

1.0 EXECUTIVE SUMMARY

Fingal County Council (FCC) established a monitoring programme under S.I. No 12 of 2001, Water Quality (Dangerous Substances) Regulations in 2001. Under the current monitoring programme 13 rivers are sampled at 25 monitoring points on a quarterly basis and 3 estuaries are sampled at 20 monitoring points biannually.

Section 1 of this report provides an overview of current water quality in relation to Dangerous Substances and outlines Fingal County Council's progress in maintaining compliance with the Regulations. In the current reporting period water quality was found to be satisfactory at 13 of the river sampling points. However a number of periodic exceedences were encountered in the rivers and estuaries in the current reporting period. FCC's response to these incidents is also outlined.

FCC has identified potential pressures in relation to Dangerous Substances and these are outlined in Section 2. Municipal Wastewater Treatment Plants at Swords and Malahide have been upgraded under the S.I No 254/2001 Urban Wastewater Treatment Regulations to include tertiary treatment. Smaller Rural Treatment Plants are in the process of being upgraded and will include nutrient removal in the final stages. The Water Pollution Control Section liase closely with the Drainage Section in relation to the quality of effluent discharges. The Water Pollution Control Section have established a 'flagging system' with the Central Laboratory, DCC whereby FCC are notified of an exceedences in Trade Effluent Discharge Licence limits and are then able to issue the licensed company with letters requiring them bring their practices in line with our requirements. Periodically elevated concentrations of atrazine are encountered on the Ward river. FCC is currently liasing with Teagasc and the E.P.A on the matter.

Section 3 provides provides details relating to Implementation of Measures. Some measures, for example, Farms Survey and Onsite Treatment System Surveys, listed in the Measures Report have been reviewed as limited resources within the Section were hindering progress. FCC is considering outsourcing these surveys and are liasing with other Local Authorities, Teagasc, the Irish Farmers Association (IFA) and the Department of Agriculture and Food (DAF) on the matter.

Section 4 provides an overview of Progress to Date in relation to Implementation of Measures and outlines problems encountered by FCC. The Water Pollution Control Section have adopted an Environmental Management System approach to implementation of the Dangerous Substances Regulations and continually review and update the Implementation Programme wherever necessary.

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1.0 CURRENT WATER QUALITY STATUS AND TARGETS

The Baseline Condition was measured at 45 stations on 13 rivers and 3 estuaries. Under the established Dangerous Substances Monitoring Programme, FCC have continued to take quarterly samples at 25 sampling stations on the 13 riverbodies as per the baseline survey. Analysis of the samples is carried out by the Central Laboratory, Dublin City Council. In addition 20 sampling stations on the 3 estuarine waterbodies are monitored biannually. Analysis of these samples is carried out by an independent laboratory.

The tables contained in Appendix B provide detailed analysis results for the various parameters monitored under the Dangerous Substances Regulations. The average result is calculated for each year of the reporting period and shown separately as follows:

Year one: 1st August 04 – 31st July 05
Year two: 1st August 05 – 31st July 06

The tables are set out for each monitoring station on the rivers and estuaries included in this programme.

1.1 Delvin River Catchment 08/D/01

The Delvin River forms part of the border between the Fingal County Council and Meath County Council jurisdictions in the North of the County. The catchment area of the Delvin River is divided between Fingal County Council and Meath County Council. The southern catchment is located in Fingal.

The main pressures on water quality are from agricultural runoff; three municipal treatment works at Garristown, Naul and Stamullen (Meath County Council) and onsite treatment systems.

There are three monitoring points on the Delvin: Station 0080 - Bridge West of Naul, station 0250 - Bridge NW of Forty Acres and station 0400 - Bridge at Bridgefort House.

In the current reporting period water quality in respect of the parameters listed in the Dangerous Substances Regulations was found to be satisfactory at the three monitoring points. No sample result exceeded the limits set out in the regulations.

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1.2 Ballough River Catchment 08/B/03

The Ballough River catchment is located entirely within the FCC area. There are no urban centres within the catchment. The Ballough River discharges to the Irish Sea at the Rogerstown Estuary located in North County Dublin.

The main pressures on water quality in the catchment are from agricultural runoff, a municipal wastewater treatment plant at Colecot, onsite treatment systems and two premises operating with a Trade Effluent Discharge Licence to waters.

There are two monitoring points on the Ballough: Station 1400 - Bridge W of Five Roads and station 1600 - Corduff Bridge.

In the current reporting period water quality in respect of the parameters listed in the Dangerous Substances Regulations was found to be satisfactory at station 1600, Corduff Bridge. No sample result exceeded the limits set out in the regulations.

One exceedence was noted on the Ballough at station 1400, Bridge W of Five Roads. On 8/11/05. Copper was elevated at 93 $\mu\text{g/l}$, this is in exceedence of the limit of 30 $\mu\text{g/l}$ set out in the Regulations. An investigation into the source of the pollution yielded no result however no exceedence in copper concentrations at this point has been noted in the ensuing monitoring period. The overall average figures for each of the parameters listed in the Regulations at the above stations, as indicated in Appendix B, are within the limits of the Regulations.

1.3 Ballyboghil River Catchment 08/B/01

The Ballyboghil River catchment is located entirely within the FCC area.

The main pressures on water quality are from agricultural runoff; two municipal wastewater treatment works at Oldtown and Ballyboghil and onsite treatment systems.

There are two monitoring points on the Ballyboghil: Station 1900 - Bridge S of Trallie Lodge and station 2200 - Bridge in Ballyboghil.

In the current reporting period water quality in respect of the parameters listed in the Dangerous Substances Regulations was found to be satisfactory at the two monitoring points. No sample result exceeded the limits set out in the regulations.

1.4 Broadmeadow River Catchment 08/B/02

The Broadmeadow River crosses the border with MCC and flows in an easterly direction entering the Irish Sea at the Broadmeadow Estuary at Swords, Co. Dublin downstream of the confluence with the Ward River.

The main pressures on water quality are from agricultural runoff, onsite treatment systems, run-off from construction sites and from the municipal wastewater treatment plant at Rolestown, Co. Dublin. In addition the Broadmeadow flows adjacent to the urban centre of Swords, Co. Dublin.

There are three monitoring points on the Broadmeadow: Station 0600 - WSW of Fieldstown House, station 0700 - Lispopple Bridge and station 0800 - Newtown Bridge.

In the current reporting period water quality in respect of the parameters listed in the Dangerous Substances Regulations was found to be satisfactory at station 0700 Lispopple Bridge. No sample result exceeded the limits set out in the regulations.

Two exceedences were noted in the current reporting period:

On 03/05/2005 at station 0600 WSW of Fieldstown House and station 0800 Newtown Bridge, lead concentrations were elevated at 13 µg/l, this is in exceedence of the limit of 10 µg/l set out in the regulations. No exceedence has been encountered in respect of lead at these locations in the ensuing monitoring period.

