

**Waste Water Discharge  
Licence  
Application Form**

Fingal Portion of Ringsend  
Agglomeration

Attachment G1,G3 & G4(Fingal)

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Attached are the 1) Water Services Investment Programme 2007 -2009 for Fingal; b) Fingal County Council's "Water Services Assessment of Needs 2005 – 2012!"; and c) Fingal County Council's Water Services Operational Plan 2007.

It is felt that the measures included in these items cover the requirements of Attachment G1, G3 and G4, as one improvement scheme will have benefits under all these sub-sections.

The main schemes involving the Swords agglomeration is 1) the expansion of the existing Swords Waste Water Treatment Plant; 2) the construction of a pumping station and associated rising and gravity mains to connect to the main Swords gravity system and the closing of the Toberburr STW; and 3) the construction of a pumping station and associated rising and gravity mains to connect to the main Swords gravity system and the closing of the Rowlestown STW.

- 1) This project is in the planning stage. The increased capacity will cater for the growing population of the greater swords area as well as catering for the new pumped connections from Rowlestown and Toberburr. The next phase will include UV treatment on the final effluent, and the reduction in the discharge parameters for Total Nitrogen and Total Phosphorus from 15mg/l to 10mg/l and from 2mg/l to 1mg/l respectively. These measures will ensure that there is no deterioration in the Sensitive Area designation of the Inner Broadmeadow Estuary.
- 2) The Toberburr scheme will close the existing plant in Toberburr and pump the influent from the scheme into the Swords agglomeration, and ultimately allow it to be treated to a higher standard in the Swords WWTP. This will benefit the upper Ward River while ensuring there is no deleterious effect on the Inner Broadmeadow Estuary.
- 3) The Rowlestown scheme will close the existing plant in Rowlestown and pump the influent from the scheme into the Swords agglomeration, and ultimately allow it to be treated to a higher standard in the Swords WWTP. This will benefit the upper Broadmeadow River while ensuring there is no deleterious effect on the Inner Broadmeadow Estuary.

None of the above schemes are targeted at Storm Water Overflows specifically, but at present there are no major problems with the SWOs in the systems.

# Fingal\*

## Water Services Investment Programme 2007 - 2009

<b>Schemes at Construction</b>	<b>W/S</b>	<b>Est. Cost</b>
Ballycoolen Water Supply Scheme (Storage Reservoirs)	W	28,000,000
Dublin Bay Sewerage Scheme (Contract 5)	S	16,700,000
		<b>44,700,000</b>
<b>Schemes to start 2007</b>		
Leixlip/ Ballycoolen Water Supply Scheme (3rd Rising Main)	W	17,400,000
		<b>17,400,000</b>
<b>Schemes to start 2008</b>		
Balbriggan Water Supply Scheme	W	14,100,000
Leixlip Water Treatment Plant (Extension)	W	28,000,000
Swords North Water Supply Scheme (Watermain Strengthening)	W	10,200,000
		<b>52,300,000</b>
<b>Schemes to start 2009</b>		
Fingal Sludge Management	S	8,500,000
Portrane/ Donabate/ Rush/ Lusk Sewerage Scheme	S	62,400,000
		<b>70,900,000</b>
<b>Schemes to Advance through Planning</b>		
Blanchardstown Sewerage Scheme (Network)	S	21,000,000
Howth Water Supply Scheme (Network Improvements Phase 2)	W	680,000
Malahide Sewerage Scheme (Network)	S	4,000,000
Malahide Water Supply Storage Feasibility Study	W	1,500,000
Rural Villages Sewerage Scheme	S	3,000,000
Ward Water Supply Scheme	W	9,000,000
		<b>39,180,000</b>
<b>Water Conservation Allocation<sup>1</sup></b>		<b>-</b>
<b>Asset Management Study</b>		<b>100,000</b>
<b>Programme Total</b>		<b>224,580,000</b>

\* All Fingal schemes fall within the Greater Dublin Area as described in the National Spatial Strategy

<sup>1</sup> See Dublin City for the Greater Dublin Area Allocation



**Fingal County Council**  
Comhairle Contae Fhine Gall



**WATER SERVICES ASSESSMENT OF NEEDS**

**2005 - 2012**

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**P. J Howell,**  
**Director of Services**  
Water Services Department

November 2005

**WATER SERVICES ASSESSMENT OF NEEDS**

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## 1. WATER SERVICES ASSESSMENT OF NEEDS

### Introduction

The Department of the Environment Heritage and Local Government (DEHLG) requires local authorities to prepare an updated assessment of needs for water services capital works in their areas every five years. The main purpose of the assessment is to enable a local authority to develop an overall Strategic Investment Plan for the medium to long term and to set out a programme of works to meet the identified water services needs. The Assessment of Needs provides the basis for scheme approval and scheduling for implementation in the Water Services Investment Programmes, which are updated by the DEHLG on an annual basis. In this context water services include:

- drinking water treatment and distribution
- wastewater collection and disposal
- stormwater management, including collection and disposal.

