

## Chapter 8 WATER

- Appendix 8.1 EPA Water Quality Data

DRAFT

## HYDROMETRIC AREA 03

|                       |       |
|-----------------------|-------|
| BLACKWATER (MONAGHAN) | 03B01 |
| CLONTIBRET STREAM     | 03C01 |
| CONAWARY (LOWER)      | 03C02 |
| MOUNTAIN WATER        | 03M01 |
| SCOTSTOWN             | 03S02 |
| SHAMBLES              | 03S01 |

River and Code: **BLACKWATER (MONAGHAN)** 03B01  
 Tributary Of: OS Catchment No: 68  
 OS Grid Ref of confluence: H 922 637  
 Date(s) Surveyed: 31/12/1973, 31/12/1977, 31/12/1981, 31/12/1983, 31/12/1985, 31/12/1989, 31/12/1993,  
 31/12/1996, 21/7/1998, 22/7/1998, 17/7/2001, 18/7/2001, 17/8/2004, 18/8/2004, 3/7/2007, 4/7/2007, 6/7/2010,  
 28/6/2013

| Station Nos. | Biological Quality Ratings (Q Values) |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
|              | 1973                                  | 1977 | 1981 | 1983 | 1985 | 1989 | 1993 | 1996 | 1998 | 2001 | 2004 | 2007 | 2010 |
| 0100         | 4-5                                   | 4-5  | 4-5  | 3-4  | 3-4  | -    | -    | -    | -    | -    | -    | -    | -    |
| 0130         | -                                     | -    | -    | -    | -    | 3-4  | 4    | 4    | 4    | 3    | 3    | 4    | 4    |
| 0200         | 3-4                                   | 3-4  | 4    | 3-4  | 3-4  | -    | -    | -    | -    | -    | -    | -    | -    |
| 0300         | 4                                     | 3-4  | 4    | 4    | 3-4  | 3-4  | 4    | 4    | 4    | 4    | 4    | 3-4  | 3-4  |
| 0400         | 4                                     | 3-4  | 4    | 3-4  | 3-4  | 3-4  | -    | -    | -    | -    | -    | -    | -    |
| 0500         | 4                                     | 3-4  | 4    | 3-4  | 3-4  | -    | -    | -    | -    | -    | -    | -    | -    |
| 0510         | -                                     | -    | -    | -    | -    | 3    | 3    | 3-4  | 3    | 3    | 3-4  | 3-4  | 3-4  |
| 0600         | 3                                     | 2    | 3    | 2-3  | 3    | 2-3  | 3    | -    | -    | -    | -    | -    | -    |
| 0650         | -                                     | -    | -    | -    | -    | 2-3  | -    | 2-3  | 3    | 3/0  | 3    | 3    | 3    |
| 0700         | 3                                     | 3    | 2-3  | 2-3  | 2-3  | 2-3  | 3    | -    | -    | -    | -    | -    | -    |
| 0800         | 3-4                                   | 3-4  | 3    | 3    | 3    | 3    | 3    | 2-3  | 3    | 3    | 3    | 3    | 3    |

Assessment: There has been no change in ecological condition in the Blackwater since it was last sampled in 2007. Only the site downstream of Scotstown Br (0130) is achieving satisfactory quality, the remaining downstream sites continue to be of generally unsatisfactory ecological condition in 2010. The complete absence of sensitive macroinvertebrates below Monaghan (0650, 0800) was indicative of considerable ecological disruption, with continued pollution by suspected sewage and industrial discharges .

| Station No. | Station Location             | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|------------------------------|------------|-------------|----------------------|-------------|
| 0100        | Br 1 km u/s Scotstown*       | 260202     | 337086      | 28                   | MN          |
| 0130        | 1.5 km d/s Scotstown Br      | 261322     | 335999      | 28                   | MN          |
| 0200        | Br in Ballinode              | 262918     | 335813      | 28                   | MN          |
| 0300        | 1st Br d/s Ballinode         | 263898     | 335742      | 28                   | MN          |
| 0400        | Br at Crosses                | 265564     | 335744      | 28                   | MN          |
| 0500        | Br nr Milltown               | 266388     | 334653      | 28                   | MN          |
| 0510        | 250m d/s Br nr Milltown      | 266519     | 334591      | 28                   | MN          |
| 0600        | Br on Monaghan-Aughnacloy Rd | 267509     | 335234      | 28                   | MN          |
| 0650        | Faulkland Br (Upr)           | 269240     | 337125      | 28                   | MN          |
| 0700        | Faulkland Br                 | 270284     | 337840      | 28                   | MN          |
| 0800        | Newmills Br                  | 271921     | 338773      | 28                   | MN          |

Site Altitude and Upstream Catchment Characteristics (where available):

|             |     |      |     |     |         |          |      |       |          |       |       |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|

|      |    |     |    |     |    |   |    |   |    |   |    |
|------|----|-----|----|-----|----|---|----|---|----|---|----|
| 0100 | 77 | 15  | 0  | 100 | 47 | 9 | 7  | 0 | 12 | 0 | 25 |
| 0130 | 64 | 50  | 0  | 100 | 41 | 3 | 20 | 1 | 17 | 0 | 17 |
| 0200 | 59 | 52  | 0  | 100 | 43 | 3 | 19 | 1 | 17 | 0 | 17 |
| 0300 | 57 | 63  | 0  | 100 | 49 | 2 | 16 | 2 | 17 | 0 | 14 |
| 0400 | 54 | 71  | 0  | 100 | 55 | 2 | 14 | 2 | 15 | 0 | 12 |
| 0500 | 52 | 123 | 27 | 73  | 70 | 3 | 8  | 2 | 9  | 0 | 7  |
| 0510 | 51 | 123 | 27 | 73  | 70 | 3 | 8  | 2 | 9  | 0 | 7  |
| 0600 | 50 | 124 | 27 | 73  | 71 | 3 | 8  | 2 | 9  | 0 | 7  |
| 0650 | 45 | 140 | 28 | 72  | 71 | 3 | 7  | 4 | 8  | 0 | 7  |
| 0700 | 43 | 142 | 27 | 73  | 71 | 3 | 7  | 4 | 8  | 0 | 7  |
| 0800 | 39 | 143 | 27 | 73  | 72 | 3 | 7  | 4 | 8  | 0 | 7  |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

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River and Code: **CLONTIBRET STREAM**

03C01

Tributary Of: 03B01 BLACKWATER (MONAGHAN)

OS Catchment No: 68

OS Grid Ref of confluence: H 734 381

Date(s) Surveyed: 31/12/1989, 31/12/1990, 31/12/1993, 31/12/1996, 20/7/1998, 16/7/2001, 19/7/2001, 17/8/2004, 3/7/2007, 1/7/2010, 28/6/2013

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| Station Nos. | Biological Quality Ratings (Q Values) |      |      |      |      |      |      |      |      |
|--------------|---------------------------------------|------|------|------|------|------|------|------|------|
|              | 1989                                  | 1990 | 1993 | 1996 | 1998 | 2001 | 2004 | 2007 | 2010 |
| 0600         | 3                                     | -    | 3    | 3    | 3    | 3    | 3    | 3    | 2-3  |
| 1100         | 2-3                                   | 3    | -    | -    | -    | 3    | 3    | -    | 3    |
| 1400         | 3                                     | -    | 3-4  | 4    | 3    | 3    | 3    | 3    | 3    |

Assessment: There has been no change in the ecological condition of the Clontibret Stream for over a decade, with moderate pollution noted again in July 2010. This once great brown trout stream continues to come under pressure from suspected agricultural and sewage sources . -

| Station No. | Station Location           | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|----------------------------|------------|-------------|----------------------|-------------|
| 0600        | Br in Clontibret           | 275776     | 328860      | 28                   | MN          |
| 1100        | Br SW of Clerran           | 274410     | 331650      | 0                    |             |
| 1400        | Br E of Killyneill X-Roads | 273851     | 335733      | 28                   | MN          |

Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0600        | 119 | 5    | 100 | 0   | 62      | 0        | 4    | 0     | 34       | 0     | 0     |
| 1100        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 1400        | 38  | 60   | 97  | 3   | 90      | 2        | 1    | 0     | 6        | 0     | 1     |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

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River and Code: **CONAWARY (LOWER)**

03C02

Tributary Of: 03B01 BLACKWATER (MONAGHAN)

OS Catchment No: 68

HYDROMETRIC AREA 36

|                          |       |
|--------------------------|-------|
| AGHACASHLAUN             | 36A03 |
| AGHNACLIFFE STREAM       | 36A06 |
| ANNADALE STREAM          | 36A05 |
| ANNALEE                  | 36A02 |
| AVAGHON LAKE STREAM      | 36A07 |
| BAWNBOY                  | 36B07 |
| BLACKWATER (NEWTOWNGORE) | 36B04 |
| BLACKWATER (SWANLINBAR)  | 36B03 |
| BUNNOE                   | 36B05 |
| # CAVAN                  | 36C02 |
| CONAWARY (UPPER)         | 36C11 |
| CORNAVANNOGE             | 36C04 |
| CULLIES                  | 36C03 |
| DERRADDA STREAM *        | 36D07 |
| # DROMORE                | 36D02 |
| DRUMANE STREAM           | 36D04 |
| ERNE                     | 36E01 |
| FINN (MONAGHAN)          | 36F01 |
| KNAPPAGH                 | 36K01 |
| LAHEEN STREAM            | 36L02 |
| LARAGH                   | 36L01 |
| LEGGA STREAM             | 36L03 |
| MADABAWN STREAM          | 36M02 |
| MAGHERARNEY              | 36M01 |
| MAGHERY                  | 36M03 |
| OWENSALLAGH              | 36O01 |
| RAG (CAVAN)              | 36R01 |
| ROO                      | 36R02 |
| STRADONE                 | 36S02 |
| SWANLINBAR               | 36S01 |
| TEMPLEPORT LAKE STREAM   | 36T01 |
| WATERFOOT                | 36W03 |
| YELLOW (BALLINAMORE)     | 36Y01 |

