Catchment No: 182
OS Grid Ref. : S 063 503 Date(s) Surveyed : 02/09/99

Sampling Stations		Biological Quality Ratings (Q Values)						
No.	Location	1976	1980	1986	1988	1992	1996	1999
0040	Br N of Castlehill	-	-	-	5	4	4	4
0080	Br E of Rathcardan	-	-	-	-	-	5	4-5
0100	Annfield Br	-	5	4-5	4-5	4	-	-
0200	Drumminagleagh Br	-	-	-	4-5	4	4-5	4
0300	Ballyoughter Br	5	5	4-5	4-5	4	-	-
0400	Derrymore Br	5	5	4	4	4	3-4	4
0600	1.5 km d/s Rathkennan Br	5	5	4-5	4-5	4	4	4

Assessment: Satisfactory throughout length examined following improvement at 0400 since 1996.

River and Code : **CLONMORE STREAM (SUIR)** **16/C/11**
Tributary of : Suir OS Catchment No: 182
OS Grid Ref. : S 139 740 Date(s) Surveyed : 08/10/99

Sampling Stations		Biological Quality Ratings (Q Values)
No.	Location	1999
1000	Br u/s Suir R confl	3

Assessment: Moderately polluted where examined. Not previously surveyed.

River and Code : **CLOVER** **16/C/04**
Tributary of : Black (Twomileborris) OS Catchment No: 182
OS Grid Ref. : S 192 592 Date(s) Surveyed : 21/07/99

No.	Location	Biological Quality Ratings (Q Values)						
		1988	1989	1990	1992	1994	1996	1999
0100	Br at Turnpike	2	2	1-2	2	2	1	2-3
0300	Br u/s Black R confl	3-4	-	-	3-4	-	2-3	4

Assessment: The Clover had improved considerably at both locations since 1996. Serious pollution partially abated at Turnpike (0100) and a major improvement was recorded in the lower reaches (0300) where conditions were assessed as satisfactory for the first time in the twelve year period since sampling began.

River and Code : **DRISH** **16/D/02**
Tributary of : Suir OS Catchment No: 182
OS Grid Ref. : S 130 565 Date(s) Surveyed : 21/07/99

No.	Location	Biological Quality Ratings (Q Values)						
		1976	1980	1983	1988	1992	1996	1999
0040	Br u/s Longfordpass Br	-	-	-	-	-	3-4	3-4
0070	Br NE of Castletown	-	-	-	4	4-5	3-4	2/0
0100	Boolabeha Br	4-5	4	4	4-5	4	4	3-4
0200	Br S of Athlummon	-	3	4	4	4	4	4
0300	Drish Br	4-5	4	4	4	4	-	-
0400	Br u/s Suir R confl	-	4	4	4	4	4	4

Assessment: The Drish river was in a highly eutrophic condition over most of its course in July 1999 and a major deterioration was recorded in the Castletown area (0070) where abundant slime growths ('sewage fungus') were observed and the severely restricted macroinvertebrate fauna indicated a toxic effect. Mining activities suspected.

River and Code : **DUAG** **16/D/03**
Tributary of : Tar OS Catchment No: 182
OS Grid Ref. : S 014 145 Date(s) Surveyed : 20/09/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1988	1992	1996	1999
0100	Br u/s Ballyporeen	4	4	4	4
0300	Ford ESE of Ballyporeen	3	3-4	-	-
0400	Br S of Kilcarroon	-	-	4	4
0600	Ford S of Carrigmore Crossroads	3-4	4	-	-
1100	Br at S end of Clogheen	4-5	4-5	4	3-4

Assessment: Quality mostly 'Fair' but slightly polluted/eutrophic in Clogheen (1100).

River and Code : **FARNEYBRIDGE** **16/F/02**
Tributary of : Clodiagh (Tipperary) OS Catchment No: 182
OS Grid Ref. : S 054 543 Date(s) Surveyed : 23/07/99

Sampling Stations		Biological Quality Ratings (Q Values)				
No.	Location	1988	1989	1992	1996	1999
0200	Br ENE of The Rag	2	2-3	3	3	3
0300	Br SE of The Rag	2-3	3	3	-	-
0500	Br nr Ballynahow	3	-	3	3	3
0600	Farney Br	3	-	4	4	4
0700	Just u/s Clodiagh R confl	3-4	-	4	4	4

Assessment: Upper reaches (0200, 0500) continuing unsatisfactory due to moderate pollution; lower reaches remaining satisfactory.

River and Code : **FIDAGHTA** **16/F/01**
Tributary of : Suir OS Catchment No: 182
OS Grid Ref. : S 013 314 Date(s) Surveyed : 05/08/99

Sampling Stations		Biological Quality Ratings (Q Values)							
No.	Location	1976	1977	1981	1985	1988	1992	1996	1999
0100	Br nr Aughnagower Crossroads	-	-	3-4	3-4	3-4	3-4	3-4	3-4
0200	Br nr Lisgibbon	-	3-4	4	3-4	3-4	3-4	3-4	3-4
0300	Kilnacask Br	4-5	-	3-4	4	4	3	3	4

Assessment: Significantly improved in lower reaches (0300) but remaining slightly polluted at the other two locations surveyed in August 1999.

River and Code : **FISHMOYNE** **16/F/03**
Tributary of : Clodiagh (Tipperary) OS Catchment No: 182
OS Grid Ref. : S 043 638 Date(s) Surveyed : 01/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1992	1996	1999
0040	Br NW of Drom	-	-	3	3
0080	Br SE of Kilfithmone Crossroads	4	4	-	-
0200	Br 2 km SE of Borrisoleigh	4	4	4	4
0300	Monroe Br	4	3-4	3-4	4

Assessment: Following a slight improvement at Monroe Bridge (0300) the lower reaches of the Fishmoyme river were in a satisfactory condition in early September 1999 but moderate pollution continued unabated in the Drom area (0040).

River and Code : **GLASHA (WATERFORD)** **16/G/01**
Tributary of : Suir OS Catchment No: 182
OS Grid Ref. : S 298 232 Date(s) Surveyed : 20/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1992	1996	1999
0200	Br u/s Glenpatrick Br	-	-	4-5	4-5
0300	Glenpatrick Br	4-5	4-5	-	-
0400	Br u/s Suir R confl	4-5	4-5	4-5	4

Assessment: Satisfactory with no significant change.

River and Code : **GLENBOY** **16/G/03**
Tributary of : Tar OS Catchment No: 182
OS Grid Ref. : S 113 139 Date(s) Surveyed : 20/09/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1988	1992	1996	1999
0200	Glenboy Br	4-5	4-5	4-5	4-5

Assessment: Continuing satisfactory.

River and Code : **GLENGALLA** **16/G/05**
Tributary of : Tar OS Catchment No: 182
OS Grid Ref. : S 071 138 Date(s) Surveyed : 20/09/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1988	1992	1996	1999
0100	Glengalla Br	5	5	4-5	5

Assessment: Good quality. No significant change.

River and Code : **HALFWAY HOUSE STREAM** **16/H/02**
Tributary of : Suir Estuary OS Catchment No: 184
OS Grid Ref. : S 659 099 Date(s) Surveyed : 28/09/99

Sampling Stations		Biological Quality Ratings (Q Values)		
No.	Location	1993	1996	1999
0200	Br SW of Foxmount	3	3	3-4
0300	Br to NW of Halfway Ho	3	3	3

Assessment: Continuing unsatisfactory despite a slight improvement at the first location since the 1996 survey. Agriculture suspected.

River and Code : **LINGAUN**
Tributary of : Suir
OS Grid Ref. : S 428 216

16/L/01
OS Catchment No: 182
Date(s) Surveyed : 20/07/99

Sampling Stations		Biological Quality Ratings (Q Values)							
No.	Location	1976	1977	1981	1985	1988	1992	1996	1999
0050	Br u/s Whitehall Br	-	-	-	-	-	-	4-5	4
0100	Whitehall Br	-	-	5	4-5	4-5	4	-	-
0200	Lingaun Br	-	-	5	4-5	4-5	4-5	4	3-4
0300	Br at Inchanaglogh	-	-	4-5	4-5	4-5	4-5	4	4
0400	Br nr Annsborough Ho	-	5	5	5	4-5	4-5	4-5	4
0600	The Three Bridges	5	5	5	4	4	4	4	4

Assessment: Continuing mostly satisfactory but significantly, for the first time since sampling began, one of the locations (0200) examined was less than satisfactory exhibiting the effects of slight pollution.

River and Code : **MOYLE**
Tributary of : Anner
OS Grid Ref. : S 248 275

16/M/01
OS Catchment No: 182
Date(s) Surveyed : 07/07/99

Sampling Stations		Biological Quality Ratings (Q Values)							
No.	Location	1981	1983	1986	1988	1992	1994	1996	1999
0050	Br NW of Mocklerstown	3-4	2	2	1	1	1	2-3	2
0200	Ballinavoher Br	-	-	-	1	3	-	3	Dry
0270	Br S of Baptistgrange	-	-	-	-	-	-	3	3
0400	Br u/s Anner R confl	4-5	4	4	3-4	3-4	-	3-4	3

Assessment: The upper reaches of the Moyle River (0050) were again seriously polluted by suspected industrial discharges and both downstream locations surveyed were moderately polluted by suspected agricultural pollution in July 1999.

River and Code : **MULTEEN**
Tributary of : Suir
OS Grid Ref. : S 007 395

16/M/02
OS Catchment No: 182
Date(s) Surveyed : 04/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1976	1980	1985	1988	1992	1996	1999
<i>East Channel</i>								
0030	Br NW of Falleennatinoga	-	-	-	-	-	4-5	4
0100	Br nr Turraheen Lower	-	5	5	5	5	3-4	4-5
0300	Clonedarby Br	-	5	4-5	5	4-5	4	3-4
0400	Black Br	-	5	5	4	4	4	4-5
0500	Aughnagross Br	5	5	5	4-5	4-5	4	4
<i>West Channel</i>								
0540	Br SW of Hollyford	-	-	-	4	4	3-4	4
0600	1 km SE of Inchinsquillib	-	-	-	-	-	3-4	4
0780	Br SW of Annacarty	-	-	-	-	-	4	4-5
0800	Hawarden Br	5	5	5	4-5	5	-	4-5
0900	Morpeth Br	-	5	-	5	4	4-5	4-5
1000	Ballinaclogh Br	4-5	4	-	4	4	4	4
1100	Ballygriffin Br	5	4	-	4	4	4	4

Assessment: Following improvements on both branches (at 0100, 0540 and 0600) the West Channel of the Multeen was satisfactory at all points in early August 1999 and the East Channel had only one location (0300) where quality failed to reach a satisfactory standard.

River and Code : **NIER**
Tributary of : Suir
OS Grid Ref. : S 147 139

16/N/01
OS Catchment No: 182
Date(s) Surveyed : 03/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1976	1983	1988	1992	1996	1999
0010	Br SW of Glennanore	-	-	-	-	4-5	4
0030	Birchell's Br	-	-	4	4-5	-	-
0070	Br SW of Knockalisheen	-	-	5	5	4	4
0100	Br ENE of Ballymacarbry	-	4-5	4-5	4-5	-	-
0200	Deerpark Br	-	-	4-5	4-5	4	4
0400	Ballymakee Br	5	5	4-5	4-5	4-5	4

Assessment: Continuing satisfactory with fair quality recorded at the four locations examined in early September 1999.

River and Code : **OUTERAGH STREAM** **16/O/01**
Tributary of : Suir OS Catchment No: 182
OS Grid Ref. : S 054 267 Date(s) Surveyed : 18/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)		
		1993	1996	1999
0150	Br W of Outeragh	3	3-4	3
0200	Br u/s Suir R confl	3-4	3-4	3-4

Assessment: Continuing unsatisfactory with moderate and slight pollution effects.

River and Code : **OWENBEG (TIPPERARY)** **16/O/02**
Tributary of : Clodiagh (Tipperary) OS Catchment No: 182
OS Grid Ref. : S 038 564 Date(s) Surveyed : 02/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1992	1996	1999
0200	First Br d/s Curraghduff	-	-	4	4
0300	NNE of Knockmehil	4-5	4	-	-
0400	Br SW of Rossoulty	4-5	4	4	4
0700	Ballyoughter Br	4-5	4	4	4-5

Assessment: Satisfactory. No significant change.

River and Code : **POLLANASSA** **16/P/02**
Tributary of : Blackwater (Kilmacow) OS Catchment No: 182
OS Grid Ref. : S 562 235 Date(s) Surveyed : 30/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1993	1996	1999
0040	(South) Br NE of Boolyglass	4	4	4	4
0100	Br SE of Harristown	3-4	3-4	4	4
0300	Ford (Br) SW of Ballynacooly	4	4	3-4	3
0500	Br u/s Blackwater R confl	4	4-5	4	4

Assessment: Mostly satisfactory but further deterioration recorded in the Ballynacooly area (0300) where the stream was moderately polluted by suspected agricultural wastes.

River and Code : **ROSSADREHID STREAM** **16/R/06**
Tributary of : Aherlow OS Catchment No: 182
OS Grid Ref. : S 562 235 Date(s) Surveyed : 20/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)	
	1996	1999
0100 Br u/s Aherlow R confl	4	3-4

Assessment: Eutrophic when examined in August 1999 representing a slight loss of quality since previous survey. An intermittent sewage discharge apparently reaches the river, from the right-hand-side, upstream of bridge.

River and Code : **ROSSESTOWN** **16/R/01**
Tributary of : Suir OS Catchment No: 182
OS Grid Ref. : S 133 625 Date(s) Surveyed : 22/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)						
	1977	1981	1985	1988	1992	1996	1999
0040 Br NE of Barnalisheen	-	-	-	3-4	3	3*	3*
0100 Lisaticy Br	3-4	3-4	3-4	3-4	4	3-4	4
0200 Br S of Kilclonagh	4	4	4	3-4	4	4	4
0300 Br u/s Suir R confl	4	3-4	3-4	3-4	3-4	4	4

Assessment: Mostly satisfactory following improvement at Lisaticy Bridge (0100). Siltation again significantly depressed quality in the upper reaches (0040) where the river flows through a worked bog.

* Silt effects.

River and Code : **SHANBALLY**
Tributary of : Tar
OS Grid Ref. : R 976 178

16/S/01
OS Catchment No: 182
Date(s) Surveyed : 04/10/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1988	1992	1996	1999
0100	Cahergal Br	4	4	4-5	4-5
0400	Br SSE of Burncourt	4	4	4	4

Assessment: Satisfactory. No change.

River and Code : **SMARTSCASTLE STREAM**
Tributary of : Blackwater (Kilmacow)
OS Grid Ref. : S 586 146

16/S/07
OS Catchment No: 182
Date(s) Surveyed : 27/09/99

Sampling Stations		Biological Quality Ratings (Q Values)		
No.	Location	1993	1996	1999
0200	Br S of Knockbrack Gorse	4	3-4	4
0500	Br d/s Catsrock Br	4	4	4
0800	Br SW of Smartscastle (Main flow)	4-5	4	4

Assessment: Following improvements since 1996 in its upper reaches (0200), the Smartscastle Stream was assessed as satisfactory at all three locations surveyed in September 1999.

River and Code : **SUIR**
 Tributary of : Waterford Harbour
 OS Grid Ref. : S 402 215

16/S/02
 OS Catchment No: 182
 Date(s) Surveyed : 08/10/99

Stations	Biological Quality Ratings (Q Values)											
No.	1971	1974	1978	1980	1982	1985	1986	1988	1992	1993	1996	1999
0025	-	-	-	-	-	-	4	4	4	-	3-4	4
0100	5	5	5	5	-	4	3-4	3-4	4	-	4	4
0200	5	4	4-5	5	4	-	4	3-4	4	-	3-4	3-4
0300	3-4	3-4	2-3	3	3	-	3	3	3-4	-	3	3
0400	3-4	3-4	3	3	3	3	3	3	3	-	-	-
0500	4-5	4	3-4	3-4	3-4	-	4	4	4	-	3-4	4
0600	2	2	3	3	3	3	3	3	3	-	3	3
0900	2	2-3	2-3	2-3	3	3	3	3	3-4	-	3-4	3-4
1000	-	-	3-4	3	3	3	3	3	3-4	-	-	-
1100	-	4	3-4	3-4	3	-	-	3	3-4	-	3	3-4
1200	4	4	4	4	3-4	3-4	3-4	3	4	-	3-4	3-4
1300	5	4	5	5	4-5	4	4	4	4	-	4	4
1400	4-5	4-5	4-5	4	4	4	4	4	4	-	4	3-4
1500	4-5	4	4-5	4	4	-	4	4	-	4	4	4
1600	4-5	4-5	4	4	-	-	4-5	4	-	4	4	4
1700	4-5	4	4	4	-	-	4-5	3-4	-	4	4	4
1800	-	-	-	4	4	-	4	4	-	3-4	4	4
1930	-	-	-	3-4	3-4	-	3-4	-	-	3-4	3-4	3-4
2000	5	3-4	3-4	3-4	3-4	-	3-4	-	-	3	3-4	3-4
2200	5	3-4	4-5	4	-	-	4	4	-	4	4	4
2300	5	4	4-5	4-5	-	-	4	4	-	4	4	4
2400	5	4	5	5	4	-	4	4	-	4	4-5	4
2600	3-4	3	4	4	3-4	-	3-4	3	-	3	2-3	2-3
2700	4-5	3	3-4	4	3-4	-	3-4	3	-	3	3	3
2750	-	-	-	-	-	-	-	-	-	3	3	3
2800	4-5	3-4	2-3	2-3	3	-	3	-	-	-	-	-
2850	-	-	-	-	-	-	-	3	-	3	3	3

Sampling Station No.	Location
0025	Skehanagh Br
0100	Knockanroe Br
0200	Knocknageragh Br
0300	Penane Br
0400	Loughmore Br
0500	Rossestown Br
0600	Thurles Br
0900	Cabragh Br
1000	2 km d/s Cabragh Br, Beakstown
1001	1100 Holycross Br
1200	Twoford Br (Main channel)
1300	Ardmayle Br
1400	Camus Br

Sampling Station No.	Location
1500	Golden Br
1600	Br nr Suirville Ho (New Br)
1700	2 km u/s Cahir
1800	Cahir Br
1930	Ford 1.8 km d/s Cahir Park Br
2000	Ardfinnan Br
2200	Newcastle Br
2300	Knocklofty Br
2400	Marlfield, u/s Clonmel
2600	Twomilebridge
2700	Kilsheelan Br
2750	N of Churchtown Ho
2800	Coolnamuck Weir
2850	1.5 km u/s Carrick-on-Suir

River: SUIR Continued

Assessment: The Suir River was sampled following some three weeks of high flow conditions and indications were that water quality had changed little since 1996. More than half (13 of 24) the locations sampled in October 1999 were either slightly or moderately polluted and slime growths ('sewage fungus') were again recorded downstream of Clonmel at Twomilebridge (2600). Slight improvements were recorded at two locations (0500 and 1100) while one (1400) showed a slight deterioration since the previous examination.

River and Code : **TAR** **16/T/01**
 Tributary of : Suir OS Catchment No: 182
 OS Grid Ref. : S 115 147 Date(s) Surveyed : 04/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)							
		1976	1977	1981	1986	1988	1992	1996	1999
0030	Br N of Redhill Ho	-	-	-	-	5	4-5	4-5	4-5
0200	Garrymore Br	-	4	5	4-5	4	4-5	4	4-5
0300	Br just N of Clogheen	-	-	4	4-5	4-5	4	-	4-5
0460	Ford WNW of Kilgroggy Ho	-	-	-	-	-	-	4	4
0500	Goats Br	-	-	5	5	4-5	4-5	-	-
0600	Ford u/s Tar Br	5	4-5	5	4-5	4-5	4	4-5	4-5

Assessment: Continuing satisfactory.

River and Code : **THONOGE** **16/T/02**
 Tributary of : Suir OS Catchment No: 182
 OS Grid Ref. : S 066 204 Date(s) Surveyed : 17/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1981	1985	1988	1992	1996	1999
0010	Kilcoran Br	-	-	-	-	4	4
0050	Curraghmore Br	-	4-5	4	4-5	-	-
0080	Br u/s Ballylooby	-	-	-	-	4	4
0100	Ford 0.5 km d/s Ballylooby	4	4-5	4	4-5	-	-
0200	East Br, Tubbrid	4	4-5	4-5	4	4	4

Assessment: Continuing satisfactory where sampled; the lowermost reaches dry out in most summers thus precluding sampling below Tubbrid.

HYDROMETRIC AREA No. 19

Lee, Cork Harbour and Youghal Bay

Aughnaboy	19A02
Awboy	19A03
Blarney	19B02
Bride (Lee)	19B04
Butlerstown	19B06
Cummer	19C02
Cusloura	19C01
Dissour	19D03
Douglas (Sullane)	19D04
Dripsey	19D06
Dungourney	19D07
Finnow (Foherish)	19F01
Foherish	19F02
Garrane (Lee)	19G03
Glashaboy	19G01
Keel	19K02
Laney	19L01
Lee	19L03
Martin	19M01
Owenboy	19O01
Owennacurra	19O03
Shournagh	19S01
Sullane	19S02
Templebodan	19T01
Toon	19T02
Womanagh	19W01

River and Code : **AUGHNABOY (CORK)** **19/A/02**
Tributary of : Owenboy (Cork) OS Catchment No: 230
OS Grid Reef : W 558 608 Date(s) Surveyed : 12/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Br NW of Fort William	4	3	3	3
0300 Br 0.7km SE of Crossbarry	4	3-4	3-4	3-4

Assessment: Continuing unsatisfactory at both locations with no appreciable change since the previous two surveys.

River and Code : **AWBOY** **19/A/03**
Tributary of : Laney OS Catchment No: 228
OS Grid Reef : W 349 790 Date(s) Surveyed : 22/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0200 Awboy Br	5	4-5	4	4

Assessment: Continuing satisfactory despite some loss of biological diversity since first sampled in 1990.

River and Code : **BLARNEY** **19/B/02**
Tributary of : Lee OS Catchment No: 228
OS Grid Reef : W 592 749 Date(s) Surveyed : 14/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)		
	1994	1997	1999
0500 Br NW of Killeens Cross	3-4	3-4	3-4

Assessment: Continuing slightly polluted at the only location examined.

River and Code	: BRIDE (LEE)	19/B/04
Tributary of	: Lee (Cork)	OS Catchment No: 228
OS Grid Reef	: W 564 708	Date(s) Surveyed : 14/10/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1990	1994	1997	1999
0400	Hornhill Br	4	4	4	4
0600	Br at Crookstown LHS	4-5	4	4	4
0610	Br at Crookstown RHS	-	3	2	3
0900	Br S of Knocknagoul	5	4-5	4	4-5
1300	Kilcrea Br	4	4	4	4
1400	Br at Killumney	4	4	4-5	4-5
1600	Br u/s Lee R confl	4	4	3-4	4

Assessment: Satisfactory except for the right-hand-side of the river at Crookstown (0610) where moderate pollution, due to a sewage discharge, was recorded; this location was seriously polluted in the previous survey of 1997. An improvement, to satisfactory conditions, was recorded at the final location (1600) which had been slightly polluted in the previous survey.

River and Code	: BUTLERSTOWN	19/B/06
Tributary of	: Glashaboy (Lough Mahon)	OS Catchment No: 193
OS Grid Reef	: W 732 749	Date(s) Surveyed : 12/07/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1990	1994	1997	1999
0200	Trantstown Br	4	4	4	3-4
0500	Br N of Butlerstown	4-5	4-5	4-5	4-5
0800	Br u/s Glashaboy R confl	4	4	4	4

Assessment: Mostly satisfactory but a deterioration due to slight pollution was recorded at Trantstown Bridge (0200) since 1997; this is the first time since surveys began that any location has exhibited less than satisfactory conditions.

River and Code : **CUMMER** **19/C/02**
Tributary of : Lee (Cork) OS Catchment No: 228
OS Grid Reef : W 385 681 Date(s) Surveyed : 15/07/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1990	1994	1997	1999
0200	Br W of Elmglyn	-	4	4-5	4
0300	Br SW of Teereeven	4	-	-	-
0500	Br NNE of Teereevan	-	4-5	4-5	4-5
0800	Athsollis Br	3-4	4	4	4

Assessment: Satisfactory. No significant change.

River and Code : **CUSLOURA** **19/C/01**
Tributary of : Awboy OS Catchment No: 228
OS Grid Reef : W 328 803 Date(s) Surveyed : 22/09/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1990	1994	1997	1999
0200	Br u/s Awboy R confl	4	4	4	4

Assessment: Satisfactory. No change.

River and Code : **DISSOUR** **19/D/03**
Tributary of : Womanagh OS Catchment No: 191
OS Grid Reef : X 022 748 Date(s) Surveyed : 09/08/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1989	1994	1997	1999
0200	Br WSW of Ballyre	4-5	3	4	4
0400	Killeagh Br	4-5	4	4-5	3-4
0600	Br just u/s Womanagh R confl	4-5	4*	3-4	4

Assessment: Following a slight improvement in its lower reaches (0600), the Dissour river was in a mostly satisfactory condition when surveyed in August 1999. However, a considerable deterioration was recorded in the middle reaches (0400) which were slightly polluted in August 1999.

River and Code : **DOUGLAS (SULLANE)** **19/D/04**
Tributary of : Sullane OS Catchment No: 228
OS Grid Reef : W 221 757 Date(s) Surveyed : 21/09/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1990	1994	1997	1999
0200	Br S of Gortnascarty	-	4	4	4
0700	Br u/s Sullane R confl	4-5	4-5	4-5	4-5

Assessment: Satisfactory. No change.

River and Code : **DRIPSEY** **19/D/06**
Tributary of : Lee (Cork) OS Catchment No: 228
OS Grid Reef : W 487 737 Date(s) Surveyed : 18/08/99

Sampling Stations		Biological Quality Ratings (Q Values)						
No.	Location	1976	1981	1986	1990	1994	1997	1999
0010	NW of Toureen	-	-	-	-	4	4	4
0150	Dripsey Br, W of Killeenleigh	-	-	3-4	4	4	4-5	4-5
0300	Luskins Br	-	5	4-5	4-5	4-5	3-4	4
0400	Dripsey Br	3/0	4	3/0	4	4	3-4	4-5

Assessment: Satisfactory throughout following improvement at the two lowermost locations (0300 and 0400) since the July 1997 survey.

River and Code : **DUNGOURNEY** **19/D/07**
Tributary of : Owennacurra OS Catchment No: 192
OS Grid Reef : W 897 731 Date(s) Surveyed : 10/08/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1988	1994	1997	1999
0200	Br SW of Rathorgan	4	4	4	3-4
0400	Br d/s Dungourney	4	4	4-5	4
0500	Br at Ballynascarty	4	4	4-5	4-5
0600	Br E of Killeagh Ho	4	4	4	4
0700	Br in Midleton	3	4	4	3

Assessment: Mostly satisfactory but with significant deterioration in the upper reaches (0200) and in Midleton (0700) since the July 1997 survey.

River and Code : **FINNOW (FOHERISH)** **19/F/01**
Tributary of : Foherish OS Catchment No: 228
OS Grid Reef : W 288 754 Date(s) Surveyed : 24/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0100	Second Br u/s Bealahacreagh Br	-	4	4	4
0300	Bealahacreagh Br	4	4-5	4-5	4

Assessment: Continuing satisfactory. No significant change.

River and Code : **FOHERISH** **19/F/02**
Tributary of : Sullane OS Catchment No: 228
OS Grid Reef : W 296 733 Date(s) Surveyed : 23/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0100	Br N of Curraleigh	-	5	4-5	4-5
0200	Foherish Br	5	4-5	4-5	4-5
0300	W of Caherbirrane	5	4-5	4-5	4-5
0400	Garranagappul Br (Clondrohid Br)	4-5	4-5	4-5	4-5
0600	Carrigaphooa Br	4-5	4-5	4-5	4

Assessment: Satisfactory with mostly 'Fair' to 'Good' water quality. No significant change since 1997. The aesthetic quality of one of the sites, Garranagappul Br (0400) at Clondrohid, was continuing to be severely reduced by the dumping of industrial and domestic rubbish at the rear of the Co-op.

River and Code : **GARRANE (LEE)** **19/G/03**
Tributary of : Foherish OS Catchment No: 228
OS Grid Reef : W 270 811 Date(s) Surveyed : 23/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0200	Br u/s Foherish River	4-5	4	4-5	4-5

Assessment: Continuing satisfactory.

River and Code : **GLASHABOY (LOUGH MAHON)** **19/G/01**
 Tributary of : Sea - Lough Mahon OS Catchment No: 193
 OS Grid Reef : W 727 727 Date(s) Surveyed : 13/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)							
	1971	1976	1981	1986	1990	1994	1997	1999
0200 Ballyvorisheen Br	5	3-4	4	3-4	4	4	3-4	3-4
0300 Dunbulloge Br	5	4-5	4-5	4	4-5	3	4	4
0400 Upper Glanmire Br	5	5	4	4	4-5	4	4	4
0500 Br u/s Butlerstown R confl	5	5	4-5	4	4	-	-	-
0600 d/s Butlerstown R confl	-	-	-	-	4	4	4	4

Assessment: Mostly satisfactory. Upper reaches (0200) again slightly polluted. No change.

River and Code : **KEEL** **19/K/02**
 Tributary of : Foherish OS Catchment No: 228
 OS Grid Reef : W 282 814 Date(s) Surveyed : 23/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0200 Keel Br	4-5	4	4	4

Assessment: Continuing satisfactory.

River and Code : **LANEY** **19/L/01**
 Tributary of : Sullane OS Catchment No: 228
 OS Grid Reef : W 352 725 Date(s) Surveyed : 22/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)						
	1976	1981	1986	1990	1994	1997	1999
0100 Carrigagulla Br	-	5	5	5	4	4-5	4
0200 Copeleenbawn Br	-	5	5	5	4	4-5	4-5
0400 Morris's Br	-	5	5	5	4-5	4-5	4-5
0500 Ford's Mill, u/s Sullane R confl	5	5	5	4	4-5	4-5	4-5

Assessment: Continuing satisfactory. Water quality mostly 'Fair' to 'Good'. No significant change.

River and Code : **LEE (CORK)** **19/L/03**
Tributary of : Cork Harbour (Lough Mahon) OS Catchment No: 228
OS Grid Reef : W 680 721 Date(s) Surveyed : 15/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)							
	1971	1976	1981	1986	1990	1994	1997	1999
0010 Just u/s Gouganebarra Lake	-	-	-	-	-	4-5	4-5	4
0040 Ford (Br) S of Gortafludig	-	-	-	-	-	4-5	4-5	4
0100 Inchinossig Br	5	5	4-5	4-5	4-5	4-5	4-5	4-5
0200 Foot-bridge at Castlemasters	5	5	5	4-5	4-5	4	4-5	4
0300 Dromcarra Br	5	5	5	4-5	5	4-5	4-5	4
0600 Inishcarra Br	4-5	4-5	4	4	3-4	3	3	3
0700 Leemount, Carrigrohane	5	5	4	4	4	4	4	4

Assessment: Water quality Mostly 'Fair' but continuing highly eutrophic at Inishcarra Br (0600).