Fingal County Council prepared an Assessment of Needs in November 2003 for the period 2003 – 2012. Two very significant processes have recently been completed which now require the Assessment of Needs to be updated.

- The Greater Dublin Strategic Drainage Study (GSDS) was commissioned in 2001 to develop environmentally sustainable drainage policies and strategies for the region for the 30 year period up to 2031;
- The Fingal Development Plan 2005 – 2011 sets out Fingal County Council's policies and objectives for the development of the County and seeks to develop and improve in a sustainable manner the environmental, social, economic and cultural assets of Fingal. The Development Plan has fully incorporated the policies and strategies identified in the GSDS.

This update of the Assessment of Needs outlines:

- The regional drainage policies and strategy adopted in the GSDS and the programme of works identified for the Fingal area.
- The achievements of the Water Services Investment Programme in Fingal from the 1999 Assessment of Needs to date
- The specific Water Services needs for the period 2005 – 2007
- An examination, from a strategic perspective, of the main requirements for water services for the period 2007 – 2012
- A costed programme of works, in order of priority, of water, wastewater and surface water schemes.

### Public Consultation

The process for the adoption of this review of the Water Services Assessment of Needs is:

- Presentation of a draft document to the Environment Strategic Policy Committee
- Public advertisement of the draft document allowing a period of one month for submissions

- Presentation of the draft document together with public submissions, and responses thereto, to a meeting of Fingal County Council.
- Submission of the Assessment of Needs, as approved by the Council, including submissions received on the published draft, and responses thereto, to the DEHLG.

### **Background**

Fingal's Water Services Department is responsible for delivering the full range of water services to the Fingal administrative area. This includes abstraction, treatment and distribution of drinking water; collection, treatment and disposal of wastewater; collection and disposal of surface water in urban areas and monitoring and control of water pollution. In addition, as Fingal lies within the Greater Dublin Area, it shares a number of strategic water services with other local authorities in the Region. e.g.

**Water supply** - Fingal operates a major water treatment plant at Leixlip, which abstracts water from the River Liffey. Drinking water from Leixlip is distributed to Fingal and the Northeast of Dublin City, via Ballycoolen reservoir, and also to South Dublin, north Kildare and parts of south Meath. The Sutton, Baldoyle and Howth areas of Fingal are supplied from Dublin City.

**Wastewater** - the southern part of the county from Blanchardstown/Mulhuddart to the Airport and the coastal area from Portmarnock to Howth discharges to Dublin City Council's main drainage system and is treated at Ringsend wastewater treatment plant. In addition, wastewater from the Clonee/Dunboyne and Ratoath/Ashbourne areas of County Meath are discharged to Fingal's collection system for treatment at Ringsend.

### **Strategic Studies**

A number of strategic studies have been carried out in recent years to assist in planning for the Region's development. These studies include:-

**The Regional Planning Guidelines (RPG)** for the Greater Dublin Area, which set a statutory framework for sustainable development in the Region up to 2011.

**The 1996 - 2016 Greater Dublin Water Supply Strategic Study (GDWSSS)** Report, published in 1996. This report was revised in part in the year 2000 to ensure compliance with the RPGs and to take into account the rapid growth in the Dublin Region. The report outlines a strategic investment framework over a 20-year period to 2016. The overall investment programme recommended for the Dublin region amounted to €98m. Initial investment has focussed on a Regional Water Conservation Project (WCP) including water management systems, leakage reduction and also on upgrading Leixlip Water Treatment Plant. The WCP has been very successful leading to a reduction in Regional leakage levels from 42.5% to 30%.