On 1/11/2005 at station 0800 Newtown Bridge, elevated concentrations of nickel were observed, 102 µg/l, this in exceedence of the limit of 50 µg/l set out in the regulations. No exceedence has been encountered in respect of lead at these locations in the ensuing monitoring period. The overall average figures for each of the parameters listed in the Regulations at the above stations, as indicated in Appendix B, are within the limits of the Regulations.

1.5 Ward River Catchment 08/W/01

The Ward River crosses the FCC and MCC border and flows in an easterly direction entering the Irish Sea at the Broadmeadow Estuary, Swords Co. Dublin downstream of the confluence with the Broadmeadow River.

The main pressures on water quality are from agricultural runoff, onsite treatment systems, urban stormwater overflows and misconnections to the surface water system at Swords.

There are three monitoring points on the Ward: Station 0070- Coolrath Bridge, station 0300 –Bridge at Kileek and station 0610 – Scotchstone Bridge.

One exceedence was noted in the current reporting period:

On 16/5/06 at the three monitoring points on the Ward. Atrazine was elevated 5.7 $\mu\text{g/l}$ at station 0070- Coolrath Bridge, 2.37 $\mu\text{g/l}$ at station 0300 –Bridge at Kileek and 1.27 $\mu\text{g/l}$ at station 0610 – Scotchstone Bridge, this is in exceedence of the limit of 1 $\mu\text{g/l}$ set out in the regulations. No other exceedences were noted in relation to atrazine in the current reporting period. The overall average figure for the above stations as contained in this report is within the limits of the Regulations. The overall average figures for each of the parameters listed in the Regulations at the above stations, as indicated in Appendix B, are within the limits of the Regulations.

FCC are liaising closely with Teagasc and Meath County Council (MCC) in relation to this matter as elevated concentrations of atrazine were also observed on the Ward during the baseline survey.

1.6 Mayne River Catchment 09/M/03

The Mayne River forms part of the border with DCC and flows in an easterly direction entering the Irish Sea at Moyne Bridge on the Baldoyle Estuary.

The main pressures on water quality are from agricultural runoff, run-off from construction sites, stormwater overflows and misconnections to the surface water system.

There is one monitoring point on the Mayne: Station 0500; Hole in the Wall Road Bridge.

In the current reporting period water quality in respect of the parameters listed in the Dangerous Substances Regulations was found to be satisfactory at the monitoring point on the Mayne. No sample result exceeded the limits set out in the regulations.

1.7 Pinkeen River Catchment 09/P/02

The Pinkeen River catchment is located entirely within the FCC area. The main pressures are from agricultural activities and onsite treatment systems.

There is one monitoring point on the Pinkeen: Station 0700 - Bridge SE of Powerstown House.

One exceedence was noted in the current reporting period:

On 24/5/05 at station 0700, Bridge SE of Powerstown House on the Pinkeen, elevated zinc concentrations of 207 µg/l were observed, this is in exceedence of the limit of 100 µg/l set out in the regulations. No exceedence has been encountered in respect of zinc at these locations in the ensuing monitoring period. Due to the low flow in the Pinkeen in May and on advice of the Central Laboratory, Dublin City Council an explanation for this exceedence may be the presence of sediment in the sample as a result of the sampling method. FCC are monitoring the situation closely. The overall average figures for each of the parameters listed in the Regulations at the above stations, as indicated in Appendix B, are within the limits of the Regulations.

1.8 Tolka River Catchment 09/T/01

The Tolka River flows from Meath, through Fingal to Dublin City entering at Ratoath Rd. It enters Dublin Bay at North Strand, Dublin.

The main pressures on water quality are from agricultural runoff, urban stormwater overflows and misconnections to the surface water system. The river flows through densely populated areas of Mulhuddart, Blanchardstown and Castleknock with input from Clonee and Dunboyne in County Meath.

There are two monitoring points on the Tolka: Station 0800 - Mulhuddart Bridge and station 1000 - Abbotstown Bridge.

In the current reporting period water quality in respect of the parameters listed in the Dangerous Substances Regulations was found to be satisfactory at the two monitoring points on the Tolka. No sample result exceeded the limits set out in the regulations in the ensuing monitoring period.

1.9 Hurley River Catchment 08/H/01

The Hurley is located in the north of the County and flows from the FCC area into MCC's jurisdiction. The Hurley forms part of the Nanny River catchment, which enters the Irish Sea at Julianstown, Co. Meath.

There is one monitoring point on the Hurley: Station 0060 - Bridge S of Borranstown House.

One exceedence was noted in the current reporting period:

On 1/11/05 at Station 0060, Bridge S of Borranstown House, zinc concentrations of 473 µg/l were observed this is exceedence of the limit of 100 µg/l set out in the regulations. No exceedence has been encountered in respect of zinc at this location in the ensuing monitoring period. Due to the low flow in the Hurley in May and on advice of the Central Laboratory, Dublin City Council an explanation for this exceedence may be the presence of sediment in the sample as a result of the sampling method. FCC are monitoring the situation closely.

1.10 Mill Stream Catchment

The Mill stream is located in North County Dublin. It flows in an easterly direction before entering the Irish Sea at Skerries, Co. Dublin. The Mill stream flows through a largely rural area before entering the urban centre of Skerries. FCC's monitoring points on the Mill Stream are upstream of Skerries town.

There are two monitoring points on the Mill Stream, Baldongan Bridge and Railway Bridge.

In the current reporting period water quality in respect of the parameters listed in the Dangerous Substances Regulations was found to be satisfactory at Railway Bridge. No sample result exceeded the limits set out in the regulations in the ensuing monitoring period.

One exceedence was noted in the current reporting period:

On 17/5/06 at Baldongan Bridge on the Mill Stream, Atrazine was elevated 1.23 µg/l. This is in exceedence of the limit of 1µg/l set out in the regulations. No other exceedences were noted in relation to atrazine in

the current reporting period. The overall average figures for each of the parameters listed in the Regulations at the above stations, as indicated in Appendix B, are within the limits of the Regulations.

FCC are liaising closely with Teagasc and in relation to this matter.

1.11 Gaybrook Stream Catchment

The Gaybrook Stream rises at Nevinstown to the south of Swords, Co. Dublin. It flows in an easterly direction through an industrial park and a housing development at Feltrim, Swords, Co. Dublin. It enters the Broadmeadow estuary at Malahide, Co. Dublin.

There is one monitoring point on the Gaybrook Stream at Swords Road, Malahide, Co. Dublin. There is a housing development immediately upstream of the sampling point.