River and Code : **MARTIN** **19/M/01**
Tributary of : Shournagh OS Catchment No: 228
OS Grid Reef : W 607 753 Date(s) Surveyed : 13/07/99

Stations No.	Biological Quality Ratings (Q Values)									
	1971	1976	1978	1981	1983	1986	1990	1994	1997	1999
0100	4-5	4	4-5	4	4	4	4	4	3-4	3
0200	2	2	1	3-4	3-4	3	3	4	4	4
0300	-	4	4-5	4	4	4	4	4	4	4
0400	4	5	4-5	4	4	4-5	4	4	4	4
0600	3-4	4-5	4-5	4	3-4	4	4	4	4	3-4

Sampling Station No. Location	Sampling Station No. Location
0100 Br W of Lissavoura	0400 Putland's Br (Waterloo)
0200 1 km S of Rathduff (SE of Grenagh)	0600 Bawnafinny Br
0300 Br near Birchill Ho	

Assessment: Mostly satisfactory but water quality has deteriorated in the Lissavoura area (0100) and in the lower reaches (0600) since 1997.

River and Code : **OWENBOY (CORK)** **19/O/01**
Tributary of : Sea - Cork Harbour OS Catchment No: 230
OS Grid Reef : W 800 620 Date(s) Surveyed : 12/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0200	Br SW of Ballinphellic Ho	3	3	3	3
0400	Br at Killeady Cross Rds	3	3	3-4	3
0600	Priest's Br	3-4	3*	3-4	3-4
0800	Br 1km d/s Ballinhassig	3-4	3-4	3-4	3
1000	Bealahareagh Br	3-4	3-4	4	3-4
1400	Ballea Bridge (Lower)	3-4	3-4	3-4	3-4

Assessment: Following deteriorations at Killeady (0400), Ballinhassig (0800) and Bealahareagh (1000) the Owenboy River was in an unsatisfactory condition at all points surveyed in August 1999. The river upstream of Station 0200 is unsuited to biological assessment because of the sandy nature of the substrata.

* Siltation effects.

River and Code : **OWENNACURRA** **19/O/03**
Tributary of : Sea - Lough Mahon OS Catchment No: 192
OS Grid Reef : W 877 731 Date(s) Surveyed : 11/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)								
		1971	1976	1981	1983	1986	1988	1994	1997	1999
0050	Br NE of Donovans Gorse	-	-	-	-	-	-	4-5	4-5	4
0200	Br NE of Lisgoold	4	4	4	3-4	4-5	4	-	-	-
0220	Br S of Lisgoold	-	-	-	-	-	-	4-5	4-5	4
0400	Br SE of Ballyedmond Ho	4	4-5	3-4	3-4	4-5	4	4	4-5	4
0500	Cork Br, Middleton	-	-	2-3	2-3	3-4	3-4	4	3-4	3-4
0600	0.5km d/s Cork Br	2-3	2-3	2-3	2-3	3-4	3	4	3-4	3-4

Assessment: As in 1997 the Owennacurra River was in a satisfactory condition as far as Middleton where water quality again deteriorated due to slight pollution at and below the town (0500, 0600). An increase in sand deposition on the river bed was recorded in the upper reaches (0050), a phenomenon also observed in a tributary the Templebodan River (see below) .

River and Code : **SHOURNAGH** **19/S/01**
Tributary of : Lee (Cork) OS Catchment No: 228
OS Grid Reef : W 609 717 Date(s) Surveyed : 14/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1976	1981	1986	1990	1994	1997	1999
0025	Br ENE of Coolmona	-	-	-	-	-	4-5	4
0100	Ballyvodane Br	-	5	4-5	4-5	4	4-5	4
0200	E of Gortdonaghmore	-	5	4-5	4-5	4-5	4-5	4-5
0300	Tower Br (d/s Martin R confl)	-	5	4-5	4	4-5	4	3-4
0400	Healy's Br	4-5	5	4	4-5	-	-	-
0500	Leemount Br	-	-	-	-	4-5	4-5	4-5

Assessment: Continuing mostly satisfactory but quality had deteriorated below the Martin River confluence (0300) where slight pollution was apparent in July 1999.

River and Code : **SULLANE** **19/S/02**
Tributary of : Lee (Cork) OS Catchment No: 228
OS Grid Reef : W 352 725 Date(s) Surveyed : 21/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)							
		1971	1976	1981	1986	1990	1994	1997	1999
0100	Br nr Coolea	5	5	5	4-5	4	4	4-5	4-5
0170	First Br d/s Ballyvourney Br	-	-	-	-	4-5	4-5	4	4-5
0200	Br d/s Douglas R confl	5	5	5	5	4-5	4-5	4-5	4-5
0300	Sullane Br	-	-	5	4-5	5	4-5	4-5	4-5
0400	Linnamilla Br	5	5	5	5	5	5	5	5
0480	Ford u/s Laney R confl	-	-	-	-	-	4	4	4

Assessment: Continuing satisfactory.

River and Code : **TEMPLEBODAN** **19/T/01**
Tributary of : Owennacurra OS Catchment No: 192
OS Grid Reef : W 852 809 Date(s) Surveyed : 11/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1994	1997	1999
0100	Br SE of Templebodan	4	4-5	4-5	4

Assessment: Continuing satisfactory. Increased sand deposition noted.

River and Code	: TOON	19/T/02
Tributary of	: Lee (Cork)	OS Catchment No: 228
OS Grid Reef	: W 300 707	Date(s) Surveyed : 16/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0200	Br S of Lack	4	4	4-5	4
0400	Br NE of Cleanrath North	4	4	4-5	4
0700	Second Br u/s Lee R confl	4	4-5	4-5	4-5
0800	Br u/s Lee R confl (Toon Br)	3-4	3-4	3-4	3-4

Assessment: Continuing mostly satisfactory but with the final location (0800) again exhibiting some signs of eutrophication. No significant change.

River and Code	: WOMANAGH	19/W/01
Tributary of	: Sea - Youghal Bay	OS Catchment No: 191
OS Grid Reef	: X 047 729	Date(s) Surveyed : 10/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1989	1994	1997	1999
0300	Br WNW of Donickmore Ho	-	-	4	4
0500	Br NE of Dungourney	3	3	3-4	4
0700	Second Br N of Mogeely	4	4	4-5	4
1000	Br in Castlemartyr	3-4	4	3-4	3
1300	S of Ballyhonock Lake	4	4-5	3-4	3-4

Assessment: The Womanagh River was in a mostly satisfactory quality condition following some improvement in the Dungourney area (0500) since 1997. Pollution had increased in Castlemartyr (1000), however, and industrial discharges at Mogeely are suspected as giving rise to this.

HYDROMETRIC AREA No. 23 (PART)

Tralee Bay – Feale

Galey	23G01
Knockfinnisk	23K02
Tarmon Stream	23T03

Note: Most of the rivers and streams in this area were surveyed in 1998.

River and Code : **GALEY** **23/G/01**
Tributary of : Feale OS Catchment No: 194
OS Grid Ref. : Q 907 331 Date(s) Surveyed : 01/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)								
		1971	1975	1979	1982	1986	1989	1993	1996	1999
0100	Athea Br	5	5	5	-	4-5	4-5	4	4	4
0200	Br d/s Athea	5	5	5	-	4-5	4	4	4	4
0300	Ahavoher Br	-	-	-	-	3-4	4	3-4	3-4	3-4
0400	Galey Br	5	5	4-5	3-4	3-4	3-4	3-4	3-4	3-4
0450	Br SW of Pollagh	-	-	-	3-4	3-4	3-4	-	4	4
0500	Shrone Br	-	-	4	3	3	3	3	3	3-4
0700	Br d/s Inch Br	5	5	4-5	3-4	3	3	3	3	3

Assessment: Despite a minor improvement at Shrone Bridge (0500) the Galey was in a generally over-enriched condition when surveyed in July 1999; as in 1996 just three of the seven locations sampled were satisfactory. This river along with the Knockfinnisk and Tarmon Stream, was carried over from the 1998 programme when sampling was precluded due to flooding.

River and Code : **KNOCKFINNISK** **23/K/02**
Tributary of : Galey OS Catchment No: 194
OS Grid Ref. : R 119 363 Date(s) Surveyed : 01/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1989	1993	1996	1999
0100	Br u/s Galey R confl	4	4	4	4

Assessment: Continuing satisfactory at the only location sampled which is approximately one kilometre upstream of the Galey River confluence. Carried over from 1998 programme as flooding late in that season precluded sampling.

River and Code : **TARMON STREAM** **23/T/03**
Tributary of : Galey OS Catchment No: 194
OS Grid Ref. : R 017 400 Date(s) Surveyed : 02/07/99

Sampling Stations		Biological Quality Ratings (Q Values)		
No.	Location	1993	1996	1999
0500	Gabbet's Br	3-4	3	3

Assessment: Continuing highly eutrophic. Carried over from 1998 programme due to flooding precluding sampling late in that year.

HYDROMETRIC AREA No. 24
Shannon Estuary South

Ahacronane	24A01
# Ahavarraga Stream	24A02
Arra	24A04
Ballylongford	24B03
Barnakyle	24B05
Broadford Stream	24B07
Bunoke	24B06
Camoge	24C01
Charleville Stream	24C02
Clonshire	24C03
# Deel (Newcastlewest)	24D02
Flemingstown Stream	24F03
Glencorbry	24G03
Greanagh	24G05
Lismakeery Stream	24L03
Loobagh	24L01
Mahore	24M02
Maigue	24M01
Morningstar	24M02
Owvane	24O02
Shanagolden Stream	24S02
Tarbert Stream	24T01

= Having seriously polluted stretch(es) at the time of this survey

River and Code : **AHACRONANE** **24/A/01**
Tributary of : Sea - Shannon Estuary OS Catchment No: 155
OS Grid Ref. : R 282 500 Date(s) Surveyed : 28/07/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1989	1993	1996	1999
0400	Br S of Spa Wells	3	3	3	3
0900	Br SW of Barrigone	3	3	3	3

Assessment: Continuing unsatisfactory due to moderate pollution at both locations sampled.

River and Code : **AHAVARRAGA STREAM** **24/A/02**
Tributary of : Deel (Newcastlewest) OS Catchment No: 155
OS Grid Ref. : R 367 258 Date(s) Surveyed : 27/08/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1989	1993	1996	1999
0200	Br at W side of Drumcolliher	4	4	4	4
0400	Br 0.5 km d/s Priests Br	1	2-3	-	2
0800	W of Mundellihy	1-2	3	2	2-3

Assessment: Satisfactory upstream of Drumcolliher (0200) but seriously polluted in middle reaches (0400) and moderately polluted in lower reaches (0800) due respectively to sewage and farm wastes.

River and Code : **ARRA** **24/A/04**
Tributary of : Deel (Newcastlewest) OS Catchment No: 155
OS Grid Ref. : R 274 335 Date(s) Surveyed : 29/07/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1989	1993	1996	1999
0300	Br S of Dromin (LHS)	4	4	4	4
0310	Br S of Dromin (RHS)	3	4	4	4
0500	Cork Br, Newcastle West	3	3-4	3	3-4

Assessment: Satisfactory upstream of Newcastlewest (0300) but eutrophic in the town (0500) where some slight improvement since the 1996 survey was recorded.

River and Code : **BALLYLONGFORD** **24/B/03**
Tributary of : Sea - Shannon Estuary OS Catchment No: 155
OS Grid Ref. : Q 998 448 Date(s) Surveyed : 26/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1994	1996	1999
0300	Br N of Kilgarvan	4	3	3-4	4
0400	Br SW of Shrone	2-3	3	1-2	2-3
0700	Gortanacooka Br	3	3	3	3

Assessment: Has improved at two locations (0300, 0400) since 1996 but remains in a mostly moderately polluted condition.

River and Code : **BARNAKYLE** **24/B/05**
Tributary of : Maigue OS Catchment No: 155
OS Grid Ref. : R 481 529 Date(s) Surveyed : 07/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1994	1996	1999
0300	Br SW of Kilpeacon Crossroads	-	3	3-4	3
0400	Dooneen Br	-	3	3-4	3-4
0600	Br SE of Clarina	3-4	3	2-3	3

Assessment: Continuing unsatisfactory with only slight changes since previous survey although these result in a net deterioration in water quality status.

River and Code : **BROADFORD STREAM** **24/B/07**
Tributary of : Bunoke OS Catchment No: 155
OS Grid Ref. : R 320 238 Date(s) Surveyed : 26/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1993	1996	1999
0300	Br u/s Broadford Br	4	4	4	4
0500	Lisnafulla Br	4	4	3	2-3

Assessment: The upper reaches (0300) remained satisfactory but, as indicated by the slime growths and faunal composition at Lisnafulla Bridge (0500), the lower reaches were again significantly polluted by suspected farm wastes; some 40m downstream of this bridge, a septic tank overflow was observed reaching the river from right hand side.

River and Code : **BUNOKE** **24/B/06**
Tributary of : Deel (Newcastlewest) OS Catchment No: 155
OS Grid Ref. : R 302 328 Date(s) Surveyed : 26/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)				
		1984	1989	1993	1996	1999
0025	Br S of Glenquin Ho	-	3	2-3	2	3
0050	Br NE of Cantogher	-	2-3	3	2-3	3
0100	Anacomusk Br (d/s side)	-	3	3-4	3-4	3
0200	Bunoke Br	3-4	3-4	4	4	4

Assessment: Although the lower reaches (0200) remained in a satisfactory quality condition, the Bunoke River continued to be in a mostly unsatisfactory condition due to widespread moderate pollution in August 1999. Some amelioration, from serious pollution, was recorded in the upper surveyed reaches (0025) since 1996.

River and Code : **CAMOGÉ** **24/C/01**
Tributary of : Maigne OS Catchment No: 155
OS Grid Ref. : R 522 394 Date(s) Surveyed : 07/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1976	1981	1984	1988	1993	1996	1999
0100	Cloghansoun Br	-	3	3-4	3-4	3-4	3-4	4
0200	Longford Br	-	3-4	3-4	3-4	3-4	4	4
0250	Nr Ballycullane	-	3-4	3-4	3-4	4	3-4	4
0400	Gray's Br	-	4	3-4	3-4	3-4	3-4	3-4
0500	Br S of Monaster	-	3-4	3-4	3-4	4	3-4	3-4
0600	Cloghanduff Br	4-5	4	4	4	3-4	3-4	3-4

Assessment: Following improvements at two locations (0100, 0250) since 1996 the upper reaches of the Camoge River were assessed as satisfactory in 1999 but the lower river remained slightly polluted as before.

River and Code : **CHARLEVILLE STREAM** **24/C/02**
Tributary of : Maigue OS Catchment No: 155
OS Grid Ref. : R 543 274 Date(s) Surveyed : 23/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1986	1988	1989	1994	1996	1999
0200	Br S of Charleville (West Road)	-	-	-	3	3	2-3
0500	Br N of Ballincolly	2	2	2-3	2-3	2-3	2-3
0800	Just u/s Maigue R confl	3	2	2-3	2-3	3	3

Assessment: Continuing unsatisfactory with moderately polluted conditions again recorded at all three locations sampled.

River and Code : **CLONSHIRE** **24/C/03**
Tributary of : Greanagh OS Catchment No: 155
OS Grid Ref. : R 440 454 Date(s) Surveyed : 25/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)				
		1988	1989	1993	1996	1999
0300	Br N of Ballingarry	3-4	-	3	3	3
0600	Milltown Br	3	-	3-4	3-4	3
0700	Drehidnaman Br (LHS)	3	3	3	3	3
0710	Drehidnaman Br (RHS)	1	3	3	3	3
0900	Tuogh Br	3-4	-	3-4	3	3

Assessment: Continuing unsatisfactory due to widespread moderate pollution; a deterioration, from slight to moderate pollution, since the previous survey was recorded at Milltown Bridge (0600).

River and Code : **DEEL (NEWCASTLEWEST)** **24/D/02**
Tributary of : Sea - Shannon Estuary OS Catchment No: 155
OS Grid Ref. : R 332 528 Date(s) Surveyed : 30/07/99

Stations No.	Biological Quality Ratings (Q Values)										
	1971	1975	1978	1980	1982	1984	1986	1989	1993	1996	1999
0100	1	1	1	3	3	3	2-3	3	3	3	3-4
0200	4	4	3	3-4	3	3	3	3	3	3-4	3-4
0300	3	3-4	3-4	3-4	3	3-4	3-4	3	3	3-4	3
0400	4	3-4	3-4	3-4	3	3-4	3-4	3	3	3-4	3-4
0500	4	4	3-4	3-4	3-4	3	3-4	3-4	4	4	3-4
0600	3	3	3	3	3	3	2-3	3	3	2-3	2
0700	3	3	3	3	3	3	3	3	3	2-3	2-3
0800	3	2-3	3	3	3	2	3	3	3	3	3
1000	4-5	4	3-4	4	3-4	3-4	4	3	3-4	3	3
1100	4	-	4	3-4	3	3-4	4	4	3-4	3-4	3-4
1300	4	4	3-4	4	3-4	3-4	3-4	3	3-4	3-4	3-4

Sampling Station

No. Location
0100 Br in Milford
0200 Br 3.2 km d/s Milford Br
0300 Broken Br
0400 Br nr Balliniska
0500 0.8 km u/s Castlemahon Br
0600 D/s Castlemahon Br

Sampling Station

No. Location
0700 Br nr Killaready
0800 Grange Br
1000 Palatine Br
1100 Rathkeale Br
1300 Kilcool Br

Assessment: Unsatisfactory over its entire course, due mostly to widespread moderate and slight pollution, representing further deterioration since last survey; one location (0600), downstream of a poultry processing factory at Castlemahon, was seriously polluted. Just one of the locations sampled, at Milford (0100), showed some improvement, from moderate to slight pollution, since the previous survey of 1996.

River and Code : **FLEMINGSTOWN STREAM** **24/F/03**
Tributary of : Loobagh OS Catchment No: 155
OS Grid Ref. : R 638 263 Date(s) Surveyed : 05/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)		
	1994	1996	1999
0500 Gotoon Br	4	4	4

Assessment: Satisfactory, at the only location sampled, with no apparent change compared with the two previous surveys of September 1994 and August 1996.

River and Code : **GLENCORBRY** **24/G/03**
Tributary of : Sea - Shannon Estuary OS Catchment No: 155
OS Grid Ref. : R 131 475 Date(s) Surveyed : 27/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1994	1996	1999
0200	Br d/s Br NE of Tullyleague	-	3-4	4	3-4
0400	Upstream Br, Glin	4	3	3	3-4

Assessment: Following a deterioration at Station 0200 and a minor improvement at Glin (0400) since 1996, both locations were slightly polluted when sampled in July 1999.

River and Code : **GREANAGH** **24/G/05**
Tributary of : Maigue OS Catchment No: 155
OS Grid Ref. : R 463 477 Date(s) Surveyed : 25/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1993	1996	1999
0600	Coolah Br	3-4	3-4	3	3

Assessment: Continuing unsatisfactory. Moderately polluted where surveyed.

River and Code : **LISMAKEERY STREAM** **24/L/03**
Tributary of : Sea - Shannon Estuary OS Catchment No: 155
OS Grid Ref. : R 324 520 Date(s) Surveyed : 28/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)		
		1993	1996	1999
0600	Br ESE of Tomdeely	3-4	3	3

Assessment: Unsatisfactory. Moderately polluted again as in July 1996.

River and Code : **LOOBAGH**
Tributary of : Maigue
OS Grid Ref. : R 545 278

24/L/01
OS Catchment No: 155
Date(s) Surveyed : 05/10/99

Stations No.	Biological Quality Ratings (Q Values)									
	1971	1976	1978	1980	1982	1986	1988	1994	1996	1999
0200	-	-	4	4	-	4	4	4	4	4
0300	5	4-5	3-4	4	4	4	4	4-5	4-5	4
0400	4	4-5	3-4	3-4	3-4	3-4	3-4	3	2-3	3
0500	4-5	4-5	3-4	3-4	3-4	3-4	3-4	4	3	3-4
0510	4-5	4-5	3-4	3-4	3-4	3-4	3-4	3	3	3-4
0600	4-5	4	3-4	3-4	3-4	3-4	4	4	3-4	4

Sampling Station
No. Location
0200 Ballinanima Br
0300 Riversfield Br
0400 North Br, d/s Kilmallock

Sampling Station
No. Location
0500 Br N of Kilbreedy (LHS)
0510 Br N of Kilbreedy (RHS)
0600 Garroose Br

Assessment: The Loobagh River was again moderately polluted below Kilmallock (0400) but some slight improvements were recorded in its lower reaches (0500, 0510, 0600) in October 1999.

River and Code : **MAHORE**
Tributary of : Camoge
OS Grid Ref. : R 688 385

24/M/04
OS Catchment No: 155
Date(s) Surveyed : 06/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1988	1993	1996	1999
0500 Ballynaveen Br	3-4	3	3	3
0700 Hospital Br	3-4	3	3	3
0900 Br at Riverville	3-4	3-4	3	3-4

Assessment: Moderately polluted over most of its course. Unsatisfactory.

River and Code : **MAIGUE** **24/M/01**
Tributary of : Sea - Shannon Estuary OS Catchment No: 155
OS Grid Ref. : R 456 568 Date(s) Surveyed : 24/08/99

Stations No.	Biological Quality Ratings (Q Values)									
	1971	1974	1976	1978	1981	1984	1988	1994	1996	1999
0020	-	-	-	-	-	-	-	3	3	2-3
0050	-	-	-	-	-	-	3	3	3	3
0200	3	3	4	3-4	-	3-4	3-4	3	3	3-4
0300	2-3	3	3	3	-	3-4	3-4	3	3	3
0400	4	4	4	4	-	3-4	3-4	3-4	3	3
0500	4-5	4	-	4	3-4	3-4	3-4	3-4	3	3-4
0700	4	4	-	4	4	4	4	3-4	3	3
0900	4-5	4	-	4	3-4	3-4	3-4	3-4	3	3

Sampling Station		Sampling Station	
No.	Location	No.	Location
0020	Br u/s Ballybane Br	0400	Howardstown Br
0050	Fort Br	0500	Br nr Rosstemple Station
0200	Creggane Br	0700	Br in Croom
0300	Bruree Br	0900	Castleroberts Br

Assessment: Continuing unsatisfactory, due to widespread moderate pollution. Some amelioration recorded at Creggane and Rosstemple Bridges (0200, 0500) since 1996.

River and Code : **MORNINGSTAR** **24/M/02**
Tributary of : Maigue OS Catchment No: 155
OS Grid Ref. : R 538 334 Date(s) Surveyed : 05/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1976	1981	1986	1988	1993	1996	1999
0200	Br W of Pinker's Cross	-	4	3-4	3-4	4	4	4
0300	Ballynahinch Br	-	4	3	3-4	3-4	3	3-4
0400	Gormanstown Br	-	4	3	3-4	3-4	3-4	3-4
0500	Ballyvolane Br	-	4	4	3-4	3-4	4	4
0600	Ford (Br) 1.5 km d/s Bruff	-	4	3-4	3-4	4	4	4
0650	SW of Carrigeen	-	-	-	-	-	3-4	4
0700	Athlacca Br	4	3-4	4	3-4	3-4	-	-
0800	Br 2 km d/s Athlacca	-	3-4	4	3-4	3-4	4	3-4

Assessment: Continuing mostly satisfactory. Water quality improved slightly in the Carrigeen area (0650) but deteriorated below Athlacca (0800). Conditions overall improved somewhat since 1996.

River and Code : **OWVANE (LIMERICK)** **24/O/02**
Tributary of : Sea - Shannon Estuary OS Catchment No: 155
OS Grid Ref. : R 192 498 Date(s) Surveyed : 27/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)							
	1971	1975	1979	1986	1988	1994	1996	1999
West Branch								
0040 Br u/s Cloonlahard Br	-	-	-	-	-	4	4	4
Main Channel								
0070 (East) Br S of Gortadroma	-	-	-	-	-	-	-	4-5
0075 (West) Br S of Gortadroma	-	-	-	-	-	3-4	3-4	4
0090 Br u/s Ballyhahill Br	-	-	-	-	4	4	4	4
0100 Ballyhahill Br	5	4-5	4-5	4-5	3-4	-	-	-
0120 0.5km d/s Ballyhahill Br	-	-	-	-	-	4	3-4	4
0200 Br u/s (SE of) Loughill	5	4-5	4-5	4	3-4	4	3-4	4

Assessment: Following improvements at three locations (0075, 0120, 0200), the Owvane River was satisfactory at all points sampled in July 1999.

River and Code : **SHANAGOLDEN STREAM** **24/S/02**
Tributary of : Sea - Shannon Estuary OS Catchment No: 155
OS Grid Ref. : R 270 500 Date(s) Surveyed : 28/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1989	1994	1996	1999
Middle Branch				
1000 Br W of Tiermore Ho	2	2-3	2-3	2-3
West Branch				
1700 Br S of Shanagolden	-	4	3-4	3
1800 Br SE of Shanagolden	3-4	-	-	-
Main Channel				
2000 Br NW of Stokesfield	3	3-4	4	4

Assessment: Water quality continued at a satisfactory level in Main Channel (2000) of the Shanagolden Stream but a further deterioration was recorded on the West Branch (1700) where sewage, apparently from a septic tank, was reaching the river, from left-hand-side, some 20m downstream of the bridge. Middle Branch (1000) again moderately polluted due to farmyard waste.

River and Code : **TARBERT STREAM** **24/T/01**
Tributary of : Sea - Shannon Estuary OS Catchment No: 155
OS Grid Ref. : R 071 477 Date(s) Surveyed : 27/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)		
		1994	1996	1999
0100	(West) Br in Tarbert	3-4	3	3

Assessment: Continuing unsatisfactory with moderate pollution again recorded.

HYDROMETRIC AREA No. 25

Lower Shannon

Annagh (Tipperary)	25A02	Groody*	25G05
Ardcloony	25A03		
Ardcrony Stream	25A06	Kilcrow	25K01
Ardgregane Stream	25A04	Killeengarriff	25K02
Ayle	25A07	Kilmastulla	25K04
Ballinlough Stream	25B15	Lisduff	25L06
Ballyfinboy	25B02	Little (Cloghan)	25L01
Ballynacarrig	25B18	Little Brosna	25L02
Ballynagrenia Stream	25B16	Lorrha Stream	25L05
Ballyquiveen Stream	25B30		
Bilboa	25B03	Moate Stream	25M05
Black (Ballyboy)	25B04	Monaghanstown	25M01
Blackwater (Clare)	25B06	Mountrice	25M03
Blackwater (Shannonbridge)	25B27	Mulkear (Limerick)	25M04
Bleach	25B07		
Boora	25B08	Nenagh	25N01
Bow	25B10	Newport (Tipperary)	25N02
Breaghmore	25B12	Newtown	25N03
Brosna	25B09		
Bunow	25B25	Ollatrim	25O01
Cahernahallia	25C01	Pallas	25P01
Camcor	25C02	Pollagh Stream (Brosna)	25P05
Cappagh (Galway)	25C03		
Cappawhite Stream	25C10	Rock	25R02
Carrigahorrig Stream	25C16		
# Cauteen	25C04	Scarriff Stream	25S08
Clareen Stream	25C13	Shannon (Lower)	25S01
# Clodiagh (Tullamore)	25C06	Silver (Kilcormac)	25S02
Cloghaun	25C07	Silver (Tullamore)	25S03
# Coos	25C08	Small	25S05
Corra	25C09	Syonan Castle Stream	25S04
County (Laois-Offaly)	25C21		
Dead	25D01	Toem Steam	25T05
Derrainy		# Tullamore	25T03
25D10		Woodford (Galway)	25W01
Derrycooly Stream	25D14		
Dolla	25D08	Youghal	25Y02
Doonane	25D04		
Drumandoora	25D06		
Drumkeary Stream	25D11		
Duniry	25D07		
Durrow Abbey Stream	25D01		
Dysart Stream	25D05		
Eyrecourt Stream	25E01		
Gageborough	25G01		
Glashacloonaraveela	25G02		
Glenomra Wood Stream	25G12		
Golden Grove Stream	25G06		
Gorragh	25G09		
Gortnageragh	25G03		
Gortnagowna	25G13		
Graney	25G04		

= Having seriously polluted stretch(es) at the time of this survey.* Groody River is not shown on the OS River Catchment Map and so is not included in the National Baseline.

River and Code : **ANNAGH (TIPPERARY)** **25/A/02**
Tributary of : Killeengarriff OS Catchment No: 155
OS Grid Ref. : R 685 578 Date(s) Surveyed : 21/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1979	1983	1987	1993	1996	1999
0040	Br u/s Inchinmathea Br	-	-	-	5	5	4-5
0100	Toorenbrien Br	5	5	5	4-5	4-5	4-5
0200	Charlotte's Br	5	5	5	5	4-5	4-5
0300	Ahacrossaun Br	5	5	5	5	4-5	4-5
0500	100m u/s Annagh Br	-	-	-	4	4	4-5

Assessment: Satisfactory quality was maintained in the Annagh River in late July 1999.

River and Code : **ARDCLOONY** **25/A/03**
Tributary of : Parteen Reservoir OS Catchment No: 155
OS Grid Ref. : R 674 674 Date(s) Surveyed : 13/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)				
		1984	1988	1994	1996	1999
0100	Br at Mill View	-	5	-	5	5
0200	Br nr Ardclony House	5	5	4-5	-	-

Assessment: Continuing excellent quality.

River and Code : **ARDCRONY STREAM** **25/A/06**
Tributary of : Ballyfinboy OS Catchment No: 155
OS Grid Ref. : R 903 935 Date(s) Surveyed : 02/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1993	1996	1999
0500	Br u/s Ballyfinboy R	4	3-4	3-4	4-5

Assessment: The Ardcrony Stream had much improved and was in a satisfactory condition at the time of this survey in early July 1999.

River and Code : **ARDGREGANE STREAM** **25/A/04**
Tributary of : Lough Derg OS Catchment No: 155
OS Grid Ref. : R 826 794 Date(s) Surveyed : 30/06/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1987	1993	1996	1999
0100	Br S of Grallagh	-	-	3	3-4
0400	Br W of Ardgregane	3	3	3-4	4

Assessment: Following further improvement since 1996 the lower reaches (0400) of this stream were assessed as satisfactory in late June 1999. However, considerable eutrophication and siltation was still apparent in the upper reaches (0100) at that time. Agriculture suspected.

River and Code : **AYLE** **25/A/07**
Tributary of : Cloghaun OS Catchment No: 155
OS Grid Ref. : R 543 827 Date(s) Surveyed : 15/09/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1988	1993	1996	1999
0300	Ayle Br	5	5	4-5	5
0400	Br u/s Cloghaun R confl	5	5	4-5	4-5

Assessment: Continuing highly satisfactory.

River and Code : **BALLINLOUGH STREAM** **25/B/15**
Tributary of : Cappagh OS Catchment No: 155
OS Grid Ref. : M 775 051 Date(s) Surveyed : 19/07/99

Sampling Stations		Biological Quality Ratings (Q Values)				
No.	Location	1987	1989	1993	1996	1999
0050	Second Br u/s Ballin Lough	-	5	4-5	4-5	4
0200	Br E of Silverstream House	-	-	-	4-5	4
0500	Bridge u/s Cappagh River	4	4-5	4	3	4-5

Assessment: Satisfactory at all locations sampled. A significant improvement was noted in the lower Ballinlough (0500) in comparison with 1996.