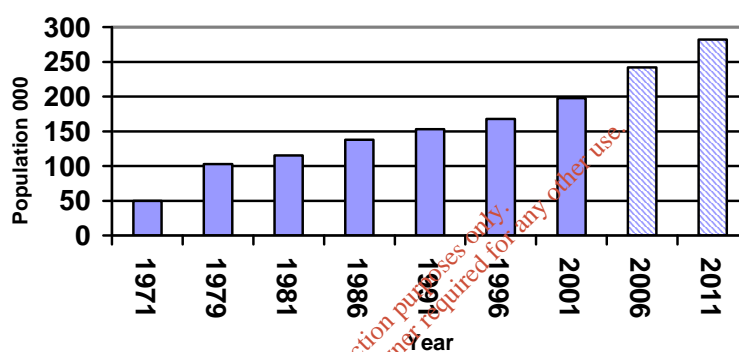
**The Greater Dublin Strategic Drainage Study (GSDS)** commissioned by the Dublin Region Local Authorities (including Fingal County Council) in year 2001 to provide a sustainable strategy for the investment in and management of the Region's foul sewerage and storm water systems up to 2031. The Study was completed in April 2005.

## Rapid Growth

There have been significant changes in the operating environment in which water services are provided since the 1999 Fingal County Development Plan was adopted. The main drivers of change include:

- Rapid population growth in Fingal (See Figure 1.1 Fingal Population 1970-2011)
- Increased environmental standards imposed by European and National Legislation
- Improving levels of service where these are deficient
- The Government's framework for water pricing
- New project management and service procurement approaches.

**Figure 1.1 Population Fingal 1971 - 2011**



The extent of investment in public infrastructure in Fingal has been very pronounced in recent years. Between 1999 and 2005 over €150 million has been invested in water and drainage infrastructure in Fingal. The availability of a high quality infrastructure, as a result of this investment, and the existence of a high quality environment make Fingal an attractive place in which to invest, reside, work or to enjoy leisure activities.

However, the rapid population and economic growth in Fingal also puts additional pressures on our environment. The Council has adopted a proactive approach to dealing with these pressures by carrying out strategic planning to ensure that water supply and drainage services keep pace with future demand. The long-term economic, social and environmental well being of Fingal is dependent on maintaining the highest possible standards of environmental quality.

This document sets out the achievements of the Council in relation to the previous programme of investment and outlines the plans and needs of the Council in relation to future programmes of investment in new infrastructure for water, wastewater and surface water drainage.

## Reference Documents

The documents listed below provided background reference for preparation of the updated Assessment of Needs:

- Circular L11/03 from the Department of the Environment Heritage and Local Government
- The Regional Strategic Planning Guidelines for the Greater Dublin Area
- Fingal County Council Development Plan 2005 - 2011



- Local Area Plans
- Water Framework Directive as applied to the Eastern River Basin District.
- The Greater Dublin Water Supply Strategic Study
- County Sludge Management Plan
- Phosphorus Regulation Measures Report
- The Fingal Water Services Business Plan 2005 – 2009

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## 2. GREATER DUBLIN STRATEGIC DRAINAGE STUDY

The economic success of the greater Dublin Region since the 1990s has led to very significant growth in Dublin City and the surrounding counties. The foul and storm water drainage infrastructure is stretched to keep pace with the increased demand for new serviced land for housing, commercial developments and industry.

Overloading of the existing systems is evident from marked deterioration in water quality, increased risks of flooding and concerns that the drainage system and wastewater treatment plants have insufficient capacity to cater for future development.

In 2000, the Department of the Environment, Heritage and Local Government supported the proposal by the Dublin Region Local Authorities to proceed with the Greater Dublin Strategic Drainage Study (GSDSDS) to examine these issues and to identify solutions. The Study was funded under the National Development Plan 2000 – 2006 and Dublin City Council was appointed as the contracting authority for the Study.

The GSDSDS was commissioned in June 2001 to carry out a strategic analysis of the existing foul and surface water systems in the local authority areas of Dublin City, Fingal, South Dublin, Dun Laoghaire-Rathdown and the adjacent catchments in Counties Meath, Kildare and Wicklow.

The objectives of the Study were to identify policies, strategies and projects for the development of a sustainable drainage system for the Greater Dublin Region.

### Study Objectives

The Study objectives were:

- To develop an environmentally sustainable drainage strategy for the Region consistent with the EU Water Framework Directive. This strategy should outline the requirements for foul and stormwater drainage capable of meeting the demands of the Region in the context of current Development Plans, the Regional Planning Guidelines and the longer term development potential of the region;
- To provide a consistent policy framework and standards which will apply throughout the Region, and promote the requirements of environmental legislation and the recommendations of the GSDSDS itself;
- To develop tools for the effective management of the drainage systems including Geographical Information Systems (GIS), network models and digital mapping;
- To develop the optimum drainage solution from a range of alternative scenarios having regard to whole-life cost and environmental performance, the solution to be broken down into a set of implementation projects which can be prioritised and put in place.