\* Previously reported as part of the Blackwater (Newtowngore) 36B04

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River and Code: **AGHACASHLAUN** 36A03  
 Tributary Of: St John's Lough OS Catchment No: 123  
 OS Grid Ref of confluence: H 082 090  
 Date(s) Surveyed: 31/12/1989, 31/12/1993, 9/6/1997, 13/10/1998, 28/9/2001, 14/6/2004, 20/7/2007, 7/7/2010, 2/9/2013

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| Station Nos. | Biological Quality Ratings (Q Values) |      |      |      |      |      |      |      |
|--------------|---------------------------------------|------|------|------|------|------|------|------|
|              | 1989                                  | 1993 | 1997 | 1998 | 2001 | 2004 | 2007 | 2010 |
| 0300         | 5                                     | 4-5  | 5    | 4-5  | 4-5  | 3-4* | 4-5  | 4-5  |
| 0500         | 5                                     | 4-5  | 4-5  | 4-5  | 4-5  | 4-5  | 4    | 4    |

Assessment: The macroinvertebrate fauna continues to indicate satisfactory ecological conditions at all stations on the Aghacashlaun in July 2010. Low water levels were a feature of both sites, but particularly at Aghacashlaun bridge (0500) where the weir was defunct and the bridge apron was exposed .

|             |                  |            |             |                      |             |
|-------------|------------------|------------|-------------|----------------------|-------------|
| Station No. | Station Location | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|------------------|------------|-------------|----------------------|-------------|

|      |                          |        |        |    |    |
|------|--------------------------|--------|--------|----|----|
| 0300 | Br nr Lisclogher         | 267800 | 309900 | 0  | CN |
| 0350 | Br nr Ann's Fort         | 265753 | 310346 | 28 | CN |
| 0500 | New Grove Br             | 262451 | 310839 | 28 | CN |
| 0600 | Br SE of Fort William    | 259354 | 312835 | 27 | CN |
| 0800 | Br NW of Rakenny Ho      | 253489 | 311541 | 27 | CN |
| 0900 | Ballynallon Br           | 250064 | 311589 | 27 | CN |
| 1000 | Ballyhaise Br            | 245253 | 311608 | 27 | CN |
| 1150 | Br nr Curraghanoe        | 243384 | 312004 | 27 | CN |
| 1200 | 0.2km u/s Butlersbridge  | 243406 | 312047 | 27 | CN |
| 1300 | Butlersbridge (d/s side) | 240817 | 310466 | 27 | CN |
| 1350 | 0.2km u/s Cavan R confl  | 240254 | 310101 | 27 | CN |
| 1400 | 0.2km d/s Cavan R confl  | 239983 | 310835 | 27 | CN |

Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0080        | 98  | 16   | 100 | 0   | 82      | 0        | 0    | 0     | 18       | 0     | 0     |
| 0100        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0150        | 95  | 58   | 100 | 0   | 79      | 0        | 0    | 1     | 15       | 4     | 1     |
| 0200        | 92  | 76   | 100 | 0   | 78      | 0        | 0    | 1     | 16       | 4     | 1     |
| 0300        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0350        | 81  | 168  | 100 | 0   | 80      | 1        | 0    | 1     | 14       | 4     | 0     |
| 0500        | 66  | 223  | 100 | 0   | 78      | 0        | 0    | 1     | 17       | 3     | 1     |
| 0600        | 64  | 253  | 100 | 0   | 79      | 1        | 0    | 1     | 16       | 3     | 0     |
| 0800        | 60  | 508  | 100 | 0   | 84      | 1        | 0    | 1     | 10       | 2     | 2     |
| 0900        | 54  | 700  | 99  | 1   | 86      | 1        | 0    | 0     | 9        | 2     | 2     |
| 1000        | 50  | 746  | 99  | 1   | 86      | 1        | 0    | 0     | 9        | 2     | 2     |
| 1150        | 50  | 760  | 99  | 1   | 85      | 1        | 0    | 0     | 9        | 2     | 2     |
| 1200        | 50  | 760  | 99  | 1   | 85      | 1        | 0    | 0     | 9        | 2     | 2     |
| 1300        | 48  | 772  | 99  | 1   | 85      | 1        | 0    | 0     | 9        | 2     | 2     |
| 1350        | 49  | 0    | 100 | 0   | 100     | 0        | 0    | 0     | 0        | 0     | 0     |
| 1400        | 49  | 859  | 96  | 4   | 86      | 1        | 0    | 1     | 8        | 2     | 2     |

Alt is in metres Area is km<sup>2</sup> and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **AVAGHON LAKE STREAM**

36A07

Tributary Of: 36D02 DROMORE

OS Catchment No: 123

OS Grid Ref of confluence: H 660 173

Date(s) Surveyed: 31/12/1989, 31/12/1993, 3/7/1997, 23/7/1998, 24/7/1998, 30/8/2001, 12/8/2004, 9/8/2007, 16/7/2010, 10/7/2013

| Station Nos. | Biological Quality Ratings (Q Values) |      |      |      |      |      |      |      |
|--------------|---------------------------------------|------|------|------|------|------|------|------|
|              | 1989                                  | 1993 | 1997 | 1998 | 2001 | 2004 | 2007 | 2010 |
| 0200         | -                                     | 3    | 3    | 3    | 3    | 3    | -    | 3    |
| 0600         | 3                                     | 3-4  | 3    | 3    | 3    | 3    | 3    | 3    |

Assessment: The complete lack of pollution sensitive species continues to indicate moderate pollution at both sites on the Avaghon Lake Stream in July 2010. Unsatisfactory ecological conditions have persisted at this river for over twenty years, with agricultural causes suspected.

|             |                  |            |             |                      |             |
|-------------|------------------|------------|-------------|----------------------|-------------|
| Station No. | Station Location | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|------------------|------------|-------------|----------------------|-------------|

|      |                        |        |        |    |    |
|------|------------------------|--------|--------|----|----|
| 0200 | 2nd Br d/s L Avaghon   | 267819 | 314158 | 28 | MN |
| 0600 | Br u/s Dromore R confl | 266555 | 317142 | 28 | MN |

## Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0200        | 122 | 5    | 100 | 0   | 73      | 0        | 0    | 0     | 16       | 11    | 0     |
| 0600        | 79  | 0    | 100 | 0   | 100     | 0        | 0    | 0     | 0        | 0     | 0     |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **BAWNBOY**

36B07

Tributary Of: 36B04 BLACKWATER (NEWTOWNGORE)

OS Catchment No: 123

OS Grid Ref of confluence: H 200 158

Date(s) Surveyed: 31/12/1982, 31/12/1989, 31/12/1993, 11/6/1997, 1/10/1998, 26/9/2001, 15/6/2004, 18/7/2007, 8/7/2010, 3/9/2013

## Biological Quality Ratings (Q Values)

| Station Nos. | 1982 | 1989 | 1993 | 1997 | 1998 | 2001 | 2004 | 2007 | 2010 |
|--------------|------|------|------|------|------|------|------|------|------|
| 0300         | -    | 4-5  | 4-5  | 4-5  | 5    | 4-5  | 4-5  | 4    | 4    |
| 0400         | 4    | 3-4  | -    | -    | -    | -    | -    | -    | -    |
| 0500         | -    | 3-4  | 4-5  | 4    | 4    | 4    | 4    | 4    | 3    |

Assessment: An unwelcome decline in ecological quality was apparent below Brackley Lough (0500) on the Bawnboy River in 2010, where a paucity of pollution sensitive macroinvertebrate fauna was noted .

| Station No. | Station Location                  | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|-----------------------------------|------------|-------------|----------------------|-------------|
| 0300        | 1st Br u/s Brackley L             | 219275     | 321692      | 26                   | CN          |
| 0400        | Br in Bawnboy                     | 221200     | 319100      | 0                    | CN          |
| 0500        | Bellaboy Br. (u/s Bellaboy Lough) | 220895     | 317704      | 27                   | CN          |

## Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0300        | 60  | 5    | 0   | 100 | 0       | 0        | 29   | 0     | 43       | 0     | 28    |
| 0400        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0500        | 56  | 24   | 0   | 100 | 15      | 7        | 9    | 0     | 42       | 8     | 19    |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **BLACKWATER (NEWTOWNGORE)**

36B04

Tributary Of: Ballymagauran Lake

OS Catchment No: 123

OS Grid Ref of confluence: H 207 134

Date(s) Surveyed: 31/12/1982, 31/12/1986, 31/12/1989, 31/12/1990, 31/12/1993, 10/6/1997, 11/6/1997, 14/10/1998, 15/10/1998, 11/6/1999, 26/9/2001, 27/9/2001, 16/6/2004, 19/7/2007, 9/7/2010, 2/9/2013, 3/9/2013

## Biological Quality Ratings (Q Values)

|      |     |     |     |     |     |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0800 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 0900 | 48  | 185 | 70  | 30  | 80  | 1   | 2   | 1   | 10  | 3   | 5   |     |
| 1000 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **DERRADDA STREAM**

36D07

Tributary Of: 36B04 BLACKWATER (NEWTOWNGORE)

OS Catchment No: 123

OS Grid Ref of confluence:

Date(s) Surveyed: 31/12/1982, 31/12/1986, 31/12/1989, 31/12/1993, 10/6/1997, 14/10/1998, 16/6/2004, 19/7/2007, 7/7/2010, 2/9/2013

Previously reported as part of the Blackwater (Newtowngore) 36B04

| Station Nos. | Biological Quality Ratings (Q Values) |      |      |      |      |      |      |      |      |
|--------------|---------------------------------------|------|------|------|------|------|------|------|------|
|              | 1982                                  | 1986 | 1989 | 1993 | 1997 | 1998 | 2004 | 2007 | 2010 |
| 0040         | -                                     | -    | -    | 5    | 4-5  | 4-5  | 4    | 4    | 4    |
| 0100         | 5                                     | 5    | 4-5  | 4-5  | 5    | -    | 4-5  | 3/0  | 4-5  |

Assessment: A marked improvement in ecological quality was noted at Derriniwer Br (0100) during the 2010 survey of the Derradda stream, with the site now restored to its historically highly satisfactory condition. The macroinvertebrate fauna continues to indicate satisfactory ecological conditions at the uppermost station, Drumderg bridge (0040).