River and Code : **BALLYFINBOY** **25/B/02**
Tributary of : Lough Derg OS Catchment No: 155
OS Grid Ref. : R 830 982 Date(s) Surveyed : 01/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)								
		1971	1974	1978	1982	1984	1987	1993	1996	1999
0070	Br NW of Ballintemple Ho	-	-	-	-	-	4-5	4	3-4	3-4
0100	Townfield Br	5	4	4	4	3	3	3-4	3	3-4
0300	Modreeny Br North	-	-	4-5	4-5	3-4	4-5	4	3	4
0400	Ballynavin Br	5	4-5	4-5	4	-	4	4	Dry	4
0550	Br in Borrisokane	-	-	-	-	-	3-4	3-4	3	3-4
0600	Br nr Ballyfinboy Castle	4	4	3-4	4	4	3-4	4	3	3-4
0700	Ballyhooney Br	5	3-4	4	4-5	4	4	3-4	3	3-4
0800	Br just u/s L Derg	4	4	4	4-5	-	4	3-4	3	4

Assessment: Despite an overall improvement in quality the Ballyfinboy River was assessed as eutrophic over most of its course when surveyed in 1999. Significant improvements were recorded below Cloughjordan (0300, 0400) and in the lowermost reaches (0800) where satisfactory conditions were restored.

River and Code : **BALLYNACARRIG** **25/B/18**
Tributary of : Silver (Kilcormac) OS Catchment No: 155
OS Grid Ref. : N 247 130 Date(s) Surveyed : 17/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1993	1996	1999
0100	Br u/s Silver R confl	4	4	3-4	4

Assessment: Satisfactory and improved since 1996. May be slightly acidified by upstream forestry.

River and Code : **BALLYNAGRENIA STREAM** **25/B/16**
Tributary of : Gageborough OS Catchment No: 155
OS Grid Ref. : N 252 373 Date(s) Surveyed : 10/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1993	1996	1999
0400	Br S of Rose Mount	3	3	2	3
0600	Br nr Newtown	4	4	3	3-4

Assessment: Despite a considerable improvement at Rose Mount (0400) where serious pollution had abated since 1996 the stream remained in an unsatisfactory quality condition at both points surveyed in August 1999. (DO was reduced to 59% at the upper location). Agriculture suspected.

River and Code : **BALLYQUIVEEN STREAM** **25/B/30**
Tributary of : Nenagh OS Catchment No: 155
OS Grid Ref. : R 915 740 Date(s) Surveyed : 29/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)		
		1993	1996	1999
0300	Br u/s Nenagh R confl	3-4	3-4	3-4

Assessment: As evidenced by the heavy deposition of manure and excessive weed and algal growths, this small stream continued to be heavily impacted by watering cattle in 1999. Unsatisfactory.

River and Code : **BILBOA**
Tributary of : Dead
OS Grid Ref. : R 763 478

25/B/03
OS Catchment No: 155
Date(s) Surveyed : 21/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1979	1983	1987	1989	1993	1996	1999
Inch Branch								
0004	Br SE of Loughbrack	-	-	-	4	3-4	4	3
0008	Br u/s Main R confl	-	-	-	4	4	3-4	4
Main Channel								
0010	Br in Kilcommon	-	-	4	-	3-4	3-4	3-4
0080	Br u/s Blackboy Br	-	-	5	-	5	4-5	5
0300	Br 1.5 km d/s Cappamore	5	5	5	-	5	4	4-5
0400	New Br u/s Dead R	5	5	5	-	-	-	-
0500	Pullagh u/s Dead R	-	-	5	-	4-5	4	*

Assessment: The Bilboa River continued in a mostly satisfactory condition in late July 1999 but a considerable deterioration was recorded in the upper reaches of the Inch Branch (0004) apparently as a result of slurry pollution while slight pollution by watering animals was again apparent at Kilcommon in the upper reaches of the Main Channel (0010). The lower reaches of the river (Pollagh area) had been recently dredged and were, therefore, not amenable to biological assessment.

* = Recently dredged

River and Code : **BLACK (BALLYBOY)**
Tributary of : Silver (Kilcormac)
OS Grid Ref. : N 247 130

25/B/04
OS Catchment No: 155
Date(s) Surveyed : 18/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1993	1996	1999
0200	Br 0.5 km u/s Silver R	4-5	4	4-5	4-5

Assessment: Continuing satisfactory but heavy usage by watering animals threatens the continuation of this satisfactory state of affairs.

River and Code : **BLACKWATER (CLARE)** **25/B/06**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : R 609 587 Date(s) Surveyed : 13/09/99

No.	Location	Biological Quality Ratings (Q Values)					
		1984	1986	1988	1994	1996	1999
0030	Br SE of Cappanagh	-	-	5	5	-	4-5
0120	Br d/s Killaly's Br	-	-	4-5	5	4	4
0180	Br nr Blackwater Mills	-	-	3	3-4	4-5	4
0250	Br SW of Mt St Catherine	4	4	-	4-5	4-5	4-5

Assessment: Satisfactory. Signs of increasing enrichment in middle reaches (0120, 0180).

River and Code : **BLACKWATER (SHANNONBRIDGE)** **25/B/27**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : M 999 222 Date(s) Surveyed : 13/08/99

No.	Location	Biological Quality Ratings (Q Values)				
		1984	1988	1993	1996	1999
0110	Br ENE of Derryharry	-	4-5	4	4	4
0200	Blackwater Br	3	3	3-4	3-4	3

Assessment: The upper reaches of this small stream (0110) remained in a satisfactory quality condition in August 1999 but further deterioration due to very heavy peat siltation was recorded at Blackwater Bridge (0200) in the lower reaches.

River and Code : **BLEACH** **25/B/07**
Tributary of : Lough Graney OS Catchment No: 155
OS Grid Ref. : R 556 949 Date(s) Surveyed : 16/09/99

No.	Location	Biological Quality Ratings (Q Values)				
		1987	1989	1993	1996	1999
0100	Corlea Br	-	5	-	4-5	4-5
0200	Bleach Br	5	5	5	4-5	4-5

Assessment: Continuing satisfactory.

River and Code : **BOORA** **25/B/08**
Tributary of : Brosna OS Catchment No: 155
OS Grid Ref. : N 164 242 Date(s) Surveyed : 12/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1984	1987	1988	1993	1996	1999
0100	Gorteen Br	3	3	-	3-4	4	3
0200	Aqueduct u/s Brosna R	-	2/0	4	3-4	4	3-4

Assessment: The disappearance of sensitive species indicated a general deterioration in the quality of the Boora river in mid-August 1999. Heavy peat siltation and suspected slurry pollution combined to produce this unsatisfactory state of affairs.

River and Code : **BOW** **25/B/10**
Tributary of : Lough Derg OS Catchment No: 155
OS Grid Ref. : R 678 847 Date(s) Surveyed : 16/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1975	1980	1984	1988	1993	1996	1999
0100	Bow River Br	-	5	5	5	5	5	5
0200	Cloontymweenagh Br	5	5	4-5	5	5	3-4	4-5

Assessment: Highly satisfactory and much improved in lower reaches (0200) since 1996.

River and Code : **BREAGHMORE** **25/B/12**
Tributary of : Camcor OS Catchment No: 155
OS Grid Ref. : N 142 056 Date(s) Surveyed : 19/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1987	1989	1993	1996	1999
West Branch					
0020 Br nr Roscmore Cott	-	5	5	5	4-5
0080 Just u/s Main R confl	-	5	4	4	3-4
Main Channel					
0100 Aghagurty Br	5	-	5	5	4-5
0400 Breaghmore Br	5	-	4-5	4-5	4

Assessment: Water quality continued to be mostly satisfactory in the Breaghmore River in 1999 but some unwelcome changes were noted viz. increased algal growths - particularly in the lower West Branch (0080) - a generally reduced faunal diversity and a marked increase in the deposition of calcium carbonate (marl).

River and Code : **BROSNA** **25/B/09**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : N 022 187 Date(s) Surveyed : 08/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)									
	1971	1974	1978	1982	1984	1987	1993	1996	1999	
Lough Owel Branch										
0005 Br SW of Culleen Beg	-	-	-	-	3	3-4	3	3	3-4	
Lough Sheever Branch										
0006 Br d/s L Sheever	-	-	-	-	3-4	3	3	3	3	
Main Channel										
0040 Mullingar: Indust Est Br	-	-	-	-	3-4	2-3	3	3	3	
0100 Butler's Br	1	1	1-2	1-2	2-3	2	2-3	3	2-3	
0200 Newell's Br	4-5	4	3-4	4	4	4	3-4	3-4	3	
0250 Br at Ballynagore	-	-	-	-	4	4-5	3-4	3-4	4	
0400 Just d/s Kilbeggan Br	4-5	4-5	4-5	4	4-5	4	3-4	3-4	4	
0450 Br near Lismoyne	-	-	-	-	-	4	4	3-4	4	
0500 Lehinch u/s Clara	4-5	4-5	4-5	-	-	4	4	3-4	3-4	
0600 Bolart Br	3-4	4	4	4	4	4	4	-	3-4	
0700 Ballycumber Br	4	4	-	4-5	4	4-5	3-4	3	3-4	
0760 0.5km NW of Pollagh	-	-	-	-	-	4	3-4	4	4	
0800 Br nr Kilcolgan	4-5	4-5	4	-	4	5	3*	4	3	
0950 Ferbane Br	-	-	-	-	4-5	4-5	4	4	4	
1000 Bellmount d/s Ferbane	4-5	5	4-5	4	3-4	4-5	3-4	3-4	3-4	

Continued

BROSNA *Continued*

Assessment: A slight improvement was recorded in the Lough Owel Branch (0003) of the Brosna in 1999 but the Lough Sheever Branch (0006) and the Main Channel from Mullingar to Lough Ennell (0040 to 0100) remained in an unsatisfactory (moderately polluted and hypertrophic) condition. In the area immediately downstream of the lake weed growth had become very dense and, furthermore, the virtual absence of Ephemeroptera (Mayflies) indicated unsatisfactory and deteriorating conditions there. By contrast, minor improvements at the next three locations (0250, 0400, 0450) were sufficient to indicate a return to satisfactory conditions in the stretch from Ballynagore to Kilbeggan and beyond. Heavy siltation and generally excessive weed and algal growths indicated that the Clara to Ballycumber reach (0500 to 0700) remained in a slightly polluted condition but 'Fair' quality conditions were maintained in the Pollagh area (0760). Further downstream highly eutrophic conditions were indicated by the excessive growths of Cladophora, a filamentous alga which thickly carpeted the entire river bed at Kilcolgan Bridge (0800): this represents a significant deterioration since 1996. The situation in the lower river had not changed, 'Fair' quality being maintained at Ferbane (0950) and distinctly eutrophic conditions persisting below this town at Belmont. In summary, while overall conditions continued to be generally unsatisfactory, the fact that quality improvements were recorded at five locations and deteriorations at only two is a positive development.

River and Code : **BUNOW** **25/B/25**
Tributary of : Little Brosna OS Catchment No: 155
OS Grid Ref. : S 106 924 Date(s) Surveyed : 30/08/99

Stations No.	Biological Quality Ratings (Q Values)									
	1971	1973	1975	1981	1984	1986	1987	1993	1996	1999
0050	-	-	-	-	-	-	-	4-5	4-5	3-4
0250	-	-	-	-	-	3	3	3	3	3-4
0400	2-3	2-3	2-3	3-4	3	3	3	3	3	3

Sampling Station
No. Location

0050 Br S of Killavilla Ho
0250 Br d/s Roscrea Railway Station
0400 Bunow Br

Assessment: Following a marked deterioration in its upper reaches water quality in the Bunow river was nowhere satisfactory at the time of this survey in late August 1999. Animal manure slurry is suspected as causing the deterioration at the upper station (0050) while industrial and sewage discharges are the apparent causes of the unsatisfactory conditions in and below Roscrea at Stations 0250 and 0400 respectively.

River and Code : **CAHERNAHALLIA** **25/C/01**
Tributary of : Dead OS Catchment No: 155
OS Grid Ref. : R 814 468 Date(s) Surveyed : 22/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1979	1983	1987	1993	1996	1999
0010	Br N of Foildarg	-	-	4	3-4	4	3-4
0060	Cahernahallia Br	-	4-5	5	4	5	4-5
0100	Br u/s Dead R confl	4	4	4-5	3-4	4	4

Assessment: A combination of excessive weed growth and heavy siltation of suspected forestry origin reduced biological diversity considerably in the upper reaches of the Cahernahallia River in late July 1999 but the middle and lower reaches remained in a satisfactory condition.

River and Code : **CAMCOR** **25/C/02**
Tributary of : Little Brosna OS Catchment No: 155
OS Grid Ref. : N 052 054 Date(s) Surveyed : 18/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)							
		1977	1981	1985	1987	1989	1993	1996	1999
West Branch									
0010	Br 3km E of Longford	-	-	-	-	-	5	5	5
Main Channel									
0100	Ford u/s Coneyburrow Br	-	5	5	5	-	5	5	5
0300	Drumcullen Br	-	5	5	5	-	4	3-4	4
0500	Br S of Killyon	5	5	5	5	-	5	4	4
0600	Br S of Clonbrone	5	5	5	4-5	-	4	4-5	3-4
0700	Br at Elm Grove Birr	5	5	5	5	-	4	3-4	4

Assessment: As indicated by the recent survey, water quality continued to be of a highly satisfactory standard in the upper half of the Camcor (0010 to 0100) in August 1999, but abundant algal growths at Stations 0300, 0500 and particularly 0600 indicated an unwelcome increase in the trophic status of the lower half of the river. Although conditions below Kinnity had actually improved slightly since 1996 sewage from this village is likely to have been the cause of the enhanced algal growths at Drumcullen and Killyon Bridges (0300, 0500). However, the much more luxuriant growths at Fortel Bridge (0600) further downstream were more likely to have been caused by slurry run-off from adjoining fields. Remedial action is urgently needed if this river, pristine as recently as 1985, is not to go the way of so many others in this catchment.

River and Code : **CAPPAGH (GALWAY)** **25/C/03**
Tributary of : Kilcrow OS Catchment No: 155
OS Grid Ref. : M 795 042 Date(s) Surveyed : 19/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1975	1979	1983	1987	1993	1996	1999
0070	Br u/s Metal Bridge	-	-	-	-	-	-	4-5
0100	Metal Bridge	-	-	-	4-5	4	3-4	3-4
0200	Bridge W. of Duniry Village	4	4	4	3-4	4	3	4
0300	1.5 km NE of Abbey	-	-	4	4	4	4	4-5
0500	Cloonmoylan Bridge	4-5	5	4	4	4	4	4

Assessment: The Cappagh River was polluted in the upper reaches due to extensive cattle access upstream of the Metal Bridge (0100). An improvement was noted, however, at Station 0200 compared with the 1996 survey. The lowermost section was satisfactory (0500, 0600).

River and Code : **CAPPAWHITE STREAM** **25/C/10**
Tributary of : Dead OS Catchment No: 155
OS Grid Ref. : R 841 456 Date(s) Surveyed : 23/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)							
		1979	1981	1983	1985	1987	1993	1996	1999
0200	Gortandrum Br	3-4	3-4	3	3	3	3	3	3
0300	Br NE of Clonbrick	-	-	-	-	3	3	3	3

Assessment: On each occasion surveyed in the past sixteen years and again in 1999 this stream has been very considerably polluted, apparently by sewage discharges from Cappawhite. Remedial action is long overdue.

River and Code : **CARRIGAHORIG STREAM** **25/C/16**
Tributary of : Lough Derg OS Catchment No: 155
OS Grid Ref. : M 894 022 Date(s) Surveyed : 01/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1993	1996	1999
0300	Br S of Milford Ho	4	3-4	3-4	4
0500	Br at Carrigahorig	3-4	3-4	3-4	3-4
0600	Br SE of Carrigahorig	4-5	3-4	3-4	3-4

Assessment: A slight improvement restored quality to a satisfactory level (Q4) at the upper location (0300) in early September 1999 but unsatisfactory conditions (slight pollution) were indicated by excessive algal growths at Carrigahorig (0500) and by heavy deposition of cattle manure at the lower station (0600).

River and Code : **CAUTEEN** **25/C/04**
Tributary of : Dead OS Catchment No: 155
OS Grid Ref. : R 840 457 Date(s) Surveyed : 23/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1993	1996	1999
0200	Br NW of Donohill	3	3	3	3
0300	Gortnacoolagh Br	-	-	-	3
0400	1st Br u/s Cauteen Br	-	-	-	2
0500	Cauteen Br	3	3	3	3

Assessment: The Cauteen river has been moderately polluted at both locations surveyed (0200, 0500) since surveys began in 1987 and in 1999 two additional locations were found to have been polluted also: these are Gortnacoolagh Bridge (0300) where moderate pollution was evident and the bridge upstream of Cauteen Bridge (0400) where profuse growths of sewage fungus indicated a more serious degree of water quality impairment. Agriculture suspected.

River and Code : **CLAREEN STREAM** **25/C/13**
Tributary of : Camcor OS Catchment No: 155
OS Grid Ref. : N 122 048 Date(s) Surveyed : 19/08/99

No.	Location	Biological Quality Ratings (Q Values)			
		1987	1993	1996	1999
0200	Br W of Grange Ho	3	4	3-4	4
0600	Br nr Kilmaine Ho	3-4	3-4	3-4	4

Assessment: Also known as the Fuarawn Stream, this tributary of the Camcor River was assessed as being in a satisfactory condition in August 1999 and as such it had improved since the 1996 survey.

River and Code : **CLODIAGH (TULLAMORE)** **25/C/06**
Tributary of : Brosna OS Catchment No: 155
OS Grid Ref. : N 203 273 Date(s) Surveyed : 16/08/99

Stations No.	Biological Quality Ratings (Q Values)									
	1971	1974	1975	1978	1982	1984	1987	1993	1996	1999
0050	-	-	-	-	-	-	5	-	-	4-5
0100	-	-	-	5	5	-	5	5	4-5	2/0
0220	-	-	-	-	-	-	3	3-4	3	3*
0250	-	-	-	-	-	4-5	4	4-5	4	4-5
0300	-	-	-	5	5	5	4-5	5	4-5	4-5
0340	-	-	-	-	-	-	-	-	4	4
0400	5	5	5	5	4-5	4-5	4-5	4-5	4	3-4
0500	4	4	4	-	4	3-4	3-4	4	3-4	3-4

Sampling Station		Sampling Station	
No.	Location	No.	Location
0050	Br NW of Scarroon	0300	Gorteen Br
0100	Just u/s Clonaslee Br	0340	Br N of Clonagh
0220	Just u/s Gorrage R confl	0400	Annamoe Br
0250	Br E of Annaghmore L	0500	Br at Rahan

Assessment: As indicated by the results from the first sampling location (0050), the uppermost reaches of the Clodiagh River continued to be in a satisfactory condition, despite heavy usage by watering cattle, in mid-August 1999. A marked deterioration was then recorded below the water abstraction point at Clonaslee (0100) and the complete absence of any kind of insect nymphs at this point indicated a severe toxic effect. Heavy bottom siltation, possibly from the water treatment plant also, significantly depressed biological diversity again below Clonaslee Bridge (0220) where and masses of blue-green slime were also observed. Biological conditions in the middle reaches of the river (0250 to 0340) continued to indicate satisfactory water quality but the lower reaches were

CLODIAGH (TULLAMORE) 25/C/06

Assessment: Continued

slightly polluted by suspected sewage discharges at Muckalagh (0400) and at Rahan (0500); DO at the latter location, which is downstream of the seriously polluted Tullamore River, was reduced to just 58% of saturation at the time of this survey.

* Heavy siltation.

River and Code : **CLOGHAUN** **25/C/07**
Tributary of : Graney OS Catchment No: 155
OS Grid Ref. : R 602 844 Date(s) Surveyed : 15/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1986	1987	1989	1993	1996	1999
0200	Br N of Gortacummer	-	-	5	4	4-5	4-5
0400	Annaghneal Br	-	-	4-5	-	4-5	4
0500	Cloghaun Br	-	-	4	-	3-4	3-4
0600	Core Br	4	4-5	5	4-5	3-4	4

Assessment: Mostly satisfactory and slightly improved at Core Bridge (0600) since 1996 but heavy siltation and a reduced DO (76%) indicated a degree of quality impairment remaining at Cloghaun Bridge (0500). Agriculture suspected.

River and Code : **COOS** **25/C/08**
Tributary of : Lough Derg OS Catchment No: 155
OS Grid Ref. : R 763 946 Date(s) Surveyed : 17/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)							
		1975	1979	1984	1987	1989	1993	1996	1999
0010	Br N of Boleynabrone	-	-	-	-	-	-	5	4-5
0180	Br N of Tooreeny	-	-	-	4	-	4-5	3	-
0200	Br NE of Tooreeny	3-4	5	4	1	3	2-3	-	1

Assessment: The lower reaches of the Coos River were seriously polluted by suspected silage effluent at the time of this survey in mid September 1999. The matter was reported to the Regional Fishery Board.

River and Code : **CORRA** **25/C/09**
Tributary of : Graney OS Catchment No: 155
OS Grid Ref. : R 594 888 Date(s) Surveyed : 15/09/99

Sampling Stations		Biological Quality Ratings (Q Values)				
No.	Location	1987	1989	1993	1996	1999
0100	Br SE of Corrakyle	-	5	-	5	5
0400	Gortaderry Br	5	5	5	5	5

Assessment: Excellent quality. No change.

River and Code : **COUNTY (LAOIS/OFFALY)** **25/C/21**
Tributary of : Silver (Kilcormac) OS Catchment No: 155
OS Grid Ref. : N 238 113 Date(s) Surveyed : 17/08/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1987	1993	1996	1999
0200	County Br	4-5	4-5	4	4-5

Assessment: Algal growths have increased considerably in this stream in recent years but good numbers of some of the more sensitive macroinvertebrate species indicated satisfactory conditions in August 1999.

River and Code : **DEAD** **25/D/01**
Tributary of : Mulkear OS Catchment No: 155
OS Grid Ref. : R 763 478 Date(s) Surveyed : 23/07/99

Sampling Stations		Biological Quality Ratings (Q Values)						
No.	Location	1979	1981	1985	1987	1993	1996	1999
0100	Pope's Br	3-4	4	3-4	3	3	3	3
0200	Derraun Br	4-5	4-5	4	4	3-4	3	3

Assessment: The Dead River was again significantly polluted at both locations surveyed in late July 1999; in addition to the adverse effects of the polluted Cauten River and Cappawhite Stream, indications are that the upper reaches are also impacted by a toxic substance, possibly originating in the Pope's River.

River and Code : **DERRAINY** **25/D/10**
Tributary of : Lough Alewnaghta OS Catchment No: 155
OS Grid Ref. : R 755 911 Date(s) Surveyed : 17/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)						
	1982	1984	1987	1988	1993	1996	1999
0200 Br at Derrainy	4-5	3-4	5	-	5	4	4

Assessment: Fair quality. Satisfactory. No change.

River and Code : **DERRYCOOLY STREAM** **25/D/13**
Tributary of : Clodiagh (Tullamore) OS Catchment No: 155
OS Grid Ref. : N 219 270 Date(s) Surveyed : 12/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1989	1993	1996	1999
0100 Br NE of Derrycooly	-	3-4	3-4	3
0200 Aqueduct u/s Clodiagh R	4	4	3-4	3-4

Assessment: This stream was again heavily impacted by peat silt, particularly in the upper reaches (0100) where DO was reduced to 66% of saturation at the time of this survey. Unsatisfactory.

River and Code : **DOLLA** **25/D/08**
Tributary of : Nenagh OS Catchment No: 155
OS Grid Ref. : R 882 742 Date(s) Surveyed : 29/06/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1987	1993	1996	1999
0400 Br u/s Nenagh R confl	4-5	4-5	4	4

Assessment: Despite the heavy siltation, sufficient numbers of sensitive insect species were found to warrant a satisfactory quality rating but a higher index value would be expected in the type of habitats surveyed.

River and Code : **DOONANE** **25/D/04**
Tributary of : Newport (Tipperary) OS Catchment No: 155
OS Grid Ref. : R 778 651 Date(s) Surveyed : 20/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1993	1996	1999
0200	Br u/s Newport R confl	5	5	5	4-5

Assessment: High quality. Satisfactory.

River and Code : **DRUMANDOORA** **25/D/06**
Tributary of : Lough Graney OS Catchment No: 155
OS Grid Ref. : R 551 951 Date(s) Surveyed : 16/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1987	1989	1993	1994	1996	1999
0200	Br N of Drumandoora West	-	5	-	5	4	4-5
0600	Br u/s L Graney	4	4	-	4-5	4	-

Assessment: Satisfactory and slightly improved since 1996.

River and Code : **DRUMKEARY STREAM** **25/D/11**
Tributary of : Duniry OS Catchment No: 155
OS Grid Ref. : M 698 088 Date(s) Surveyed : 19/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)				
		1987	1989	1993	1996	1999
0300	Bridge N.W. of Drumkeary	-	4	4-5	4-5	4-5
0350	Second Br u/s Duniry River	5	-	5	-	4-5

Assessment: Satisfactory at both sites examined.

River and Code : **DUNIRY** **25/D/07**
Tributary of : Cappagh (Galway) OS Catchment No: 155
OS Grid Ref. : M 723 090 Date(s) Surveyed : 16/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)				
		1987	1989	1993	1996	1999
0100	Cullenagh Bridge	5	5	4-5	5	4-5
0200	Bridge u/s Ballinasack Br	-	5	4-5	5	4-5
0400	Just u/s Cappagh River confl	5	5	5	5	5

Assessment: Quality remains high in this Cappagh (q.v.) tributary.

River and Code : **DURROW ABBEY STREAM** **25/D/12**
Tributary of : Silver (Tullamore) OS Catchment No: 155
OS Grid Ref. : N 296 286 Date(s) Surveyed : 11/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1989	1993	1996	1999
0200	Br u/s Silver R	3-4	3-4	3	2-3

Assessment: Quality continued its downward slide in 1999 when the stream was very heavily silted, the green alga *Cladophora* was present in abundance and the dominant macroinvertebrate was *Asellus* the water hog louse. Unsatisfactory.

River and Code : **DYSART STREAM (LOUGH ENNELL)** **25/D/05**
Tributary of : Lough Ennell OS Catchment No: 155
OS Grid Ref. : N 374 456 Date(s) Surveyed : 09/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1993	1996	1999
0100	Br NW of Milltown	-	4-5	3	4
0300	Br in Dysart	4	-	-	-
0400	Br u/s L Ennell	-	4-5	3-4	4

Assessment: Satisfactory and, as such, significantly improved since 1996. The lower reaches (0400) are characterised by heavy calcification of the substratum which reduces faunal diversity.

River and Code : **EYRECOURT STREAM** **25/E/01**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : M 957 152 Date(s) Surveyed : 03/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)					
	1983	1986	1988	1993	1996	1999
0050 Bridge WSW of Eyrecourt	3-4	3-4	3-4	4	-	4
0100 Bridge NNE of Fearmore	3	3	2-3	3	2	2-3
0200 N Br u/s Shannon River confl	-	3	3	3	-	3

Assessment: Although remaining satisfactory upstream (0050) and slightly improved downstream of the village (0100) conditions remained distinctly unsatisfactory in the lower reaches of the Eyrecourt Stream (0100, 0200) in September 1999. Sewage suspected.

River and Code : **GAGEBOROUGH** **25/G/01**
Tributary of : Brosna OS Catchment No: 155
OS Grid Ref. : N 237 326 Date(s) Surveyed : 09/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1984	1989	1993	1996	1999
0045 Br NNW of Rockfield	-	-	4	3-4	3-4
0100 Donore Br	4-5	4	4	3-4	3-4
0300 Br 1.2km S of Dunard	4-5	4	4	3-4	3-4
0500 Br u/s Brosna R confl	5	4-5	3-4	4	3-4

Assessment: The Gageborough is another stream in which faunal diversity is much reduced by heavy substratum calcification but the abundance of filamentous algae indicates a considerably enhanced trophic status generally.

River and Code : **GLASHACLOONARAVEELA** **25/G/02**
Tributary of : Bilboa OS Catchment No: 155
OS Grid Ref. : R 795 519 Date(s) Surveyed : 22/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1993	1996	1999
0100	Br E of Crehaun	-	5	5	5
0500	Br u/s Bilboa R confl	5	5	4	4-5

Assessment: Continuing highly satisfactory. Slurry spreading is suspected as causing the minor changes at Glasha Bridge (0500). This is one of a rapidly dwindling number of pristine streams remaining in the country and if further deterioration is to be avoided more care must be taken in the disposal of pollutants such as slurry.

River and Code : **GLENOMRA WOOD STREAM** **25/G/12**
Tributary of : Blackwater (Clare) OS Catchment No: 155
OS Grid Ref. : R 598 646 Date(s) Surveyed : 13/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1994	1996	1999
0100	Br u/s Blackwater R confl	4	4-5	4-5	4-5

Assessment: Continuing satisfactory. No change.

River and Code : **GOLDEN GROVE STREAM** **25/G/06**
Tributary of : Little Brosna OS Catchment No: 155
OS Grid Ref. : S 107 904 Date(s) Surveyed : 30/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)							
	1981	1983	1985	1987	1988	1993	1996	1999
0040 U/s Br nr Ballybrit Castle	-	-	-	4-5	-	2-3	3-4	3-4
0080 Br W of Laurel Hill	-	-	-	5	-	3-4	4	3-4
0200 Just u/s Little Brosna R	2	1-2	2	2-3	2-3	2-3	2-3	3

Assessment: Unsatisfactory. Upper reaches (0040) adversely affected by heavy siltation, apparently as a result of slurry run-off from a recently treated adjoining field; middle reaches (0080) distinctly eutrophic and lower reaches improving slightly but still affected by fish-farm wastes.

River and Code : **GORRAGH** **25/G/09**
Tributary of : Clodiagh (Tullamore) OS Catchment No: 155
OS Grid Ref. : N 322 121 Date(s) Surveyed : 16/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1987	1993	1996	1999
0100 Ford W of Srahcullen	5	-	-	-
0200 Br E of Clonaslee	-	4-5	4-5	4-5
0300 Killart Ho	5	-	-	-

Assessment: High numbers of various sensitive species indicate continuing satisfactory water quality conditions in this tributary of the Clodiagh (Tullamore)

River and Code : **GORTNAGERAGH** **25/G/03**
Tributary of : Bilboa OS Catchment No: 155
OS Grid Ref. : R 826 526 Date(s) Surveyed : 21/07/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1987	1993	1996	1999
0200	Br SW of Foilycleary	-	4	4-5	4-5
0300	Br u/s Bilboa R confl	5	5	4-5	4-5

Assessment: Continuing satisfactory. Lower reaches becoming silted due to possible drainage activities upstream.

River and Code : **GORTNAGOWNA** **25/G/13**
Tributary of : Nenagh OS Catchment No: 155
OS Grid Ref. : S 957 690 Date(s) Surveyed : 29/06/99

Sampling Stations		Biological Quality Ratings (Q Values)		
No.	Location	1993	1996	1999
0300	Tooreagh Br	4-5	-	-
0400	Br u/s Cloghinch Old Br	-	4	4-5
0500	Cloghinch Old Br	4-5	-	-

Assessment: Trout fingerling were observed in this stream in late June 1999, a further indication of continuing satisfactory water quality.