### Regional Drainage Policies

The study undertook a review of local authority drainage practices in five key areas:

- New Development
- Environmental Management

- Climate Change
- Inflow/Infiltration and Exfiltration
- Basements

New policies have been drawn up in all of these areas and incorporated into the Development Plans of the local authorities. A set of detailed technical documents has been prepared to support the implementation of these policies. The policies seek to optimise the performance of drainage assets and to mitigate drainage impacts on the environment. Implementation of the policies is vital to ensuring the ongoing sustainable development of the Greater Dublin Region.

### **Population and Land Use**

In defining the existing and future drainage requirements of the Region, the Study used three planning scenarios: years 2002, 2011 and 2031. The 2002 scenario represented the existing situation, incorporating the 2002 Census results. The 2011 scenario corresponds to the planning horizon of the Regional Planning Guidelines, which have been reflected by local authorities in their current Development Plans. The 2031 scenario is a long-term horizon reflecting regional planning policy and drivers. This latter scenario is appropriate for the planning of major long lead-time strategic infrastructure and has regard to likely demands for the foreseeable future. The development intentions for the Region are challenging as demonstrated by Table 2.1 for residential population.

	2002	2011	2031
Population	1,225,545	1,489,962	2,054,401
Compared with 2002		+22%	+68%
Household Size	2.92	2.46	2.18
Compared with 2002		-16%	-25%
Housing Units	420,130	605,667	943,627
Compared with 2002		+44%	+125%

Table 2.1 Residential Population Statistics (GDSDS Study Area)

### **Criteria, Standards and Influences on Strategy**

The strategy is based on appropriate (best practice) criteria, standards and influences which can be summarised as follows.

- Standards relating to continuous discharges to receiving waters would be based on detailed studies of the receiving waters in the context of all relevant statutory requirements including the Water Framework Directive.

- Load management to reduce non-domestic loads at source would be undertaken in conjunction with the extension of the treatment works at Ringsend to meet the short-term needs.
- Operational standards of intermittent discharges from Combined Sewer Outfalls (CSO's) would be based on best practise environmental standards, retention of "first flush" and controlled spill frequency.
- The wastewater treatment strategy would be based on the optimisation and maximisation of the existing facilities to meet identified needs. Developments beyond those currently zoned will require additional capacity.
- The foul sewer strategy would allow the capacity of the existing systems, principally the Grand Canal system to be consolidated for existing development.
- Stormwater drainage strategy would be developed on a catchment-by-catchment basis taking account of flood risk, the impact of climate change and the systematic use of Sustainable Drainage Systems (SuDs) for new developments.

### **Recommended Strategy**

The recommended strategy for the long-term drainage requirements for the Greater Dublin Region has been determined in the Study:

- New Regional Wastewater Treatment Plant in Fingal
- Orbital sewer to Blanchardstown
- Pumped connection from South Dublin to orbital sewer
- Pumped connection from Leixlip to orbital sewer
- Pumped connection from Meath to orbital sewer
- Redirecting excess flows from Swords and Malahide
- Maintain Ringsend Wastewater Treatment Plant for existing catchments
- Upgrade existing treatment works to their ultimate design capacity
- Upgrade local sewerage networks

The recommended strategy purports to offers:

- The least environmental risk in the context of receiving water standards and community impacts, and
- The most robust and secure operational regime, relying largely on proven technologies and with lower community impact where the bulk of the works can be constructed outside of existing developed areas,
- A future proofing of the strategy for growth beyond the 2031 horizon

The capital costs of the recommended strategy total €2,361 million, which when combined with whole-life operational costs of €224 million, results in an overall total cost of €2,585 million.

### **Implementation of the Strategic Plan**

The timetable for implementation of an agreed strategic plan would be spread over the period 2005 to 2031. However, a significant proportion of the plan needs to be implemented over the period 2006 – 2011 to ensure that capacity is available for planned development.

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### 3. WATER SERVICES INVESTMENT PROGRAMME 1999-2005

#### Water Supply

Fingal County Council produces an average of 165 million litres of water daily (ML/d) from its water treatment plants at Leixlip and Bog of the Ring to supply approximately 80,000 households and over 5,500 non-domestic water service customers, in the Fingal area. In addition Leixlip supplies parts of the neighbouring local authorities of Dublin City, South Dublin, Kildare and Meath.