| Station No. | Station Location   | National |        | Grid Ref. |    | Discovery Series No. | County Code |
|-------------|--------------------|----------|--------|-----------|----|----------------------|-------------|
|             |                    | X        | Y      | X         | Y  |                      |             |
| 0040        | Drumderg Br        | 212183   | 317447 | 26        | CN |                      |             |
| 0100        | Br NW of Sradrinan | 215513   | 316965 | 0         | LM |                      |             |

Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0040        | 85  | 6    | 0   | 100 | 0       | 17       | 41   | 0     | 19       | 0     | 23    |
| 0100        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **DROMORE**

36D02

Tributary Of: 36A02 ANNALEE

OS Catchment No: 123

OS Grid Ref of confluence: H557 122

Date(s) Surveyed: 31/12/1971, 31/12/1977, 31/12/1980, 31/12/1982, 31/12/1984, 31/12/1986, 31/12/1989, 31/12/1990, 31/12/1993, 2/7/1997, 3/7/1997, 31/12/1997, 4/7/1997, 15/10/1998, 23/7/1998, 29/8/2001, 30/8/2001, 11/8/2004, 12/8/2004, 10/7/2007, 19/9/2007, 20/9/2007, 9/7/2007, 9/8/2007, 10/8/2010, 12/7/2010, 8/7/201

Biological Quality Ratings (Q Values)

| Station Nos. | 1971 | 1977 | 1980 | 1982 | 1984 | 1986 | 1989 | 1990 | 1993 | 1997 | 1998 | 2001 | 2004 | 2007 | 2010 |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

|      |     |     |     |     |     |     |     |   |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|
| 0015 | -   | -   | -   | -   | -   | -   | -   | - | 4   | 4-5 | 4   | 4   | 4-5 | 4   | 4   |
| 0016 | -   | -   | -   | -   | -   | -   | -   | - | -   | 1   | 4   | -   | -   | -   | -   |
| 0036 | -   | -   | -   | -   | -   | -   | 3-4 | - | 4   | 3-4 | 3-4 | 3-4 | 3-4 | 4   | 4   |
| 0075 | -   | -   | -   | -   | -   | -   | -   | - | -   | 3   | 3   | 3   | 4   | 3-4 | 3-4 |
| 0090 | -   | -   | -   | -   | -   | -   | 1   | 3 | 3-4 | 3-4 | 3-4 | 3   | 3-4 | -   | 3-4 |
| 0100 | 5   | 3   | 3-4 | 3   | 2   | 3-4 | 2   | 3 | -   | -   | -   | 2-3 | -   | -   | -   |
| 0150 | -   | -   | 2   | 2   | 2   | 3   | 2   | 3 | 3   | 3-4 | 3-4 | -   | 3   | 3-4 | 3-4 |
| 0200 | 4   | 4   | 3-4 | 3-4 | -   | 3-4 | 2-3 | - | 3   | 2-3 | 3   | 3   | 3-4 | -   | 3   |
| 0300 | 4   | 2   | 3-4 | 3-4 | 3-4 | 3-4 | 3   | - | 3-4 | 3   | 3   | 3   | 3   | 3   | 3   |
| 0400 | -   | 4   | 3-4 | 3-4 | 3-4 | 3-4 | 3-4 | - | 3   | -   | -   | -   | -   | -   | -   |
| 0500 | -   | -   | 4   | 4   | 3-4 | 3   | 3   | - | 3   | 3   | 3   | 3-4 | 3-4 | 3   | 3   |
| 0600 | -   | -   | 4   | 3-4 | 3-4 | 3   | 3   | - | -   | -   | -   | -   | -   | -   | -   |
| 0700 | 4-5 | 2-3 | 3   | 4   | 3   | 3-4 | 3   | - | 3   | 3-4 | 3   | 3   | 3   | 3   | 3   |
| 0800 | -   | -   | 4   | 4-5 | 4   | 4   | -   | - | -   | -   | -   | -   | -   | -   | -   |
| 0900 | 4-5 | 4-5 | 4-5 | 4-5 | 4   | 4   | 3-4 | - | 4   | 4   | 4-5 | 4   | 4   | 3-4 | 3-4 |
| 0910 | -   | -   | -   | -   | 1   | 4   | 3-4 | - | -   | -   | 3   | -   | -   | -   | -   |

Assessment: Once again the Dromore remains in generally unsatisfactory ecological condition in 2010. Only the two uppermost sites (0015 and 0036) of the ten stations surveyed were in a satisfactory ecological condition. Signs of nutrient enrichment such as dominance of tolerant macroinvertebrate species, paucity of pollution sensitive macroinvertebrates, excessive weed and/or algal growth, depressed DO and excessive siltation were apparent at all sites surveyed largely due to the effects of sewage and agriculture on the lakes along the rivers course, and the further effects of these lake outflows on the biota of the river itself .

| Station No. | Station Location           | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|----------------------------|------------|-------------|----------------------|-------------|
| 0015        | Br NE of Corryloan L (RHS) | 278600     | 320800      | 28                   | MN          |
| 0016        | Br NE of Corryloan L (LHS) | 278600     | 320800      | 28                   | MN          |
| 0036        | Br d/s Ballintra Br        | 274400     | 320100      | 28                   | MN          |
| 0075        | Br SW of Bartley's Grove   | 269096     | 324195      | 28                   | MN          |
| 0090        | Br SE of Edenaferkin       | 269573     | 322131      | 28                   | MN          |
| 0100        | Br NE of Derryvalley Ho    | 269716     | 322178      | 28                   | MN          |
| 0150        | Br in Ballybay             | 271686     | 320500      | 28                   | MN          |
| 0200        | Br d/s L Major             | 271940     | 320165      | 28                   | MN          |
| 0300        | Balladian Br               | 269589     | 319748      | 28                   | MN          |
| 0400        | Ballycoghill Br            | 265980     | 317553      | 28                   | MN          |
| 0500        | Ballynascarva Br           | 264655     | 316409      | 28                   | MN          |
| 0600        | New Br N of Clementstown   | 259750     | 315155      | 27                   | CN          |
| 0700        | Br W of Clementstown       | 259132     | 314766      | 27                   | CN          |
| 0800        | Br N of Ashfield Lodge     | 257500     | 313800      | 27                   | CN          |
| 0900        | Killycreeny Br (Mid)       | 255694     | 313094      | 27                   | CN          |
| 0910        | Killycreeny Bridge (RHS)   | 255714     | 313118      | 27                   | CN          |

#### Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0015        | 98  | 7    | 100 | 0   | 95      | 0        | 0    | 0     | 5        | 0     | 0     |
| 0016        | 98  | 7    | 100 | 0   | 95      | 0        | 0    | 0     | 5        | 0     | 0     |
| 0036        | 80  | 45   | 100 | 0   | 94      | 0        | 2    | 0     | 4        | 0     | 0     |
| 0075        | 98  | 20   | 100 | 0   | 99      | 1        | 0    | 0     | 0        | 0     | 0     |
| 0090        | 88  | 30   | 100 | 0   | 98      | 1        | 0    | 0     | 1        | 0     | 0     |
| 0100        | 89  | 29   | 100 | 0   | 98      | 1        | 0    | 0     | 1        | 0     | 0     |
| 0150        | 79  | 40   | 100 | 0   | 98      | 1        | 0    | 0     | 1        | 0     | 0     |
| 0200        | 79  | 50   | 100 | 0   | 93      | 1        | 2    | 0     | 3        | 0     | 0     |
| 0300        | 78  | 118  | 100 | 0   | 96      | 1        | 1    | 1     | 2        | 0     | 0     |
| 0400        | 78  | 133  | 100 | 0   | 96      | 1        | 1    | 0     | 1        | 1     | 0     |
| 0500        | 80  | 166  | 100 | 0   | 95      | 1        | 1    | 0     | 2        | 1     | 0     |
| 0600        | 80  | 205  | 100 | 0   | 90      | 1        | 0    | 1     | 2        | 2     | 4     |
| 0700        | 76  | 216  | 100 | 0   | 90      | 1        | 0    | 1     | 3        | 2     | 4     |



31/12/1993, 7/7/1997, 8/7/1997, 15/10/1998, 16/10/1998, 17/8/1998, 22/7/1998, 28/9/1998, 28/8/2001, 10/8/2004, 9/8/2004, 17/7/2007, 5/7/2007, 8/8/2007, 15/7/2010, 10/7/2013, 4/7/2013, 8/7/2013

### Biological Quality Ratings (Q Values)

| Station Nos. | 1971 | 1973 | 1977 | 1980 | 1982 | 1984 | 1989 | 1993 | 1997 | 1998 | 2001 | 2004 | 2007 | 2010 |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0010         | -    | -    | -    | -    | -    | -    | 3-4  | 4-5  | 4-5  | 4    | 3    | 3-4* | 4    | 4    |
| 0080         | -    | -    | -    | -    | -    | -    | 3    | 4    | 3    | 4    | 4    | 4    | -    | 3-4  |
| 0100         | 5    | 5    | 4-5  | 4    | 4-5  | 4-5  | 3-4  | 4    | 3-4  | 4    | 3-4  | 3-4  | 3    | 3-4  |
| 0200         | 5    | 4-5  | 4-5  | 4    | 4    | 4    | 3-4  | 4    | 3    | 3-4  | 3    | 4    | 3-4  | 3-4  |
| 0400         | -    | -    | 3-4  | 3-4  | 3-4  | 3-4  | 3-4  | 3    | 3-4  | 3-4  | 3    | 4    | -    | 3-4  |
| 0500         | 3-4  | 3    | 1    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3-4  | 3-4  | 3-4  |
| 0600         | -    | -    | -    | -    | 3    | 3    | 3    | -    | -    | -    | -    | -    | -    | -    |
| 1000         | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Assessment: The macroinvertebrate fauna continues to indicate generally unsatisfactory ecological conditions on the Finn (Monaghan) in 2010. Only the uppermost Station 0010 (SW of Shanroe) showed satisfactory standards out of the six sites sampled. Low DO (dissolved oxygen) levels were recorded below the Magherarney confluence (station 0400 - 87%) and again below Clones (station 0500 -75%) .