One exceedence was noted in the current reporting period:

On 11/05/05 at Swords Road, Zinc concentrations of 343 µg/l were observed. This is in exceedence of the limit of 100 µg/l set out in the regulations. No exceedence has been encountered in respect of zinc at this location in the ensuing monitoring period. Due to the low flow in the Gaybrook Stream in May and on advice of the Central Laboratory, Dublin City Council an explanation for this exceedence may be the presence of sediment in the sample as a result of the sampling method. FCC are monitoring the situation closely. No other exceedences were noted in relation to zinc in the current reporting period. The overall average figures for each of the parameters listed in the Regulations at the above stations, as indicated in Appendix B, are within the limits of the Regulations.

1.12 Sluice River Catchment

The Sluice river rises to the north of Dublin Airport and flows in an easterly direction to enter the Irish Sea at Portmarnock, Co. Dublin. The Sluice river flows through a largely rural area.

There are two monitoring points on the Sluice River, Forrest Little Bridge and the Gauging Station at Portmarnock.

In the current reporting period water quality in respect of the parameters listed in the Dangerous Substances Regulations was found to be satisfactory at Forrest Little Bridge. No sample result exceeded the limits set out in the regulations in the ensuing monitoring period.

One exceedence was noted in the current reporting period:

On 25/05/05 at the Gauging Station, elevated zinc concentrations of 361 µg/l were observed. This is in exceedence of the limit of 100 µg/l set out in the regulations. No exceedence has been encountered in respect of zinc at this location in the ensuing monitoring period. Due to the low flow in the Sluice River in May and on advice of the Central Laboratory, Dublin City Council an explanation for this exceedence may be the presence of sediment in the sample as a result of the sampling method. FCC are monitoring the situation closely. The overall average figures for each of the parameters listed in the Regulations at the above stations, as indicated in Appendix B, are within the limits of the Regulations.

1.13 Santry River Catchment 09/S/01

The Santry river rises to the southwest of Dublin Airport. It flows in an easterly direction through the urban areas of Santry, Coolock and Raheny. There are commercial influences in the form of Airways Industrial Estate at Santry and the Clonshaugh Industrial Estate at Coolock. It enters North Dublin Bay at Raheny, Dublin 5. The Santry river flows from the FCC functional area into the functional area of Dublin City Council (DCC).

There are two monitoring points on the Santry River at Ballymun Road Bridge and D/S of Airways Industrial Estate.

In the current reporting period water quality in respect of the parameters listed in the Dangerous Substances Regulations was found to be satisfactory at Ballymun Road Bridge. No sample result exceeded the limits set out in the regulations in the ensuing monitoring period.

One exceedence was noted in the current reporting period:

On 29/11/05 Santry D/S of Airways Industrial Estate, copper was elevated at 52 µg/l. This is in exceedence of the limit of 30 µg/l set out in the Regulations. FCC Drainage Section, Water Services Department operate a pump station upstream of Airways Industrial Estate. FCC, Water Pollution Control Section are liaising closely with the Drainage Section on this matter. No exceedence in copper concentrations at this

point has been noted in the ensuing monitoring period. The overall average figures for each of the parameters listed in the Regulations at the above stations, as indicated in Appendix B, are within the limits of the Regulations.

1.14 Rogerstown Estuary Catchment

The Rogerstown estuary is located in North County Dublin adjacent to the urban centres of Rush and Lusk.

There are five sampling points on the Rogerstown estuary.

Exceedences in relation to concentrations of copper, chromium and dichloromethane were observed on one occasion at Rogerstown estuary. On 18/02/05 elevated levels of copper, chromium and dichloromethane were measured at the five stations on the Rogerstown estuary. The Water Pollution Control Section are investigating the matter. The overall average figures for each of the parameters listed in the Regulations at the above stations, as indicated in Appendix B, are within the limits of the Regulations.

1.15 Broadmeadow Estuary Catchment

The Broadmeadow estuary located in North County Dublin adjacent to the urban centres of Swords and Malahide.

There are 12 sampling points on the Broadmeadow estuary.

On two occasions 11/11/2005 and 16/05/06, exceedences in concentrations of copper and arsenic were observed at 8 stations within the Broadmeadow estuary, Stations 35-42. On 16/05/06, lead concentrations were also elevated at station 35 on the Broadmeadow estuary. Elevated levels of dichloromethane were observed on two occasions on the 24/3/05 and 11/11/05 at stations 36 and 42. The overall average figures for each of the parameters listed in the Regulations at the above stations, as indicated in Appendix B, are within the limits of the Regulations.

These stations are located downstream of the Swords Wastewater Treatment Plant operated by FCC and also downstream of the Industrial Estate. FCC are liaising closely with the Drainage Section, Water Services Department, FCC in relation to the matter and are also due to carry out a survey of the Industrial Estate.

1.16 Baldoyle Estuary Catchment

There are three sampling points on the Baldoyle estuary.

On one occasion 29/11/05 elevated levels of nickel were observed at station 45. This was 34 µg/l, above the limit set out in the regulations of 25 µg/l . No sample result exceeded the limits set out in the regulations in the ensuing monitoring period. FCC is monitoring the situation. The overall average figures for each of the parameters listed in the Regulations at the above stations, as indicated in Appendix B, are within the limits of the Regulations.

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2.0 IDENTIFICATION OF POTENTIAL PRESSURES

The baseline survey for the functional area of Fingal showed levels of the various substances at the vast majority of monitoring stations to be within the limits set out in the Dangerous Substances Regulations. The only exceptions to this were the values for atrazine on the Ward and the Pinkeen and the value for zinc at one station on the Broadmeadow estuary.

In the current reporting period water quality in respect of the parameters listed in the Dangerous Substances Regulations was found to be satisfactory at 13 of the river sampling points. A number of exceedences in concentrations of substances listed in the Dangerous Substances Regulations were encountered in the rivers and estuaries in the current reporting period as outlined in Section 1. These exceedences are investigated and monitored as appropriate.

2.1 Waste Water and Drinking Water Treatment Works

The only Drinking Water Treatment Works within Fingal, Leixlip Water Treatment Works abstracts water from the River Liffey. The Liffey is not monitored by Fingal County Council for the purposes of Dangerous Substances Regulations.

There are a number of waste water treatment plants within the functional area of Fingal County Council. Of these, Swords Wastewater Treatment plant is the only plant which has a significant industrial input, however this plant has recently been upgraded under the Urban Wastewater Treatment Regulations 2001 and includes tertiary treatment of the final effluent. All significant industries discharging to the Swords collection system are monitored by the local authority or the EPA to ensure compliance with their Trade Effluent Discharge Licences or IPPC licences. Where FCC encounter an exceedence in a Trade Effluent Discharge Licence a report is submitted to the E.P.A.