A major upgrading and expansion programme has increased Leixlip's sustainable production capacity to 148 million litres per day (peak 168 ML/d). Fingal has recently commissioned a small groundwater source at the Bog of the Ring in the North of the County, which is producing approximately 4 ML/d.

Further expansion at Leixlip to achieve a sustainable production of 225 ML/d is at the planning stage, as are additional storage capacity at Ballycoolen and additional rising mains between Leixlip and Ballycoolen. A series of extensions and improvements to the water supply network across Fingal have been advanced to provide for new development areas and to improve security of supply.

In addition to the schemes carried out with central government funding, Fingal County Council also carried out works under its minor works programme to facilitate new developments, which have been financed from development contributions. Developers have also carried out major improvements to the drainage and water supply network.

#### Drainage Services - Wastewater and Surface Water

The Council is responsible for the collection, treatment and disposal of all wastewater originating in urban and village areas and for dealing with surface water collection and disposal in urban areas. With the rapid urban expansion in Fingal, and the various national and E.U. regulations as well as the continuing need to improve our environment Fingal is faced with a growing need to improve foul and surface water infrastructure.

#### **Wastewater**

The Malahide and Swords Wastewater treatment plants have been expanded to 20,000 PE and 60,000 PE respectively. Construction is in progress on the Balbriggan/Skerries plant at Barnagheara (30,000 PE) and a new plant is planned at Portrane (65,000 PE) for Portrane, Donabate, Rush and Lusk. Network improvements are in progress in Swords and are planned for Blanchardstown. A sludge hub centre for the county, which will be located at Kilshane, is at planning stage.

The Baldoyle Flood Alleviation scheme, covering an area subject to a combination of surface water and tidal flooding over many years, was completed in 2004. Following the 2002 flooding events, the Tolka Flood Study was commissioned and recommended measures to minimise flood risk in the Tolka catchment in Meath, Fingal and Dublin City which are currently being advanced with financial support from the Office of Public Works. The Dublin Coastal Flooding Protection Project, which will provide an overview of flood protection measures in Fingal together with an early flood warning system and recommendations on flood protection measures needed to minimise the risk of future flooding of property is at draft stage.

**Table 3.1 WATER SERVICES INVESTMENT PROGRAMME ACHIEVEMENTS 1999 – 2005**

<b>SCHEME</b>	<b>COST M</b>	<b>STATUS</b>
<b><u>WATER SCHEMES</u></b>		
1. Cruiserath Road 800mm Rising Main	1.34	Completed
2. Bog of the Ring (Ground Water Development)	3.48	Completed
3. Leixlip Augmentation Scheme (Contract 1-9)	47.70	Completed
4. Swords Trunk Main Augmentation	10.00	Construction in progress Expected completion Dec 2005
5. Ballycoolen Storage Reservoirs	31.8	Construction in progress. Expected completion December 2007
6. Leixlip/Ballycoolen Rising Mains	24.4	Tenders sought. Expected completion December 2007
7. Balbriggan Water Supply	13.5	Scheme in Progress
8. Swords North Watermain Strengthening (Lissenhall to Jordanstown Reservoir)	9.4	Consultants appointed. Planning in progress
9. Leixlip Water Treatment Plant Extension	26.7	Consultants appointed. Planning in progress
10. Howth Water Supply Network Improvements Phase 2	1.2	Consultants appointed. Planning in progress
<b><u>WASTEWATER SCHEMES</u></b>		
11. Malahide Wastewater Treatment Plant	11.4	Completed
12. Swords Wastewater Treatment Plant	26.61	Completed
13. Balbriggan/Skerries Sewerage Scheme	23.9	Construction in progress. Expected completion Oct 06
14. Dublin Bay Project Contract 5	15.9	Consultants appointed. Planning in progress
15. Portrane/Donabate/Rush/Lusk Sewerage	59.4	Consultants appointed. Planning in progress
16. Fingal Sludge Management	8.1	Consultants appointed. Planning in progress
17. Swords Main Drainage Network	8.1	Construction in progress

18. Blanchardstown Foul Sewer Network	20.0	Consultants brief being prepared
<b><u>SURFACE WATER</u></b>		
19. Clonsilla Surface Water Scheme	4.78	Completed
20. Baldoyle Flood Alleviation Scheme Phase 2	2.35	Completed

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#### **4. WATER SERVICES INVESTMENT PROGRAMME 2005 - 2007**

Continued rapid development in Fingal requires that a large number of water services infrastructure schemes be advanced as a matter of priority. The Fingal Development Plan 2005 – 2011 provides for a population growth from 220,000 in 2004 to 260,000 in 2011 and for 42,500 new housing units by 2011.