| Station No. | Station Location          | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|---------------------------|------------|-------------|----------------------|-------------|
| 0010        | Br at Mill NW of Kilcreen | 256057     | 335418      | 27                   | MN          |
| 0080        | E of Aghafin Lough        | 252797     | 329862      | 27                   | MN          |
| 0100        | Stone Br                  | 254401     | 328407      | 27                   | MN          |
| 0200        | Annamakiff Br             | 254563     | 326483      | 27                   | MN          |
| 0400        | Scarvy Br                 | 251806     | 324610      | 27                   | MN          |
| 0500        | Cumber Br                 | 249939     | 323331      | 27                   | MN          |
| 0600        | Annie's Br                | 0          | 0           | 0                    | MN          |
| 1000        | Wattle Br.                | 242572     | 320237      | 27                   |             |

### Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0010        | 80  | 1    | 0   | 100 | 100     | 0        | 0    | 0     | 0        | 0     | 0     |
| 0080        | 56  | 1    | 0   | 100 | 94      | 6        | 0    | 0     | 0        | 0     | 0     |
| 0100        | 56  | 5    | 0   | 100 | 99      | 1        | 0    | 0     | 1        | 0     | 0     |
| 0200        | 48  | 79   | 26  | 74  | 95      | 1        | 1    | 0     | 0        | 0     | 2     |
| 0400        | 47  | 103  | 43  | 57  | 97      | 1        | 1    | 0     | 0        | 0     | 1     |
| 0500        | 47  | 118  | 41  | 59  | 96      | 1        | 1    | 1     | 0        | 0     | 1     |
| 0600        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 1000        | N/A | 0    | 0   | 0   | 0       | 0        | 0    | 0     | 0        | 0     | 0     |

Alt is in metres Area is km<sup>2</sup> and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **KNAPPAGH**

36K01

Tributary Of: 36A02 ANNALEE

OS Catchment No: 123

OS Grid Ref of confluence: H 678 099

Date(s) Surveyed: 31/12/1977, 31/12/1981, 31/12/1985, 31/12/1989, 31/12/1993, 26/6/1997, 3/7/1997, 24/7/1998, 30/9/1998, 30/8/2001, 31/8/2001, 28/6/2004, 18/9/2007, 20/9/2007, 2/7/2010, 22/7/2013

### Biological Quality Ratings (Q Values)

| Station Nos. | 1977 | 1981 | 1985 | 1989 | 1993 | 1997 | 1998 | 2001 | 2004 | 2007 | 2010 | 2013 |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|

|      |   |     |     |     |     |     |   |      |      |     |     |   |
|------|---|-----|-----|-----|-----|-----|---|------|------|-----|-----|---|
| 0200 | - | 4   | 3-4 | 3-4 | 3   | 3   | 3 | 3*   | 4    | 3   | 3-4 | 3 |
| 0400 | 4 | 4   | 3-4 | 3   | 3-4 | 3   | 3 | 3-4* | 3-4* | -   | 3   | 3 |
| 0700 | - | 4-5 | 4   | 3   | 3-4 | 3-4 | 3 | 3-4* | 4    | 3-4 | 3-4 | 4 |

Assessment: The upper reaches of the Knappagh (0200 and 0400) were found to be in unsatisfactory ecological condition in July 2013, a situation virtually unchanged in over twenty years of surveying this Annalee River tributary. The influence of upstream lakes, particularly as stores of Phosphorus, coupled with agricultural and commercial activities in the catchment, are contributing to the eutrophication of the Knappagh River. In particular, a lack of pollution sensitive macroinvertebrate species, excessive weed and algal growth, excessive siltation and low dissolved oxygen (<70 % saturation) characterise the upstream sites ( 0200 at the bridge upstream of Bellatrain Lough; and 0400 at Lackan Bridge). Further downstream at station 0700 (just upstream of the Annalee river confluence) a welcome return to good ecological condition was recorded during the current survey .

| Station No. | Station Location       | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|------------------------|------------|-------------|----------------------|-------------|
| 0200        | Br u/s Bellatrain L    | 274468     | 310701      | 28                   | MN          |
| 0400        | Lackan Br              | 270618     | 311430      | 28                   | MN          |
| 0700        | Br u/s Annalee R confl | 267974     | 310045      | 28                   | CN          |

#### Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0200        | 106 | 44   | 100 | 0   | 86      | 0        | 0    | 1     | 9        | 4     | 0     |
| 0400        | 108 | 66   | 100 | 0   | 81      | 2        | 0    | 1     | 12       | 4     | 0     |
| 0700        | 86  | 79   | 100 | 0   | 82      | 1        | 0    | 1     | 12       | 4     | 0     |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **LAHEEN STREAM**

36L02

Tributary Of: 36C03 CULLIES

OS Catchment No: 123

OS Grid Ref of confluence: H 266 075

Date(s) Surveyed: 31/12/1989, 31/12/1993, 1/7/1997, 12/10/1998, 13/10/1998, 25/9/2001, 17/6/2004, 14/8/2007, 2/10/2007, 23/8/2007, 17/8/2010, 11/9/2013, 12/9/2013

#### Biological Quality Ratings (Q Values)

| Station Nos. | 1989 | 1993 | 1997 | 1998 | 2001 | 2004 | 2007 | 2010 |
|--------------|------|------|------|------|------|------|------|------|
| 0300         | -    | 4    | 4    | 4    | 3*   | 4-5  | 4    | 4    |
| 0600         | -    | 3-4  | 3-4  | 3    | 3*   | -    | 3-4  | 3-4  |
| 0800         | 3    | 3-4  | 3-4  | 3    | 3*   | 3-4  | 3-4  | 3-4  |

Assessment: The upper reaches of the Laheen Stream (0300) remained in a satisfactory ecological condition in 2010, while the downstream quality (0600 & 0800) remains unsatisfactory once again. Signs of nutrient enrichment such as dominance of tolerant macroinvertebrate species, paucity of pollution sensitive macroinvertebrates, excessive weed and/or algal growth, excessive siltation and depressed DO were apparent at both sites, indicating eutrophication .

| Station No. | Station Location       | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|------------------------|------------|-------------|----------------------|-------------|
| 0300        | Br W of Aghavilla      | 221091     | 305820      | 34                   | LM          |
| 0600        | Br SW of Drummercross  | 224215     | 307477      | 34                   | LM          |
| 0800        | Br u/s Cullies R confl | 226482     | 307687      | 34                   | LM          |

## HYDROMETRIC AREA 06

|                              |       |
|------------------------------|-------|
| BALLYMASCANLAN               | 06B02 |
| BIG (LOUTH)                  | 06B01 |
| CARRICKASLANE LOUGH STREAM * | 06C04 |
| CASTLETOWN                   | 06C01 |
| COUNTY WATER                 | 06C03 |
| CULLY WATER                  | 06C02 |
| DEE                          | 06D01 |
| DRUMSALLAGH STREAM *         | 06D07 |
| FANE                         | 06F01 |
| FLURRY                       | 06F02 |
| GENTLE OWEN'S LAKE STREAM *  | 06G04 |
| GLYDE                        | 06G02 |
| KILCURRY                     | 06K02 |
| KILLARY WATER                | 06K01 |
| KILMAINHAM *                 | 06K04 |
| MAGHERACLOONE STREAM *       | 06M01 |
| PROULES                      | 06P01 |
| TERMONFECKIN                 | 06T01 |
| WHITE (LOUTH)                | 06W01 |

\* Formerly Carrickaslane Lough Branch of Fane River

\* Formerly: 06G02 Glyde Drumsallagh Branch

\* Formerly: 06F01 Fane East Branch

\* Formerly 06D01:Dee Kilmainham Wood Branch

\* Formerly Magheracloone Branch of the Glyde River 06G02

River and Code: **BALLY MASCANLAN**

06B02

Tributary Of: 06F02 FLURRY

OS Catchment No: 91

OS Grid Ref of confluence: J 081 100

Date(s) Surveyed: 31/12/1990, 31/12/1991, 31/12/1994, 31/12/1997, 5/7/2000, 11/8/2003, 10/7/2006, 24/10/2007, 7/10/2008, 5/10/2009, 16/9/2010, 6/9/2012

| Station Nos. | Biological Quality Ratings (Q Values) |      |      |      |      |      |      |      |       |      |      |      |
|--------------|---------------------------------------|------|------|------|------|------|------|------|-------|------|------|------|
|              | 1990                                  | 1991 | 1994 | 1997 | 2000 | 2003 | 2006 | 2007 | 2008  | 2009 | 2010 | 2012 |
| 0100         | 2-3                                   | -    | 3/0  | 4    | 3/0  | 2/0  | 2/0  | 2/0  | 2-3/0 | 3-4  | 3-4  | 3-4  |
| 0200         | -                                     | -    | -    | -    | -    | -    | -    | -    | 3     | -    | -    | -    |
| 0300         | 4-5                                   | -    | -    | -    | 3    | -    | -    | -    | -     | -    | -    | -    |
| 0400         | -                                     | -    | -    | -    | -    | -    | -    | -    | -     | -    | -    | -    |
| 0450         | -                                     | -    | -    | -    | -    | -    | -    | -    | -     | -    | -    | -    |
| 0500         | 1-2                                   | 1    | 3    | 4    | 3    | -    | -    | -    | -     | -    | -    | -    |

Assessment: The improvement to moderate ecological condition recorded at Jonesborough Bridge in 2009 and 2010 was maintained in 2012 .

| Station No. | Station Location          | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|---------------------------|------------|-------------|----------------------|-------------|
| 0100        | Jonesborough Br           | 306465     | 314446      | 36                   | LH          |
| 0200        | Br nr Carrickaneena House | 306700     | 313600      | 36                   |             |
| 0300        | New Br                    | 307128     | 311816      | 29                   | LH          |
| 0400        | Br d/s New Br             | 0          | 0           | 0                    |             |
| 0450        | U/s Ballymascanlan Br     | 0          | 0           | 0                    |             |
| 0500        | Ballymascanlan Br         | 308085     | 310187      | 29                   | LH          |

area.