The smaller Treatment Work in rural Fingal are being upgraded to include nutrient removal and reduce pollution loading on riverbodies. A number of these contracts have already gone to tender for the Ballyboghil and Garristown plants. The Naul and Oldtown Treatment Plants are in the planning stages.

An investigation into the source of elevated levels of copper, arsenic and dichloromethane in the Braodmeadow estuary is currently underway.

2.2 Industrial and other Point Source Discharges

The most significant industrial discharges relevant to these regulations are the IPPC licensed discharges within the Swords Collection System and particularly Arch Chemicals and Swords Laboratories. Monitoring of these discharges is comprehensive and all exceedences are required to be reported to the E.P.A as well as being recorded within the Water Pollution database. The Water Pollution Control Section have established a 'flagging system' with the Central Laboratory, DCC whereby FCC are notified of an exceedences in licence limits and are then able to issue the licensed company with letters requiring them bring their practices in line with our requirements.

2.3 Urban Stormwater Overflows and Run-off

The run-off from roads and industrial areas provides the potential for pollution of the receiving waters. To combat this, efforts are being made to target specific risk areas and ensure that appropriate measures are put in place by way of bunding of fuel areas or the provision of oil and silt interceptors as appropriate. These issues are also considered when issuing discharge licences. FCC require establishments to comply with SEPA guidelines in relation to the bunding of oil tanks at the planning stages.

Various assessments of the existing networks are underway such as the Greater Dublin Strategic Drainage Study (GDSDS). This study highlights various capacity constraints within the system and recommends measures to alleviate these constraints. Of primary concern to this report is the reduction of spills from combined system overflows. In this regard, some of the recommended works have been completed with further recommendations due to be implemented in due course.

2.4 Agricultural Run-off

One incidence of elevated Atrazine on the Ward was reported in May 2006. Each of the three stations on the Ward were affected by the elevated concentrations of atrazine on this occasion. It is suspected that the elevated levels of Atrazine recorded on the Ward and Pinkeen are attributable to agricultural run-off due to its use as a herbicide. As the Ward flows from the Fingal/Meath border towards Swords, Co. Dublin the levels of atrazine reduced at regular intervals. The Ward flows through a largely rural area upstream of Swords and agricultural land use in the area is largely tillage. Consultation with Teagasc revealed the application times of herbicides are spring time usually around April/May. FCC along with MCC are investigating the matter as atrazine is a banned substance.

2.5 Discharges From Farmyards

Fingal County Council established a Farms Survey Scheme in 2002 to carry out a comprehensive survey of farms in the county to ensure that all farms comply with the Code of Good Farming Practice. Where unacceptable practices are discovered, appropriate action is taken such as the issuing of Section 12 Notices.

To counter the diffuse pollution from agricultural land a proposal was made to enact Agricultural Byelaws to regulate the spreading of fertiliser on land and to implement Nutrient Management Plans where appropriate. Control and management of herbicides and pesticides will also be addressed. FCC have decided to delay the introduction of these byelaws on the advice of the Department of Agriculture and Food (DAF).

The DAF advised that the introduction of the Nitrates Regulations and subsequent Nitrates Action Programme may provide more stringent criteria for storage times and fertiliser application rates than criteria contained in the Agricultural byelaws FCC may introduce. FCC are liaising closely with Teagasc and the DAF in relation to the Nitrates Regulations. A review of progress in relation to water quality under the Nitrates Action Programme will be carried out and a final decision on whether to introduce byelaws made in due course. FCC are also liaising with Teagasc and the DAF in relation to Dangerous Substances from agricultural sources.

Farm Surveys and Septic Tank Surveys have not been carried out in due to lack of resources, 2006, Fingal County Council is investigating alternative methods of carrying out Farm Surveys and Septic Tank Surveys and are liaising with other Local Authorities. FCC are carrying out an Agricultural Review and are considering out-sourcing farm surveys and have commenced discussions with Wicklow County Council based on their own experience of out-sourcing, Meath County Council regarding cross border waterbodies, Teagasc, the IFA and other stakeholders.

2.6 Groundwater

A new groundwater source has being developed by Fingal County Council to provide additional water supply to the north of the county at Bog of the Ring, North County Dublin. This source is operational and is intended to be expanded in the near future. A Groundwater Protection Plan was prepared, in conjunction with the GSI, for the Bog of the Ring Aquifer. Based on this, the planning requirements for proposed works in this area have been increased depending on the location of the proposed development

2.7 Afforestation

There are no significant forests within the functional area of Fingal County Council.

2.8 Sources of Toxic Contaminants

Both Dunsink and Balleally Landfill sites are licensed by the EPA and are monitored as conditioned in the licences.

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3.0 IMPLEMENTATION OF MEASURES

To maintain progress towards the targets set out in the Measures Report, a programme of measures are being implemented on either a countywide or on a catchment basis. These measures are aimed at countering both the diffuse pollution, mainly from the agricultural sector and urban run-off, and the point source pollution including trade effluent discharges, UWWTW discharges and stormdrain overflows. An Implementation Programme Summary Table is included below and Catchment Implementation Programme Tables are included in Appendix C.

3.1 A comprehensive farms survey has commenced which will facilitate inspection of current farm practices and the imposing of conditions on farms with substandard practices. Issues addressed in this survey include consideration of the storage and use of various dangerous substances such as those used in herbicides. Limited resources have hindered progress in this area. FCC are carrying out an Agricultural Review and are considering out-sourcing farm surveys and have commenced discussions with Wicklow County Council based on their own experience of out-sourcing, Meath County Council regarding cross border waterbodies, Teagasc, the IFA and other stakeholders.

3.2 Existing discharge licences shall continue to be monitored and enforced and shall be reviewed where appropriate to include limits on those substances included in these regulations. A survey is also underway of various unlicensed discharges, such as golf courses, nursing homes, pubs and guesthouses and discharge licences are issued as required.

3.3 A septic tank survey on a catchment basis commenced in 2002. Due to lack of resources this has not occurred in 2006 but will continue in 2007 possibly as part of the Farms Survey mentioned in Section 3.1.

3.4 Fingal County Council are participating in the ERBD Management Project and regularly attend information meetings held in relation to the ERBD. The Final Characterisation Report was published in September 2005.

3.5 The ERBD have agreed to prepare a river basin management plan for the Broadmeadow and Ward rivers.

3.6 FCC are implementing the ERBD Draft Monitoring Programme and will carry out monitoring as required under the National Surface and Groundwater Monitoring Programme proposed by the E.P.A from

December 2006. This includes monitoring 23 points under Operational Subnet 2 of the monitoring programme will be established by FCC from December 2006.