The GSDSDS has identified key infrastructure necessary to facilitate sustainable development in the Region. The following are the priority schemes to be advanced in the period 2005 to 2007.

##### **Water Supply**

###### **Ward/Garristown Water Supply Upgrading**

This scheme is required to improve the deficient level of service to the rural areas of Fingal and to provide for new development in the Rural Villages in support of Fingals Development Plan.

###### **Malahide Reservoir Expansion and High Level Water Supply**

The reservoir is required to provide security of supply to the Malahide area and provide an adequate level of service to areas experiencing low pressure.

###### **Ballycoolen/Kingston Trunk Main Duplication**

This will complete the duplication of the trunk watermain supplying Swords, Balbriggan and the North Fingal area from Ballycoolen and will provide for security of supply.

###### **Swords Water Supply Network Rehabilitation**

This will provide for upgrading the existing distribution system in the Swords area, including rehabilitation of the existing 30" trunk main in order to maintain adequate levels of service.

###### **Rush/Lusk/Skerries Water Supply Upgrading (Extension of Swords North Watermain Strengthening Scheme).**

This scheme provides for an extension of the Swords scheme to Lusk, Rush and Skerries. The existing mains are required to be upgraded to provide for new development in these areas.

###### **Orthophosphoric Treatment at Leixlip Water Treatment Plant (To be included in Leixlip Expansion, if required)**

In order to comply with the lead parametric value of 10 µg/l by 25 Dec 2013 it may be necessary to install orthophosphoric acid dosing to provide a film of almost insoluble orthophosphate in exposed lead pipes thus reducing the pickup of lead. A joint approach needs to be adopted between Dublin City Council and Fingal County Council in conjunction with the DEHLG.

##### **Wastewater**

### **Balbriggan/Skerries Wastewater Treatment Plant Phase 2**

Phase 1 of the Balbriggan Wastewater Treatment Plant will be nearing full capacity when it is commissioned in 2006. Therefore, in order to cater for the growing needs of the Balbriggan area, there is an urgent need to proceed with Phase 2 of the scheme.

### **Malahide Foul Sewer Network**

The existing system is required to be upgraded to provide for existing and new developments. Key elements to be upgraded are identified in the GSDS Final Report.

### **Balrothery Sewer Upgrading**

The existing system from Balrothery is required to be upgraded to provide for future development in this area.

### **Rural Wastewater Treatment Plant and Networks Upgrading**

The WWTPs and networks at The Naul, Garristown, Ballyboughal and Oldtown are required to be upgraded to cater for proposed additional housing in accordance with approved Local Area Plans.

### **Swords Wastewater Treatment Plant Extension**

The new Swords Waste Water Treatment Plant is capable of treating a population equivalent of 60,000. In order to cater for the future needs of the Swords area it is necessary to increase the plant size to 90,000 pe.

### **Foul Sewer Pumping Stations Upgrading (Small Scheme)**

A number of pump stations through the system require upgrading or rehabilitation in order to adequately cater for existing and new development.

### **Toberburr Pumping Station and Rising Main (Small Scheme)**

This scheme will see the replacement of the existing Wastewater Treatment Plant with a Pumping Station and Rising Main connecting into the Swords WWTP System.

### **Strategic Environmental Assessment**

Arising from the Greater Dublin Strategic Drainage Study (GSDS) it is recommended that a Strategic Environmental Assessment (S.E.A.) of the GSDS be carried out before finalising proposals on the optimum drainage solution bearing in mind the EU proximity principle.

## **Surface Water**

### **Donabate Surface Water Scheme**

This scheme will provide a surface water drainage strategy, which will address existing problems and cater for future development.

### **Mayne River Surface Water**

Six areas were identified as being at risk of flooding during a 100 yr. ARI critical storm event. This scheme will provide a strategy for reducing flooding risk in these areas.

### **Broadmeadow River Surface Water**

This scheme will aim to provide additional capacity within the catchments to pass forward flows away from flooding locations while taking account of future proposed development.

### **Tolka Blanchardstown Surface Water**

This scheme caters for the areas of increased development draining into the system. The upgrading works comprise upgrading of existing sewers and provision of new sewers to route flows to the River Tolka and its tributaries.