River and Code: **CULLY WATER**

06C02

Tributary Of: 06K02 KILCURRY

OS Catchment No: 92

OS Grid Ref of confluence: J 025 109

Date(s) Surveyed: 31/12/1978, 31/12/1982, 31/12/1986, 31/12/1990, 31/12/1994, 31/12/1997, 6/7/2000, 12/8/2003, 11/7/2006, 24/6/2009, 6/9/2012

| Station Nos. | Biological Quality Ratings (Q Values) |      |      |      |      |      |      |      |      |      |      |
|--------------|---------------------------------------|------|------|------|------|------|------|------|------|------|------|
|              | 1978                                  | 1982 | 1986 | 1990 | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 | 2012 |
| 0100         | 4-5                                   | 5    | 4-5  | 4-5  | 4-5  | 4-5  | 4-5  | 4    | 4    | -    | -    |
| 0200         | 4-5                                   | 4-5  | 4-5  | 4-5  | 3-4  | 4-5  | 4-5  | 4-5  | 4    | 4    | 4    |

Assessment: The macroinvertebrate fauna indicated continuing good ecological conditions on the Cully Water just upstream of the Kilcurry River confluence in September 2012 .

| Station No. | Station Location        | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|-------------------------|------------|-------------|----------------------|-------------|
| 0100        | Dungooly Br             | 300322     | 314006      | 36                   | LH          |
| 0200        | Br u/s Kilcurry R confl | 302435     | 310849      | 36                   | LH          |

## Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0100        | 30  | 0    | 100 | 0   | 100     | 0        | 0    | 0     | 0        | 0     | 0     |
| 0200        | 10  | 6    | 66  | 34  | 47      | 0        | 0    | 0     | 53       | 0     | 0     |

Alt is in metres Area is km<sup>2</sup> and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **DEE**

06D01

Tributary Of: 06G02 GLYDE

OS Catchment No: 96

OS Grid Ref of confluence: O 086 935

Date(s) Surveyed: 31/12/1974, 31/12/1977, 31/12/1978, 31/12/1980, 31/12/1983, 31/12/1986, 31/12/1990, 31/12/1994, 31/12/1997, 20/7/2000, 21/7/2000, 19/8/2003, 20/8/2003, 21/8/2003, 18/7/2006, 25/7/2006, 25/9/2006, 1/10/2009, 30/9/2009, 4/10/2011, 31/8/2012, 8/9/2012

| Station Nos. | Biological Quality Ratings (Q Values) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|              | 1974                                  | 1977 | 1978 | 1980 | 1983 | 1986 | 1990 | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 | 2011 | 2012 |
| 0015a        | -                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0016         | -                                     | -    | -    | -    | -    | -    | 4-5  | 4    | 4    | 3-4  | 4    | 3-4  | 3-4  | -    | 3-4  |
| 0025         | -                                     | -    | -    | -    | -    | -    | 5    | 4    | 4    | 4    | 4    | 4    | -    | -    | -    |
| 0030         | -                                     | -    | -    | -    | -    | -    | 5    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0035         | -                                     | -    | -    | -    | -    | -    | 4-5  | 3    | 3    | 3-4  | 3    | 3    | 3-4  | -    | 3    |
| 0054a        | -                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0149a        | -                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0150         | -                                     | -    | -    | 3-4  | 4    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 3    |
| 0200         | 3-4                                   | -    | 2-3  | 3-4  | 4    | 4    | 4    | 3    | 3    | 3-4  | 3-4  | 3-4  | 3    | -    | 3-4  |
| 0300         | 4                                     | -    | 3    | 4    | 4    | 3-4  | 4-5  | -    | -    | -    | -    | -    | -    | -    | -    |
| 0360         | -                                     | -    | -    | -    | -    | -    | 4    | 3-4  | 3-4  | 4    | 4    | 4    | 4    | -    | 4    |

|      |     |     |     |     |     |     |     |     |     |     |     |     |     |   |   |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|
| 0400 | -   | -   | -   | 4   | 4   | 3-4 | 4-5 | -   | -   | -   | -   | -   | -   | - | - |
| 0450 | -   | -   | -   | -   | -   | -   | -   | 3-4 | 3-4 | 3-4 | 3-4 | 4   | -   | - | - |
| 0500 | 4-5 | -   | 3   | 4   | 4   | 3-4 | 4-5 | -   | -   | -   | -   | -   | -   | - | - |
| 0600 | 4   | 3-4 | 4   | 4   | 4-5 | 3-4 | 4-5 | 3-4 | 3   | 4   | 4   | 4   | 4   | 4 | - |
| 0670 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | - | 3 |
| 0680 | -   | -   | -   | -   | 4   | 4   | 4   | 3-4 | 3-4 | 4   | 3-4 | -   | -   | - | 3 |
| 0690 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | - | - |
| 0700 | 2   | 3-4 | 3-4 | 3   | 3-4 | 3   | 4   | -   | -   | -   | -   | -   | -   | - | - |
| 0710 | -   | -   | -   | -   | -   | -   | 4   | 3-4 | 3-4 | 3-4 | 3   | 3   | 3   | - | - |
| 0790 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 3-4 | -   | - | - |
| 0800 | 4   | 3-4 | 3-4 | 4   | 4   | 3-4 | 4-5 | 3   | 3   | 3-4 | 3   | -   | -   | - | - |
| 0900 | -   | -   | -   | -   | -   | 3-4 | -   | -   | -   | -   | -   | -   | -   | - | - |
| 0910 | -   | -   | -   | 4   | 4   | 3-4 | 4   | -   | -   | -   | -   | -   | -   | - | - |
| 1000 | 4   | 3-4 | 3   | 3-4 | 3-4 | 3-4 | 3-4 | 3   | 3   | 3-4 | 3   | 3-4 | 3-4 | - | - |
| 1100 | -   | -   | -   | 4   | 4   | 4   | 3-4 | -   | -   | -   | -   | -   | -   | - | 3 |

Assessment: The macroinvertebrate fauna indicated unsatisfactory conditions at all sites assessed on the River Dee in September 2012, with the exception of Rockfield Bridge (0360) where satisfactory ecological condition was recorded .

| Station No. | Station Location                              | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|---|------------|-------------|----------------------|-------------|
| 0015a       | Ervy Lough Branch                             | 0          | 0           | 0                    |             |
| 0016        | Br u/s Ervy Lough                             | 276240     | 294830      | 35                   | CN          |
| 0025        | Br to N. of Ervy X-Rds                        | 277250     | 292710      | 35                   | MH          |
| 0030        | Br u/s Newcastle L                            | 278698     | 291501      | 35                   | MH          |
| 0035        | Tom's Br                                      | 279580     | 289130      | 35                   | MH          |
| 0054a       | Kilmainham Wood Branch See Kilmainham R 06K04 | 0          | 0           | 0                    |             |
| 0149a       | Main Channel                                  | 0          | 0           | 0                    |             |
| 0150        | Wooden Br W of Nobber Br                      | 281907     | 286754      | 35                   | MH          |
| 0200        | Deegvee Br                                    | 283040     | 285760      | 35                   | MH          |
| 0300        | Ballanagirrisk Br                             | 284466     | 284456      | 35                   | MH          |
| 0360        | Rockfield Br                                  | 287143     | 285571      | 35                   | MH          |
| 0400        | Yellow Ford Br                                | 288539     | 286830      | 35                   | MH          |
| 0450        | Hem Br  | 289630     | 288065      | 35                   | MH          |
| 0500        | Bogie Br                                      | 291066     | 289447      | 35                   | MH          |
| 0600        | Burley Br                                     | 292551     | 289685      | 36                   | MH          |
| 0670        | 1km u/s Ardee Br                              | 295281     | 290330      | 36                   | LH          |
| 0680        | Dawson's Br                                   | 296593     | 290520      | 36                   | LH          |
| 0690        | U/s Sewage Trtmt Wks                          | 0          | 0           | 0                    |             |
| 0700        | 1.5 km d/s Ardee                              | 0          | 0           | 0                    |             |
| 0710        | 150 m d/s Old Rly Br (LHS)                    | 297279     | 291051      | 36                   | LH          |
| 0790        | New Br u/s Drumgoolestown Br. (d/s) .         | 302862     | 291051      | 36                   | LH          |
| 0800        | Drumgoolestown Br                             | 303066     | 290878      | 36                   | LH          |
| 0900        | Charleville Weir                              | 0          | 0           | 0                    |             |
| 0910        | Cappoge Br                                    | 305064     | 290619      | 36                   | LH          |
| 1000        | Br at Drumcar                                 | 306596     | 291170      | 36                   | LH          |
| 1100        | At Williamstown House                         | 307391     | 292195      | 36                   | LH          |

Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0015a       | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0016        | 129 | 10   | 100 | 0   | 98      | 0        | 0    | 0     | 0        | 0     | 2     |
| 0025        | -99 | 14   | 100 | 0   | 99      | 0        | 0    | 0     | 0        | 0     | 1     |
| 0030        | 60  | 19   | 100 | 0   | 99      | 0        | 0    | 0     | 0        | 0     | 1     |
| 0035        | 51  | 31   | 67  | 33  | 98      | 0        | 0    | 0     | 1        | 0     | 1     |
| 0054a       | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0149a       | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0150        | 48  | 70   | 70  | 30  | 97      | 0        | 0    | 0     | 2        | 1     | 0     |

|      |     |     |     |     |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0200 | 47  | 6   | 0   | 100 | 77  | 0   | 0   | 2   | 21  | 0   | 0   |
| 0300 | 43  | 95  | 52  | 48  | 95  | 0   | 0   | 1   | 4   | 0   | 0   |
| 0360 | 39  | 110 | 50  | 50  | 92  | 0   | 0   | 0   | 6   | 0   | 0   |
| 0400 | 35  | 157 | 64  | 36  | 89  | 0   | 0   | 0   | 10  | 0   | 0   |
| 0450 | 31  | 170 | 60  | 40  | 89  | 0   | 0   | 0   | 10  | 0   | 0   |
| 0500 | 28  | 173 | 59  | 41  | 89  | 0   | 0   | 0   | 10  | 0   | 0   |
| 0600 | 26  | 176 | 58  | 42  | 89  | 0   | 0   | 0   | 10  | 0   | 0   |
| 0670 | 23  | 277 | 53  | 46  | 81  | 0   | 0   | 0   | 17  | 0   | 1   |
| 0680 | 23  | 286 | 54  | 46  | 79  | 0   | 0   | 1   | 18  | 0   | 1   |
| 0690 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 0700 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 0710 | 22  | 287 | 54  | 46  | 79  | 0   | 0   | 1   | 19  | 0   | 1   |
| 0790 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 0800 | 13  | 305 | 56  | 44  | 76  | 0   | 0   | 1   | 22  | 0   | 1   |
| 0900 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 0910 | 10  | 317 | 58  | 42  | 75  | 0   | 0   | 1   | 22  | 0   | 1   |
| 1000 | 10  | 376 | 65  | 35  | 72  | 1   | 0   | 1   | 25  | 0   | 1   |
| 1100 | 8   | 386 | 66  | 34  | 71  | 1   | 0   | 2   | 26  | 0   | 1   |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **DRUMSALLAGH STREAM**