River and Code : **GRANEY (SHANNON)** **25/G/04**
Tributary of : Lough Derg OS Catchment No: 155
OS Grid Ref. : R 658 837 Date(s) Surveyed : 14/09/99

Stations No.	Biological Quality Ratings (Q Values)										
	1971	1975	1979	1981	1984	1986	1987	1993	1994	1996	1999
0010	-	-	-	-	4	-	4-5	5	-	5	5
0025	-	-	-	-	4-5	-	5	5	-	5	5
0100	-	-	4	-	4	-	4	4	-	3	4
0200	5	5	4	-	5	-	5	-	5	4	4
0300	5	5	4	5	4	4-5	4	-	-	4	-
0400	-	-	-	-	-	-	-	-	-	3	3

Sampling Station		Sampling Station	
No.	Location	No.	Location
0010	Br d/s Lough Ea	0200	Cooleen Br
0025	Caher Br	0300	1 km u/s Scarriff Br
0100	Aughaderreen Br	0400	400 m d/s Scarriff Br

Assessment: As indicated by the highest possible biotic indices at Stations 0010 and 0025, the upper half of the Graney River continued to be in an excellent quality condition in mid September 1999. The middle reaches (0100, 0200), although improved considerably at Aughaderreen Bridge, were of a considerably lower quality standard while the stretch below Scarriff (0400) was again moderately polluted by suspected sewage discharges.

River and Code : **GROODY*** **25/G/05**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : R 604 577 Date(s) Surveyed : 03/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)									
		1971	1975	1979	1983	1985	1987	1993	1996	1999	
0100	Br 2km N of Caherconlish	4	4	4	4	3-4	3	3	3-4	3	
0150	Killonan Br	-	-	-	-	3-4	3	3	3	3	
0200	Br in Ballysimon	4	4	4	4	3	3-4	3	3	3	

Assessment: Unsatisfactory. Heavily silted at 0100 and 0200 and excessively weedy at Killonan Bridge (0150) where a strong smell of sewage (septic tank ?) was again noted.

River and Code : **KILCROW**
Tributary of : Lough Derg
OS Grid Ref. : M 801 031

25/K/01
OS Catchment No: 155
Date(s) Surveyed : 14/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)						
	1975	1979	1983	1988	1993	1996	1999
Carrowreagh Branch							
0009 Br u/s Main Channel (at 209' mark)	-	-	-	-	4	2-3	4
Main Channel							
0020 Bridge N. of Killoran	-	-	-	4	-	4	4
0100 Ahanageleery Bridge	-	-	4	4	3	3	3
0200 Oxgrove Bridge	2	4	3-4	4	4	3	4
0300 Hearnbrook Bridge	-	-	3	4	4	3	3-4
0360 West Br 2 km d/s Samp St 0300	-	-	-	4	3-4	2-3	4
0400 Killeen Bridge	-	-	3-4	3-4	4	-	3-4
0500 Moat Bridge	4	4	4	4	3	2-3	3
0600 Newbridge	-	-	4-5	4	3-4	3	4
0700 Ballyshrule Bridge	4	4	4-5	4	3	3-4	4

Assessment: Following the complete abatement of slight or moderate pollution, satisfactory conditions were restored in the Carrowreagh Branch (0009) and at several points (0200, 0360, 0600, 0700) on the Main Channel of the Kilcrow River in July 1999. A slight improvement was noted downstream of Killimor (0300), but abundant filamentous algal growths and extremely high (165%) DO levels indicated highly eutrophic conditions there and also at Ahanageelery Bridge (0100-145%) upstream. Eutrophication was also obvious at Killeen and Moat Bridges (0400, 0500) but a slight improvement was noted at the latter point in comparison with 1996. The increased use of fencing to control cattle access to the river was noted during the survey and this may be at least in part responsible for the improvements noted. The extensive weed and algal growth noted, plus the hard water conditions in the Kilcrow (precipitation of calcium *Continued* carbonate occurs throughout the system) mean that phosphate uptake from the water column is likely to be very rapid during the summer months. Thus, extensive nuisance plant and algal growths may occur at apparently very low phosphate concentrations because all available phosphate is rapidly accumulated by actively growing plants.

River and Code : **KILLEENGARRIFF** **25/K/02**
Tributary of : Mulkear (Limerick) OS Catchment No: 155
OS Grid Ref. : R 678 539 Date(s) Surveyed : 02/09/99

No.	Location	Biological Quality Ratings (Q Values)							
		1971	1975	1979	1983	1987	1993	1996	1999
0100	Annagh Br	5	5	5	5	5	-	-	-
0150	Br d/s Annagh Br	-	-	-	-	5	4-5	4-5	4-5
0200	Barrington's Br	5	5	5	4	4-5	-	-	-

Assessment: Continuing satisfactory.

River and Code : **KILMASTULLA** **25/K/04**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : R 697 697 Date(s) Surveyed : 29/06/99

No.	Biological Quality Ratings (Q Values)										
	1971	1974	1976	1978	1981	1983	1985	1987	1993	1996	1999
0050	-	-	-	-	-	-	-	-	-	-	4
0100	4-5	4	4	3-4	-	3-4	3-4	4	4	-	-
0120	-	-	-	-	-	-	-	-	-	3	3-4
0800	1/0	2	2-3	1/0	3/0	3-4	3/0	3-4	3/0	3/0	3/0
0900	3-4	3-4	3/0	3/0	3/0	3-4	4	4	3/0	3-4	3-4
1000	5	4-5	4	3-4	4	4	4-5	4-5	3/0	3-4	4

Sampling Station		Sampling Station	
No.	Location	No.	Location
0050	Br in Silvermines village	0800	Br SW of Cranna Ho
0100	Br N of Silvermines	0900	Br NE of Cappadine
0120	Br W of Srah Cottage	1000	Cool Br

Assessment: While the Kilmastulla river remained in satisfactory condition in the reach above Silvermines village (0050), quality improvements were recorded at two locations in late June 1999: these were at Carrow Bridge (0120) where some residual, slight pollution of suspected agricultural origin persisted and again at Cool Bridge (1000) where satisfactory conditions were restored. Moderate pollution, primarily due to excessive siltation and eutrophication, was again evident at Cranna Bridge (0800) (below the old mining area) and the residual effects of this plus localised oil pollution were recorded at Station 0910 some 4 km further downstream.

River and Code : **LISDUFF (KILCROW)** **25/L/06**
Tributary of : Kilcrow OS Catchment No: 155
OS Grid Ref. : M 793 124 Date(s) Surveyed : 15/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1980	1983	1984	1987	1993	1996	1999
0060	Br SW of Carrowshanbally	-	-	-	3	-	2-3	3-4
0200	Bridge at Coolagh	-	3-4	4	4	3	-	4
0300	Bridge at Old Corn Mill	3	3-4/0	3	3/0	3	-	-
0400	300 m d/s Samp Station 0300	-	4-5	3	3/0	3	3	4

Assessment: Following substantial improvements at each of the three locations surveyed, the lower reaches of the Lisduff River (0200, 0400) were restored to a satisfactory condition in mid July 1999; further improvement is needed in the upper reaches (0060) which remain slightly polluted/eutrophic.

River and Code : **LITTLE (CLOGHAN)** **25/L/01**
Tributary of : Brosna OS Catchment No: 155
OS Grid Ref. : N 039 201 Date(s) Surveyed : 13/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)							
		1984	1986	1987	1988	1989	1993	1996	1999
0100	Crancreagh Br	1	2	2	2	2-3	2-3	-	2-3
0200	Br 2km SW of Cloghan	1	3	3	-	-	3-4	4	3-4
0400	Br u/s Brosna R confl	2	3	3	-	-	4	4	4

Assessment: Peat silt and sewage continued to depress water quality in upper (0100) and middle (0200) reaches, respectively, of the Little River 1999 but the lower reaches (0400) continued to maintain their satisfactory status.

River and Code : **LITTLE BROSNA**
 Tributary of : Shannon
 OS Grid Ref. : M 947 128

25/L/02

OS Catchment No: 155
 Date(s) Surveyed : 31/08/99

Stations No.	Biological Quality Ratings (Q Values)									
	1971	1973	1975	1977	1981	1984	1987	1993	1996	1999
0015	-	-	-	-	-	-	5	4	4	-
0025	-	-	-	-	-	-	3-4	3-4	3	4-5
0027	-	-	-	-	-	4	4	3-4	3-4	4
0040	-	-	-	-	-	-	3-4	3-4	3	3
0052	-	-	-	-	-	-	4	3-4	3	4
0085	-	-	-	-	-	-	3-4	3-4	3	3-4
0100	5	5	5	5	4	4-5	3-4	3-4	4	4
0300	4	3-4	3-4	-	3-4	3-4	3-4	3	3	3
0400	-	-	-	4	4	4	4	3-4	3	3
0600	4	-	-	-	4-5	5	4-5	3-4	4	4
0700	5	4-5	-	4-5	4-5	4	4	3-4	3	4
0800	5	5	-	5	4	4	4-5	4	-	-
0810	-	-	-	-	-	-	-	-	3-4	3-4
0900	5	-	-	5	4	5	5	-	-	-
1000	-	-	-	-	4	4-5	5	3-4	3-4	3-4

Sampling Station
 No. Location

Sampling Station
 No. Location

Keeloge Branch

0015 Br E of Loughan
 0025 Br 3 km N of Ballyrihy Ho
 0027 Br at Keeloge Cottage

Kilcomin Branch

0040 Br SW of Barna
 0052 Br 1.6km u/s Kilcomin Br
 0085 Br ESE of Kennes X-Rds

Main Channel

0100 Br nr Mt Lucas
 0300 1st Br d/s Bunow R confl
 0400 Br nr Brosna House
 0600 Br SW of Sharavogue Ho
 0700 Riverstown Br
 0800 Croghan Br
 0810 100m d/s Croghan Br
 0900 Derrinsallow Br
 1000 New Br

Assessment: Following significant improvements at two locations (0025, 0027) indications are that the Keeloge Branch was satisfactory over its course when surveyed in late August 1999. A significant improvement was also recorded in the middle reaches of the Kilcomin Branch (0052) but the uppermost (0040) and - although slightly improved - the lowermost (0085) reaches remained in an unsatisfactory condition due to suspected agricultural influences. Water quality continued to be of a satisfactory standard in the Main Channel above Roscrea (0100) but it then deteriorated significantly under the influence of a variety of waste discharges in and below the town (0400, 0600). Following a recovery at Sharavogue (0600) and a marked improvement at Riverstown (0700) the indications are that the river to Birr was once again in a satisfactory quality condition over the greater part of its course. Downstream of Birr, however, the symptoms of organic pollution and eutrophication persisted at Croghan Bridge (0800) and New Bridge (1000).

River and Code : **LORRHA STREAM** **25/L/05**
Tributary of : Lough Derg OS Catchment No: 155
OS Grid Ref. : M 887 032 Date(s) Surveyed : 01/09/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1989	1993	1996	1999
0200	Br SW of Lorrha	3	3	3-4	3-4
0300	Br d/s Friar's Lough	4	3	3	3

Assessment: Cattle manure was responsible for the unsatisfactory condition of this stream in September 1999, particularly in its lower reaches (0300) where deposition was particularly heavy. Unsatisfactory. No change.

River and Code : **MOATE STREAM** **25/M/05**
Tributary of : Brosna OS Catchment No: 155
OS Grid Ref. : N 226 325 Date(s) Surveyed : 24/06/99

Sampling Stations		Biological Quality Ratings (Q Values)							
No.	Location	1984	1986	1987	1988	1989	1993	1996	1999
0150	Br NW of Culleenagower	-	-	1	1	2-3	3	1	3
0300	Br S of Lurgan X-Rds	2	3	3	-	-	3	2	3
0400	Br nr Sheean Ho	3-4	4	3	-	-	3	3-4	3

Assessment: Following major improvements to the sewage works water quality in the Moate Stream improved significantly in the period from 1996 to 1999; serious pollution has abated but residual effects remain and the stream continues to be significantly polluted over its course.

River and Code : **MONAGHANSTOWN** **25/M/01**
Tributary of : Brosna OS Catchment No: 155
OS Grid Ref. : N 381 432 Date(s) Surveyed : 09/08/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1987	1993	1996	1999
0300	Br NNW of Monaghanstown	4	4	3-4	4
0500	Nure Br	4	4	3-4	4

Assessment: The pronounced siltation recorded in 1986 was no longer evident and quality was assessed as 'Fair' at both points surveyed in this weedy, hard-water stream. Substratum calcification is suspected as being the most likely cause of the reduced faunal diversity at the upper location (0300).

River and Code : **MOUNTRICE** **25/M/03**
Tributary of : Blackwater (Clare) OS Catchment No: 155
OS Grid Ref. : R 585 654 Date(s) Surveyed : 13/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1988	1994	1996	1999
0300 Br u/s Blackwater R confl	4-5	5	4-5	4-5

Assessment: Satisfactory. River in high flood at time of this survey.

River and Code : **MULKEAR (LIMERICK)** **25/M/04**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : R 632 587 Date(s) Surveyed : 02/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)									
	1971	1975	1979	1983	1986	1987	1993	1996	1999	
0100 Br nr Dromkeen Station	5	5	5	4	4-5	5	4	4	4	
0200 Brittas Br	-	-	4-5	4	4-5	4-5	3-4*	3-4	3	
0300 Br nr Abingdon Ho	5	5	-	-	-	4-5	3	-	-	
0400 2km d/s St 0300	-	-	5	5	-	5	-	4	4	
0500 Ford d/s Killeengarriff R	5	5	4-5	5	-	5	4	3-4	4	
0590 Annacotty Br	-	-	-	-	-	5	4	3-4	4	

Assessment: Following some slight improvements in its lower reaches (0500, 0900) the Mulkear was in a mostly satisfactory ('Fair' quality) condition when surveyed in early September 1999. However, further deteriorations below Dromkeen reduced quality to a new low at Brittas (0200) where the river was assessed as moderately polluted. Industrial discharges suspected.

* Siltation effects

River and Code : **NENAGH**
 Tributary of : Lough Derg
 OS Grid Ref. : R 816 864

25/N/01
 OS Catchment No: 155
 Date(s) Surveyed : 29/06/99

Stations No.	Biological Quality Ratings (Q Values)									
	1971	1974	1978	1981	1984	1986	1987	1993	1996	1999
0050	-	-	-	-	-	-	4-5	4	4-5	3-4
0100	-	-	5	5	5	-	4-5	5	4-5	4-5
0200	-	-	5	5	4-5	-	4-5	5	4-5	4-5
0300	-	-	4	5	5	-	5	4-5	4	4-5
0500	5	5	4-5	5	4	4-5	5	4-5	4	4-5
0550	-	-	-	-	-	4-5	4-5	3-4	3	4
0700	-	-	3-4	3-4	3-4	4	4-5	3-4	3-4	3-4
0800	-	-	4	4	4	-	3-4	3	3-4	3-4

Sampling Station
 No. Location
 0050 Br NE of Ballyhane Cross
 0100 Cloghinch Br
 0200 Lacken Br
 0300 Ballysoilshaun Br

Sampling Station
 No. Location
 0500 Br nr Tyone Abbey
 0550 Bennett's Br
 0700 Br d/s Nenagh Br
 0800 Annaghbeg Br

Assessment: With the exceptions of an estimated 5 kilometre stretch in the upper reaches (0050) and an 8 km stretch in the lower (0700, 0800) the Nenagh river was in a satisfactory condition when surveyed in late June 1999. A marked improvement was recorded at Bennett's Bridge (0550) but an equally striking deterioration had become apparent in the uppermost reaches (0050) where algal growths were excessive and the stream bed was very dirty. From the strong smell in the air, slurry disposal is suspected as the cause of this highly undesirable state of affairs.

River and Code : **NEWPORT (TIPPERARY)**
 Tributary of : Killeengarriff
 OS Grid Ref. : R 685 578

25/N/02
 OS Catchment No: 155
 Date(s) Surveyed : 20/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)									
		1971	1975	1979	1981	1984	1987	1993	1996	1999	
0020	Br S of Curreeny Commons	-	-	-	-	-	3-4	3-4	3-4	3-4	
0060	Br nr Glanculloo Old School	-	-	-	-	-	5	5	5	5	
0080	Br N of Coolruntha	-	-	-	-	-	5	5	5	5	
0100	Ford u/s Doonane R confl	-	-	5	5	5	5	5	3-4	4-5	
0200	Br nr Mackney	5	5	5	5	5	5	5	3	3-4	
0300	1st Br d/s Newport	5	5	5	4-5	5	5	5	-	-	
0330	Br S of Shower	-	-	-	-	-	-	5	4	4-5	
0400	Br nr Bunkey Br	-	-	5	5	5	5	-	-	-	
0500	Just u/s Annagh R confl	-	-	-	-	-	-	5	4	4-5	

Continued

NEWPORT (Tipperary) *Continued*

Assessment: Following a marked improvement in its middle reaches (0100) the Newport River was in a mostly satisfactory condition at the time of this survey in 1999. As in previous survey years, animal manure contaminated the stream bed and banks in the uppermost reaches (0020) while silt-slime complexes, characteristically seen below water treatment effluent discharges, were well developed in the vicinity of Rockvale Bridge (0200). Both of these problems could be easily rectified and the river restored to its former pristine condition.

River and Code : **NEWTOWN** **25/N/03**
Tributary of : Lough Derg OS Catchment No: 155
OS Grid Ref. : R 802 826 Date(s) Surveyed : 01/07/99

Sampling Stations		Biological Quality Ratings (Q Values)				
No.	Location	1985	1987	1993	1996	1999
0100	Carrigmadden Br	5	5	5	4-5	4-5
0200	Br in Newtown	5	5	5	3-4	4-5

Assessment: Following a marked improvement in its lower reaches (0200) the Newtown River was once again in a highly satisfactory quality condition when surveyed in early July 1999.

River and Code : **OLLATRIM** **25/O/01**
Tributary of : Nenagh OS Catchment No: 155
OS Grid Ref. : R 873 804 Date(s) Surveyed : 01/07/99

Sampling Stations		Biological Quality Ratings (Q Values)					
No.	Location	1981	1984	1987	1993	1996	1999
0040	Br SE of Ballybeg	-	-	3-4	3-4	3	3
0080	Aghnameadle Br	-	-	4-5	3-4	3-4	3-4
0100	Ollatrim Br	5	4	4	4	-	-
0150	Br d/s Ollatrim Br	-	-	4-5	-	4	4
0200	Br SW of Millgrove Ho	5	3-4	3-4	4	-	-
0250	Br nr Riverlawn House	-	-	-	-	4	4
0400	Rathurles Br	4	4	4	3-4	3-4	3-4
0500	Gourdeen Br	5	3-4	4	-	-	-
0600	Br u/s Nenagh R confl	-	-	4-5	3-4	3-4	3-4

Assessment: As in 1996 the upper and lowermost reaches of the Ollatrim River were again excessively eutrophic while quality in the middle reaches was just about 'Fair'. Heavy siltation exacerbated the situation at Ballybeg (0040) and Rathurles Bridge (0400). Agriculture (slurry disposal) suspected.

River and Code : **PALLAS** **25/P/01**
Tributary of : Little Brosna OS Catchment No: 155
OS Grid Ref. : M 998 095 Date(s) Surveyed : 01/09/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1987	1993	1996	1999
0300	Br SE of New Grove	4-5	3-4	3	3
0500	Nr Church d/s Pallas Br	5	4	3-4	3

Assessment: The quality of the Pallas River continued its decline in 1999 when it was assessed as 'Doubtful' at both locations sampled. Slurry disposal strongly suspected.

River and Code : **POLLAGH STREAM (BROSNA)** **25/P/05**
Tributary of : Brosna OS Catchment No: 155
OS Grid Ref. : N 189 257 Date(s) Surveyed : 12/08/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1989	1993	1996	1999
0200	Br d/s Barony Br	5	4	4	3-4
0300	Br u/s Brosna R confl	4	3-4	4	3-4

Assessment: Water quality was impaired by heavy peat siltation and eutrophication at both locations surveyed in August 1999. DO was reduced to just 61% at Station 0200 the time of this survey. Unsatisfactory and deteriorating.

River and Code : **ROCK (BIRR)** **25/R/02**
Tributary of : Little Brosna OS Catchment No: 155
OS Grid Ref. : N 048 027 Date(s) Surveyed : 30/08/99

Sampling Stations		Biological Quality Ratings (Q Values)				
No.	Location	1984	1987	1993	1996	1999
0050	Br WNW of Killeenbreaghan Ho	3-4	4-5	4	4-5	3-4
0300	Aughnagann Ford	3	4	4	2	3

Assessment: A considerable quality improvement was recorded below Birr (0300) in late August 1999: the serious pollution recorded in 1996 was no longer evident but further improvement will be needed if satisfactory conditions are to be fully restored. As indicated by the excessive algal growths and heavy siltation above the town (0050) conditions there were also unsatisfactory, but the degree of pollution was not very marked.

River and Code : **SCARRIFF STREAM** **25/S/08**
Tributary of : Graney OS Catchment No: 155
OS Grid Ref. : R 641 844 Date(s) Surveyed : 15/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)		
	1994	1996	1999
0400 West Br Scarriff	4	3-4	4

Assessment: Improved since 1996. 'Fair' quality. Satisfactory.

River and Code : **SHANNON (Lower)** **25/S/01**
Tributary of : Sea Shannon Estuary OS Catchment No: 155
OS Grid Ref. : R 580 600 Date(s) Surveyed : 03/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)							
	1972	1976	1984	1987	1990	1993	1996	1999
2500 Castleconnell: World's End	4-5	-	4	4	4	3-4	3-4	3-4
2600 Athlunkard Br	-	-	4	4	4	3-4	3-4	3-4

Assessment: As in previous surveys, masses of filamentous algae and the virtual absence of sensitive species indicated some considerable over-enrichment at both locations surveyed in September 1999.

River and Code : **SILVER (KILCORMAC)** **25/S/02**
Tributary of : Brosna OS Catchment No: 155
OS Grid Ref. : N 139 224 Date(s) Surveyed : 17/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)							
	1971	1974	1981	1984	1987	1993	1996	1999
0100 Br at Cadamstown	-	-	5	5	5	4	4	4-5
0200 Ballynacarrig Br	-	-	5	5	4-5	3-4	4-5	4
0300 Br at Ballyboy	5	5	5	5	4-5	-	-	-
0320 East Br Kilcormac	-	-	-	-	-	3-4	3-4	3
0400 Br 1km d/s Kilcormac	4	4-5	4	3-4	3-4	3-4	3-4	4
0500 Br N of Aghagoogy	-	-	4	3-4	4	4	4	4
0700 Lumcloun Br	4-5	4	4	4-5	4	4	4	4

SILVER (KILCORMAC)

25/S/02

Continued

Assessment: The Silver River was in a mostly satisfactory condition in August 1999 but the reach just above Kilcormac (0320) was adversely affected by heavy bottom siltation which significantly reduced biological diversity at that point. Sewage suspected.

River and Code : **SILVER (TULLAMORE)**

25/S/03

Tributary of : Clodiagh (Tullamore)

OS Catchment No: 155

OS Grid Ref. : N 245 269

Date(s) Surveyed : 11/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1984	1987	1993	1996	1999
0055 Derrygolan Br (RH Chan)	-	4	4	4	3-4
0100 Gormagh Br	4-5	3-4	4	3	3
0300 Br N of Aharney	4-5	4	4	4	4
0400 Br E of Derries	4	4	-	-	-
0500 Br u/s Clodiagh R confl	-	-	3-4	3	3-4

Assessment: Generally unsatisfactory quality conditions were again apparent in this river in August 1999. Sensitive species had virtually disappeared from the upper reaches (0055) which had become excessively weedy and silted. Deep banks of silt were also observed at Gormagh Bridge (0100) where quality was even more depressed and excessive siltation was again the principal factor in relation to the reduced bio-diversity in the lower reaches (0500) which appear to be subjected to regular dredging.

River and Code : **SMALL (TIPPERARY)**

25/S/05

Tributary of : Newport (Tipperary)

OS Catchment No: 155

OS Grid Ref : R 726 623

Date(s) Surveyed : 20/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)					
	1979	1983	1987	1993	1996	1999
0200 Br u/s Newport R confl	5	5	5	4	4-5	4-5

Assessment: Continuing satisfactory.

River and Code : **SYONAN CASTLE STREAM** **25/S/04**
 Tributary of : Gageborough OS Catchment No: 155
 OS Grid Ref. : N 282 386 Date(s) Surveyed : 10/08/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1987	1993	1996	1999
0300	Br W of Streamstown Ho	-	4	4-5	3-4
0500	Br u/s Gageborough R confl	4	4	4	3-4

Assessment: This stream was totally overgrown and heavily silted at the upper surveyed location and it was again heavily silted and infested with filamentous algae in its lower reaches in August 1999 and as such it had deteriorated considerably since the 1996 investigation.

River and Code : **TOEM STREAM** **25/T/05**
 Tributary of : Dead OS Catchment No: 155
 OS Grid Ref. : R 840 455 Date(s) Surveyed : 22/07/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1987	1993	1996	1999
0300	South Br at Toem	4	3-4	4	4
0600	Br u/s Dead R confl	4-5	4	4	4

Assessment: Continuing satisfactory.

River and Code : **TULLAMORE** **25/T/03**
 Tributary of : Clodiagh (Tullamore) OS Catchment No: 155
 OS Grid Ref. : N 280 254 Date(s) Surveyed : 17/08/99

Stations No.	Biological Quality Ratings (Q Values)										
	1971	1975	1977	1981	1986	1987	1989	1990	1993	1996	1999
0030	-	-	-	-	-	-	-	-	3	3	3
0100	4	3-4	3-4	4	4	3	-	-	4-5	3	3
0400	1-2	2	1-2	2	2	2	2-3	2-3	2-3	2-3	2

Sampling Station		Sampling Station	
No.	Location	No.	Location
0030	Br d/s Geashill Stream	0400	Br SW of Ballycowan Br
0100	Br S of Cappincur		

Assessment: The Tullamore river was moderately polluted by agriculture and peat silt respectively at Stations 0030 and 0100 in August 1999 and, following a marked deterioration, it was once again seriously polluted by sewage below the town (0400). DO readings recorded at the time of this survey were respectively 81%, 66% and 20% at the above locations.

River and Code : **WOODFORD (GALWAY)** **25/W/01**
Tributary of : Lough Derg OS Catchment No: 155
OS Grid Ref. : R 786 968 Date(s) Surveyed : 16/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)						
	1975	1979	1984	1987	1993	1996	1999
0040 Br NW of Featherstone Lodge	-	-	-	-	-	-	3*
0050 Br N of Featherstone Lodge	-	-	4	4-5	4	5	-
0060 Br N of Lough Alee	-	-	-	-	4	-	3-4*
0200 Br d/s Woodford Br	-	5	4	4-5	4	3-4	4
0300 Rossmore Br	4-5	5	4-5	5	4-5	3-4	4

Assessment: A major deterioration was recorded in the upper reaches (0040, 0050) of the Woodford River which were very heavily silted due to suspected forestry activities. The lower reaches had slightly improved since 1996 and were assessed as satisfactory in mid September 1999.

* Heavy siltation

River and Code : **YOUGHAL (TIPPERARY)** **25/Y/02**
Tributary of : Lough Derg OS Catchment No: 155
OS Grid Ref. : R 798 827 Date(s) Surveyed : 01/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)					
	1982	1985	1987	1993	1996	1999
0050 Br N of Curragh	-	4-5	3	4	3	3-4
0200 Br at Youghal	5	5	5	4	4	4-5

Assessment: The upper reaches of the Youghal River were very heavily silted in July 1999 but small numbers of sensitive insect species, not observed in 1996, indicated a trend towards quality improvement in this area. Some further improvement was also apparent in the lower reaches (0200) where quality was of a relatively high standard.

HYDROMETRIC AREA No. 26
Upper Shannon

Aghnashannagh Stream	26A11	Inny	26I01
Ahascragh	26A01	Island	26I03
Anaderryboy	26A03		
Arderry Stream	26A10	Killeglan	26K04
Arigna	26A02	Killian	26K01
		Killukin	26K02
Ballinure	26B01	Kilmastranny	26K03
Ballydangan	26B14	Kiltaclare Stream	26K06
Black (South Leitrim)	26B04	Kinard	26K07
# Black (Westmeath)	26B05		
Boor	26B07	# Laurencetown Stream	26L07
Boyle	26B08	Lenamore Stream	26L06
Breedoge	26B09	Lisdaly Stream	26L02
Breensford	26B10	Lissaphobble	26L04
		Lissydaly Stream	26L10
Camlin	26C01	Lung	26L03
Carricknabraher	26C02		
Castlegar	26C03	Mihanboy	26M04
Clogher (Roscommon)	26C18	Mountain (Roscommon)	26M03
Clooncose Stream	26C20	# Mountnugent	26M02
Cloone	26C05		
Clooneigh	26C06	Owengar (Leitrim)	26O02
Cloonfower Stream	26C21	Owenmore (Glengevlin)	26O03
Comoge	26C12	Owenaforeesha	26O04
Creelaghta	26C22	Owennayle	26O05
Cross (Roscommon)	26C10	Owenur	26O06
Cuilleen Stream	26C17		
Curraghroe Stream	26C14	Rath	26R01
Derryhippoo	26D01	Relagh	26R05
Derrymullan Stream	26D07	# Rhine	26R04
Diffagher	26D02	Rinn	26R02
Dungolman	26D06		
		Scramoge	26S01
Eslin	26E01	Shad Lough Stream	26S13
		Shannon (Upper)	26S02
Fallan	26F01	Shiven (South)	26S03
Fardrumman Stream	26F06	Smaghraan	26S04
Feorish (Ballyfarnon)	26F02	Springfield	26S05
# Feorish (Tarmonbarry)	26F03	Strokestown	26S08
Francis	26F05	Suck	26S07
Gaine	26G01	Tang	26T02
Glore (Westmeath)	26G02	Termon Stream	26T03
# Hind	26H01	Yellow (Ballinaglera)	26Y01
		Yellow (Castlepollard)	26Y02

Indicates rivers having seriously polluted stretches at the time of this survey.

River and Code : **AGHNASHANNAGH STREAM** **26/A/11**
Tributary of : Camlin OS Catchment No: 155
OS Grid Ref. : N 227 812 Date(s) Surveyed : 09/06/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)		
	1992	1996	1999
0300 Aghaward Br	-	5	4
0400 Br u/s Camlin R confl	4-5	Dry	-

Assessment: Quality lower than in 1996 but remaining satisfactory.

River and Code : **AHASCRAUGH** **26/A/01**
Tributary of : Suck OS Catchment No: 156
OS Grid Ref. : M 837 329 Date(s) Surveyed : 01/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)						
	1980	1983	1986	1987	1992	1996	1999
0050 Annagh Bridge	4	3-4	4	4	3-4	4	4
0100 Cloonpee Bridge	3-4	3-4	4	4	4-5	4	4
0200 Island Bridge	5	4	4	4	3-4	3-4	4
0300 Ahascragh: West Bridge	4	4	3-4	3	3-4	4	-
0400 3 km d/s Ahascragh	3	3-4	4	3	3-4	4	4
0500 Bunowen Bridge	5	4	4	4	4	3	4

Assessment: The Ahascragh had improved in comparison with the 1996 survey and was satisfactory at all sites examined in early September 1999.