3.7 As the majority of rivers in Fingal traverse the county boundary, continued liaison with the adjoining local authorities is required for the proper management of these rivers. Quarterly meetings are held with Meath County Council regarding water quality and FCC are in contact with the Central Laboratory and the Drainage Department, DCC on a regular basis. Liaison with the various other stakeholders including Teagasc, IFA, Aer Rianta and the industrial sector is also essential to the proper management of the various waterways within the county.

Other measures required to improve the quality of rivers under these regulations include the upgrading of Urban Wastewater Treatment Works. A considerable amount of work has been completed to date including the upgrading of Swords and Malahide WWTW and the decommissioning of Balgriffen WWTW. The smaller TW's in rural Fingal are being upgraded to include nutrient removal and to reduce pollution loading on riverbodies. A number of these contracts have already gone to tender for the Ballyboghil and Garristown plants. The Naul and Oldtown Treatment Plants are in the planning stages. The Water Pollution Control Section will monitor the quality of effluent from the TW's following upgrading periodically while a routine monitoring programme will be put in place by the Senior Executive Engineer, Drainage.

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Table 3.1 Implementation Programme Summary Table: (FINGAL AS A WHOLE)

Standard to be achieved	Measures	Targets	Actions	Timeframe	Responsible for Implementation	Progress to Date	Corrective Actions	Action Completed within Timeframe (Y/N)?	If not, State Revised Timeframe
To improve unsatisfactory water quality and to maintain satisfactory water quality in the County as a whole	Implement <i>Sludge Management Plan</i> for Fingal County Council	To ensure compliance with relevant legislation and codes of good practice.	Implement quality control and quality systems in all relevant areas, from the initial generation of sludges and slurries to the re-use and disposal of any end product in accordance with Sludge Management Plan.	31/07/06	Senior Engineer Project Office.	Sludge Management gone for Public Consultation		N	31/07/09
	Implement Water Framework Directive	Establishment of Catchment Management Group.	Participation in the Eastern River Basin District Management System.	Ongoing	Senior Engineer Design and Planning	Fingal County Council have been liaising with the project consultant for the ERBD and will be implementing the monitoring programme once finalised.		Ongoing	
	Issuing and enforcing discharge licences under the Water Pollution Acts.	Reduce dangerous substances inputs to waters.	Include limit condition in licence conditions for dangerous substances where relevant Enforcement monitoring of licences	Ongoing	Senior Exec. Engineer Pollution Control	Limit conditions included where relevant. Enforcement monitoring of licences ongoing. Exceedences substantially reduced.		Ongoing	
			Review older licences to include limits where appropriate	31/07/04	Senior Exec. Engineer Pollution Control	Review completed. No revisions necessary.		Completed within revised timeframe.	31/07/06
			Monitor heavy metals and organic pollutants identified in <i>SI 148 of 1998</i> and in Table 1, Appendix 7 of the <i>Code of Good Practice for the Use OF Biosolids in Agriculture</i> for all trade effluent discharging to sewers.	31/07/04	Senior Exec. Engineer Pollution Control	Monitoring ongoing.		Y	
	Wastewater Treatment Plants discharging to coastal and estuarine waters	Reduce dangerous substances inputs to coastal and estuarine waters.	Upgrade Swords and Malahide WWTP's.	31/07/04	Senior Engineer Project Office.	Upgrading works have been completed for both Malahide and Swords WWTP		Y	
			Provide WWTP's for Balbriggan, Skerries, Rush, Lusk, Donabate, Portrane agglomerations in accordance with the <i>Urban Wastewater Directive</i>	31/07/06	Senior Engineer Project Office.	Skerries/Balbriggan completed. Rush/Lusk/Donabate/Portrane at planning, due for completion 2009.		Y/N	31/07/09
			Redirect Howth, Sutton, Baldoyle, Portmarnock effluent from the Howth outfall to Ringsend WWTP.	31/07/04	Dublin Bay Project Office.	Completed		N	31/07/06
	Farm surveys	Examine farm management and practices to reduce dangerous substances inputs to rivers	Carry out farm surveys on a catchment basis. Where necessary follow up with enforcement action under the Water Pollution Acts.	Ongoing	Senior Exec. Engineer Pollution Control	Farm surveys are not progressing due to lack of resources	Investigating alternative measures of carrying out Farm Surveys.		N

Table 3.1 Implementation Programme Summary Table: (FINGAL AS A WHOLE)

(Continued)

Standard	Measures	Targets	Actions	Timeframe	Responsible for Implementation	Progress to Date	Corrective Actions	Action Completed within Timeframe (Y/N)?	If not, State Revised Timeframe
To improve unsatisfactory water quality and to maintain satisfactory water quality in the County as a whole	On site treatment system surveys.	Examine on site treatment systems to reduce dangerous substances inputs to rivers.	Carry out surveys on a catchment basis. Where necessary follow up with enforcement action under the Water Pollution Acts.	Ongoing	Senior Exec. Engineer Pollution Control	Septic Tank Surveys not progressing due to lack of resources	Investigating alternative measures of progressing surveys	N	To recommence Jan 07
	Unlicensed discharge surveys.	Ensure discharges to surface waters are licensed to reduce dangerous substances inputs to rivers.	Carry out surveys on a catchment basis. Where necessary follow up with enforcement action under the Water Pollution Acts.	Ongoing	Senior Exec. Engineer Pollution Control	Surveys have commenced and discharge licences are being progressed/issued on foot of the survey.		Ongoing	
	Implement leakage control	Reduce leakage of treated water to surface waters to 24%.	Implement leakage control programme. Fingal is participating in the Dublin Region Water Conservation Project	31/07/04	Senior Exec. Engineer Water Maintenance	Ongoing	The leakage control team shall continue their programme of leakage detection and repair	N	A time frame is not appropriate as the process is continuous
	Enforce Water Pollution Acts	Reduce dangerous substances inputs to waters.	Enforcement measures under the Water Pollution Acts. Surveys of bunding and oil/grit interceptors in industrial areas to prevent runoff	Ongoing	Senior Exec. Engineer Pollution Control	Surveys have been ongoing on a catchment basis		Ongoing	
	Stakeholder consultation and co-operation	Active involvement of stakeholders in implementing measures to reduce inputs to waters.	Consult with agricultural organisations, golf courses and Parks Departments regarding the use of herbicides.	Ongoing	Senior Exec. Engineer Pollution Control	Meetings held with TEAGASC and the IFA. Teagasc participated in drafting of the farm survey form. Survey of golf courses underway and with two discharge licences resulting thus far		Ongoing	
			Liaison with the EPA on IPC and waste facilities	31/07/04	Senior Exec. Engineer Pollution Control	This liaison is ongoing		Ongoing	
	Monitoring measures	Establish baseline water quality conditions	Establish testing procedures for all 14 listed substances for both saline and freshwater with accredited laboratory	31/07/04	Senior Exec. Engineer Pollution Control/ Central Laboratory	Baseline water quality conditions established.		Y	