06D07

Tributary Of: 06G02 GLYDE

OS Catchment No: 95

OS Grid Ref of confluence: N 803 981

Date(s) Surveyed: 31/12/1990, 31/12/1994, 31/12/1997, 19/7/2000, 19/8/2003, 14/7/2006, 30/9/2009, 2/9/2012, 31/8/2012, 29/7/2013

Formerly: 06G02 Glyde Drumsallagh Branch

| Station Nos. | Biological Quality Ratings (Q Values) |      |      |      |      |      |      |      |  |
|--------------|---------------------------------------|------|------|------|------|------|------|------|--|
|              | 1990                                  | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 | 2012 |  |
| 0056         | 5                                     | 3    | 4-5  | 4-5  | 4-5  | 4    | 4    | 4    |  |
| 0066         | 4-5                                   | 4-5  | 4-5  | 4    | 4    | -    | -    | -    |  |
| 0070         | 4-5                                   | 4-5  | 4-5  | 4-5  | 4-5  | 4    | 4-5  | 3-4  |  |

Assessment: The macroinvertebrate fauna indicated continuing good ecological condition at the upper site west of Drumsallagh (0056). However there has been a very disappointing deterioration in ecological status at County Br (0070) from high in 2009 to moderate in September 2012. Cattle access is an issue at this location

| Station No. | Station Location                    | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|-------------------------------------|------------|-------------|----------------------|-------------|
| 0056        | Br W of Drumsallagh                 | 276200     | 297520      | 35                   | CN          |
| 0066        | Murphy's Br                         | 278130     | 297220      | 35                   | CN          |
| 0070        | County Br (u/s Magheraclone Branch) | 280160     | 298260      | 35                   | MN          |

Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0056        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |

|      |     |     |     |     |     |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 0066 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 0070 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **FANE**

06F01

Tributary Of: DUNDALK BAY

OS Catchment No: 94

OS Grid Ref of confluence: J 064 018

Date(s) Surveyed: 31/12/1974, 31/12/1976, 31/12/1980, 31/12/1982, 31/12/1986, 31/12/1990, 31/12/1994, 31/12/1997, 17/7/2000, 18/7/2000, 6/7/2000, 7/7/2000, 13/8/2003, 14/8/2003, 11/7/2006, 12/7/2006, 13/7/2006, 24/10/2007, 23/9/2009, 25/9/2009, 4/9/2012, 6/9/2012, 8/9/2012

### Biological Quality Ratings (Q Values)

| Station Nos. | 1974 | 1976 | 1980 | 1982 | 1986 | 1990 | 1994 | 1997 | 2000 | 2003 | 2006 | 2007 | 2009 | 2012 |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0039a        | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0080         | -    | -    | -    | -    | -    | 4    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0114a        | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0134a        | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0155         | -    | -    | -    | -    | -    | -    | 2-3  | 2-3  | 2-3  | 2-3  | 2/0  | 3    | 3    | 3    |
| 0180         | -    | -    | -    | -    | -    | -    | 3    | 3    | 3    | 3    | 3    | -    | -    | -    |
| 0200         | -    | 3-4  | 4    | 3-4  | 3-4  | 3-4  | 3    | 3-4  | 3    | 3    | 3-4  | -    | 3-4  | 3    |
| 0299a        | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0300         | -    | 3-4  | 3-4  | 3-4  | 3-4  | 3-4  | 3    | 3    | 3    | 3    | 3    | -    | -    | -    |
| 0400         | -    | -    | 3    | 3    | 3    | 3-4  | 3    | 3    | 3-4  | 3    | 3    | -    | 3    | 3    |
| 0500         | -    | 5    | 5    | 4-5  | 4    | 4-5  | 4    | 4    | 4    | 4    | 3-4  | -    | -    | -    |
| 0600         | -    | -    | 5    | 4-5  | 4-5  | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0650         | -    | -    | -    | -    | -    | 5    | 3-4  | 4    | 4    | 3-4  | 3-4  | -    | 4    | 4    |
| 0700         | 5    | 5    | 5    | 4    | 4    | 5    | 4    | 4-5  | 4-5  | 4    | 3-4  | -    | -    | -    |
| 0800         | -    | -    | 4    | 4    | 4    | 4    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0900         | 5    | 5    | 4    | 4-5  | -    | 4    | 3-4  | 4-5  | 4-5  | 4    | 4    | -    | 4    | 4    |
| 1000         | -    | -    | 4-5  | 4-5  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Assessment: The Fane River continued to be in generally unsatisfactory ecological condition in its upper section in September 2012, with poor ecological condition recorded at South Bridge at Dunfelimy (0150), Derrycreevy Br. (0200) and Ballynacarry Br (0400). The lower section of the river retained its good ecological condition at Inniskeen Br (0650) and at Stephenstown Br (0900) . .

| Station No. | Station Location                             | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|--|------------|-------------|----------------------|-------------|
| 0039a       | East Branch (See Gentle Owen's Stream 06G04) | 0          | 0           | 0                    |             |
| 0080        | Br u/s Muckno Mill Lough                     | 284723     | 322660      | 0                    |             |
| 0114a       | Carrickaslane Lough Branch                   | 0          | 0           | 0                    |             |
| 0134a       | West Branch                                  | 0          | 0           | 0                    |             |
| 0155        | South Br Dunfelimy                           | 276630     | 324080      | 28                   | MN          |
| 0180        | 2nd Br u/s Laragh L (Main Rd)                | 279200     | 322360      | 28                   | MN          |
| 0200        | Derrycreevy Br                               | 282770     | 320680      | 28                   | MN          |
| 0299a       | Main Channel                                 | 0          | 0           | 0                    |             |
| 0300        | Clarebane Br                                 | 287357     | 316783      | 28                   | MN          |
| 0400        | Ballynacarry Br                              | 287460     | 314120      | 28                   | MN          |
| 0500        | Magoney Br                                   | 290853     | 309669      | 35                   | MN          |
| 0600        | Br at Moyle's Mill                           | 291871     | 307634      | 35                   | MN          |
| 0650        | Innishkeen Br                                | 293175     | 307040      | 36                   | MN          |
| 0700        | Castlerring Br                               | 296636     | 303711      | 36                   | LH          |
| 0800        | Knock Br                                     | 298812     | 303159      | 36                   | LH          |

River and Code: **GLYDE**

06G02

Tributary Of:

OS Catchment No: 95

OS Grid Ref of confluence: O 090 940

Date(s) Surveyed: 31/12/1977, 31/12/1978, 31/12/1979, 31/12/1981, 31/12/1983, 31/12/1985, 31/12/1990, 31/12/1994, 31/12/1997, 18/7/2000, 19/7/2000, 14/8/2003, 15/8/2003, 18/8/2003, 17/7/2006, 25/9/2009, 30/9/2009, 5/10/2009, 2/9/2012, 6/9/2012, 8/9/2012

| Station Nos. | Biological Quality Ratings (Q Values) |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|              | 1977                                  | 1978 | 1979 | 1981 | 1983 | 1985 | 1990 | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 | 2012 |
| 0049a        | -                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0073a        | -                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0099a        | -                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0100         | -                                     | 3    | -    | 4-5  | 4    | 5    | 4-5  | 4-5  | 4-5  | 4-5  | 4    | 4    | 4    | 3-4  |
| 0200         | -                                     | 4-5  | -    | 4    | 4-5  | 4-5  | 4-5  | -    | -    | -    | -    | -    | -    | -    |
| 0300         | -                                     | 4    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0400         | -                                     | 4    | -    | 4    | 4    | 3-4  | 4    | 4    | 3    | 4    | 4    | 4-5  | 4-5  | 4    |
| 0500         | 4                                     | -    | 3-4  | 4    | 3-4  | 3-4  | 3    | 3    | -    | 4    | 4    | -    | 4    | 4    |
| 0600         | 4-5                                   | -    | 4    | 4    | 5    | 4-5  | 4-5  | 4    | 3-4  | 4    | 4    | 3-4  | 4    | 4    |
| 0700         | 4                                     | -    | -    | -    | 4    | 4    | 4    | 3-4  | 3-4  | 3-4  | 3-4  | -    | -    | 3-4  |
| 0800         | -                                     | -    | -    | 4    | 4    | 3-4  | -    | -    | -    | -    | -    | -    | -    | -    |
| 0900         | -                                     | -    | 4    | 4    | 4-5  | 4-5  | 5    | 3-4  | 3    | 4    | 4-5  | 4    | 4    | 4    |
| 1000         | -                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 1001         | 4-5                                   | -    | 4    | 4    | 4    | 3-4  | 4    | -    | -    | -    | -    | -    | -    | -    |
| 1002         | -                                     | -    | -    | 1    | 1    | 2-3  | 4    | 3    | 4    | 4    | 4-5  | 4    | -    | -    |
| 1100         | -                                     | -    | -    | -    | -    | 3    | -    | -    | -    | -    | -    | -    | -    | -    |
| 1200         | 3-4                                   | -    | 3-4  | 3-4  | 4    | 3    | 3-4  | 3-4  | 3-4  | 3-4  | 3-4  | 3-4  | 4    | 3-4  |
| 1230         | -                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 3-4  |
| 1240         | -                                     | -    | -    | -    | -    | -    | 3    | -    | -    | -    | -    | -    | -    | -    |
| 1270         | -                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 1300         | -                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Assessment: Macroinvertebrate fauna indicated a general overall deterioration in the condition of the Glyde since 2009. Despite satisfactory ecological conditions recorded at all sites assessed in 2009, currently only the middle reaches of the river (Lagan Br (0400) , Aclint Br (0500) and Br W Mullacrew (0600)) merited good ecological condition in 2012. Disappointingly, the other five sites were downgraded to moderate ecological condition . .