River and Code : **ANADERRYBOY**

26/A/03

Tributary of : Lung (Figh Lough)

OS Catchment No: 155

OS Grid Ref. : M 604 887

Date(s) Surveyed : 17/08/99

Sampling Stations		Biological Quality Ratings (Q Values)					
No.	Location	1981	1984	1987	1992	1996	1999
0100	Cloonroe Bridge	5	5	4	4-5	4	4
0400	Bridge d/s Cloonagh Lough	5	5	4	5	4-5	4
0500	Cloontowart Bridge	5	5	4	4-5	4-5	4
0600	Br SE Farmhill (Driney Br)	-	-	-	-	4-5	4

Assessment: Satisfactory although somewhat lower quality than the 1996 survey. Significant turbidity was noted in the lower section (0500, 0600).

River and Code : **ARDERRY STREAM**

26/A/10

Tributary of : Corraneary Stream

OS Catchment No: 155

OS Grid Ref. : H 155 023

Date(s) Surveyed : 02/06/99

Sampling Stations		Biological Quality Ratings (Q Values)		
No.	Location	1992	1996	1999
0300	Br NW of Killyfea	4	4	4
0500	Br u/s Corraneary Str confl	4	3-4	4

Assessment: The Arderry Stream had become very weedy since 1986 but, because sensitive species were still present in reasonable numbers, it qualified as satisfactory (Q4) but only just. Agricultural activities may be the reason for the recently enhanced trophic status.

River and Code : **ARIGNA (ROSCOMMON)** **26/A/02**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : G 962 125 Date(s) Surveyed : 04/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1984	1987	1992	1996	1999
0100 At Altagowlan School	5	4	4-5	3	4
0200 Arigna: Derreenavoggy Bridge	3-4	3/0	3/0	3/0	3-4/0
0300 Mount Allen Bridge	3-4	4	3	4	3-4

Assessment: A slight improvement was noted in the upper and middle sections of the Arigna River (0100, 0200) with improved faunal diversity. The lack of key species and generally lower than expected diversity and abundance suggests toxic influences in the middle reaches (0200). This river drains a worked out coal-mining area.

River and Code : **BALLINURE** **26/B/01**
Tributary of : Suck OS Catchment No: 156
OS Grid Ref. : M 898 256 Date(s) Surveyed : 02/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)						
	1981	1983	1986	1987	1992	1996	1999
0040 Bridge at Newcastle (N Bridge)	-	-	-	4	3-4	3-4	4
0100 Bridge W. of Aughrim	3-4	4-5	4	3	3-4	3-4	4
0200 Attibrassil Bridge (1" map)	4	4	4	4-5	4	4	4
0400 Br N. of Ballymanagh Lodge	3	4	3-4	3-4	3-4	3-4	3

Assessment: An improvement was noted in the upper and middle sections of the Ballinure (0040, 0100 and 0200). A deterioration was noted at the last site (0400) however, in comparison with 1996.

River and Code : **BALLYDANGAN** **26/B/14**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : M 988 305 Date(s) Surveyed : 27/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1984	1987	1992	1996	1999
0100 Br at Corn Mill- Cappyuse	4	4	4	-	3-4
0200 Br u/s Shannon R. confl.	-	-	-	3	flood

Assessment: The upper station on the Ballydangan (0100) is becoming increasingly eutrophic. The lower station (0200) was inaccessible due to flooding at the time of sampling.

River and Code : **BLACK (SOUTH LEITRIM)** **26/B/04**
Tributary of : Rinn OS Catchment No: 155
OS Grid Ref. : N 101 874 Date(s) Surveyed : 03/06/99

Sampling Stations No. Location	1980	Biological Quality Ratings (Q Values)				
		1984	1987	1992	1996	1999
0070 Br NW of Ballinamuck	-	-	5	4	4	4
0080 Br SW of Ballinamuck	-	-	5	3	3-4	4
0100 Br nr Breanriscullew	5	5	5	4	4	4
0200 Bellantra Br	5	4-5	5	4	4-5	4-5
0300 Br u/s Rinn R confl	5	5	5	4-5	4-5	4-5

Assessment: Following a further slight improvement below Ballinamuck (0080) the Black River was in a satisfactory condition at all points surveyed in June 1999. Threats to this satisfactory state of affairs were apparent at several locations, however; the stream bed was contaminated with cattle manure upstream of the town (0070) and weed growth had become very pronounced in the Breanriscullew area reflecting some undesirable activities of a suspected agricultural nature in the affected areas.

River and Code : **BLACK (WESTMEATH)** **26/B/05**
Tributary of : Lough Iron OS Catchment No: 155
OS Grid Ref. : N 335 636 Date(s) Surveyed : 11/06/99

Stations No.	Biological Quality Ratings (Q Values)												
	1977	1980	1982	1984	1986	1987	1988	1989	1990	1992	1994	1996	1999
0045	-	-	-	-	-	1-2	1	1-2	1	1	1	1	1
0100	-	3-4	1	1-2	2	2	2	1-2	2	1-2	1-2	2	2-3
0180	-	-	-	-	-	3-4	-	-	1	3	-	3	3
0300	3	4	4	3	3	4	-	-	-	3	-	-	-
0400	-	-	-	-	-	-	-	-	-	-	-	3-4	3-4

Sampling Station		Sampling Station	
No.	Location	No.	Location
0045	Ballymahon Rd Br Edgeworthstown	0300	Br u/s Lough Iron
0100	Br nr Ballinlaghta	0400	250m d/s Br u/s L Iron
0180	5th Br d/s St 0100		

Assessment: A slight improvement was recorded below Edgeworthstown (0100) in June 1999 but gross pollution of suspected industrial origin continued to affect the reach above the town. The stream remained in an unsatisfactory condition at all points surveyed.

River and Code : **BOOR** **26/B/07**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : N 053 345 Date(s) Surveyed : 24/06/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1992	1996	1999
0600	Br near Castledaly Chapel	3	4	3	3
1100	Br NW of Kilbillaghan	4	4	4	*

Assessment: The lower reaches (1100) of the Boor River had been recently dredged and were, therefore, unsuitable for biological assessment: the upper reaches (0600) were over-enriched and heavily silted - unsatisfactory.

*Dredged

River and Code : **BOYLE** **26/B/08**
Tributary of : Drumharlow Lough OS Catchment No: 155
OS Grid Ref. : G 927 020 Date(s) Surveyed : 05/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)								
		1971	1974	1978	1980	1983	1987	1992	1996	1999
0100	Cuppanagh Bridge	-	-	-	5	4	4-5	4	4	4
0200	Footbridge 1.8 km u/s Boyle	5	5	5	5	4-5	4-5	4	4	4
0400	Drum Bridge	5	-	3-4	3-4	4	4	4	4	4
0500	Knockvicar Bridge	-	-	-	-	-	-	3-4	4	3-4
0600	Cootehall Bridge	5	5	-	5	4-5	-	4	4	4

Assessment: The upper Boyle River was generally in a satisfactory condition (0100, 0200, 0400) although very silted upstream of Boyle town due apparently to silt emanating from Lough Gara. The section downstream of Lough Key had deteriorated slightly at Knockvicar Bridge (0500) with the loss of *Ephemera danica* from this site. The most dramatic change since 1996 is the occurrence of *Dreissena polymorpha* (zebra mussel) at Stations 0500 and 0600. This stretch of the Boyle is part of the Shannon's navigation channel and it has constant boat traffic during the summer months.

River and Code : **BREEDOGE** **26/B/09**
Tributary of : Lough Gara OS Catchment No: 155
OS Grid Ref. : M 725 960 Date(s) Surveyed : 20/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1981	1983	1987	1992	1996	1999
0100	Br 2 km ESE of Frenchpark	3-4	4	-	4	3-4	4-5
0300	Bridge just S. of Breedoge	5	4	4	4	4-5	4

Assessment: An improvement was noted in the upper Breedoge (0100). The lower section was satisfactory where sampled near Breedoge Village (0300).

River and Code : **BREENSFORD** **26/B/10**
Tributary of : Lough Ree OS Catchment No: 155
OS Grid Ref. : N 073 444 Date(s) Surveyed : 24/06/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1984	1988	1992	1996	1999
0100 Br u/s Twy Lough	4	4	3-4	3-4	3-4
0400 Br in Ballykeeran	4	5	4	3-4	3-4

Assessment: The Breensford River remained in a highly eutrophic condition at both locations surveyed in late June 1999. Agricultural and industrial discharges suspected.

River and Code : **CAMLIN** **26/C/01**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : N 057 760 Date(s) Surveyed : 09/06/99

Stations No.	Biological Quality Ratings (Q Values)														
	1971	1973	1975	1977	1979	1981	1983	1985	1987	1989	1990	1992	1996	1999	
0050	-	-	-	-	-	-	-	-	4	-	-	3-4	3-4	3-4	
0200	-	-	-	-	-	3-4	3-4	4	4-5	-	-	4	4	4	
0300	4-5	4	4	3-4	3-4	3	3-4	3	3-4	-	-	3-4	-	-	
0400	-	-	-	-	-	3-4	4-5	4-5	4-5	-	-	-	4-5	4	
0600	4-5	-	-	-	-	4	4-5	4-5	4-5	-	-	4	3-4	3-4	
0700	-	4-5	4-5	4	4	5	4-5	4-5	4-5	-	-	4	4	4	
0800	-	-	-	-	-	4	4-5	4-5	4-5	-	-	3-4	3-4	4	
0900	1	1	1	1	1	1	1	2	2	1	1	1	3	3-4	
1000	1	1	1	1/0	1	1	1-2	2	3	1	1	1	3	3	
1100	2-3	3-4	3	2-3	1-2	1-2	2	2	3	2	2-3	2-3	3	3	

Sampling Station No. Location	Sampling Station No. Location
0050 Br d/s Cloonfin Lough	0700 Br nr Kiltyreher
0200 Ballinalee Br	0800 The Mall Br Longford
0300 Soran Br	0900 Br 1.8 km d/s Longford Br
0400 Kilnacarrow Br	1000 Br W of Lisnabo
0600 Argar Br	1100 S Br Clondra
0600 Argar Br	

Assessment: The uppermost reaches of the Camlin River continued to be adversely affected by the Rhine River which is seriously polluted by sewage discharges from Granard. Except for a short eutrophic stretch at Argar Bridge (0600) the river from Ballinalee to Longford (0200 to 0800) remained in a mostly satisfactory condition while below the town the river was again significantly polluted by Longford sewage.

River and Code : **CARRICKNABRAHER** **26/C/02**
Tributary of : Breedoge/Owennaforeesha OS Catchment No: 155
OS Grid Ref. : M 762 902 Date(s) Surveyed : 18/08/99

No.	Location	Biological Quality Ratings (Q Values)					
		1980	1983	1987	1992	1996	1999
0100	Cloonshanville Bridge	4	4	4-5	4	3-4	4
0200	U/s Owennaforeesha River	3	4	-	3	3-4	3-4

Assessment: An improvement was noted in the upper Carricknabraher (0100) in comparison with 1996. The lower section remains slightly polluted.

River and Code : **CASTLEGAR** **26/C/03**
Tributary of : Shiven OS Catchment No: 156
OS Grid Ref. : M 704 482 Date(s) Surveyed : 23/08/99

No.	Location	Biological Quality Ratings (Q Values)						
		1979	1981	1983	1987	1992	1996	1999
0080	Bridge ESE of Rahins	-	-	-	3	4	2-3	4
0100	Mountbellew Bridge	3	4	4	3	3-4	2-3	3
0200	Canavan's Bridge	2	3	4	3	3	3	3

Assessment: The upper section of the Castlegar (0080) improved significantly but the lower reaches remained moderately polluted in August 1999.

River and Code : **CLOGHER (ROSCOMMON)** **26/C/18**
Tributary of : Lough Drumharlow OS Catchment No: 155
OS Grid Ref. : G 895 015 Date(s) Surveyed : 6/8/99

No.	Location	Biological Quality Ratings (Q Values)					
		1989	1990	1991	1992	1996	1999
0500	Br just d/s Clogher Lough	2	2-3	3	3	3	2-3
0900	1st Br u/s Drumharlow L.	-	-	-	4	3	3-4

Assessment: A further deterioration was recorded in 1999 below Clogher Lake (0500) where there was some evidence of agricultural pollution. The lower section (0900 - upstream of Drumharlow Lake) did show a slight improvement, however, but the overall situation remained unsatisfactory.

River and Code : **CLOONCOOSE STREAM** **26/C/20**
Tributary of : Camlin OS Catchment No: 155
OS Grid Ref. : N 140 770 Date(s) Surveyed : 09/06/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1992	1996	1999
0300	Cartron Br NW of Lissavaddy	3	3	3-4	4
0500	Br u/s Camlin R confl	3	3-4	3	4

Assessment: Improved considerably since 1996. Satisfactory.

River and Code : **CLOONE** **26/C/05**
Tributary of : Lough Rinn OS Catchment No: 155
OS Grid Ref. : N 109 941 Date(s) Surveyed : 02/06/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1980	1984	1987	1992	1996	1999
0100	Wooden Br SE of Tooma	4-5	4-5	5	4	4	4
0200	Br 1.5 km S of Cloone	4-5	3-4	5	4	-	-
0250	Br u/s Relagh R confl	-	-	-	-	4-5	4
0400	Lurga Br	5	5	5	4	4-5	4-5

Assessment: The upper Cloone River (0100) had become much more weedy since 1986 but a sufficient diversity of sensitive macroinvertebrates remained to indicate satisfactory quality conditions at all locations surveyed.

River and Code : **CLOONEIGH** **26/C/06**
Tributary of : Lough Ree OS Catchment No: 155
OS Grid Ref. : M 951 650 Date(s) Surveyed : 16/08/99

Sampling Stations		Biological Quality Ratings (Q Values)				
No.	Location	1984	1987	1992	1996	1999
0040	Br SE Lisgobbin	-	-	-	4	3-4
0100	Bridge N. of Beechwood	4	4	4	-	-
0200	Clooneigh, of Derryturk	4	3-4	4	2-3	3

Assessment: Following a slight deterioration in its upper reaches (0040), the Clooneigh River was in an unsatisfactory condition at both locations surveyed in mid August 1999.

River and Code : **CLOONFLOWER STREAM** **26/C/21**
Tributary of : Suck OS Catchment No: 156
OS Grid Ref. : M 623 814 Date(s) Surveyed : 22/07/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1989	1992	1996	1999
Main Channel					
0200	Bridge in Cloonflower	4-5	4	3	3-4
West Branch*					
0300	Second Bridge u/s Suck River	5	4	-	4

Assessment: A slight improvement was noted in the Main Channel (0200) of the Cloonflower in July 1999 and the West Branch (0300) remained in a satisfactory condition. The stream is impacted by uncontrolled cattle access and suffers from bank erosion as a result.

River and Code : **COMOGE** **26/C/12**
Tributary of : Glen Lough OS Catchment No: 157
OS Grid Ref. : N 275 671 Date(s) Surveyed : 11/06/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1989	1992	1996	1999
0700	Br u/s Glen Lough	4	4	3-4	4

Assessment: Despite heavy siltation, biological diversity indicated an improvement to satisfactory conditions at the location sampled.

River and Code : **CREELAGHTA** **26/C/22**
Tributary of : Black (South Leitrim) OS Catchment No: 155
OS Grid Ref. : N 175 898 Date(s) Surveyed : 08/06/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1989	1992	1996	1999
0500	Br N of Graigue	4-5	4	-	-
0800	Br NW of Carrowdrumman	-	-	4-5	4-5
0900	Br u/s Black R confl	4	4	-	-

Assessment: High biological diversity indicated a continuation of satisfactory quality conditions in the Creelaghta River in June 1999.

River and Code : **CROSS (ROSCOMMON)** **26/C/10**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : N 004 393 Date(s) Surveyed : 27/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)				
		1984	1987	1992	1996	1999
0060	Br E of Eskerbaun	-	-	-	4	4
0100	Bridge at Corrantotan	4	4	4-5	4	3-4
0200	Bridge at Burnbrook	4	4	3-4	4	4
0300	Bridge S. of Doyle's Bridge	4	4	3	3	3
0400	Bridge u/s Shannon River	4	4	4	4	flood

Assessment: The Cross suffered a slight deterioration in quality at Station 0100 with the loss of a number of sensitive species in comparison with 1996. The lower section was moderately polluted where sampled (0300). Extensive flooding and backup from the River Shannon prevented sampling at Station 0400 in late September 1999.

River and Code : **CUILLEEN STREAM** **26/C/17**
Tributary of : Suck OS Catchment No: 156
OS Grid Ref. : M 847 333 Date(s) Surveyed : 02/09/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1987	1992	1996	1999
0400	Bridge u/s Suck River confl.	4	4	4	4

Assessment: Satisfactory, no change.

River and Code : **CURRAGHROE STREAM** **26/C/15**
Tributary of : Feorish (Tarmonbarry) OS Catchment No: 155
OS Grid Ref. : N 023 773 Date(s) Surveyed : 09/08/99

Sampling Stations		Biological Quality Ratings (Q Values)					
No.	Location	1982	1986	1987	1992	1996	1999
0100	Bridge S. of Curraghroe	-	4	4	-	3	2-3
0200	Bridge N. of Drinagh	4	4	4	3	2-3	3

Assessment: The Curraghroe Stream was again significantly polluted at both locations surveyed in August 1999. Organic pollution effects were more pronounced than previously at Station 0100 where the water was quite turbid and *Chironomus* larvae (bloodworms) were much in evidence. Unsatisfactory.

River and Code : **DERRYHIPPOO** **26/D/01**
Tributary of : Suck OS Catchment No: 156
OS Grid Ref. : M 793 637 Date(s) Surveyed : 30/08/99

Sampling Stations		Biological Quality Ratings (Q Values)					
No.	Location	1981	1984	1987	1992	1996	1999
0100	Ballina Bridge	4	3	4	4	3	4
0200	Bridge at Loughnasaggart	4	4	4	4	4	4

Assessment: A significant improvement was noted in the upper Derryhippoo (0100). The lower station (0200) was again satisfactory in 1999.

River and Code : **DERRYMULLAN STREAM** **26/D/07**
Tributary of : Suck OS Catchment No: 156
OS Grid Ref. : M 845 318 Date(s) Surveyed : 02/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1992	1996	1999
0200	Bridge at Garrymore	-	3	3-4	4
0400	Kilmalaw Bridge	3	4	4	4
0500	Killure Bridge	3	4-5	4	4
0700	1st Bridge u/s Suck confl	-	4	4	4

Assessment: With a minor improvement in its upper reaches (0200) the Derrymullan Stream was in a satisfactory condition at all points surveyed in 1999. An ecological change is noted, however, in the serious decline in the abundance of liverworts at Station 0500 and a strong tendency to eutrophication with extensive algal growth. The use of weirs for aeration may be responsible for the maintenance of the sensitive invertebrate species in this stretch.

River and Code : **DIFFAGHER** **26/D/02**
Tributary of : Lough Allen OS Catchment No: 155
OS Grid Ref. : M 935 237 Date(s) Surveyed : 04/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1984	1987	1989	1992	1996	1999
Main Channel							
0200	Cloonemeone Bridge	5	5	-	5	4-5	4-5
Boleybaun Branch							
0400	Br 2 km u/s Main Channel confl	-	3-4	-	4-5	4-5	4-5
Killadiskert Branch							
0600	Bridge u/s Main Channel confl	-	-	4-5	-	4	4

Assessment: Satisfactory at all points sampled. No change.

River and Code : **DUNGOLMAN**
 Tributary of : Tang
 OS Grid Ref. : N 172 530

26/D/06
 OS Catchment No: 157
 Date(s) Surveyed : 23/06/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)							
	1981	1984	1988	1989	1992	1994	1996	1999
East Branch								
0060 Br u/s Rackavarra Branch	-	-	-	-	-	4	4	4
0080 Br nr Mullenineehan	-	-	-	4-5	-	3-4	4	4
Main Channel								
0100 Ballycloghduff Br	-	-	4	-	3	-	3-4	-
0110 300m d/s Ballycloghduff Br	-	-	-	-	-	-	-	4
0200 Br W of Umma House	-	3-4	4	-	3-4	-	4	4
0300 Baskin Br	3-4	4	4	-	3-4	-	3-4	3-4
0400 Br SE of Lecade	-	-	-	-	-	-	-	4

Assessment: Biological diversity was generally reduced by heavy siltation and marl deposition and, in some instances by shading but water quality was assessed as satisfactory in the East Branch and over most of the Main Channel in late June 1999. Slime growths and a very unbalanced macroinvertebrate community indicated a considerable degree of quality impairment in the Baskin Bridge (0300) area. Agriculture suspected.

River and Code : **ESLIN**
 Tributary of : Shannon
 OS Grid Ref. : N 054 877

26/E/01
 OS Catchment No: 155
 Date(s) Surveyed : 01/06/99

Stations No.	Biological Quality Ratings (Q Values)										
	1980	1982	1984	1986	1987	1989	1990	1992	1994	1996	1999
0100	4-5	4	3-4	4	5	-	-	3-4	-	4-5	3-4
0150	-	-	-	-	-	-	-	4	-	4	4
0300	5	3	4	4-5	5	-	-	3-4	-	4	3-4
0400	4-5	4	3	4	5	-	-	3	-	4	3-4
0500	2	2	2	2	2	1-2	1	2	2-3	3	4
0600	2-3	3	3	2-3	2	2	1-2	2	2-3	3	4
Sampling Station						Sampling Station					
No.	Location					No.	Location				
0100	Drumgownagh Br					0400	Corrascoffy Br				
0150	Br W of Stuck					0500	Br E of Dromod				
0300	Lough Erril Br					0600	Killinaker Br				

Assessment: A marked improvement was recorded in the lower reaches of the Eslin River ((0500, 0600), in 1999 but the upper and middle reaches had become much more weedy and eutrophic. Forestry and agriculture suspected.

River and Code : **FALLAN** **26/F/01**
Tributary of : Camlin OS Catchment No: 155
OS Grid Ref. : N 079 765 Date(s) Surveyed : 10/06/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)						
	1984	1987	1988	1989	1992	1996	1999
<i>East Branch</i>							
0020 East Br NE of Abbeyderg	-	-	-	-	3-4	3-4	4
0030 Br S of Cloonker	-	-	-	4-5	4	-	-
0040 Br W of Curry	-	-	-	-	-	3-4	3-4
0045 Br u/s West Branch confl	-	-	-	4-5	4	-	-
<i>Main Channel</i>							
0200 Br S of Kilmore Upper	4	4	-	-	3-4	3-4	3-4

Assessment: Despite heavy usage by watering animals, the presence of large numbers of sensitive mayflies indicated satisfactory water quality conditions in the upper reaches of the East Branch of the Fallan River (0020), an improvement since 1996. No such improvement was apparent in the lower reaches of this Branch or in the Main Channel which remained in a less than satisfactory condition at the locations surveyed in June 1999.

River and Code : **FARDRUMMAN STREAM** **26/F/06**
Tributary of : Black (Leitrim) OS Catchment No: 155
OS Grid Ref. : N 173 897 Date(s) Surveyed : 03/06/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)	
	1996	1999
0400 Br u/s Black R confl	4	4-5

Assessment: Continuing satisfactory.

River and Code : **FEORISH (BALLYFARNON)** **26/F/02**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : G 944 103 Date(s) Surveyed : 05/08/99

No.	Location	Biological Quality Ratings (Q Values)					
		1982	1986	1987	1992	1996	1999
0050	Bridge N. of Coolemoneen	-	-	4-5	4-5	4-5	4
0080	Br N of Ballycullen	-	-	-	-	4-5	4-5
0200	Ballyfarnon Bridge	4-5	4-5	4-5	4-5	-	-
0250	1.2 km d/s Ballyfarnon Bridge	-	-	4-5	5	4-5	4-5
0400	Bridge 1.5 km SW of Keadue	5	4	4	5	4-5	5
0500	Bridge at Derreenavicara	5	4-5	4-5	5	4-5	4-5

Assessment: Satisfactory at all stations sampled in August 1999.

River and Code : **FEORISH (TARMONBARRY)** **26/F/03**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : N 042 767 Date(s) Surveyed : 09/08/99

No.	Location	Biological Quality Ratings (Q Values)					
		1982	1986	1987	1992	1996	1999
0100	Bridge NE of Ballymoylin	4	4	2-3	1-2	2-3	2
0200	Bridge ESE of Northyard	4	4	3	3	3	3
0300	Cloonmore Bridge	4	4	4	3-4	-	-
0400	Br d/s Cloonmore Br	-	-	-	-	3	3

Assessment: Serious pollution was again recorded in the upper reaches of the Feorish River (0100) and moderate pollution persisted at the other two locations surveyed in August 1999. Agriculture and peat extraction suspected.

River and Code : **FRANCIS**
Tributary of : Suck
OS Grid Ref. : M 674 798

26/F/05
OS Catchment No: 156
Date(s) Surveyed : 22/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1981	1984	1987	1992	1996	1999
<i>Lough Glinn Branch</i>							
0010	1st Bridge d/s Lough Glinn	-	-	-	3-4	3	3
<i>Main Channel</i>							
0020	Bridge d/s L Glinn Branch	-	-	5	4-5	4-5	4-5
0050	Cloonard Bridge	-	-	5	4-5	4-5	4-5
0100	Br 1.5 km NNE of Castlerea	-	-	5	5	4	4-5
0300	Bridge u/s Suck River confl	4	3-4	4	4	3	4

Assessment: The smaller, Lough Glynn Branch of the Francis River was again moderately polluted where surveyed (0010) but following a marked improvement in its lower reaches (0300) the Main Channel was in satisfactory condition at all points surveyed in late July 1999.

River and Code : **GAINÉ**
Tributary of : Lough Derravarragh
OS Grid Ref. : N 400 660

26/G/01
OS Catchment No: 157
Date(s) Surveyed : 08/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)				
		1984	1988	1992	1996	1999
0100	Br 1 km NE of Ballynagall	3-4	3	3-4	3-4	3
0200	Br in Multyfarnham	3-4	4	3-4	3-4	3*
0300	0.8 km u/s L Derravarragh	-	-	-	3-4	3-4

Assessment: Moderately polluted in and above Multyfarnham (0200, 0100), highly eutrophic below the village (0300). Agriculture and sewage suspected as the most likely causes of this unsatisfactory situation.

*Silt

River and Code : **GLORE (WESTMEATH)** **26/G/02**
Tributary of : Inny (Shannon) OS Catchment No: 157
OS Grid Ref. : N 483 722 Date(s) Surveyed : 07/07/99

Sampling Stations		Biological Quality Ratings (Q Values)						
No.	Location	1977	1981	1984	1987	1992	1996	1999
0100	Stonestown Br	-	5	3-4	4	3-4	4	3-4
0200	Br at Rockbrook	4	4-5	4-5	4	4	4-5	4-5

Assessment: The disappearance of several sensitive insects and changes in floral species and abundance indicated increasing eutrophication in the upper reaches (0100) of this stream in July 1999. The lower reaches remained in a satisfactory quality condition.

River and Code : **HIND** **26/H/01**
Tributary of : Lough Ree OS Catchment No: 155
OS Grid Ref. : M 967 606 Date(s) Surveyed : 16/08/99

Stations		Biological Quality Ratings (Q Values)									
No.	1971	1974	1980	1983	1986	1987	1989	1990	1992	1996	1999
0060	-	-	-	-	2	1	-	-	2	1	-
0070	-	-	-	-	-	-	-	-	-	-	2
0080	-	-	-	-	-	-	-	-	-	1-2	1-2
0250	-	-	-	-	-	3	3	-	4	4	4
0300	4	3-4	3	3	2-3	2-3	2	2-3	2-3	2	2
0400	4	3-4	3-4	4	3-4	3	-	-	3	2-3	2
0500	4-5	3-4	4	4	3-4	3-4	-	-	3	3	2-3

Sampling Station
No. Location
North Branch
0060 Roscommon: East Link Rd Br
0070 Br d/s Creevyquin Trib confl
0080 Br NW of "Union Workhouse"

South Branch
0250 Br E. of Ballygalda Ho

Sampling Station
No. Location
Main Channel
0300 Bridge E. of Ballymartin
0400 Ballymurray Rway Station
0500 Br S. of Clooncah School

Assessment: Although the South Branch of the Hind River (0250) remained in a satisfactory condition, the North Branch and, following further deteriorations in its lower reaches (0400, 0500), the Main Channel were seriously polluted over much of their lengths in August 1999. It is expected that the new sewage treatment works, currently under construction in Roscommon, will result in significant improvements in the quality of the river.

River and Code : **INNY**
 Tributary of : Lough Ree
 OS Grid Ref. : N 115 554

26/I/01
 OS Catchment No: 157
 Date(s) Surveyed : 06/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)								
	1971	1973	1977	1981	1984	1987	1992	1996	1999
Mill Brook Branch									
0010 Br at Dromone	-	-	-	-	-	-	2-3	3	-
0020 Br W of Mill Brook	-	-	-	-	-	-	4	3-4	-
Main Channel									
0060 Br NW of Ballinvally	-	-	-	-	-	4	3	3	3
0100 Br 1 km S of Oldcastle	-	-	-	3-4	3-4	4	4	3-4	3-4
0200 Castlecor: 1st Br d/s St. 0100	4	4	4	4	4	3-4	3-4	3-4	3
0300 Ballinrink Br	-	-	-	4	4-5	4	3-4	4	3
0500 Finnea Br	3-4	3-4	4	3-4	3-4	3-4	3-4	3-4	3-4
0600 Camagh Br	-	-	4-5	4-5	4-5	4	3-4	3-4	*
0700 Br nr Shrubbywood	-	-	-	-	-	-	3	3-4	3-4
0750 Inny Br d/s L Derravaragh	-	-	-	-	-	-	3-4	3-4	3-4
0800 Ballinalack Br	4	4-5	4	4	4-5	4	3-4	4	4
0900 Ballycorkey Br	-	5	4	4	5	4	4	4-5	4
1000 Ballynacarrow Br	5	4	4-5	5	4-5	5	3-4	4	4
1150 Clynan or New Br	-	-	-	-	-	5	3-4	4	3-4
1200 Newcastle Br	4	4-5	4-5	4-5	4-5	5	3-4	4	4
1350 Shrulce Br	4-5	4-5	4-5	4-5	4-5	4-5	4-5	3-4	4
1400 Red Br	-	-	-	4-5	4-5	5	4	3-4	4

Assessment:

While the upper half of the Main Channel continued to be in an unsatisfactory condition, mainly due to agriculture the lower half of the river was in a mostly satisfactory condition when surveyed in 1999. Pollution effects were more marked in the reach immediately upstream of Lough Sheelin, particularly in the Ballinrink area (0300) where sensitive macroinvertebrates had disappeared and the river bed was infested with heavily silted, filamentous algae. Very heavy siltation was also noted at Stations 0060, 0600 and 0700 and algal growths were excessive at Stations 0060 where oil pollution was also recorded. Severe contamination by watering cattle was recorded at Castlecor (0200) and the effects of relatively recent dredging operations were apparent at Camagh Bridge (0600) and heavy peat-silt deposition was observed at Shrubbywood (0700). In the lower reaches, the recovery recorded in 1996 was generally maintained but the re-appearance of exceptionally luxuriant growths of algae at Clynan Bridge (1150) was an unwelcome development. Biological surveys of the Mill Brook Branch are being discontinued because groundwater input is now suspected to be of considerable importance in relation to the reduced biological diversity/Q values in this branch; chemical investigations are required to verify this, however. * = Recently dredged

River and Code : **ISLAND**
Tributary of : Suck
OS Grid Ref. : M 697 723

26/I/03
OS Catchment No: 156
Date(s) Surveyed : 19/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1981	1984	1987	1992	1996	1999
0040	Br SW of Cloonlee	-	-	-	-	4	4
0100	Island Bridge	4	4	4-5	4-5	4	4
0200	Br at Old Mill N. of Moneen	4-5	4-5	4-5	4	4-5	4-5
0300	Ford at Bookalagh	4-5	4-5	4-5	4-5	4-5	4-5
0400	Ballymoe: Castlerea Bridge	4-5	4	4-5	4	4-5	4

Assessment: Satisfactory at all points sampled. A slight deterioration was noted at the last station just upstream of the River Suck (0400).