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## 5. WATER SERVICES INVESTMENT PROGRAMME 2007 - 2012

The growth projections identified in the Fingal Development Plan 2005 – 2011 and the drainage requirements from the GSDS will continue to be the main drivers for water services infrastructure in the period up to 2012. A number of the schemes to be commenced in the 2005 – 2007 investment programme will be under construction up to 2012 and beyond. The further schemes to be advanced in the 2007 – 2012 period are as follows.

### Water Supply

- Howth Water Supply Improvements Phase 3
- Lusk/Skerries Watermain
- Donabate Watermain

### Wastewater

- Malahide Wastewater Treatment Plant Extension

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## 6. WATER SERVICES INVESTMENT PROGRAMME 2005 – 2012

### SCHEMES IN ORDER OF PRIORITY

SCHEME	COST €M
1. Balbriggan/Skerries Wastewater Treatment Plant, Phase 2	4.0
2. Ward/Garristown Water Supply Upgrading	9.0
3. Malahide Foul Sewer Network	5.0
4. Fingal Optimum Drainage Solution	565.0
5. Malahide Reservoir Expansion and High Level Water Supply	1.5
6. Donabate Surface Water Scheme	1.5
7. Balrothery Sewer Upgrading	1.0
8. Rural Wastewater Treatment Plants and Networks Upgrading	3.0
9. Ballycoolen/Kingstown Trunk Main Duplication	7.4
10. Swords Wastewater Treatment Plant Extension	10.0
11. Mayne River Surface Water	2.9
12. Swords Water Supply Network Rehabilitation	3.5
13. Broadmeadow River Surface Water	27.3
14. Tolka Blanchardstown Surface Water	25.0
15. Howth Water Supply Improvements, Phase 3	0.4
16. Rush/Lusk/Skerries Watermain	4.2
17. Donabate Watermain	0.9
18. Malahide Wastewater Treatment Plant Extension	7.8

\* 1-11 excluding 4 are expected to be progressed by the end 2006.

## CONCLUSION

The objectives of the proposed investment programme are

- To facilitate the projected increase in population and to support economic development in Fingal
- To facilitate the implementation of Fingal County Council's Development Plan 2005 – 2011
- To remedy deficient services to existing customers
- To provide high standard of environmental protection and to meet statutory environmental objectives as identified in the GSDS

Fingal County Council in common with the other Dublin Local Authorities faces major challenges in relation to water and drainage infrastructure. The proposed investment programme addresses the issues and infrastructure deficits that currently exist, and is required to facilitate continued population and economic growth in Fingal.

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# *Water Services Operational Plan 2007*

## **Departmental Objectives and Strategies**

### **Objectives**

- To provide the necessary water services infrastructure to meet the expanding needs of the county while meeting water quality objectives
- To produce high quality drinking water and implement measures to achieve “Good Ecological Status” for surface, ground and coastal waters by 2015
- To reduce water wastage through appropriate management of the water network and encouraging sustainable water usage by customers

### **Strategies for Delivery**

- Water Services Business Plan 2005-2009
- Water Services Investment Programme
- Regional Water Conservation Programme
- Three Year Capital Programme 2007- 2009
- Annual Budget 2007
- Performance Management Development System (PMDS)

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### **Consultation**

Staff Teams in Water Services Department participated in the preparation of the Operational Plan 2007

### **Implementation and Monitoring**

Progress on the implementation of the Operational Plan 2007 will be monitored by:

- All PMDS Team Meetings
- Monthly Meetings of the Water Services Department Management Group
- Monthly Senior Team Meetings with the County Manager
- Quarterly reviews by the Council’s Management Team
- Water Services Department Annual Report