| Station No. | Station Location              | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|-------------------------------|------------|-------------|----------------------|-------------|
| 0049a       | Drumsallagh Branch            | 0          | 0           | 0                    |             |
| 0073a       | Magheracloone Branch          | 0          | 0           | 0                    |             |
| 0099a       | Main Channel                  | 0          | 0           | 0                    |             |
| 0100        | Cormey Br                     | 280537     | 297971      | 35                   | MN          |
| 0200        | Tobermannan Br                | 282535     | 296614      | 35                   | LH          |
| 0300        | Ballyhoe Br                   | 285716     | 295404      | 35                   | LH          |
| 0400        | Lagan Br                      | 287438     | 296456      | 35                   | LH          |
| 0500        | Aclint Br                     | 289375     | 298093      | 35                   | LH          |
| 0600        | Br W of Mullacrew             | 294294     | 299538      | 36                   | LH          |
| 0700        | Tallanstown Br                | 295497     | 297731      | 36                   | LH          |
| 0800        | 0.5km d/s Tallanstown Br      | 295824     | 297384      | 36                   | LH          |
| 0900        | Mapastown Br                  | 298637     | 295436      | 36                   | LH          |
| 1000        | Mansfieldstown Br (Mid)       | 302350     | 295250      | 36                   | LH          |
| 1001        | Mansfieldstown Br (LHS)       | 302337     | 295243      | 36                   | LH          |
| 1002        | Mansfieldstown Br (RHS)       | 302322     | 295237      | 36                   | LH          |
| 1100        | 200m u/s Castlebellingham Br  | 305772     | 294961      | 36                   | LH          |
| 1200        | Castlebellingham Br           | 305976     | 295149      | 36                   | LH          |
| 1230        | 200 m d/s Castlebellingham Br | 306076     | 295303      | 36                   | LH          |



|      |                               |        |        |    |    |
|------|-------------------------------|--------|--------|----|----|
| 1240 | 1.5km d/s Castlebellingham Br | 306868 | 294568 | 36 | LH |
| 1270 | Weir u/s Annagassan           | 0      | 0      | 0  |    |
| 1300 | Annagassan Br                 | 308029 | 293826 | 36 | LH |

## Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0049a       | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0073a       | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0099a       | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0100        | 34  | 63   | 73  | 27  | 86      | 3        | 0    | 4     | 6        | 0     | 2     |
| 0200        | 30  | 75   | 61  | 39  | 85      | 4        | 0    | 3     | 6        | 0     | 1     |
| 0300        | 28  | 119  | 50  | 50  | 85      | 3        | 0    | 2     | 8        | 0     | 1     |
| 0400        | 26  | 134  | 49  | 51  | 84      | 3        | 0    | 2     | 9        | 0     | 2     |
| 0500        | 24  | 149  | 47  | 53  | 84      | 3        | 0    | 2     | 10       | 0     | 1     |
| 0600        | 21  | 268  | 54  | 46  | 83      | 2        | 0    | 2     | 12       | 0     | 1     |
| 0700        | 18  | 276  | 55  | 45  | 81      | 2        | 0    | 2     | 14       | 0     | 1     |
| 0800        | 17  | 276  | 55  | 45  | 81      | 2        | 0    | 2     | 14       | 0     | 1     |
| 0900        | 7   | 318  | 61  | 39  | 73      | 2        | 0    | 2     | 22       | 0     | 1     |
| 1000        | 5   | 346  | 64  | 36  | 69      | 2        | 0    | 2     | 26       | 0     | 1     |
| 1001        | 5   | 346  | 64  | 36  | 69      | 2        | 0    | 2     | 26       | 0     | 1     |
| 1002        | 5   | 346  | 64  | 36  | 69      | 2        | 0    | 2     | 26       | 0     | 1     |
| 1100        | 2   | 357  | 65  | 35  | 68      | 2        | 0    | 2     | 28       | 0     | 1     |
| 1200        | 2   | 357  | 65  | 35  | 68      | 2        | 0    | 2     | 28       | 0     | 1     |
| 1230        | 3   | 357  | 65  | 35  | 68      | 2        | 0    | 2     | 28       | 0     | 1     |
| 1240        | 2   | 358  | 65  | 35  | 68      | 2        | 0    | 2     | 28       | 0     | 1     |
| 1270        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 1300        | 1   | 360  | 66  | 34  | 67      | 2        | 0    | 2     | 28       | 0     | 1     |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **KILCURRY**

06K02

Tributary Of: 06C01 CASTLETOWN

OS Catchment No: 92

OS Grid Ref of confluence: J 028 098

Date(s) Surveyed: 31/12/1978, 31/12/1982, 31/12/1986, 31/12/1990, 31/12/1994, 31/12/1997, 6/7/2000, 12/8/2003, 11/7/2006, 24/6/2009, 6/9/2012

| Station Nos. | Biological Quality Ratings (Q Values) |      |      |      |      |      |      |      |      |      |      |
|--------------|---------------------------------------|------|------|------|------|------|------|------|------|------|------|
|              | 1978                                  | 1982 | 1986 | 1990 | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 | 2012 |
| 0100         | -                                     | 4-5  | 4-5  | 4    | 3-4  | -    | -    | -    | -    | -    | -    |
| 0200         | 4                                     | 4-5  | 4-5  | 4-5  | 3    | 4-5  | 4    | 4    | 4    | 4    | 4    |

Assessment: Macroinvertebrate fauna indicated continuing good ecological conditions in the Kilcurry River in 2012 .

| Station No. | Station Location           | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|----------------------------|------------|-------------|----------------------|-------------|
| 0100        | Br nr Lurgankeel           | 302729     | 311975      | 29                   | LH          |
| 0200        | Br at Mill nr Falmore Hall | 302451     | 310875      | 29                   | LH          |

## Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0100        | 24  | 1    | 92  | 8   | 46      | 0        | 0    | 0     | 54       | 0     | 0     |
| 0200        | 10  | 2    | 80  | 20  | 45      | 0        | 0    | 0     | 55       | 0     | 0     |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **KILLARY WATER**

06K01

Tributary Of: 06D01 DEE

OS Catchment No: 96

OS Grid Ref of confluence: N 884 760

Date(s) Surveyed: 31/12/1990, 31/12/1994, 31/12/1997, 20/7/2000, 20/8/2003, 27/7/2006, 1/10/2009, 31/8/2012

## Biological Quality Ratings (Q Values)

| Station Nos. | 1990 | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 | 2012 |
|--------------|------|------|------|------|------|------|------|------|
| 0100         | 3    | 3    | 3-4  | 3-4  | 3-4  | 3-4  | -    | -    |
| 0300         | 3-4  | -    | -    | -    | -    | -    | -    | -    |
| 0400         | 3-4  | -    | -    | -    | -    | -    | -    | -    |
| 0500         | 3-4  | 3-4  | 3-4  | 3-4  | 4    | 3-4  | 3    | 3    |

Assessment: Ecological condition remains poor and unchanged upstream of the Dee river confluence (0500) in 2012 .

| Station No. | Station Location      | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|-----------------------|------------|-------------|----------------------|-------------|
| 0100        | Killary Br Upper      | 287865     | 281331      | 35                   | MH          |
| 0300        | Killary Br Lower      | 287963     | 282920      | 35                   | MH          |
| 0400        | Mitchelstown Br       | 287761     | 284351      | 35                   | MH          |
| 0500        | SW Br u/s Dee R confl | 288601     | 285461      | 35                   | MH          |

## Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0100        | 62  | 25   | 100 | 0   | 75      | 0        | 0    | 0     | 25       | 0     | 0     |
| 0300        | 52  | 28   | 100 | 0   | 74      | 0        | 0    | 0     | 26       | 0     | 0     |
| 0400        | 43  | 34   | 100 | 0   | 76      | 0        | 0    | 0     | 24       | 0     | 0     |
| 0500        | 38  | 36   | 100 | 0   | 77      | 0        | 0    | 0     | 23       | 0     | 0     |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **KILMAINHAM**

06K04

Tributary Of: 06D01 DEE

OS Catchment No: 96

OS Grid Ref of confluence: N 792 885

Date(s) Surveyed: 31/12/1971, 31/12/1974, 31/12/1978, 31/12/1980, 31/12/1983, 31/12/1986, 31/12/1990, 31/12/1994, 31/12/1997, 20/7/2000, 19/8/2003, 18/7/2006, 30/9/2009, 31/8/2012

Formerly 06D01:Dee Kilmainham Wood Branch

## Biological Quality Ratings (Q Values)

| Station Nos. | 1971 | 1974 | 1978 | 1980 | 1983 | 1986 | 1990 | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 | 2012 |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0055         | -    | -    | -    | -    | -    | -    | -    | 4    | 3-4  | 4    | 4    | 4    | 4    | 3-4  |
| 0075         | -    | -    | -    | -    | -    | -    | -    | 3    | 4    | 4    | 4    | -    | -    | -    |
| 0100         | 4-5  | 5    | 4-5  | 4    | 4-5  | 4-5  | 4-5  | 4-5  | 4    | 4    | 4    | 4    | 4    | 3-4  |

Assessment: A disappointing decline in ecological condition from good to moderate was recorded at both sites assessed on the Kilmainham in September 2012 .

| Station No. | Station Location                   | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|------------------------------------|------------|-------------|----------------------|-------------|
| 0055        | Breaky Br                          | 274500     | 291870      | 35                   | MH          |
| 0075        | Br N of Kilflannan (at T junction) | 275880     | 290540      | 35                   | MH          |
| 0100        | Br u/s Whitewood L                 | 278950     | 289180      | 35                   | MH          |

## Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0055        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0075        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0100        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **MAGHERACLOONE STREAM**

06M01

Tributary Of: 06G02 GLYDE

OS Catchment No: 95

OS Grid Ref of confluence: N 803 981

Date(s) Surveyed: 31/12/1990, 31/12/1994, 31/12/1997, 19/7/2000, 18/8/2003, 14/7/2006, 30/9/2009, 2/9/2012

## Formerly Magheraclone Branch of the Glyde River 06G02

## Biological Quality Ratings (Q Values)

| Station Nos. | 1990 | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 | 2012 |
|--------------|------|------|------|------|------|------|------|------|
| 0082         | 5    | 3-4  | 4-5  | -    | -    | -    | -    | -    |
| 0096         | 4-5  | 4-5  | 4-5  | 4-5  | 4    | 4    | 4    | 4    |

Assessment: Macroinvertebrate fauna indicate continuing good ecological condition in the Magheraclone Stream in 2012 .

| Station No. | Station Location        | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|-------------------------|------------|-------------|----------------------|-------------|
| 0082        | Br E of Bench Mark 484' | 277450     | 300010      | 35                   | MN          |
| 0096        | Br N of Lisnakeeny      | 279550     | 299580      | 35                   | MN          |

## Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0082        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |

0096                      N/A N/A    N/A N/A N/A                      N/A                      N/A    N/A    N/A                      N/A    N/A

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **PROULES**

06P01

Tributary Of: 06G02 GLYDE

OS Catchment No: 95

OS Grid Ref of confluence: N 912 993

Date(s) Surveyed: 31/12/1974, 31/12/1976, 31/12/1978, 31/12/1980, 31/12/1982, 31/12/1984, 31/12/1990, 31/12/1991, 31/12/1994, 31/12/1997, 18/7/2000, 18/8/2003, 13/7/2006, 29/7/2009, 30/7/2009, 2/9/2012

#### Biological Quality Ratings (Q Values)

| Station Nos. | 1974 | 1976 | 1978 | 1980 | 1982 | 1984 | 1990 | 1991 | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 | 2012 |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0100         | -    | 5    | 5    | 5    | 4    | 4-5  | 5    | -    | 4    | 4-5  | -    | -    | -    | -    | 4    |
| 0110         | -    | -    | -    | -    | -    | -    | 3    | -    | -    | -    | 4-5  | 4-5  | 4    | 4    | 4    |
| 0200         | 1    | 1-2  | 2-3  | 3    | 4    | 4    | 4    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0300         | 1    | 1    | 3    | 1    | 3    | 3-4  | 1-2  | 1-2  | 2-3  | 2    | 2-3  | 2-3  | 2-3  | n/s  | 2-3  |
| 0400         | 2    | 2-3  | 2-3  | 2    | 3-4  | 3    | 2    | 2    | 2    | 2    | 2-3  | 3    | -    | -    | -    |
| 0500         | 3    | 3    | 4    | 4    | 4    | 4-5  | 3-4  | -    | -    | -    | -    | -    | -    | -    | 3-4  |
| 0600         | -    | 4    | 3-4  | 4    | 4    | 4    | 3-4  | -    | 3    | 3    | 3-4  | 3    | 3-4  | 3-4  | 3-4  |

Assessment: The Proules River had good ecological condition at both sites assessed upstream of Carrickmacross in 2012. Downstream of Carrickmacross (0900) the macroinvertebrate fauna indicated poor ecological condition, unchanged since last assessed in 2006. In the lower section of the river, moderate condition was recorded at Ballymackey Br (0500) and at the bridge near Killanny (0600) .

| Station No. | Station Location              | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|-------------------------------|------------|-------------|----------------------|-------------|
| 0100        | Dry Br                        | 283385     | 304013      | 35                   | MN          |
| 0110        | 500m d/s Dry Br (d/s St 0100) | 283385     | 304013      | 35                   | MN          |
| 0200        | Ardee Rd Br Carrickmacross    | 284120     | 303395      | 35                   | MN          |
| 0300        | Just u/s Lough Naglack        | 284961     | 302669      | 35                   | MN          |
| 0400        | Broken Br                     | 285669     | 302902      | 35                   | MN          |
| 0500        | Ballymackney Br               | 287803     | 301952      | 35                   | MN          |
| 0600        | Br at Killanny                | 289348     | 301043      | 35                   | LH          |

#### Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0100        | 44  | 8    | 52  | 48  | 85      | 0        | 0    | 0     | 15       | 0     | 0     |
| 0110        | 44  | 8    | 52  | 48  | 85      | 0        | 0    | 0     | 15       | 0     | 0     |
| 0200        | 34  | 10   | 43  | 57  | 77      | 0        | 0    | 8     | 15       | 0     | 0     |
| 0300        | 26  | 17   | 25  | 75  | 75      | 7        | 0    | 9     | 9        | 0     | 0     |
| 0400        | 30  | 18   | 24  | 76  | 75      | 7        | 0    | 9     | 9        | 0     | 0     |
| 0500        | 29  | 87   | 49  | 51  | 87      | 1        | 0    | 3     | 8        | 0     | 0     |
| 0600        | 28  | 91   | 52  | 48  | 87      | 1        | 0    | 3     | 8        | 0     | 0     |

Alt is in metres Area is km2 and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.

River and Code: **WHITE (LOUTH)**

06W01

Tributary Of: 06D01 DEE

OS Catchment No: 96

OS Grid Ref of confluence: O 062 908

Date(s) Surveyed: 31/12/1974, 31/12/1976, 31/12/1978, 31/12/1980, 31/12/1982, 31/12/1986, 31/12/1990, 31/12/1991, 31/12/1994, 31/12/1997, 24/7/2000, 21/8/2003, 27/7/2006, 29/7/2009, 5/10/2009, 6/10/2011, 8/9/2012

## Biological Quality Ratings (Q Values)

| Station Nos. | 1974  | 1976 | 1978 | 1980 | 1982 | 1986 | 1990 | 1991 | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 | 2011 | 2012 |
|--------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0040         | -     | -    | -    | -    | -    | -    | 4    | -    | 4-5  | 4-5  | 3-4  | 4    | 4    | 4    | -    | -    |
| 0050         | -     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0080         | -     | -    | -    | -    | -    | -    | 4    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0100         | -     | -    | 3-4  | 4-5  | 3-4  | 4-5  | 4-5  | -    | 4    | 4    | 3-4  | 3-4  | -    | -    | -    | 4    |
| 0200         | 3     | 3    | 3-4  | 4    | 4-5  | 4-5  | 4    | -    | -    | -    | -    | -    | 3-4  | 4    | -    | -    |
| 0290         | -     | -    | -    | -    | -    | -    | 3-4  | -    | 3    | 3    | 3-4  | 3-4  | -    | -    | -    | -    |
| 0300         | -     | -    | 2/0  | 3    | 4-5  | 4-5  | 2-3  | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 0400         | -     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 3    |
| 0500         | 2-3/0 | 1/0  | 3/0  | 3    | 3/0  | 1/0  | 2    | 2    | 2-3  | 2-3  | 3-4  | 3-4  | 3-4  | 3-4  | 3    | -    |
| 0530         | -     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Assessment: Satisfactory ecological conditions were maintained in the upper reaches of the White River (New Br. 0100) in 2012. However, the lower reaches remain unsatisfactory, downstream of Dunleer Railway Bridge (0400).

| Station No. | Station Location           | National X | Grid Ref. Y | Discovery Series No. | County Code |
|-------------|----------------------------|------------|-------------|----------------------|-------------|
| 0040        | Br u/s White River Br      | 300889     | 284557      | 36                   | LH          |
| 0050        | White River Br             | 301366     | 284638      | 36                   | LH          |
| 0080        | Gibbers Bridge             | 303172     | 284927      | 36                   | LH          |
| 0100        | New Br                     | 304628     | 285661      | 36                   | LH          |
| 0200        | Athclare Br                | 305896     | 286586      | 36                   | LH          |
| 0290        | Grangebellew Rd Br Dunleer | 305873     | 287870      | 36                   | LH          |
| 0300        | Main Rd Br Dunleer         | 305753     | 288205      | 36                   | LH          |
| 0400        | 500m d/s Dunleer Ry Br     | 305723     | 289025      | 36                   | LH          |
| 0500        | Coneyburrow Br             | 305719     | 289280      | 36                   | LH          |
| 0530        | 800 m d/s Coneyburrow Br   | 305820     | 289705      | 36                   | LH          |

## Site Altitude and Upstream Catchment Characteristics (where available):

| Station No. | Alt | Area | Sil | Cal | Pasture | Forestry | Bogs | Urban | Misc Ag. | Water | Other |
|-------------|-----|------|-----|-----|---------|----------|------|-------|----------|-------|-------|
| 0040        | 98  | 7    | 100 | 0   | 67      | 8        | 0    | 0     | 26       | 0     | 0     |
| 0050        | 93  | 8    | 100 | 0   | 63      | 8        | 0    | 0     | 29       | 0     | 0     |
| 0080        | 68  | 10   | 100 | 0   | 58      | 6        | 0    | 0     | 36       | 0     | 0     |
| 0100        | 53  | 30   | 100 | 0   | 66      | 4        | 0    | 1     | 29       | 0     | 0     |
| 0200        | N/A | N/A  | N/A | N/A | N/A     | N/A      | N/A  | N/A   | N/A      | N/A   | N/A   |
| 0290        | 28  | 45   | 100 | 0   | 59      | 3        | 0    | 2     | 37       | 0     | 0     |
| 0300        | 24  | 45   | 100 | 0   | 59      | 3        | 0    | 2     | 37       | 0     | 0     |
| 0400        | 20  | 47   | 100 | 0   | 58      | 3        | 0    | 3     | 36       | 0     | 0     |
| 0500        | 17  | 55   | 100 | 0   | 58      | 2        | 0    | 3     | 37       | 0     | 0     |
| 0530        | 13  | 57   | 100 | 0   | 58      | 2        | 0    | 3     | 37       | 0     | 0     |

Alt is in metres Area is km<sup>2</sup> and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.