River and Code : **KILLEGLAN**
Tributary of : Suck
OS Grid Ref. : M 858 396

26/K/04
OS Catchment No: 156
Date(s) Surveyed : 01/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)		
		1987	1992	1999
0200	Bridge u/s Suck River confl	4	4	4

Assessment: Satisfactory.

River and Code : **KILLIAN** **26/K/01**
Tributary of : Shiven OS Catchment No: 156
OS Grid Ref. : M 742 490 Date(s) Surveyed : 30/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1981	1984	1987	1992	1996	1999
0050	Br W of Corracullin	-	-	-	-	4	4
0100	Kingstown Bridge	4	4	4	4-5	4	4
0200	New Bridge	4	3-4	4	3-4	3-4	4
0300	Bridge u/s Shiven (S.) River	4-5	3-4	4	4	4	4

Assessment: Following a slight improvement at New Bridge (0200) and despite extensive cattle access which impacted on water and ecological quality, conditions were satisfactory at all stations surveyed in The Killian River in 1999. A much higher faunal diversity was noted at Station 0300 in comparison with Station 0200.

River and Code : **KILLUKIN** **26/K/02**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : M 940 987 Date(s) Surveyed : 13/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1992	1996	1999
0100	Bridge d/s Lisdaly Lough	3-4	3-4	3	3
0500	Br 500 m N.W. of Flagford	4-5	4	4	4
0700	Bridge E. of Killukin	4	4	4	4

Assessment: The uppermost site on the Killukin River (0100 downstream of Lisdaly Lough) is moderately polluted. The remainder of the river is in satisfactory condition with no change since the 1996 survey.

River and Code : **KILMACTRANNY** **26/K/03**
Tributary of : Lough Skean OS Catchment No: 155
OS Grid Ref. : G 852 123 Date(s) Surveyed : 05/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1992	1996	1999
0700	2nd Br d/s L. Skean	-	-	4	4
0800	First Bridge u/s Lough Skean	4	4	4	-

Assessment: Satisfactory where surveyed.

River and Code : **KILTACLARE STREAM** **26/K/06**
Tributary of : Lung OS Catchment No: 155
OS Grid Ref. : M 578 923 Date(s) Surveyed : 03/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)		
		1989	1992	1999
0500	Bridge N. of Aghadiffin	4-5	4-5	4

Assessment: Satisfactory. Free access to the river by cattle and concomitant bank erosion may be the main source of the considerable siltation and the slight reduction in Q value noted here.

River and Code : **KINARD** **26/K/07**
Tributary of : Owenur OS Catchment No: 155
OS Grid Ref. : M 960 895 Date(s) Surveyed : 13/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1989	1992	1996	1999
0300	Bridge S. of Ryefield	4	-	4	4
0500	Carrowkeel Bridge	4	4	3-4	3

Assessment: No change recorded in the upper reaches (0300) where quality remained 'fair' but some further deterioration noted in the lower river (0500) where the river was moderately polluted in August 1999.

River and Code : **LAURENCETOWN STREAM** **26/L/07**
Tributary of : Suck OS Catchment No: 156
OS Grid Ref. : M 930 253 Date(s) Surveyed : 03/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)				
		1987	1992	1994	1996	1999
0300	Bridge E. of Sycamorehill	3	2-3	2	2	1
0500	Bridge near Kylemore Bridge	3-4	3	-	2-3	3

Assessment: The Laurencetown Stream was again seriously polluted by suspected industrial discharges in the Sycamore Hill area (0300) where considerable quantities of 'sewage fungus' were observed in early September 1999. A slight recovery was noted at Station 0500 but conditions remained unsatisfactory here also.

River and Code : **LENAMORE STREAM** **26/L/06**
Tributary of : Inny (Shannon) OS Catchment No: 157
OS Grid Ref. : N 260 621 Date(s) Surveyed : 10/06/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1988	1992	1996	1999
0200	Br nr Ballyglassin	5	4	4	4
0400	Br at Lenamore	3-4	3	4	4

Assessment: Water quality could be better in this stream but for the present its condition continues to be satisfactory. The stream bed was heavily silted at the lower two locations at the time of this survey in June 1999.

River and Code : **LISDALY STREAM** **26/L/02**
Tributary of : Lisdaly Lough/Killukin River OS Catchment No: 155
OS Grid Ref. : M 877 952 Date(s) Surveyed : 13/08/99

Sampling Stations		Biological Quality Ratings (Q Values)					
No.	Location	1980	1984	1987	1992	1996	1999
0100	Bridge NE of Croghan House	-	-	3	3	-	3
0200	Bridge u/s Lisdaly Lough	3	3	3	3	4	4

Assessment: The Lisdaly Stream was again moderately polluted in its middle reaches (0100) but conditions remained satisfactory in the lower section (0200) in August 1999.

River and Code : **LISSAPHOBBLE** **26/L/04**
Tributary of : Scramoge OS Catchment No: 155
OS Grid Ref. : M 948 792 Date(s) Surveyed : 09/08/99

Sampling Stations		Biological Quality Ratings (Q Values)					
No.	Location	1984	1986	1987	1992	1996	1999
0100	Bridge d/s Loughannatryna	-	-	4	3-4	3	3
0300	West Bridge at Ballinfad	4	4	4	-	-	-
0500	Br NE of Lissonuffly	-	-	-	4	3	4

Assessment: The upper reaches of the Lissaphobble River (0100) were again moderately polluted in 1999 but, following a considerable improvement since 1996, conditions in the lower river (0500) were assessed as satisfactory.

River and Code : **LISSYDALY STREAM** **26/L/10**
Tributary of : Anaderryboy OS Catchment No: 155
OS Grid Ref. : M 596 874 Date(s) Surveyed : 10/08/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1989	1994	1996	1999
0500	Bridge N. of Sanvolaun	5	4-5	4	4-5
0800	Bridge near Aghadiffin	4-5	-	4	4
0900	Lissydaly Bridge	4-5	4	4	4

Assessment: Some improvements were noted in the Lissydaly although it is still affected by siltation and drainage activities. Significant improvements have been made in the control of cattle access to his river.

River and Code : **LUNG** **26/L/03**
Tributary of : Lough Gara OS Catchment No: 155
OS Grid Ref. : M 677 965 Date(s) Surveyed : 18/08/99

Stations No.	Biological Quality Ratings (Q Values)										
	1971	1974	1978	1980	1982	1984	1987	1992	1994	1996	1999
0100	-	-	4-5	5	5	5	4-5	4-5	-	4	4
0200	5	5	4-5	4	5	5	4	4-5	-	4	4-5
0250	-	-	-	-	-	-	4	4	-	3-4	4
0350	5	4-5	4	4-5	4	4	3	4	4	4	4-5
0400	5	4-5	3	3	4	4	3	3-4	2	2-3	3

Sampling Station		Sampling Station	
No.	Location	No.	Location
0100	Figh Bridge	0350	Bridge W. of Banada
0200	Crunaun Bridge	0400	Bridge u/s Lough Gara
0250	2 km S. of Ballaghaderreen		

Assessment: The Lung River was satisfactory upstream of Ballaghaderreen in 1999 with some improvements in quality in comparison with 1996. The river was still moderately polluted, however, downstream of Ballaghaderreen where sampled some 4 km below the town. It did show an improvement, however, on the 1994 and 1996 results when quality was seriously depressed following serious industrial pollution incidents and major fish kills in the river. While water quality improvements were noted, further improvements can be made. A new treatment works is under construction for Ballaghaderreen municipal wastewater and this includes a phosphorus removal stage. This is part of the current major Shannon catchment environmental management programme. Together with tighter licensing and control of industrial activities in the town it is hoped that the Lung river will be restored to good quality downstream of Ballaghaderreen with consequent benefits for Lough Gara also.

River and Code : **MIHANBOY** **26/M/04**
Tributary of : Cross OS Catchment No: 155
OS Grid Ref. : M 994 418 Date(s) Surveyed : 27/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1994	1996	1999
0200	Bridge u/s Cross River confl	4	4	4	4

Assessment: Satisfactory, no change.

River and Code : **MOUNTAIN (ROSCOMMON)** **26/M/03**
Tributary of : Kilglass Lough OS Catchment No: 155
OS Grid Ref. : M 973 857 Date(s) Surveyed : 12/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1981	1984	1987	1992	1996	1999
0100	1 km u/s Kilglass Lough	4	4	4	4	3-4	3-4

Assessment: The Mountain River is formed by the confluence of the Scramoge and Strokestown Rivers (q.v.) and runs into Kilglass Lough in the upper Shannon system. This slow-flowing, deep river was slightly polluted when examined in August 1999.

River and Code : **MOUNTNUGENT** **26/M/02**
Tributary of : Lough Sheelin OS Catchment No: 157
OS Grid Ref. : N 474 853 Date(s) Surveyed : 06/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)								
		1973	1977	1981	1984	1987	1988	1992	1996	1999
Main Channel										
0040	Br to N of Rockville	-	-	-	-	-	-	4	4-5	3-4
0200	Br nr Derrylea	4	3-4	4	4-5	1	4	4	3-4	3
0350	Br E of Kilnacrott Ho	-	-	-	-	3	-	3-4	3-4	3-4
0500	Mountnugent Br	4	4	3-4	4	4	-	3-4	3-4	3-4

Ballyjamesduff Branch*

0120	Br to SE of Rockville*	-	-	-	-	-	-	-	3	1/0
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Assessment: Following deteriorations at three locations in the Ballyjamesduff area the Mountnugent River was in an unsatisfactory condition at all points surveyed in July 1999. The upper Main Channel was being adversely affected by heavy silt deposition in the Rockville (0040) and Derrylea (0200) areas while the Ballyjamesduff Branch (0120) was seriously polluted by oil from an unknown source. Further downstream quality continued to suffer from slurry pollution in the Kilnacrott (0350) and Mountnugent (0500) areas.

River and Code : **OWENGAR (LEITRIM)** **26/O/02**
Tributary of : Diffagher OS Catchment No: 155
OS Grid Ref. : G 930 243 Date(s) Surveyed : 04/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1984	1987	1992	1996	1999
0100 Bridge at Barragh	5	4-5	4-5	4	4-5
0200 Bridge at Annaghgerry	4	4	5	4-5	3-4*

Assessment: The Owengar was satisfactory at the upper station (0100) but adversely affected by siltation due to construction activities. A mechanical digger appeared to be using the river bed as a regular access route to a construction site in a field upstream of Station 0200.

* Siltation

River and Code : **OWENMORE (GLANGEVLIN)** **26/O/03**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : H 033 292 Date(s) Surveyed : 25/05/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)						
	1977	1981	1984	1987	1992	1996	1999
<i>Bursan Branch</i>							
0100 Carty's Br	-	-	-	5	4-5	4-5	5
<i>Bellavally Branch</i>							
0120 Br SE of Carty's Br	-	-	-	5	4-5	5	4-5
<i>Derrynananta Branch</i>							
0140 Br u/s Bellavally Branch confl	-	-	-	5	4	4-5	4-5
<i>Main Channel</i>							
0200 Br W of Glangevlin	5	5	5	5	-	-	4-5
0300 Br W of Legnagrow Lough	5	5	5	5	4-5	5	4-5

Assessment: Continuing satisfactory at all points surveyed.

River and Code : **OWENNAFOREESHA** **26/O/04**
Tributary of : Breedoge OS Catchment No: 155
OS Grid Ref. : M 762 909 Date(s) Surveyed : 18/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1981	1984	1987	1992	1996	1999
0100	Bellanagare Bridge	4	4	3-4	4	4	3-4
0200	100 m u/s Breedoge confl	-	-	-	4-5	4	4

Assessment: A slight deterioration was noted in the upper Owennaforeesha (0100) in comparison with the 1996 survey. The slow flowing lower section was satisfactory (0200).

River and Code : **OWENNAYLE** **26/O/05**
Tributary of : Shannon OS Catchment No: 155
OS Grid Ref. : G 975 261 Date(s) Surveyed : 26/05/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1976	1981	1984	1987	1992	1996	1999
0050	Br NE of Aughrim	-	-	-	5	4	4	4
0100	Br d/s Owennayle Br	4-5	4-5	5	5	4	4-5	4-5

Assessment: As evidenced by the development of silt/slime complexes on the substratum and the virtual absence of sensitive macroinvertebrates, water quality is deteriorating in the upper reaches (0050) of the Owennayle River under pressure from suspected forestry and farming. Quality conditions in the lower river (0100) continue to of a higher standard.

River and Code : **OWENUR**
Tributary of : Grange Lake
OS Grid Ref. : M 956 860

26/O/06
OS Catchment No: 155
Date(s) Surveyed : 12/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1984	1987	1992	1996	1999
<i>Mantua Branch</i>					
0080 Bridge SW of Cherryfield	-	4	3	2-3	3-4
<i>Main Channel</i>					
0100 Br near Ballyoughter House	4	4	4	4	3-4
0300 Br d/s Elphin Tributary confl	4	4	4	4	4
0400 Drummullin Bridge	4	4	4-5	4	4
0500 Grange Bridge	3-4	4	3-4	3	3

Assessment: The Mantua Branch of the Owenur (0080) was just slightly polluted where surveyed in 1999: this represents a considerable improvement in comparison with its former condition. By contrast, a stretch of Main Channel immediately below Ballyoughter Lough (0100) was assessed as slightly polluted representing a slight deterioration since 1996. Both locations surveyed in the middle section (0300, 0400) were again of a satisfactory standard but no improvement was apparent in the lower reaches (0500) where moderate pollution continued. It was noted that a stretch of river downstream of Station 0300 is used as a cattle track from field to farm yard implying a substantial pollution load on a daily basis during low flow conditions.

River and Code : **RATH**
Tributary of : Inny (Shannon)
OS Grid Ref. : N 187 575

26/R/01
OS Catchment No: 157
Date(s) Surveyed : 22/06/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)						
	1977	1981	1984	1988	1992	1996	1999
0100 Br 2 km S of Moyvore	-	-	4-5	4	4	4	4
0300 Br u/s Inny R confl	4	4	4-5	3-4	4	4	3-4

Assessment: The upper Rath River (0030) had been recently dredged and so was not amenable to biological assessment. The remainder of the river was heavily silted and the lower reaches were distinctly eutrophic in late June 1999.

River and Code : **RELAGH** **26/R/05**
Tributary of : Cloone (Lough Rinn) OS Catchment No: 155
OS Grid Ref. : N 125 978 Date(s) Surveyed : 02/06/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1987	1992	1996	1999
0400	Br u/s Drumroosk Branch confl	5	4-5	5	4-5
0700	Br S of Edergole	5	-	3-4	4-5
0900	Br u/s Cloone R confl	5	4	4	4

Assessment: Following a significant improvement in its lower reaches (0700) the Relagh River was in a satisfactory condition at each of the three locations surveyed in early June 1999. However, heavy usage by watering animals pose a continued threat to water quality in the Edergole area (0700).

River and Code : **RHINE** **26/R/04**
Tributary of : Cloonfin Lough OS Catchment No: 155
OS Grid Ref. : N 266 805 Date(s) Surveyed : 09/06/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1987	1988	1989	1990	1992	1996	1999
0200	Br N of Cartron	2	2	1	2	2-3	2	2
0700	Ballymore Br	4-5	-	-	-	3-4	3	3

Assessment: Continuing unsatisfactory at both locations as a result of serious pollution by sewage below Granard. DO at Cartron (0200) was just 22% at the time of this survey. Remedial action long overdue.

River and Code : **RINN** **26/R/02**
Tributary of : Lough Forbes OS Catchment No: 155
OS Grid Ref. : N 081 824 Date(s) Surveyed : 02/06/99

Stations No.	Biological Quality Ratings (Q Values)											
	1971	1978	1980	1984	1986	1987	1988	1990	1992	1994	1996	1999
0060	-	-	-	1	1	1	1	2	1-2	2-3	2-3	2-3
0100	3	2-3	3	3	2	2	3	-	3	-	2-3	2-3
0200	-	-	3-4	3-4	3-4	4	-	-	-	-	3-4	3-4
0300	4-5	3-4	4-5	4	4-5	4-5	-	-	4	-	4-5	4

Sampling Station		Sampling Station	
No.	Location	No.	Location
0060	Br 1.6 km d/s Mohill*	0200	Annaghveagh Br
0100	Br u/s Lough Rinn*	0300	Johnston's Br

Assessment: As in 1996 the Rinn River was again moderately to heavily polluted by suspected sewage over the distance from Mohill (0060) to Lough Rinn (0100) in June 1999 and it continued to be considerably enriched at Annaghveagh Bridge (0200) below this lake. It then recovered so that 'Fair' quality conditions were restored over the distance to Johnston's Bridge (0300). A satisfactory sample could not be obtained at Cloonart Bridge (0400) and so a quality assessment was not possible at that location.

* The reach upstream of Lough Rinn is not shown on the OS Catchment Map

River and Code : **SCRAMOGE** **26/S/01**
Tributary of : Mountain (Roscommon) OS Catchment No: 155
OS Grid Ref. : M 965 838 Date(s) Surveyed : 30/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1981	1984	1986	1987	1992	1996	1999
0050	Bridge d/s Lough Conny More	-	-	-	4	4	4	4
0100	Bridge d/s Lough Gal	4	4	4	4	4	3-4	4
0200	Cloonfree Bridge	4-5	4	4	4	4	4	4
0300	Bridge NE of Riverdale	3-4	4	4-5	4	3	4	4
0500	Bridge near Castlenode House	5	2	4	4	4	-	-
0600	Scramoge Bridge	4	4	4-5	4	4	4	4
0700	Bridge u/s Kilglass Lough	-	-	5	4-5	3-4	3	3-4

Assessment: Some improvements in quality were noted in the Scramoge (0100, 0700) in comparison with the 1996 survey. The lowermost section (0700) remains highly eutrophic, however, with dissolved oxygen values of 149% and reduced numbers of sensitive species previously found at this location.

River and Code : **SHAD LOUGH STREAM** **26/S/13**
Tributary of : Scramoge OS Catchment No: 155
OS Grid Ref. : M909790 Date(s) Surveyed : 09/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)	
	1996	1999
0100 Br d/s Shad Lough	4	4

Assessment: Satisfactory.

River and Code : **SHANNON (Upper)** **26/S/02**
Tributary of : Sea Shannon Estuary OS Catchment No: 155
OS Grid Ref. : R 580 600 Date(s) Surveyed : 27/05/99

Stations No.	Biological Quality Ratings (Q Values)									
	1972	1976	1982	1984	1985	1987	1990	1992	1996	1999
0100	-	-	-	-	5	5	-	4	4-5	4
0200	-	-	5	-	5	5	-	5	5	4-5
0300	-	-	5	-	5	5	-	5	4-5	4-5
0400	-	-	-	4	-	4-5	-	3-4	4	3-4
0500	4-5	-	-	4-5	-	5	-	4	4-5	4
1010	-	-	-	-	-	-	-	4	3-4	4
1410	-	-	-	-	-	-	-	-	3-4	4
1415	-	-	-	-	-	-	3	2-3	3	3-4
1510	-	-	-	-	-	-	-	3	3-4	3-4
1590	-	-	-	-	-	-	-	2-3*	3*	3*
1720	-	-	-	-	-	-	3	2-3	3	3-4
1800	-	5	-	4	-	-	-	-	4	4

Sampling Station
No. Location

0100 Shannon Br, Derrylahan
0200 Metal Br S of Tullynafreave
0300 Dowra Br
0400 New Br Mahanagh
0500 Battle Br
1010 Jamestown: d/s Weir(LHS)

Sampling Station
No. Location

1410 Roosky: d/s Lock (LHS)
1415 Roosky: d/s Old Canal (RHS)
1510 d/s Tarmonbarry Weir (LHS)
1590 0.5 km u/s Lanesboro Br (LHS)
1720 Athlone: Burgess Park (LHS)
1800 Clonmacnoise: at Jetty

Continued

SHANNON: Continued

Assessment: Although conditions remained satisfactory, there were indications of increasing eutrophication in the reach upstream of Lough Allen (0100 to 0300) in late May 1999 while just below the lake (0400) a distinct reduction in quality had become apparent: dredging in the lower reaches of the lake in the years since 1996 may have been the cause of this. Quality was assessed as 'Fair' at Battle Bridge (0500), Jamestown (1010) and Roosky Lock (1410) reflecting minor improvements at the latter two locations. Some further improvement was also apparent below the Old Canal at Roosky (1415) but indications were of continuing slight pollution at that location and also at Tarmonbarry (1510) and Athlone (1720). Water temperature was 21.5°C below the ESB hot water discharge at Lanesboro' (1600); this was some 5 to 6 degrees Celsius above ambient water temperature at that time. Although the sand substrate at Clonmacnoise is not an ideal medium for biological quality assessment purposes conditions there were judged as satisfactory as algae were virtually absent, macroinvertebrate diversity was reasonable, DO levels were at 90% of saturation and siltation was just slight.

* = Thermal pollution

River and Code : **SHIVEN (SOUTH)** **26/S/03**
Tributary of : Suck OS Catchment No: 156
OS Grid Ref. : M 816 483 Date(s) Surveyed : 23/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1980	1984	1987	1992	1996	1999
0040	Bridge near Shankill School	-	-	2-3	3	3	3-4
0060	Bridge E. of Gunnode	-	-	3	4	3	4
0100	Tirur Bridge	4	3-4	4	4	3	3
0200	Rookhill Ford	3-4	3-4	3-4	3	3	4*
0300	Ballinamore Bridge	5	4	4	4	4	4
0400	Islandcausk Bridge	4	4	4	4	4	4

Assessment: Quality improvements were recorded at three locations on the Shiven River in 1999; despite the effects of cattle accessing the stream at Shankill (0040) a minor improvement was noted there but more marked improvements were apparent at Gunnode (0060) and Rookhill (0200), but this satisfactory situation was under threat from oil pollution at the latter location. By contrast moderate pollution continued unabated at Tirur Bridge (0100) where the river bed was heavily silted.

* some oil contamination noted.

River and Code : **SMAGHRAAN**
Tributary of : Suck
OS Grid Ref. : M 803 646

26/S/04
OS Catchment No: 156
Date(s) Surveyed : 24/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)				
		1984	1987	1992	1996	1999
0100	Smaghraan Bridge	3-4	4	4	3	3
0200	Br E. of Old Mill (Rockfield)	4	4	3-4	4	4
0300	Bridge W. of Emlaghnaagree	3-4	4	3-4	3-4	3-4

Assessment: Quality conditions in the middle reaches (0200) of the Smaghraan River remain satisfactory but the upper (0100) and lower (0300) sections continue to be, respectively, moderately and slightly polluted.

River and Code : **SPRINGFIELD**
Tributary of : Island
OS Grid Ref. : M 660 720

26/S/05
OS Catchment No: 156
Date(s) Surveyed : 20/08/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1981	1984	1987	1989	1992	1996	1999
South Branch								
0030	Br NE of Kilmacricard	-	-	-	-	-	3-4	4
0050	Br E. of Curraghmulmurry	4	4	2	4	4-5	4	3
Main Channel								
0100	Blacker's Bridge	4	2-3	3	4	3	3-4	4
0150	Ford at Monasterowen	4	3-4	5	-	3-4	4-5	4-5
0200	Ballaghaugeag Bridge	4	4	4-5	-	4	4-5	4

Assessment: Following a further slight improvement at Blacker's Bridge (0100), the Main Channel of the Springfield River was in a satisfactory quality condition at each of the three locations surveyed in late August 1999. The South Branch also showed some improvement in its upper reaches (0030) but the lower reaches had deteriorated considerably since 1996 and were moderately polluted at the time of this survey: this site (0050) is also marred by extensive dumping of rubbish and silage wrap plastic.

River and Code : **STROKESTOWN** **26/S/08**
Tributary of : Mountain (Roscommon) OS Catchment No: 155
OS Grid Ref. : M 965 838 Date(s) Surveyed : 12/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1984	1987	1992	1996	1999
0050 Br at S. end of Strokestown	-	3	2-3	2-3	2-3
0100 D/s Strokestown SSE of Standing Stone	3-4	3	2-3	4	2-3
0200 Br near Toberpatrick House	4	4	4	3-4	4

Assessment: Following a further deterioration below the town (i.e., at 0100 where 'sewage fungus' was much in evidence) the Strokestown River was in an unsatisfactory condition over most of the length surveyed in August 1999. Leachate from a disused landfill facility is suspected as giving rise to the significant pollution above the town (0050).

River and Code : **SUCK** **26/S/07**
Tributary of : Shannon OS Catchment No: 156
OS Grid Ref. : M 965 249 Date(s) Surveyed : 21/07/99

Stations No.	Biological Quality Ratings (Q Values)									
	1971	1974	1978	1980	1983	1984	1987	1992	1996	1999
0030	-	-	-	-	-	-	3-4	4	3-4	4
0050	-	-	-	-	-	-	4	4	4	4-5
0100	5	5	5	4-5	-	4	4-5	4-5	4-5	4-5
0200	-	-	-	-	-	-	4	4	4-5	4-5
0300	5	4	4-5	4	-	4	4	3	4	4
0400	-	-	4	4	-	4	4	4	3	4
0500	5	4-5	4	4	-	4	4-5	4-5	4	4
0550	-	-	-	4	-	4	4	4	4	4
0600	5	4-5	4-5	4-5	-	4-5	4	4	4	3-4
0650	-	-	-	-	-	-	-	-	4	4
0700	-	-	4-5	5	-	4-5	4-5	4-5	4	4-5
0800	5	4	4-5	3-4	-	3-4	3-4	4	3-4	4
0870	-	-	-	-	-	-	-	-	3	3
0900	5	3-4	4-5	4-5	-	4	4-5	4	3-4	4
1000	-	5	4-5	5	-	4-5	4-5	4	4	4
1100	5	5	4-5	4	-	4	4	4	4	4
1125	-	-	-	-	4	-	4	4	4	4
1200	5	5	4-5	4-5	4-5	-	4-5	4-5	4	3-4
1300	-	-	-	4	3-4	-	3-4	3-4	3-4	4
1400	4	4	4	3	3-4	-	3	3	2-3	2-3
1500	4-5	3-4	4-5	3-4	3-4	-	3	3-4	3	3

Continued

SUCK: Continued

Sampling Station		Sampling Station	
No.	Location	No.	Location
0030	Bridge u/s Lough O'Flynn	0800	Athleague Bridge
0050	Bridge d/s Lough O'Flynn	0870	N of Gorteenclough
0100	Bridge W. of Cloonalis House	0900	Rookwood Bridge
0200	Bridge u/s Castlerea	1000	Mount Talbot Bridge
0300	Cloondacarra Bridge	1100	Ballyforan Bridge
0400	Br E. of Willsbrook House	1125	Bridge W. of Feevagh
0500	Ballymoe Bridge	1200	Bellagill Bridge
0550	500 m d/s Lough Doo	1300	Ballinasloe Bridge
0600	Donamon Bridge	1400	3 km d/s Ballinasloe (Pollboy)
0650	Br nr Castlecoote	1500	Correen Ford
0700	Castlestrange Bridge		

Assessment: Following a marked improvement below Castlerea (0400) and minor improvements upstream of Lough O'Flynn (0030) and at Athleague, Rookwood and Ballinasloe Bridges (0800, 0900 and 1300), the Suck River was in a mostly satisfactory quality condition when surveyed in July 1999. Greater available dilution due to the high water levels in 1999 is thought to be of some relevance in this regard. No improvement was apparent below Athleague (0870) or Ballinasloe (1400, 1500) where moderate pollution due to point source discharges continued unabated and slight deteriorations were recorded at Donamon (0600) and Bellagill (1200). Agricultural sources are suspected at the latter two locations.

River and Code	: TANG	26/T/02
Tributary of	: Inny (Shannon)	OS Catchment No: 157
OS Grid Ref.	: N 130 543	Date(s) Surveyed : 23/06/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1977	1981	1984	1988	1992	1996	1999
0200	Tang Bridge	4-5	4-5	4	3-4	3-4	3-4	4

Assessment: Although pronounced substratum calcification considerably reduced biological diversity, algal development was minimal and consequently conditions were assessed as satisfactory at Tang Bridge in 1999.

River and Code : **TERMON STREAM** **26/T/03**
Tributary of : Francis OS Catchment No: 156
OS Grid Ref. : M 695 795 Date(s) Surveyed : 22/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1989	1994	1996	1999
0300 Bridge S. of Termon	4	4	2-3	4-5

Assessment: Satisfactory and very significantly improved since 1996.

River and Code : **YELLOW (BALLINAGLERA)** **26/Y/01**
Tributary of : Lough Allen OS Catchment No: 155
OS Grid Ref. : G 983 210 Date(s) Surveyed : 28/05/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1986	1987	1992	1996	1999
0100 Br N of Aughrim	4	4	4	5	4
0200 Br u/s Lough Allen	4	4	4	4-5	4

Assessment: Prone to flash flooding, the Yellow River supports a restricted macroinvertebrate fauna but despite pronounced algal development in its lower reaches (0200) indications were that quality conditions remained satisfactory in 1999.

River and Code : **YELLOW (CASTLEPOLLARD)** **26/Y/02**
Tributary of : Lough Derravarragh OS Catchment No: 157
OS Grid Ref. : N 425 688 Date(s) Surveyed : 08/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1984	1987	1992	1996	1999
0100 Br N of Milltown	4	4	4	4	4
0250 Kiltoom Br (2nd Br u/s lake)	-	4	3-4	3-4	-

Assessment: The upper reaches of the Yellow River had not been surveyed prior to 1999, but despite the evidence of recent dredging, biological diversity indicated that water quality was satisfactory there (0060) and also further downstream (0100). A sample was not possible at Kiltoom (0250).

HYDROMETRIC AREA No. 31
Galway Bay North

Cashla	31C01
Crumlin	31C02
Glencoaghan	31G01
Gowlabeg	31G03
Invermore	31I01
Knock (Furbo)	31K01
Knockadoagh	31K02
Loughinch	31L01
Owenboliska	31O01
Owengowla	31O02
Owenriff (South Galway)	31O04
Owentooey	31O03
Polleen	31P01
Recess	31R01
Screeb	31S01
Tooreenacoona	31T01

River and Code : **CASHLA** **31/C/01**
Tributary of : Sea - Cashla Bay OS Catchment No: 138
OS Grid Ref. : L 973 264 Date(s) Surveyed : 30/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1986	1990	1994	1997	1999
0100 Cashla Bridge	4-5	4	4	4-5	4-5

Assessment: Satisfactory. No change.

River and Code : **CRUMLIN (GALWAY BAY)** **31/C/02**
Tributary of : Sea - Galway Bay OS Catchment No: 139
OS Grid Ref. : M 038 214 Date(s) Surveyed : 30/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1986	1990	1994	1997	1999
0100 Crumlin Bridge	4	4	3-4	4	4

Assessment: Satisfactory quality. No change. Faunal diversity low due to acidic conditions.