Table 3.1 Implementation Programme Summary Table: (FINGAL AS A WHOLE)

(Continued)

Standard	Measures	Targets	Actions	Timeframe	Responsible for Implementation	Progress to Date	Corrective Actions	Action Completed within Timeframe (Y/N)?	If not, State Revised Timeframe
To improve unsatisfactory water quality and to maintain satisfactory water quality in the County as a whole	Monitoring measures	Establish baseline water quality conditions.	Implement monitoring programme countywide.	31/07/04	Senior Exec. Engineer Pollution Control/ Central Laboratory	Monitoring programme has commenced. Programme for gastropod survey for Tributyltin at Harbours drawn up. Coordinated by Central Lab, DCC Dangerous substances monitoring included in Bathing Water monitoring programme.		Y	
		Establish current water quality condition.	Implement monitoring programme countywide	31/07/04	Senior Exec. Engineer Pollution Control			Y	
		Avoid unnecessary duplication of effort.	Integrate monitoring with EPA and Marine Institute monitoring	31/07/04	Senior Exec. Engineer Pollution Control	Monitoring being co-ordinated under the ERBD		N	22/12/06
			Develop specific catchment/sub-catchment monitoring programmes where necessary where existing activities have been assessed as potentially hazardous.	31/07/04	Senior Exec. Engineer Pollution Control	No catchments have been highlighted as being at risk so not specific monitoring programmes have been required to date.		N	Not applicable
	Use of Geographic Information System	Increase efficiency in storing and interrogating data and so implement P measures more effectively.	Use a GIS system for storing and interrogating data on a catchment basis.	Ongoing	Senior Exec. Engineer Pollution Control	<i>LabInfo</i> has been installed and historical data entered. GIS system operational.	Ongoing liaison with LGCSB.	Y	
	Public education campaign and other advisory measures	Make general public and sectoral interests aware of their obligations and so reduce inputs to waters.	Promotion of measures through local media campaigns. Presentations to the Environmental Services and Parks <i>Strategic Policy Committee</i> (SPC)	31/07/04	Senior Engineer Design and Planning	Website regularly updated. Involved in Green Schools. Septic Tank Awareness Campaign in Progress. Agriculture to be targetted in Sept.		Y	
	Implementation of <i>Code of Good Farming Practice</i> .	Co ordinate action with the Department of Agriculture and Food in implementing Code	Investigate notified breaches of the Code of Good Farming Practice Notify the Department of prosecutions.	Ongoing	Senior Exec. Engineer Pollution Control	Will be included in measures to resume farm Surveys.		Ongoing	

4.0 PROGRESS TO DATE

4.1 PLANNING CONTROL AND ENFORCEMENT MEASURES

Fingal County Council issues, monitors and enforces discharge licences under section 4 and section 16 of the Water Pollution Act. A regular monitoring/sampling programme ensures appropriate analysis of the effluent from all licensed facilities to regulate compliance with the conditions set out in the discharge licence.

Progress During Reporting Period

- Further to a review of licences, all discharge licences now contain conditions limiting the content of the various substances listed under the Dangerous Substances Regulations.
- A survey of certain facilities with unlicensed discharges is underway. As part of this survey, all golf course/clubhouses have been assessed and the process of setting conditions and issuing licences to these premises has been commenced. These licences shall take into account the requirements of the Dangerous Substances Regulations and particularly those relating to the use of herbicides/pesticides.
- During the reporting period a number of previously unlicensed premises have, under instruction, applied for discharge licences. It is expected that this number will be increased as the surveys proceed. In particular, all premises within Dublin Airport were instructed to apply for a licence. As a result, 12 premises were licensed while 4 were deemed not to require a licence.
- A "flagging system" to improve the turnaround time on sample results has been introduced. This improves the response time to any pollution incident allowing FCC to source elevated parameters. A number of the companies that have repeatedly discharged effluent in exceedence of their license have been targeted and have brought their process into line with our requirements. This continues to reduce the number of incidences of exceedences of license conditions.
- Following the commencement of the on-site treatment surveys and the farm surveys, a number of section 12 notices were issued and the required improvements detailed and carried out.
- Fingal County Council respond to all reported pollution incidents and following the appropriate investigation and sourcing of the incident take the necessary steps to have the issue resolved or rectified. It has generally been found that the polluter takes the appropriate steps to remedy the problem without prosecution being required. However FCC will proceed with prosecution where necessary.
- A Groundwater Protection Plan was prepared, in conjunction with the GSI, for the Bog of the Ring Aquifer. Based on this, the planning requirements for proposed works in this area have been increased depending on the area in which the development is proposed.

- FCC have set up a Water Pollution GIS system and database indicating sampling points, pollution incidents, septic tank surveys, farm surveys and catchments. The GIS will be expanded to include information relating to farmland boundaries under the Farms Survey scheme in liaison with the DAF. The Water Pollution Control Section have recently established a database to store detailed information relating to pollution incidents, trade effluent discharge licence exceedences, farm surveys and septic tank surveys. This will be linked to the GIS to aid management and protection of waters. The GIS will be used to implement the RMCEI Plan for the Water Pollution Control Section.

Problems Encountered

- While FCC aims to resolve all issues regarding unlicensed discharges, pollution or non-compliance with discharge licenses in a co-operative manner it is not always possible. In 2005 it was necessary to obtain an injunction against a contractor instructing them not to discharge material in exceedence of their licence as the matter was causing damage to the Ward River. The contractor then complied with all requirements of the license and carried out remediation, as far as possible, on the river.
- Farm Surveys and Septic Tank Surveys have not been carried out in 2006 due to limited resources. FCC are considering the possibility of outsourcing farm surveys and septic tank surveys. Outsourcing would enable FCC to determine problem areas while retaining control of statutory elements under the Water Pollution Acts 1977&1990.
- FCC have adopted the E.P.A's Guidance Document 'Treatment Systems for Single Houses'. All on-site treatment systems newly installed in the FCC area must now comply with this document.

Future Plans/New Directions

- Due to the level of development within the county and the resulting increased risk of discharge from the sites that may cause pollution, Fingal County Council has developed *Guidelines for Construction Sites*. Along with regular visits to sites and the subsequent licensing of discharges from site where necessary, these guidelines propose to reduce the risk of pollution.
- Fingal County Council have adopted the GSDSDS Regional Policy on Stormwater which will improve the quality of stormwater run-off entering our streams.
- Fingal County Council is investigating other methods of carrying out Farm Surveys and Septic Tank Surveys and are liasing with other Local Authorities.
- Under the Planning and Development Act 2000, householders proposing to install an on-site treatment system are required to pay a deposit which is returned upon inspection by FCC confirming that it is installed properly.
- FCC is investigating co-ordinating a database of all boreholes with the new GIS system.