River and Code : **GLENCOAGHAN** **31/G/01**
Tributary of : Ballynahinch Lough OS Catchment No: 136
OS Grid Ref. : L 798 474 Date(s) Surveyed : 20/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1986	1990	1994	1997	1999
0100 Ford E. of Derrynavglau	-	4-5	-	4-5	4
0200 Glencoaghan Bridge	5	4-5	4-5	-	-

Assessment: Satisfactory though some reduction in species diversity compared with 1997. This catchment is badly overgrazed.

River and Code : **GOWLABEG** **31/G/03**
Tributary of : Sea - Bertraghboy Bay OS Catchment No: 137
OS Grid Ref. : L 817 392 Date(s) Surveyed : 22/09/99

Sampling Stations		Biological Quality Ratings (Q Values)				
No.	Location	1986	1990	1994	1997	1999
0100	Bridge SW of Gowla	4-5	4	4-5	4-5	4

Assessment: Satisfactory.

River and Code : **INVERMORE** **31/I/01**
Tributary of : Sea - Kilkieran Bay OS Catchment No: r4
OS Grid Ref. : L 899 391 Date(s) Surveyed : 21/09/99

Sampling Stations		Biological Quality Ratings (Q Values)		
No.	Location	1994	1997	1999
0500	Br d/s Invermore Lough	3-4	3-4	4

Assessment: The Invermore River is located in a bog catchment with a number of lakes along its course. Granite bedrock, peat deposits and extensive afforestation combine to produce very acidic conditions which appear to have increased in 1999. A slight improvement in quality was recorded at the location surveyed in September 1999.

River and Code : **KNOCK (FURBO)** **31/K/01**
Tributary of : Sea - Galway Bay OS Catchment No: 142
OS Grid Ref. : M 184 228 Date(s) Surveyed : 29/09/99

Sampling Stations		Biological Quality Ratings (Q Values)				
No.	Location	1986	1990	1994	1997	1999
0100	Knockadrohid Bridge	-	4	3-4	3-4	4
0200	Bridge at Derryoughter	5	4	4	4-5	4-5

Assessment: An improvement in quality was noted in the upper Knock River (0100). The lower section remained satisfactory.

River and Code : **KNOCKADOAGH** **31/K/02**
Tributary of : Glenicmurran Lough OS Catchment No: 138
OS Grid Ref. : M 005 301 Date(s) Surveyed : 23/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Bridge N. of Knockadoagh	4	4	4	4

Assessment: Satisfactory.

River and Code : **LOUGHINCH** **31/L/01**
Tributary of : Knock (Furbo) OS Catchment No: 142
OS Grid Ref : M 186 232 Date(s) Surveyed : 29/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1986	1990	1994	1997	1999
0020 Br 0.6km d/s Lough Inch	-	-	-	-	3
0100 Second Br u/s Knock River	-	4	4	4	4

Assessment: A new station (0020) was added downstream of Lough Inch in 1999 in order to assess the impact of the new golf course at Lough Inch near Bearna. Quality here appeared to be depressed with lower than expected diversity and lack of sensitive taxa. The lower site (0100) had recovered to satisfactory condition some 2.5 km further downstream.

River and Code : **OWENBOLISKA** **31/O/01**
Tributary of : Sea - Galway Bay OS Catchment No: 141
OS Grid Ref. : M 127 223 Date(s) Surveyed : 29/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1986	1990	1994	1997	1999
0100 U/s Lough Boliska	4	4	3-4	4	4
0200 Bridge in Spiddal	4	4	4	4	4-5

Assessment: Satisfactory.

River and Code : **OWENGOWLA** **31/O/02**
Tributary of : Sea - Bertraghboy Bay OS Catchment No: 137
OS Grid Ref. : L 811 395 Date(s) Surveyed : 22/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)		
	1994	1997	1999
South Branch			
0100 Bridge E. of Loughanillaun S.	4	4	4
Main Channel			
0300 Bunnahown Bridge	4	4	4

Assessment: Water quality was assessed as satisfactory in this acidic Connemara river in September 1999.

River and Code : **OWENRIFF (SOUTH GALWAY)** **31/O/04**
Tributary of : Sea - Galway Bay OS Catchment No: 140
OS Grid Ref. : M 089 221 Date(s) Surveyed : 30/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1986	1990	1994	1997	1999
0100 Br 2.3 km d/s Loughaunnagun	-	4	4	4	4
0300 Bridge W. of Caher	4	3	4	4	4-5

Assessment: Satisfactory with an improvement in quality at the lower site (0300).

River and Code : **OWENTOOEY** **31/O/03**
Tributary of : Recess OS Catchment No: 136
OS Grid Ref. : L 870 472 Date(s) Surveyed : 20/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1986	1990	1994	1997	1999
0100 Tullywee Bridge	4-5	4-5	4	4	4

Assessment: Satisfactory.

River and Code : **POLLEEN** **31/P/01**
Tributary of : Sea - Galway Bay OS Catchment No: 04
OS Grid Ref. : M 096 220 Date(s) Surveyed : 30/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Bridge S. of Polleen	4	4	4	3-4

Assessment: Water quality deteriorated slightly in the Polleen River in 1999 and rubbish dumping marred its aesthetic quality.

River and Code : **RECESS** **31/R/01**
Tributary of : Sea - Bertraghboy Bay OS Catchment No: 136
OS Grid Ref. : L 757 446 Date(s) Surveyed : 20/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1986	1990	1994	1997	1999
0100 Bunsannive Bridge	4-5	5	4	4-5	4
0300 D/s Owentooey River confl	4	4	-	4-5	4
0700 Cloonbeg Bridge	-	4	5	4	4-5

Assessment: The Recess River was satisfactory at all sites sampled in 1999.

River and Code : **SCREEB** **31/S/01**
Tributary of : Sea - Camus Bay OS Catchment No: r4
OS Grid Ref. : L 951 383 Date(s) Surveyed : 22/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Old Railway Br u/s L. Shindilla	-	4-5	4-5	4-5
0200 Bridge u/s Lough Nahasleam	4-5	4-5	4	4
0570 U/s Lough Ahalia North	4	3-4	3-4	3-4

Assessment: The upper reaches of the Screeb River (0100, 0200) were again satisfactory in 1999. The lower section upstream of Lough Ahalia North (0570) remained in a slightly polluted condition.

River and Code : **TOOREENACOONA** **31/T/01**
Tributary of : Lough Inagh OS Catchment No: 136
OS Grid Ref. : L 825 545 Date(s) Surveyed : 20/09/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1990	1994	1997	1999
0200	Bridge u/s Lough Inagh	4-5	4-5	5	4-5

Assessment: Satisfactory.

HYDROMETRIC AREA No. 32
ERRIFF – Clew Bay

Altaconey	32A02
Ballinaboy	32B07
Bundorragha	32B01
Bunnahowna	32B02
Bunowen (Louisburg)	32B03
Carrowbeg (Westport)	32C05
Carrownisky	32C01
Crumpaun	32C03
Culfin	32C04
Dawros	32D01
Derrycraff	32D02
Derryehorraun	32D04
Erriff	32E01
Glendavock	32G01
Glenisland	32G07
Glenlaur	32G02
Glennamong	32G03
Goulaun	32G06
Moyour	32M01
Newport (Mayo)	32N01
Owenduff (Erriff)	32O08
Owengarve (Mayo)	32O02
Owenglin	32O03
Owennabrockagh	32O04
Owennadornaun	32O07
Owenwee (Mayo)	32O06
Skerdagh	32S01
Srahmore	32S02
Streamstown (Clifden)	32S04
Traheen	32T01

River and Code : **ALTACONEY** **32/A/02**
Tributary of : Srahmore OS Catchment No: 107
OS Grid Ref. : F 967 043 Date(s) Surveyed : 09/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)	
	1994	1999
0300 1.5 km d/s Goulaun River	4-5	4-5

Assessment: Continuing satisfactory.

River and Code : **BALLINABOY** **32/B/07**
Tributary of : Sea: Ardbear Bay OS Catchment No: t4
OS Grid Ref. : L 660 480 Date(s) Surveyed : 09/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)		
	1994	1997	1999
<i>L. Beaghcauneen Branch</i>			
0100 Br. d/s L. Beaghcauneen	3	3	3
<i>Main Channel</i>			
0300 Br WSW of L. Nagilky	4	3-4	4

Assessment: The Lough Beaghcauneen Branch of the Ballinaboy River (0100) was again considerably polluted downstream of a fish farm but an improvement was noted in the lower Main Channel (0300) in 1999.

River and Code : **BUNDORRAGHA** **32/B/01**
Tributary of : Sea - Killary Harbour OS Catchment No: 130
OS Grid Ref : L 842 632 Date(s) Surveyed : 14/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)					
	1982	1986	1990	1994	1997	1999
0040 N.W. of Trigonometric Pt 292'	-	-	5	4-5	5	4-5
0100 100 m u/s Fin Lough	5	5	4-5	4-5	4-5	4-5
0200 Bridge E. of Bundorragha	5	4-5	4-5	4-5	4-5	4-5

Assessment: This Killary Harbour tributary was satisfactory when surveyed in September 1999.

River and Code : **BUNNAHOWNA** **32/B/02**
Tributary of : Sea - Clew Bay OS Catchment No: i5
OS Grid Ref : L 855 962 Date(s) Surveyed : 09/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Bunnahowna Bridge	5	4-5	4-5	4-5

Assessment: Satisfactory; no change.

River and Code : **BUNOWEN (LOUISBURGH)** **32/B/03**
Tributary of : Sea - Clew Bay OS Catchment No: 127
OS Grid Ref. : L 803 818 Date(s) Surveyed : 26/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)					
	1981	1986	1990	1994	1997	1999
0100 Tully Bridge	5	5	5	5	5	5
0150 Bridge in Louisburgh	4-5	4-5	4	4	4	4

Assessment: As indicated by the Q5 at Tully Bridge (0100), water quality continued to be of the highest standard upstream of Louisburg and of considerably lower but satisfactory standard in the town (0150) in August 1999.

River and Code : **CARROWBEG (WESTPORT)** **32/C/05**
Tributary of : Sea - Westport Bay OS Catchment No: 125
OS Grid Ref. : L 982 846 Date(s) Surveyed : 25/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)							
	1980	1986	1988	1990	1991	1994	1997	1999
0050 Cloghan Bridge	4	5	-	5	5	4-5	4-5	4
0100 Cooloughra Bridge	4	4	-	4-5	-	4-5	4	4
0300 2nd Br u/s Lake, Westport Ho	-	-	-	3	-	3	3	2-3

Assessment: The Carrowbeg River was in a satisfactory quality condition in its upper reaches (0050, 0100) in August 1999 albeit of a lower standard than previously at Station 0050. The lower reaches were very considerably polluted downstream of Westport (0300) where a further deterioration since 1997 was evident.

River and Code : **CARROWNISKY** **32/C/01**
Tributary of : Sea - W. of Roonagh Lough OS Catchment No: 128
OS Grid Ref. : L 745 765 Date(s) Surveyed : 26/08/99

Sampling Stations		Biological Quality Ratings (Q Values)					
No.	Location	1982	1986	1990	1994	1997	1999
0020	Glenkeen Bridge	-	-	5	5	5	4-5
0100	Bridge in Cregganbaun	4-5	5	5	4	4-5	4-5
0200	Br S. of Carrownisky Cross	4	5	4-5	4	4	4

Assessment: Water quality conditions remained satisfactory at all three locations surveyed in the Carrownisky in 1999.

River and Code : **CRUMPAUN** **32/C/03**
Tributary of : Beltra Lough OS Catchment No: 108
OS Grid Ref. : M 082 998 Date(s) Surveyed : 31/08/99

Sampling Stations		Biological Quality Ratings (Q Values)					
No.	Location	1982	1986	1990	1994	1997	1999
0050	Bridge at Bogadoon	4	4	4-5	3-4	4-5	4
0150	N. of Lough Beltra	5	5	5	4	4-5	4

Assessment: Satisfactory, but the Crumpaun showed a slight decline in quality at both sites sampled.

River and Code : **CULFIN** **32/C/04**
Tributary of : Sea - near Killary Harbour OS Catchment No: 132
OS Grid Ref. : L 747 636 Date(s) Surveyed : 17/09/99

Sampling Stations		Biological Quality Ratings (Q Values)					
No.	Location	1982	1986	1990	1994	1997	1999
0020	Owenduff Bridge	-	-	5	4-5	4	4
0040	Between L Fee and L Muck	-	-	4	4	4	4
0200	Br NW of Townacarra	5	5	4	4	4	4-5

Assessment: Mostly "Fair" quality. Satisfactory.

River and Code : **DAWROS** **32/D/01**
Tributary of : Sea - Ballynakill Harbour OS Catchment No: 133
OS Grid Ref. : L 701 598 Date(s) Surveyed : 15/09/99

No.	Location	Biological Quality Ratings (Q Values)					
		1982	1986	1990	1994	1997	1999
0020	Ford u/s Kylemore Lough	-	-	5	4-5	5	4-5
0100	Tullywee Bridge	5	5	5	4-5	3-4	4-5
0200	Dawros Bridge	5	5	5	4-5	4-5	4-5

Assessment: Generally satisfactory over its length. A considerable improvement was noted at Tullywee Bridge (0100) downstream of Kylemore Abbey.

River and Code : **DERRYCRAFF** **32/D/02**
Tributary of : Erriff OS Catchment No: 131
OS Grid Ref. : L 976 707 Date(s) Surveyed : 10/09/99

No.	Location	Biological Quality Ratings (Q Values)					
		1982	1986	1990	1994	1997	1999
0100	Bridge NE of Tullawee L	-	5	5	4	4-5	4
0150	600 m u/s Erriff River confl	4-5	5	-	4	4	4

Assessment: "Fair" quality. Satisfactory.

River and Code : **DERRYEHORRAUN** **32/D/04**
Tributary of : Sea - Ardbear Bay OS Catchment No: t4
OS Grid Ref. : L 659 490 Date(s) Surveyed : 20/09/99

No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0200	Just u/s Salt Lough	4-5	4	4-5	4-5

Assessment: Satisfactory.

River and Code : **ERRIFF** **32/E/01**
Tributary of : Sea - Killary Harbour OS Catchment No: 131
OS Grid Ref. : L 894 643 Date(s) Surveyed : 14/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1981	1986	1990	1994	1997	1999
0030	Bridge W. of Cregganmore	-	-	5	4-5	4-5	4-5
0100	Srahlea Bridge	5	5	5	4	4-5	4-5
0200	Erriff Bridge	5	5	5	4-5	4-5	4-5
0300	Aasleagh Bridge	5	5	5	4-5	4	4

Assessment: The upper Erriff River (0030 to 0200) was in good condition in September 1999 with no change observed since 1997. There is, however, some evidence of reduced quality at Aasleagh Falls (0300) with the occurrence of algal mats which, typically, are a result of overgrazing.

River and Code : **GLENDAVOCK** **32/G/01**
Tributary of : Tawnyard Lough OS Catchment No: 131
OS Grid Ref. : L 908 674 Date(s) Surveyed : 10/09/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0100	1.1 km u/s Tawnyard Lough	5	3-4	4	4

Assessment: The Glendavock is in satisfactory condition but perhaps not achieving its full ecological potential due to an unstable substratum.

River and Code : **GLENISLAND** **32/G/07**
Tributary of : Beltra Lough OS Catchment No: 108
OS Grid Ref. : M 072 972 Date(s) Surveyed : 31/08/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0300 Bridge u/s Lough Beltra	5	4	4-5	4-5

Assessment: The Glenisland River was in a satisfactory condition when examined in late August 1999. The substratum was clean and faunal diversity was high with a number of sensitive invertebrate taxa. Salmonid parr were also present. The river is of interest because of the possibility of problems in its catchment due to the Derrinnumera municipal waste facility i.e. the accidental release of large volumes of leachate. The EPA has recently (Dec 1999) set a number of conditions for the operation of the facility including the removal and treatment of leachate from the site.

River and Code : **GLENLAUR** **32/G/02**
Tributary of : Erriff OS Catchment No: 131
OS Grid Ref. : L 948 713 Date(s) Surveyed : 14/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0200 400 m d/s Sheefry Bridge	5	4-5	5	4-5

Assessment: Water quality was of a high standard at the location surveyed in the Glenlaur River in September 1999.

River and Code : **GLENNAMONG** **32/G/03**
Tributary of : Lough Feeagh OS Catchment No: 107
OS Grid Ref. : F 957 018 Date(s) Surveyed : 09/09/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Bridge u/s Lough Feeagh	4-5	3-4	4	3-4

Assessment: The Glennamong River flows into Lough Feeagh through a heavily afforested upper catchment and an overgrazed lower catchment. Water quality had deteriorated in the lower reaches (0100) in September 1999 when conditions consistent with slight pollution were recorded.

River and Code : **GOULAUN** **32/G/06**
Tributary of : Srahmore OS Catchment No: 107
OS Grid Ref. : F 967 070 Date(s) Surveyed : 09/09/99

No.	Location	Biological Quality Ratings (Q Values)					
		1981	1986	1990	1994	1997	1999
0100	1.4 km d/s Bunaveela Lough	5	4-5	5	4	4	4

Assessment: "Fair" quality. Satisfactory. No change since 1997.

River and Code : **MOYOUR** **32/M/01**
Tributary of : Sea - Clew Bay OS Catchment No: 124
OS Grid Ref. : L 943 876 Date(s) Surveyed : 21/09/99

No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0100	Bridge S. of Slinaun	4	3*	3	3
0400	Bridge SW of Fahy	3-4	4	3	3
0700	Moyour Bridge	4	4-5	4	4

Assessment: The upper and middle reaches of the Moyour River (0100, 0400) were again considerably polluted by suspected agricultural wastes in 1999. The lower reaches remained in a satisfactory condition.

River and Code : **NEWPORT (MAYO)** **32/N/01**
Tributary of : Sea - Newport Bay OS Catchment No: 108
OS Grid Ref. : L 977 941 Date(s) Surveyed : 20/10/99

No.	Location	Biological Quality Ratings (Q Values)					
		1981	1986	1990	1994	1997	1999
0050	3.3 km u/s New Bridge	5	4-5	4-5	4-5	4-5	4-5
0190	400 m u/s Newport Bridge	4-5	5	4-5	4-5	4-5	4-5

Assessment: Water quality continued to be of a high standard in the Newport River in October 1999.

River and Code : **OWENDUFF (ERRIFF)** **32/O/08**
 Tributary of : Erriff OS Catchment No: 131
 OS Grid Ref. : L 951 678 Date(s) Surveyed : 14/09/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1990	1994	1997	1999
0100	Bridge d/s Tawnyard Lough	4-5	4	4	4

Assessment: "Fair" quality continues. Satisfactory.

River and Code : **OWENGARVE (MAYO)** **32/O/02**
 Tributary of : Sea - Clew Bay OS Catchment No: i5
 OS Grid Ref. : L 882 961 Date(s) Surveyed : 9/9/99

Sampling Stations		Biological Quality Ratings (Q Values)				
No.	Location	1982	1990	1994	1997	1999
0100	Glendahurk Bridge	5	4-5	3	4	4
0200	Bridge W. of Tierna	4-5	4-5	4	4	3-4

Assessment: The Upper Owngarve was satisfactory (0100) although still showing some signs of the impact of overgrazing on the system. The lower portion of the river (0200) appears to have suffered a reduction in quality as evidenced by a low faunal diversity and signs of peat erosion.

River and Code : **OWENGLIN** **32/O/03**
 Tributary of : Sea - Clifden Bay OS Catchment No: 135
 OS Grid Ref. : L 658 506 Date(s) Surveyed : 17/9/99

Sampling Stations		Biological Quality Ratings (Q Values)				
No.	Location	1986	1990	1994	1997	1999
0100	N. of Barnanoraun	-	5	5	4	4
0200	Bridge SW of Clifden Lodge	5	5	5	5	5
0300	Br at SE end of Clifden	4	4	5	4	4

Assessment: The upper Owenglin (0100) flows through a remote afforested mountain valley and while the fauna present was generally indicative of good conditions, extensive algal growths were noted indicating some nutrient enrichment. A recovery was noted in the lower section (0200, 0300) as the river flows towards and through Clifden.

River and Code : **OWENNABROCKAGH** **32/O/04**
Tributary of : Sea - Newport Bay OS Catchment No: 109
OS Grid Ref. : L 973 901 Date(s) Surveyed : 7/9/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0250	Br S of Derriff	-	4	-	4
0380	Br E of Brockagh	-	4-5	4	4
0500	Knocknaboley Bridge	4-5	4	4	4

Assessment: "Fair" quality. Satisfactory. No change.

River and Code : **OWENNADORNAUN** **32/O/07**
Tributary of : Sea - South of Clew Bay OS Catchment No: 129
OS Grid Ref. : L 740 713 Date(s) Surveyed : 15/9/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0100	Bridge S. of Killary Lodge	4	4	4	3-4

Assessment: A decline in water quality was noted in the Owennadornaun with the loss of sensitive species always found in previous surveys.

River and Code : **OWENWEE (MAYO)** **32/O/06**
Tributary of : Sea - Westport Bay OS Catchment No: 126
OS Grid Ref. : L 958 824 Date(s) Surveyed : 26/8/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)				
		1982	1990	1994	1997	1999
0200	Bridge S. of Brackloon	4-5	4-5	4	4-5	4
0600	Belclare Bridge	4-5	4-5	4	4-5	4-5

Assessment: Satisfactory.

River and Code : **SKERDAGH** **32/S/01**
Tributary of : Newport (Mayo) OS Catchment No: 108
OS Grid Ref. : M 034 965 Date(s) Surveyed : 20/10/99

Sampling Stations
No. Location Biological Quality Ratings (Q Values)
1990 1994 1997 1999

0300 Knockmoyle Bridge 5 4 4-5 4-5

Assessment: Water quality continued to be of a high standard in the Skerdagh River in 1999.

River and Code : **SRAHMORE** **32/S/02**
Tributary of : Lough Feeagh OS Catchment No: 107
OS Grid Ref. : F 965 022 Date(s) Surveyed : 9/9/99

Sampling Stations
No. Location Biological Quality Ratings (Q Values)
1990 1994 1997 1999

0100 Bridge u/s Lough Feeagh 4 4 4 flood

Assessment: The Srahmore was in flood on two occasions when visited in 1999. The upper tributaries the Altaconey (q.v.) and Goulán (q.v.) were, however, in satisfactory condition.

River and Code : **STREAMSTOWN (CLIFDEN)** **32/S/04**
Tributary of : Sea - Streamstown Bay OS Catchment No: u4
OS Grid Ref. : L 645 532 Date(s) Surveyed : 17/9/99

Sampling Stations
No. Location Biological Quality Ratings (Q Values)
1990 1994 1997 1999

0200 Bridge SW of Glenbrickeen 4 4 4-5 4

Assessment: Satisfactory. "Fair" quality.

River and Code : **TRAHEEN** **32/T/01**
Tributary of : Sea - Ballynakill Harbour OS Catchment No: 134
OS Grid Ref. : L 687 571 Date(s) Surveyed : 17/9/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1982	1986	1990	1994	1997	1999
0100	Traheen Bridge	4-5	5	5	4-5	4	4-5

Assessment: Water quality was satisfactory in the Traheen River in September 1999.

HYDROMETRIC AREA No. 33
Blacksod – Broadhaven

Altnabrocky	33A02
Ballingen	33B01
Belderg	33B02
Bellagarvaun	33B04
Bellanaboy	33B07
Bunanioo	33B09
Cartron	33C02
Cloonalaghan	33C01
Clooneen (Mayo)	33C03
Doega	33D01
Doolough Stream	33D02
Glenamoy	33G01
Glencastle	33G08
Glencullin (North Mayo)	33G02
Glencullin (West Mayo)	33G03
Glelassera	33G05
Gortmore Stream (Mayo)	33G04
Gweedaney	33G06
Keerglen	33K01
Muing	33M01
Muingnabo	33M02
Munhin	33M03
Owenduff (Blacksod)	33O01
Owenmore (Mayo)	33O04
Sheskin Stream	33S03
Tarsaghaunmore	33T01

River and Code : **ALTNABROCKY** **33/A/02**
Tributary of : Owenmore (Mayo) OS Catchment No: 105
OS Grid Ref. : F 980 198 Date(s) Surveyed : 5/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Just u/s Owenmore River confl	5	4-5	4-5	4-5

Assessment: Satisfactory.

River and Code : **BALLINGLEN** **33/B/01**
Tributary of : Sea - Bunatrahir Bay OS Catchment No: 102
OS Grid Ref : G 103 393 Date(s) Surveyed : 8/10/99

Sampling Stations No. Location	1981	Biological Quality Ratings (Q Values)				
		1986	1990	1994	1997	1999
0100 Ballinglen Bridge	5	5	5	-	4-5	4-5
0150 Bridge W. of Milltown	-	5	4-5	-	-	4-5
0200 Bridge W. of Corhoor	4	4	4	4-5	4	-

Assessment: Satisfactory.

River and Code : **BELDERG** **33/B/02**
Tributary of : Sea - Belderg Harbour OS Catchment No: 99
OS Grid Ref. : F 993 414 Date(s) Surveyed : 7/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0200 Bridge in Belderg	4-5	4	4	4

Assessment: Satisfactory.

River and Code : **BELLAGARVAUN** **33/B/04**
Tributary of : Sea - ESE of Inishbiggle OS Catchment No: i5
OS Grid Ref. : F 824 044 Date(s) Surveyed : 19/10/99

Sampling Stations Biological Quality Ratings (Q Values)
No. Location **1990** **1994** **1997** **1999**

0300 0.3 km u/s Br SW of Bellaveeny Lodge 3-4 3-4 3-4 3

Assessment: Further deterioration noted in the Bellagarvaun in 1999. The substratum and aquatic flora were again coated with an orange deposit (due to disruption of the iron pan in the upstream bog) and faunal diversity was is much reduced.

River and Code : **BELLANABOY** **33/B/07**
Tributary of : Carrowmore Lake OS Catchment No: 105
OS Grid Ref. : F 849 304 Date(s) Surveyed : 6/10/99

Sampling Stations Biological Quality Ratings (Q Values)
No. Location **1990** **1994** **1997** **1999**

0200 Bridge u/s Carrowmore Lake 4-5 4 4 4-5

Assessment: Quality had improved in this Carrowmore Lake tributary.

River and Code : **BUNANIOO** **33/B/09**
Tributary of : Sea - Achill Sound OS Catchment No: i5
OS Grid Ref. : L 735 947 Date(s) Surveyed : 19/10/99

Sampling Stations Biological Quality Ratings (Q Values)
No. Location **1990** **1994** **1997** **1999**

0100 Bridge S. of Glassilaun 5 4 4-5 4

Assessment: Satisfactory.

River and Code : **CARTRON** **33/C/02**
Tributary of : Sea - Bellacragher Bay OS Catchment No: 15
OS Grid Ref. : F 800 015 Date(s) Surveyed : 19/10/99

Sampling Stations Biological Quality Ratings (Q Values)
No. Location 1982 1986 1990 1994 1997 1999

0100 Bridge W. of Lough Gall 4-5 4-5 4 4 3-4 3

Assessment: A further deterioration was recorded in the Cartron River in 1999 when mayfly species were not observed at the location surveyed. The more sensitive species had disappeared in 1997 and this further deterioration is attributed to eutrophication plus possible increased acidity from the extensive forestry plantations in the catchment.

River and Code : **CLOONALAGHAN** **33/C/01**
Tributary of : Sea - Lacken Bay OS Catchment No: 103
OS Grid Ref. : G 189 366 Date(s) Surveyed : 7/10/99

Sampling Stations Biological Quality Ratings (Q Values)
No. Location 1989 1990 1994 1997 1999

0300 Bridge SE of Billoos X-Rds - 4-5 4 5 4-5

0700 Bridge SE of Carrowmore 4 2-3 3 4 2-3

Assessment: The upper Cloonalaghan (0300) is satisfactory. The lower station (0700) has deteriorated significantly, however, in comparison with 1997 and is again polluted by suspected agricultural sources.

River and Code : **CLOONEEN (MAYO)** **33/C/03**
Tributary of : Sea - Moyrahan Bay OS Catchment No: k5
OS Grid Ref. : F 706 355 Date(s) Surveyed : 8/10/99

Sampling Stations Biological Quality Ratings (Q Values)
No. Location 1990 1994 1997 1999

0050 N.W. of Bartrauve 3/0 3/0 3 3

Assessment: The unsatisfactory conditions continued in this remote stream in 1999.

River and Code : **DOOEGA** **33/D/01**
Tributary of : Sea - Pollbaun Point OS Catchment No: i5
OS Grid Ref. : L 671 987 Date(s) Surveyed : 19/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0200 South Bridge at Dooega	4	3-4	4	4

Assessment: Satisfactory.

River and Code : **DOOLOUGH STREAM** **33/D/02**
Tributary of : Sea - Blacksod Bay OS Catchment No: k5
OS Grid Ref. : F 745 246 Date(s) Surveyed : 19/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Bridge S. of Lough Nahelly	3-4	3	3	3-4

Assessment: The Doolough stream was slightly polluted in October 1999, a slight improvement on its condition in 1997. Land use in the catchment is comprised mainly of worked bog and forestry plantations.

River and Code : **GLENAMOY** **33/G/01**
Tributary of : Sea - Sruwaddacon Bay OS Catchment No: 100
OS Grid Ref. : F 870 360 Date(s) Surveyed : 6/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)					
	1981	1986	1990	1994	1997	1999
0050 Bridge SE of Bunalty	4-5	4-5	4-5	3-4*	4-5	4-5
0100 Glenamoy Bridge	5	4-5	4-5	3-4*	4-5	4-5

Assessment: Satisfactory. Serious overgrazing was again noted in the Glenamoy area (0100).

River and Code : **GLENCASTLE** **33/G/08**
Tributary of : Sea - Trawmore Bay OS Catchment No: k5
OS Grid Ref. : F 750 290 Date(s) Surveyed : 20/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0200	Br u/s Glencastle Br.	-	4-5	3-4	4
0500	Bridge S. of Bunnahowen	4	3	4	4

Assessment: The Glencastle had improved at the upper station sampled (0200) and is now satisfactory over its length.

River and Code : **GLENCULLIN (NORTH MAYO)** **33/G/02**
Tributary of : Sea - Bunatrahir Bay OS Catchment No: 101
OS Grid Ref. : G 095 398 Date(s) Surveyed : 7/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1981	1986	1990	1994	1997	1999
0100	Ford W. of Ballycastle	5	5	4-5	4-5	4-5	4-5
0200	Bridge near Coxestown	5	5	5	4-5	4-5	4-5

Assessment: Satisfactory; no change.

River and Code : **GLENCULLIN (WEST MAYO)** **33/G/03**
Tributary of : Carrowmore Lake OS Catchment No: 105
OS Grid Ref. : F 844 284 Date(s) Surveyed : 6/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0200	1 km u/s Carrowmore Lake	4-5	5	5	4-5

Assessment: Satisfactory, though siltation was noted as a problem.

River and Code : **GLENGLOSSERA** **33/G/05**
Tributary of : Sea - Glenloss Point OS Catchment No: m5
OS Grid Ref. : G 024 416 Date(s) Surveyed : 7/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0100	Br near Glenlossera Lodge	4	4-5	4-5	4-5

Assessment: Satisfactory.

River and Code : **GORTMORE STREAM (MAYO)** **33/G/04**
Tributary of : Sea - Bunatrahir Bay OS Catchment No: n5
OS Grid Ref. : G 108 400 Date(s) Surveyed : 7/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0800	Bridge W. of Gortmore	4	4	3-4	4

Assessment: An improvement was noted in comparison with the 1997 survey.

River and Code : **GWEEDANEY** **33/G/06**
Tributary of : Sea - Broad Haven OS Catchment No: 15
OS Grid Ref. : F 850 391 Date(s) Surveyed : 6/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0100	Bridge E. of Curraunboy	4	3	3-4	4

Assessment: Despite bank erosion and a somewhat reduced faunal diversity water quality had improved in the Gweedaney in 1999. The catchment is overgrazed.

River and Code : **KEERGLLEN** **33/K/01**
Tributary of : Ballinglen OS Catchment No: 102
OS Grid Ref. : G 105 338 Date(s) Surveyed : 8/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0200 Bridge NE of Doondragon	5	5	4-5	5

Assessment: Highest quality; satisfactory.

River and Code : **MUING** **33/M/01**
Tributary of : Owenmore (Mayo) OS Catchment No: 105
OS Grid Ref. : F 971 199 Date(s) Surveyed : 5/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Just u/s Owenmore River	4	3-4	3-4	3-4

Assessment: Silt from bog workings and from bank erosion continued to depress water quality in the lower reaches of the Muing River in 1999.

River and Code : **MUINGNABO** **33/M/02**
Tributary of : Sea - Sruwaddacon Bay OS Catchment No: 98
OS Grid Ref. : F 870 358 Date(s) Surveyed : 6/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 SW of Srahnataggle	4-5	-	-	-
0150 0.3 km u/s Annie Brady Bridge	-	4	3-4	4

Assessment: Satisfactory and improved in its lower reaches since 1997.

River and Code : **MUNHIN** **33/M/03**
Tributary of : Owenmore (Mayo) OS Catchment No: 105
OS Grid Ref. : F 818 228 Date(s) Surveyed : 19/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1981	1986	1990	1994	1997	1999
0200	Bridge u/s Owenmore River	4	4-5	4-5	4	4	4

Assessment: Quality continued to be satisfactory in the lower Munhin River despite the considerable quantities of eroded peat on the substratum. The river flows from Carrowmore Lake through a commercially exploited bog and it has a characteristic *Aphelocheirus* community.

River and Code : **OWENDUFF (BLACKSOD)** **33/O/01**
Tributary of : Sea - Tullaghan Bay OS Catchment No: 106
OS Grid Ref : F 794 150 Date(s) Surveyed : 18/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)				
		1981	1986	1990	1994	1999
South Branch						
0005	Ford NW of Srahduggan	-	-	-	3-4	4
Main Channel						
0010	N. of Srahduggan	-	5	4	4	4
0020	Near Sheean Lodge	-	5	4-5	4-5	4-5
0030	Ford u/s Tarsaghanmore River	-	5	4-5	4	4
0100	Srahnamanragh Bridge	4	5	4	4	4-5

Assessment: The Owenduff was generally satisfactory over its length with some improvements in quality compared with the 1997 survey.

River and Code : **OWENMORE (MAYO)** **33/O/04**
Tributary of : Sea - Tullaghan Bay OS Catchment No: 105
OS Grid Ref. : F 803 208 Date(s) Surveyed : 4/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)					
	1981	1986	1990	1994	1997	1999
0050 At Srahnakilly (Main flow)	-	4-5	5	4-5	4	4-5
0150 1.1 km d/s Bellacorick Br	-	-	4	4-5	4	4
0270 W. of Largan	-	-	4	4	4-5	4-5
0300 Br at Bangor Erris (Main fl)	4-5	4	4	4-5	4-5	4-5
0400 3km u/s Munhin River confl	-	-	5	-	-	4-5
0500 700 m d/s Munhin River confl	-	-	4	4	4-5	4

Assessment: Oil was released when the substratum of the upper Owenmore River (0050) was disturbed and peat siltation continued to depress biological diversity in the Bellacorick area (0150) and again in the reach below the Munhin River confluence (0500) where quality was somewhat lower than in 1997; commercial peat exploitation is suspected as the source of these influences. Nevertheless water quality conditions remained satisfactory at all points surveyed and was of a particularly high standard in faster flowing 13km stretch from Bellacorick to Bangor (0270, 0300). Station 0400 was reintroduced to the programme to assess the effects of a new sewage treatment works discharge downstream of Bangor.

River and Code : **SHESKIN STREAM** **33/S/03**
Tributary of : Owenmore (Mayo) OS Catchment No: 105
OS Grid Ref. : F 979 232 Date(s) Surveyed : 4/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0150 Bridge 1 km u/s Oweniny R	5	4-5	4-5	4-5

Assessment: Satisfactory, though affected by peat siltation.

River and Code : **TARSAGHAUNMORE** **33/T/01**
Tributary of : Owenduff (Blacksod) OS Catchment No: 106
OS Grid Ref. : F 832 144 Date(s) Surveyed : 18/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Just u/s Owenduff River	4	4	4	4-5

Assessment: Satisfactory.

HYDROMETRIC AREA No. 34 (PART ONLY)
Moy and Killala Bay

Addergoole	34A01
Bar Deela	34B02
Bellawaddy	34B05
Breaghwy	34B06
Brusna (North Mayo)	34B07
Cloonaghmore	34C03
Duvowen (Cloonaghmore)	34D03
Leaffony	34L01
Lough Muck Stream	34L05
Slieveclaur	34S06
Sonnagh	34S02
Spaddagh	34S03
Swinford*	34S05

Note: Most of the rivers in this catchment were surveyed in 1998.

* The Swinford River is not shown on the OS Catchment Map and is not included in the National Baseline.

River and Code : **ADDERGOOLE**

34/A/01

Tributary of : Lough Conn

OS Catchment No: 110

OS Grid Ref : G 151 105

Date(s) Surveyed : 06/07/99

Sampling Stations

Biological Quality Ratings (Q Values)

No. Location

1989

1993

1995

1999

Levally Lough Branch

0300 3rd Br d/s Levally Lough

4

-

2-3

4

Main Channel

0500 Bridge W. of Tonacrock

4-5

-

-

-

0600 Bridge u/s Lough Conn

-

4

4

4-5

Assessment: A significant improvement was noted in the Levally Lough Branch (0300) in 1999 and a slight improvement was also apparent in the lower Main Channel (0600). This river is sampled weekly by the EPA and Mayo County Council as part of a phosphorus load monitoring programme for Lough Conn.

River and Code : **BAR DEELA**

34/B/02

Tributary of : Deel (Crossmolina)

OS Catchment No: 110

OS Grid Ref : G 016 147

Date(s) Surveyed : 12/07/99

Sampling Stations

Biological Quality Ratings (Q Values)

No. Location

1989

1993

1995

1999

0200 Ford u/s Deel R (Main flow)

4

4

3

4

Assessment: An improvement was noted in this River Deel tributary in comparison with 1995 although the river remained silted by suspected forestry drainage activities in the catchment.

River and Code : **BELLAWADDY** **34/B/05**
Tributary of : Killala Bay (at Enniscrone) OS Catchment No: 111
OS Grid Ref : G 284 296 Date(s) Surveyed : 23/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1982	1986	1989	1993	1995	1999
0100	Bridge E. of Tullylin	5	3-4	3	4	3	4
0200	Knocknagower Bridge	4	4	4	4	4	4

Assessment: Satisfactory at both locations surveyed in 1999 and considerably improved in its upper reaches (0100) since 1995.

River and Code : **BREAGHWY** **34/B/06**
Tributary of : Cloonaghmore OS Catchment No: 104
OS Grid Ref : G 161 278 Date(s) Surveyed : 08/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1989	1993	1995	1999
0200	Bridge near Belladoan	4	4-5	3-4	3
0600	Bridge S.W. of Seeaghanbaun	4-5	4	3	4

Assessment: The upper station (0200) on the Breaghwy was moderately polluted in July 1999 due to suspected agricultural causes. The lower station (0600) had improved considerably in comparison with 1995 when last surveyed.

River and Code : **BRUSNA (NORTH MAYO)** **34/B/07**
Tributary of : Glenree OS Catchment No: 110
OS Grid Ref : G 289 190 Date(s) Surveyed : 27/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1989	1993	1995	1999
0200	Bridge E. of Emlymoran	4-5	4-5	4-5	4
0400	Bridge W. of Cloonta	4	-	5	4-5
0600	Just u/s Glenree River confl	4-5	4-5	4	4-5

Assessment: Satisfactory. Some siltation and bank erosion was noticed at the uppermost station (0200).

River and Code : **CLOONAGHMORE** **34/C/03**
Tributary of : Sea - Killala Bay OS Catchment No: 104
OS Grid Ref : G 174 314 Date(s) Surveyed : 07/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1979	1981	1986	1989	1993	1995	1999
0030	Fords S of Tawnywaddyduff	-	-	-	-	-	4-5	4-5
0100	Bridge near Belville	-	5	5	4-5	4	4	4-5
0150	Ballintober Bridge	-	5	4	5	4-5	4	4-5
0200	Tonrehown Bridge	4-5	4-5	3-4	4	4	4	4-5
0270	1.2 km u/s Palmerstown Br	-	-	-	-	-	4-5	4

Assessment: Satisfactory at all stations. Slightly improved overall since 1995.

River and Code : **DUVOWEN** **34/D/03**
Tributary of : Cloonaghmore OS Catchment No: 104
OS Grid Ref : G 144 261 Date(s) Surveyed : 08/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1989	1993	1995	1999
0400	Br NW of Garranard	-	-	4	4
0500	Bridge E.S.E. of Garranard	4-5	4	-	-
0800	Br u/s Cloonaghmore River	4-5	4-5	4	4

Assessment: Satisfactory; no change.

River and Code : **LEAFFONY** **34/L/01**
Tributary of : Sea - Killala Bay OS Catchment No: 112
OS Grid Ref : G 310 358 Date(s) Surveyed : 23/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1982	1986	1989	1993	1995	1999
0100	Bridge N.W. of Crockoona	4-5	4-5	4-5	4	4-5	4-5
0180	Ford nr Cloonycarney	-	-	-	-	3-4	4
0260	Ford d/s Cabragh River confl	-	-	4	4	3	4
0300	Ford u/s Pollacheeny Harbour	4	4	4	-	-	-

Assessment: The Lenyvee is a highly calcareous hard-water river. Water quality was satisfactory in 1999 with significant improvements noted in comparison with 1995.

River and Code : **LOUGH MUCK STREAM** **34/L/05**
Tributary of : Moy OS Catchment No: 110
OS Grid Ref : M 284 995 Date(s) Surveyed : 29/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1989	1993	1995	1999
0600 Bridge u/s Moy River confl	3-4	4	4	3-4

Assessment: The Lough Muck Stream was slightly polluted and quite eutrophic as evidenced by extensive algal growths in its lower reaches in July 1999.

River and Code : **SLIEVECLAUR** **34/S/06**
Tributary of : Deel (Crossmolina) OS Catchment No: 110
OS Grid Ref : G 157 203 Date(s) Surveyed : 12/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1989	1993	1995	1999
0400 Ballyneety Bridge	3-4	3	3	3

Assessment: Unsatisfactory. The Slieveclaur is sampled weekly for phosphorus levels as part of the Lough Conn Management Committee's routine water quality monitoring programme aimed at measuring the total phosphorus load to Lough Conn. The river is affected by agricultural effluents and field runoff.

River and Code : **SONNAGH (MOY)** **34/S/02**
Tributary of : Moy OS Catchment No: 110
OS Grid Ref : G 404 046 Date(s) Surveyed : 20/07/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)				
	1981	1985	1989	1994	1999
0060 Bridge 1 km W. of Tomboholla	-	-	4-5	3-4	3-4
0075 Bridge N. of Trouthill	5	5	3	3-4	4
0100 Bridge u/s Moy River confl	4-5	5	4	3-4	4

Assessment: The upper section (0060) of the Sonnagh was heavily silted by quarrying activity upstream. Improved in the lower section (0075, 0100) since 1995.

River and Code : **SPADDAGH**
Tributary of : Moy
OS Grid Ref : M 323 999

34/S/03
OS Catchment No: 110
Date(s) Surveyed : 29/07/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)					
		1981	1985	1989	1993	1995	1999
0050	Br N. of Castlesheenaghan	4-5	5	4-5	4-5	-	4
0100	Bridge N.E. of Esker	5	4-5	4-5	4-5	4	3
0200	Bridge u/s Moy River confl	5	4-5	4-5	4-5	4-5	3-4*

Assessment: The lower sections of the Spaddagh had deteriorated since 1995. Oil contamination was noted at Station 0100 and the lower reaches (0200) were extensively silted at the time of this survey in late July 1999.

* reduced quality due to siltation.

River and Code : **SWINFORD***
Tributary of : Moy
OS Grid Ref : G 347 014

34/S/05
OS Catchment No: 110
Date(s) Surveyed : 29/07/99

Station No.	Biological Quality Ratings (Q Values)									
	1977	1979	1981	1983	1985	1988	1989	1993	1995	1999
0300	3-4	3-4	3-4	3-4	3	3	3	3	3-4	3-4

Sampling Station
No. Location

0300 Bridge 100 m u/s Moy River

Assessment: The lower section of the Swinford River remained slightly polluted in 1999. The town sewage treatment works has full phosphate removal but the dilution capacity of the stream is insufficient to reduce phosphate levels below the threshold required to control eutrophication. A small stream such as this may be a candidate for a bioengineering solution to attempt to reduce the impact of the residual phosphate loading on the system.

* The Swinford River is not shown on the OS Catchment Map and is not included in the National Baseline.

HYDROMETRIC AREA No. 37
Donegal Bay North

Ballaghdoe	37B01
Ballintra	37B02
Bridgetown	37B03
Bunlacky	37B04
Cloghanmore	37C05
Clogher	37C06
Corabber	37C01
Crow	37C03
Cunlin Lough Stream	37C08
Drummeny	37C01
Eany Water	37E03
Eanybeg Water	37E01
Eanymore Water	37E02
Eglis	37E04
Eske	37E05
Fintragh	37F01
Glen (Carrick)	37G01
Glenaddragh	37G02
Laghy Stream	37L02
Lowerymore	37L01
Oily	37O01
Owenteskiny	37O02
Owenwee (Carrick)	37O03
Roechrow	37R01
Stragar	37S02
# Tullinteane	37T01

Seriously polluted at time of this survey.

River and Code : **BALLAGHDOO** **37/B/01**
Tributary of : Glenaddragh OS Catchment No: 53
OS Grid Ref. : G 616 761 Date(s) Surveyed : 15/10/99

Sampling Stations Biological Quality Ratings (Q Values)
No. Location **1973 1980 1984 1986 1990 1994 1997 1999**

0100	Cashling's Bridge	5	4	5	5	4-5	-	-	4-5
0200	Bridge in Kilcar	-	-	1/0	4-5	4-5	1/0	4	3/0

Assessment: The Ballaghdoe River (0100) remained in a satisfactory quality condition upstream of Kilcar (0100) but, as in 1984 and 1994, quality deteriorated in the town (0200) where there were indications of toxic effects once more.

River and Code : **BALLINTRA** **37/B/02**
Tributary of : Sea - Donegal Bay OS Catchment No: 60
OS Grid Ref. : G 904 726 Date(s) Surveyed : 13/10/99

Sampling Stations Biological Quality Ratings (Q Values)
No. Location **1973 1986 1990 1994 1997 1999**

0007	Br NW L. Garlagh More	-	-	-	4-5	5	4-5
0050	Bridge SE of Brownhall	-	4-5	4	5	4-5	4-5
0200	Connor's Bridge	5	4	4	4-5	3	4

Assessment: The Ballintra River was satisfactory over its length in 1999. A significant improvement in quality was noted at Connors Bridge (0200).

River and Code : **BRIDGETOWN (DONEGAL)** **37/B/03**
Tributary of : Ballintra OS Catchment No: 60
OS Grid Ref. : G 904 726 Date(s) Surveyed : 13/10/99

Sampling Stations Biological Quality Ratings (Q Values)
No. Location **1973 1980 1986 1990 1994 1997 1999**

0010	Bridge W. of Lough Nadarragh	-	5	5	4	4	4	4
0200	Bridge near Old Flax Mill	5	5	5	4	4	4-5	4

Assessment: Satisfactory.

River and Code : **BUNLACKY** **37/B/04**
Tributary of : Sea - Inver Bay OS Catchment No: e6
OS Grid Ref. : G 803 768 Date(s) Surveyed : 1/11/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0200	Bridge near Lissavaddy	5	4	4-5	4
0300	Bunlacky Bridge	4-5	4-5	4-5	4-5

Assessment: Satisfactory.

River and Code : **CLOGHANMORE** **37/C/05**
Tributary of : Sea - Malin Bay OS Catchment No: h6
OS Grid Ref. : G 495 826 Date(s) Surveyed : 14/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0200	Bridge u/s Malin Bay	4-5	4	4-5	4-5

Assessment: Satisfactory.

River and Code : **CLOGHER (DONEGAL)** **37/C/06**
Tributary of : Lowerymore OS Catchment No: 58
OS Grid Ref. : G 979 820 Date(s) Surveyed : 1/11/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0400	Br 400 m u/s Lowerymore River	5	4-5	4-5	4

Assessment: Satisfactory although not as high quality as in previous years. The river may have been affected by silt from the construction of the Donegal Town bypass road.

River and Code : **CORABBER** **37/C/01**
Tributary of : Lough Eske OS Catchment No: 58
OS Grid Ref. : G 974 858 Date(s) Surveyed : 1/11/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Bridge u/s Lough Eske	4-5	4-5	5	4-5

Assessment: This Lough Eske tributary was again found to be in good condition.

River and Code : **CROW** **37/C/03**
Tributary of : Glen (Carrick) OS Catchment No: 52
OS Grid Ref. : G 612 842 Date(s) Surveyed : 14/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0200 S of Crove	-	3-4	3-4	3-4
0700 Just u/s Glen River confl	4-5	4-5	4-5	4

Assessment: The upper Crow River (0200) was affected by heavy siltation emanating from new forestry plantations in the catchment. The lower section (0700) had recovered somewhat but was still silted and had significant algal growths.

River and Code : **CUNLIN LOUGH STREAM** **37/C/08**
Tributary of : Sea - Killybegs Harbour OS Catchment No: 54
OS Grid Ref. : G 724 782 Date(s) Surveyed : 2/11/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Just d/s trib from L. Aroshin	-	4	4-5	4-5
0400 The Commons Bridge	5	4	4-5	4-5

Assessment: The Cunlin Lough Stream was in good condition when sampled in 1999.

River and Code : **DRUMMENY** **37/D/01**
Tributary of : Eske OS Catchment No: 58
OS Grid Ref. : G 937 788 Date(s) Surveyed : 1/11/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0300	Drummenny Bridge	5	4-5	4-5	4-5
0400	Bridge u/s Eske River confl	4	3-4	4	4-5

Assessment: Satisfactory.

River and Code : **EANY WATER** **37/E/03**
Tributary of : Sea - Inver Bay OS Catchment No: 57
OS Grid Ref. : G 818 777 Date(s) Surveyed : 15/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1980	1984	1986	1990	1994	1997	1999
0300	Just d/s Eany Beg/More confl	5	5	5	5	-	-	5

Assessment: Highest quality.

River and Code : **EANYBEG WATER** **37/E/01**
Tributary of : Eany Water OS Catchment No: 57
OS Grid Ref. : G 842 816 Date(s) Surveyed : 15/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0200	Bridge E. of Clohvin	5	4	5	4-5
0700	Eanybeg Bridge	4-5	4-5	4	4-5

Assessment: Both stations sampled on the Eany Beg were satisfactory but the upper reaches (0200) were silted and significant algal growths were observed where none were expected. The upper catchment has a large new forestry plantation. As a result the quality, though satisfactory, is not as good as would be expected in this type of upland region.

River and Code : **EANYMORE WATER** **37/E/02**
Tributary of : Eany Water OS Catchment No: 57
OS Grid Ref. : G 842 816 Date(s) Surveyed : 15/10/99

Sampling Stations		Biological Quality Ratings (Q Values)							
No.	Location	1973	1980	1984	1986	1990	1994	1997	1999
0050	Ford 2 km NE of Drumboarty	-	5	5	5	5	4-5	4-5	4-5
0150	Bridge SW of Letterbarra	-	-	-	-	5	4-5	4-5	5
0250	Eanymore Bridge	4-5	-	-	-	5	5	4-5	5

Assessment: The Eanymore River was satisfactory at all points surveyed in October 1999 and quality was of the highest standard in the lower river (0150, 250).

River and Code : **EGLISH** **37/E/04**
Tributary of : Eanymore Water OS Catchment No: 57
OS Grid Ref. : G 910 852 Date(s) Surveyed : 15/10/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1990	1994	1997	1999
0100	Bridge at Meenataggart	5	4	5	4

Assessment: Satisfactory. A sheep dip unit close to Station 0100 may pose a risk to aquatic life. Buckets being used to fill the unit were noted on the river bank close to the waters edge.

River and Code : **ESKE** **37/E/05**
Tributary of : Sea - Donegal Bay OS Catchment No: 58
OS Grid Ref. : G 929 785 Date(s) Surveyed : 1/11/99

Sampling Stations		Biological Quality Ratings (Q Values)						
No.	Location	1973	1982	1986	1990	1994	1997	1999
0200	Thrushbank Bridge	5	4-5	4	4	4-5	4-5	4-5
0310	Donegal: 1 km u/s East Br (RHS)	5	4-5	-	4-5	-	-	-
0400	East Bridge- Donegal Town	-	4-5	4-5	4	4	4	3-4

Assessment: Quality was satisfactory at Thrushbank Bridge (0200) downstream of Lough Eske but a deterioration was recorded in Donegal where the river was slightly polluted in November 1999.

River and Code : **FINTRAGH** **37/F/01**
Tributary of : Sea - Fintragh Bay OS Catchment No: g6
OS Grid Ref. : G 691 766 Date(s) Surveyed : 2/11/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0100 Bridge W. of Corrin Lodge	5	4-5	5	4-5
Assessment: Satisfactory.				

River and Code : **GLEN (CARRICK)** **37/G/01**
Tributary of : Sea - Tawny Bay OS Catchment No: 52
OS Grid Ref. : G 585 780 Date(s) Surveyed : 14/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)									
	1971	1973	1977	1980	1986	1990	1994	1997	1999	
0045 500m u/s Owenteskinny R	-	-	-	-	-	-	4-5	4-5	4-5	
0050 Bridge u/s Crow River confl	5	5	5	4-5	5	5	-	-	-	
0070 E. of Croaghstraleel	-	-	-	-	-	4-5	3-4	4-5	3	
0200 500 m d/s Carrick Bridge	5	5	4	4	5	4	4-5	4-5	4	

Assessment: Satisfactory conditions continued in the upper Glen River (0045) but a considerable deterioration was recorded downstream of the fish factory at Meenaneary (0070) in October 1999. Satisfactory quality was restored below Carrick (0200) albeit of a somewhat lower standard than heretofore.

River and Code : **GLENADDRAGH** **37/G/02**
Tributary of : Sea - Tawny Bay OS Catchment No: 53
OS Grid Ref. : G 610 755 Date(s) Surveyed : 15/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)								
	1973	1980	1984	1986	1990	1994	1997	1999	
0100 Bridge SW of Meenboy	5	5	5	5	5	5	5	5	4-5
0150 Bridge 1.5 km E. of Kilcar	5	5	5	5	4-5	-	-	-	
0200 500 m d/s Ballaghdoe River	-	3	1/0	4	4-5	3/0	4	3/0	

Continued

GLENADDRAGH *Continued*

Assessment: In 1984 the Glenaddragh River was seriously polluted by industrial effluent in Kilcar (0200): this pollution was eliminated by the introduction of an improved treatment/pumping facility but apparently new problems have arisen with this system as the river was again significantly polluted (with indications of toxicity) at this location in mid-October 1999. Locals in Kilcar also complained to the EPA's representative about malfunctions of the pumping station at the pier in Tawny Bay. The upper river (0100) remained in a satisfactory condition.

River and Code : **LAGHY STREAM** **37/L/02**
Tributary of : Sea - Donegal Bay OS Catchment No: 59
OS Grid Ref. : G 925 779 Date(s) Surveyed : 13/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0100	Main Road Br, d/s L. Boyle	-	4	4-5	4-5
0500	Br d/s Ballykillowen Stream	5	-	-	-
0600	Ford NW of Laghy	-	-	4	4

Assessment: Satisfactory, no change.

River and Code : **LOWERYMORE** **37/L/01**
Tributary of : Lough Eske OS Catchment No: 58
OS Grid Ref. : G 978 822 Date(s) Surveyed : 1/11/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0100	Barnes Bridge	4	4	4-5	4
0400	Bridge u/s Lough Eske	5	5	5	4

Assessment: Satisfactory.

River and Code : **OILY** **37/O/01**
Tributary of : Sea - McSwyne's Bay OS Catchment No: 55
OS Grid Ref. : G 744 765 Date(s) Surveyed : 2/11/97

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)						
		1973	1980	1986	1990	1994	1997	1999
0020	Bridge d/s Tamur Lough	-	-	-	5	4	4-5	4-5
0050	Ford W. of Corker Beg	-	5	5	5	5	5	4-5
0200	Bridge at Milltown	5	5	4-5	4-5	4-5	4-5	3/0

Assessment: Over most of its course water quality in the Oily River continued to be of a very high standard but a serious deterioration was recorded in the lower river (0200) in November 1999: a toxic effect was indicated by the disappearance of a range of sensitive macroinvertebrate species since the previous survey.

River and Code : **OWENTESKINY** **37/O/02**
Tributary of : Glen (Carrick) OS Catchment No: 52
OS Grid Ref. : G 612 848 Date(s) Surveyed : 14/10/99

Sampling Stations No.	Location	Biological Quality Ratings (Q Values)			
		1990	1994	1997	1999
0300	S. of Durlough	4	4-5	4	4
0400	Just E. of Largynasearhagh	4-5	4-5	4-5	4
0500	Ford u/s Glen River confl	4-5	4	4	4-5

Assessment: The Owenteskiny was satisfactory at all sample sites. The catchment is quite heavily afforested, however, and the river is suffering from a degree of siltation and eutrophication from the forestry activities. Some of the plantations in this area appear to have a very low survival rate indicating that the economics of forestry in these upland peat soils may not be terribly good - an important point in view of the potential for damage to the aquatic environment as a consequence of eutrophication and/or acidification.

River and Code : **OWENWEE (CARRICK)** **37/O/03**
Tributary of : Glen OS Catchment No: 52
OS Grid Ref. : G 584 783 Date(s) Surveyed : 14/10/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)		
	1994	1997	1999
0400 S. of Lough Unna	4	5	5
0500 Carrick Lower Bridge	5	4-5	4-5

Assessment: Satisfactory, no change.

River and Code : **ROECHROW** **37/R/01**
Tributary of : Stragar OS Catchment No: 54
OS Grid Ref. : G 741 825 Date(s) Surveyed : 2/11/99

Sampling Stations No. Location	Biological Quality Ratings (Q Values)			
	1990	1994	1997	1999
0200 Br u/s Stragar R. confl.	4-5	5	4-5	4-5

Assessment: Satisfactory; no change.

River and Code : **STRAGAR** **37/S/02**
Tributary of : Sea - Killybegs Harbour OS Catchment No: 54
OS Grid Ref. : G 728 780 Date(s) Surveyed : 2/11/99

Sampling Stations No. Location		Biological Quality Ratings (Q Values)				
		1973	1985	1990	1994	1997
0200 Br W of Ardara Rd Station	5	4	5	5	-	-
0300 Br SW of Tullagha	-	-	-	-	4-5	4-5

Assessment: Satisfactory; no change.

River and Code : **TULLINTEANE**
Tributary of : Oily
OS Grid Ref. : G 760 826

37/T/01
OS Catchment No: 55
Date(s) Surveyed : 2/11/99

Sampling Stations		Biological Quality Ratings (Q Values)			
No.	Location	1990	1994	1997	1999
0300	Br near Crockfadda	-	-	-	4
0400	Just u/s Oily River confl	4-5	4-5	4	2/0

Assessment: A very serious deterioration in quality was recorded in the lower Tullinteane River (0400) just upstream of its confluence with the Oily River (q.v.) in November 1999: just four macroinvertebrate taxa were recorded there indicating a very serious toxic pollution incident. Quality 1.3 kilometres upstream (0300) was satisfactory indicating that the source of the pollution was within this short reach. Donegal County Council staff were notified of the problem.

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MOUNTRICE - 25/M/03	31	SCRAMOGGE - 26/S/01	37
MOYLE - 16/M/01	19	SCREEB - 31/S/01	49
MOYOUR - 32/M/01	58	SHAD LOUGH STREAM - 26/S/13	38
MUING - 33/M/01	70	SHANAGOLDEN STREAM - 24/S/02	102
MUINGNABO - 33/M/02	70	SHANBALLY - 16/S/01	23
MULKEAR (LIMERICK) - 25/M/04	31	SHANNON (Upper) - 26/S/02	38
MULTEEN - 16/M/02	20		

SHANNON (Lower) - 25/S/01	35	TANG - 26/T/02	42
SHESKIN STREAM - 33/S/03	72	TAR - 16/T/01	25
SHIVEN (SOUTH) - 26/S/03	39	TARBERT STREAM - 24/T/01	103
SHOURNAGH - 19/S/01	97	TARMON STREAM - 23/T/03	92
SILVER (KILCORMAC) - 25/S/02	35	TARSAGHAUNMORE - 33/T/01	72
SILVER (TULLAMORE) - 25/S/03	36	TEMPLEBODAN - 19/T/01	97
SKERDAGH - 32/S/01	61	TERMON STREAM - 26/T/03	43
SLIEVECLAUR - 34/S/06	77	THONOGE - 16/T/02	25
SMAGHRAAN - 26/S/04	40	TOEM STREAM - 25/T/05	37
SMALL (TIPPERARY) - 25/S/05	36	TOON - 19/T/02	98
SMARTSCASTLE STREAM - 16/S/07	23	TOOREENACOONA - 31/T/01	50
SONNAGH (MOY) - 34/S/02	77	TRAHEEN - 32/T/01	62
SPADDAGH - 34/S/03	78	TULLAMORE - 25/T/03	37
SPRINGFIELD - 26/S/05	40	TULLINTEANE - 37/T/01	89
SRAHMORE - 32/S/02	61	WOMANAGH - 19/W/01	98
STRAGAR - 37/S/02	88	WOODFORD (GALWAY) - 25/W/01	38
STREAMSTOWN (CLIFDEN) - 32/S/04	61	YELLOW (BALLINAGLERA) - 26/Y/01	43
STROKESTOWN - 26/S/08	41	YELLOW (CASTLEPOLLARD) - 26/Y/02	43
SUCK - 26/S/07	41	YOUGHAL (TIPPERARY) - 25/Y/02	38
SUIR - 16/S/02	24		
SULLANE - 19/S/02	97		
SWINFORD - 34/S/05	78		
SYONAN CASTLE STREAM - 25/S/04	37		

Note on 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 above table. 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.