4.2 CONSULTATIVE AND COOPERATIVE MEASURES

As most of the rivers within the functional area of Fingal County Council traverse the county boundary, FCC liaise with Meath County Council and Dublin City Council on regular basis to ensure proper management of the catchments. It is anticipated that this liaison will increase following the implementation of the Draft Monitoring Programme of the Eastern River Basin District.

Progress During Reporting Period

- The functional area of Fingal County Council is contained within the Eastern River Basin District (ERBD). This district comprises thirteen local authorities with Dublin City Council as the co-ordinating authority. The draft monitoring programme published by the EPA has detailed 23 monitoring points under Operational Subnet 2 which FCC are required to monitor from December 2006.
- Further to discussions with Meath County Council regarding developing a Catchment Management Plan for the Broadmeadow and Ward Rivers, it has been decided that this will come under the remit of the ERBD.
- The measures proposed in the Tolka River Basin Management Plan will continue to be implemented by Fingal County Council in association with Meath County Council and Dublin City Council. It is envisaged that this management plan will be incorporated into the Eastern River Basin Management Plan.
- Fingal County Council adopted the Sludge Management Plan in 2002 which recommends a number of measures aimed at protecting water quality. This has gone to the tender stage.
- Prior to commencement of the Farms survey, consultation was held with Teagasc and the Fingal branch of the IFA. This consultation has resulted in the farming community being more receptive to the survey process and the improvements recommended on foot of the findings. The ongoing consultation between FCC, Teagasc, the DAF and the IFA is necessary to ensure that best practice is employed on all farms and that proper nutrient management and control of the use of herbicides is in place countywide. The continued liaison with the above authorities will be necessary to maximise the effectiveness of these measures.
- FCC liaise with the stakeholders at Dublin Airport and form part of a group, the Dublin Airport Pollution Control Committee (DAPCC) that meets on a regular basis to co-ordinate measures to combat water pollution at the airport. This process has been effective in formulating appropriate measures and responses to any potential pollution incidents at the airport.
- Fingal County Council also liaise with the Eastern Regional Fisheries Board on various issues in relation to the protection of the water bodies in the county.
- The issuing, monitoring and enforcement of discharge licences allows the Local Authority to liaise with

the various industries within the county to control the discharge of substances listed under the Dangerous Substances Regulations.

- Water Services have completed their LAMS Submission. Water Services are liaising with the Environment Department on a number of issues.
- FCC are complying with the Environmental Inspection Policy by developing a software package in co-ordination with The Environment Department, FCC to satisfy this requirement.
- Dublin Bay Water Quality Management Co-ordinating Group meet on a regular basis to resolve issues relevant to both Local Authorities.

Problems Encountered

- FCC have not been obtaining sample results within a sufficient period of time to enable FCC to respond to pollution incidents effectively. This is being resolved with the establishment of a 'flagging system' with DCC to notify FCC of problems as close to the time of sampling as possible to enable FCC to carry out a pollution investigation and remedy the problem.

Future Plans/New Directions

- In 2006 a Pilot FOG'S Control Programme was carried out in Malahide. The Water Pollution Control Section propose to implement a programme countywide in 2007.

4.3 MONITORING MEASURES

FCC established a monitoring programme in 2001 under the Dangerous Substances Regulations which covers rivers and estuaries. This is ongoing. In addition, routine monitoring is carried out on rivers under the Phosphorus Regulations and on UWWTW effluent and licenced trade effluent discharges. Although this programme is quite comprehensive, it is intended that the programme be reviewed and extended as part of an Environmental Management System approach to water quality issues.

Progress During Reporting Period

- Samples are taken at designated locations along the thirteen rivers and three estuaries monitored within Fingal, under the Dangerous Substances Regulations, and then delivered to the Central Laboratory for analysis. A Chain of Custody is in place to ensure sampling procedures are routine.
- Regular sampling of all licenced discharges, as recommended on their discharge licences, is carried out by a member of staff with the samples subsequently delivered to the Central Laboratory for analysis.
- A monitoring programme is in place to record the discharge from the urban wastewater treatment plants within the county. This programme will be continued under the Senior Executive Engineer,

Drainage Maintenance. Periodic monitoring by the Water Pollution Control Section will continue.

- FCC have also employed additional staff to investigate misconnections in the sewerage network and to arrange for these problems to be rectified. Progress of this procedure will undoubtedly reduce the potential for sewage pollution.
- To facilitate monitoring and the proper recording of the results of all monitoring, LabInfo software has been installed and historical data input into the system. All information will be input into a comprehensive GIS which will facilitate the proper management of the various catchments. This is in the developmental stage.
- A survey of all on-site treatment systems has commenced to assess and condition all systems to reduce the potential for pollution from these sources. Section 12 notices have been served on those premises found to be causing or have the potential to cause pollution. It is intended that the current programme be reviewed and extended accordingly to include additional sampling locations within the catchments or sub-catchments if required.

Problems Encountered

- Sampling results were being received a number of months after samples were taken thus leaving it very difficult to identify and solve the problem. FCC met with the Central Laboratory to set up a procedure, a 'flagging-system', where we are notified on a weekly basis of any exceedences, which then go through the certification procedure.
- As discussed previously, due to lack of resources, Farm Surveys and Septic Tank Surveys have not been carried out in 2006. FCC propose to outsource the Farm Surveys and Septic Tank Surveys as discussed in Section 3.1.
- The Health & Safety Aspects of this work is increasingly becoming a problem. A Health and Safety Policy is being prepared specifically for the Water Pollution Control Section.
- Due to the number of onsite treatment systems in the county, completion of the survey will take a considerable time. Where appropriate, discharge licences shall be required by the local authority. In 2006, these surveys have not taken place due to lack of resources. The septic tank survey will be linked with the Farms Survey under the proposal to outsource these surveys.

Future Plans/New Directions

- As discussed previously, Fingal County Council is investigating other methods of carrying out Farm Surveys and Septic Tank Surveys and are talking to other Local Authorities
- A comprehensive catchment survey has been carried out in the Santry Catchment highlighting the existing and potential problems which have been dealt with. Currently, a catchment management survey of The Ward catchment is being undertaken.

- A programme to establish pollution loading to rivers from FCC's small municipal treatment plants was carried out in 2003/2004. This programme is to resume in the near future to establish current pollution loading from the plants in respect of substances listed under the Dangerous Substances Regulations. This is of particular importance as many of the small plants are being upgraded.

4.4 PUBLIC EDUCATION AND ADVISORY MEASURES

Public information can have a significant effect in reducing pollution or the potential for pollution. With this in mind, Fingal County Council are endeavouring to make this information more accessible through a number of media.

Progress During Reporting Period

- Presentations have been made to relevant bodies such as the IFA, Teagasc and the Environmental Services and Parks SPC.
- An Environmental Awareness Officer is employed by FCC to raise public awareness of all environmental issues including those relating to water.
- A web page has been developed for inclusion on Fingal County Council's website. This web page provides appropriate information for the general public regarding the quality of our water bodies and the measures which individuals may take to maintain these waters.

Future Plans/New Directions

- Individual campaigns targeting areas of particular concern including on-site treatment systems, misconnections, agriculture have commenced using various media where relevant. These include local papers, website, FCC newsletter and leaflet drops.
- FCC have joined with the Environment Section to take part in the Green Schools Campaign.

4.5 OTHER NATIONAL AND MISCELLANEOUS MEASURES RELEVANT TO DANGEROUS SUBSTANCES

Progress During Reporting Period

- Additional works have been carried out to existing foul sewerage systems to improve capacity and reduce the frequency of discharge from Combined Storm Overflows. The Greater Dublin Strategic Drainage Study has modelled a number of the sewerage systems within the county and highlighted sections of sewer and overflows which require upgrading. Some of these improvements have taken place with others to be programmed for completion.
- The Rural Village Schemes are being upgraded in 2006 / 2007 period. These will include nutrient removal mechanisms.

- Various assessments of the existing networks are underway such as the Greater Dublin Strategic Drainage Study (GSDSDS). This study highlights various capacity constraints within the system and recommends measures to alleviate these constraints. Of primary concern to this report is the reduction of spills from combined system overflows. In this regard, some of the recommended works have been completed with further recommendations due to be implemented in due course.
- Fingal County Council are currently undertaking a major water conservation project aimed at reducing the volume of unaccounted for water which includes that going to leakage. As this is a continual process, the level of leakage will fluctuate however FCC are committed to reducing this leakage as far as is reasonable.
- A regular monitoring programme is in place to monitor the discharge from all urban wastewater treatment works to ensure that all discharges comply with the Urban Wastewater Regulations. There have also been a number of improvements to the existing treatment works with further improvements planned as detailed in section 3 of this report. These improvements include the decommissioning of Balgriffen WWTW and the upgrading of Swords and Malahide WWTW.

Problems Encountered

- An on-going problem within the Water Pollution Control Section is the increasing workload putting pressure on existing resources.
- Health and Safety Concerns.
Lone working has been highlighted as a health and safety concern within the Water Pollution Control Section. It is preferable to have two staff members on-site at any one time. Lifting automatic sampling equipment in and out of vehicles is a concern. Lifting manhole covers to gain access to manhole chambers is a concern. FCC staff have completed manual handling courses in this respect A Health and Safety Policy is being prepared specifically for the Water Pollution Control Section.

Future Plans/New Directions

- FCC proposes to implement their monitoring requirements under the Draft ERBD Monitoring Programme. Liaison with the ERBD and the E.P.A is ongoing in relation to this matter. FCC recently submitted comments on E.P.A's draft document – National Surface and Groundwater Monitoring Programmes and are awaiting the publication of a final document.
- A Pilot Quality Management Scheme is proposed for the Water Pollution Section of Water Services. This will establish written procedures for issues such as; review of monitoring data under established monitoring programmes, responding to water pollution incidents, reporting on water pollution incidents and following up exceedences under Trade Effluent Discharge Licences.

4.6 SUMMARY AND CONCLUSIONS

Progress During Reporting Period

- FCC has examined all aspects of Trade Effluent Discharge licensing and have made a number of improvements. These include licensing additional facilities, developing a 'flagging-system' for exceedences and responding appropriately.
- The Water Pollution Control Section has set up a GIS system to co-ordinate all the data from the section with other data such as aerial photography, mapping and drainage infrastructure.
- FCC is currently upgrading small municipal treatment works within the county to include nutrient removal.

Problems Encountered

- The establishment of a 'flagging-system' with the Central Laboratory, DCC has increased the turn around time on sample results enabling FCC to respond to pollution incidents more effectively and liaise promptly with Licensed Companies where exceedences in licence limits are identified.
- The formulation of a Health and Safety policy for the Water Pollution Control Section has helped identify problem areas such as lone working and gaining access to trade effluent discharge points. FCC have addressed these issues so duties are carried out more efficiently.
- As outlined FCC are considering the possibility of outsourcing farm surveys and septic tank surveys. Limited resources have hindered progress with this measure. Outsourcing would enable FCC to determine problem areas while retaining control of statutory elements under the Water Pollution Acts 1977&1990.

Future Plans/New Directions

- A programme to control discharges of FOG's from food service outlets is being established by FCC. Currently the Water Pollution Control Section issue Trade Effluent Discharge Licences in respect of FOG's to establishments where problems are encountered. It is envisioned that a contracting company will be enlisted to carry out a survey of all food service outlets. FCC will retain the statutory rights over the issue of Trade Effluent Discharge Licences in respect of FOG's to establishments. However the contractor will monitor the establishments performance and report back to FCC in case of exceedences where FCC will respond appropriately.
- The GIS will be expanded to include information relating to farmland boundaries under the Farms Survey scheme in liaison with the DAF. The Water Pollution Control Section have recently established a database to store detailed information relating to pollution incidents, trade effluent discharge

licence exceedences, farm surveys and septic tank surveys. This will be linked to the GIS to aid management and protection of waters. The GIS will be used to implement the RMCEI Plan for the Water Pollution Control Section.

- A public awareness campaign is ongoing in liaison with the Environmental Awareness Officer. An Agricultural review is being carried out and agriculture will be targeted in September. A public awareness leaflet detailing Farm Survey procedures and promoting Good Farming Practice will be completed by September in liaison with Teagasc and the IFA. Public awareness leaflet for Service Stations, detailing maintenance of interceptors and preventing water pollution will be completed by September. An information leaflet on management of surface water on construction and demolition sites is currently being finalised.
- Outsourcing is being considered as an option to overcome limited resources within the Section. Liaison with Wicklow County Council regarding their own outsourcing programme is proving beneficial. Teagasc have also been consulted on the matter.
- The Central Laboratory, DCC are setting up a new LIMS system. FCC has installed LabInfo and the two systems are compatible. The systems will allow for transfer of data between DCC and FCC allowing FCC to respond effectively to water pollution incidents and exceedences in Trade Effluent Discharge Licences.
- The smaller TW's in rural Fingal are being upgraded to include nutrient removal and reduce pollution loading on riverbodies. A number of these contracts have already gone to tender for the Ballyboghil and Garristown plants. The Naul and Oldtown Treatment Plants are in the planning stages.

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APPENDIX A

DRAWINGS

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APPENDIX B

CURRENT WATER QUALITY

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APPENDIX C

IMPLEMENTATION PROGRAMME SUMMARY TABLES

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