## Departmental Action

### 3.1. Service Delivery 2007

Action	Service Indicator	Target	Budget Code	Team Leader	Review
Provide a high quality Emergency Response by; <ul style="list-style-type: none"> <li><input type="checkbox"/> Monitoring of our Emergency Response System during periods of major bursts and flooding.</li> <li><input type="checkbox"/> Update and circulate out of hours contact list after staff changes (every 3 months)</li> </ul>	No. of complaints received	Same day updating of Website, Aertel and pageboy service. Update and circulate list in each Quarter in 2007	38190001  31100001 32100001	Caroline Kelly  Pat Brannelly	
Ensure advanced media warnings of planned major interruptions to water supply <ul style="list-style-type: none"> <li><input type="checkbox"/> frequent updates on water bursts and flooding. –</li> <li><input type="checkbox"/> Review after each planned shutdown and update communications protocol as appropriate.</li> </ul>	No. of complaints received due to lack of notice	Min 2 weeks notice to all non-domestic customers affected by shutdown. Min 3 days notice to all domestic customers affected by shutdown.	38190001	Caroline Kelly	
Annual Review of Operating Costs to achieve VFM at <ul style="list-style-type: none"> <li><input type="checkbox"/> Leixlip WTP</li> <li><input type="checkbox"/> Bog of the Ring</li> <li><input type="checkbox"/> Swords WWTP</li> <li><input type="checkbox"/> Malahide WWTP</li> <li><input type="checkbox"/> Barnageera WWTP</li> <li><input type="checkbox"/> Small Sewage Treatment Plants</li> </ul>	Operating Costs per cubic metre	Review completed by October 2007 and benchmarked against similar sized facilities in Ireland and abroad.	31430001 31430004 32200002 32200003 32200004 32200001	Lar Spain Mary Daly	
Implementation of Phosphorus Regulations Measures <ul style="list-style-type: none"> <li>▪ Maintain GIS system showing all point and non-point sources of pollution and pollution incidents in each catchment</li> <li>▪ Stakeholder consultation with Meath Co Co</li> <li>▪ Outsource survey of farms and their impact on water pollution.</li> <li>▪ Outsource survey of Septic Tank on a Catchment Basis.</li> </ul>	National Service Indicator E1  No. of meetings  No. of farm surveys  No. of Septic Tank Surveys	Maintain water quality standards in the County  3 meetings 2007  200 surveys 2007  100 surveys 2007	31100099	Aoife Lawler	



Action	Service Indicator	Target	Budget Code	Team Leader	Review
Implementation of Dangerous Substances Regulations Measures <ul style="list-style-type: none"> <li>▪ Maintain GIS system showing all point and non-point sources of pollution and pollution incidents in each catchment</li> <li>▪ Stakeholder consultation with Meath Co Council</li> </ul>	National Service Indicator E1  No. of meetings	Maintain water quality standards in the County  3 No. meetings 2007	31100099	Aoife Lawler	
Implementation of the Water Pollution Control Acts <ul style="list-style-type: none"> <li>• Process Water Pollution Licences</li> <li>• Monitor Water Pollution Licences</li> <li>▪ Investigate, serve appropriate notices and carry out required enforcement under the Water Pollution Act</li> <li>▪ Investigate and reduce all unlicensed discharges</li> </ul>	No .of licences processed within target No. of samples taken  National Service Indicator E11  No. of discharges investigated	90% within 8 weeks of receipt 500 samples taken in 2007  Rigorous enforcement of the WP Acts  10 unlicensed discharges	31100099	Aoife Lawler	
Participation in the Dublin Bay Water Quality Management Co-ordinating Group	No. of meetings attended	Attendance and participation in meetings	31100099	Aoife Lawler	
Provide Development Control function for all planning applications, additional information requests and planning compliance requests.	<ul style="list-style-type: none"> <li>• % Planning applications reported on within 4 weeks.</li> <li>• % Additional information requests reported within 2 weeks</li> <li>• % Planning compliance requests reported on within 6 weeks</li> </ul>	97% reported on within 4 weeks  95% reported on within 2 weeks  90% reported on within 6 weeks	31100001 32100001	Anne McElligott	
Operate and maintain the foul and surface water sewer networks of the County to the highest standards. <ul style="list-style-type: none"> <li>• Respond to reports of sewer blockages</li> <li>• Implement Preventative Maintenance Programme for Swords Area</li> <li>• Prepare and Implement Preventative</li> </ul>	% Compliance  No. of Sewer Blockages.  No. of premises flooded by foul and surface water  No. of Sewer Blockages.	90% within 12 hours 100% within 24 hours Reduction in numbers of sewer blockages. Elimination in the number of premises flooded Reduction in numbers of sewer blockages.	32100001  32100001  32100001	Pat Brannelly  Pat Brannelly  Pat Brannelly	

Action	Service Indicator	Target	Budget Code	Team Leader	Review
Maintenance Programme for Ballycoolen Area <ul style="list-style-type: none"> <li>Document location and size of all sewer overflows -prepare Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>No. of premises flooded by foul and surface water</li> <li>Document prepared and Management Plan in place</li> </ul>	Elimination in the number of premises flooded Document prepared by February 2007			
Operate and maintain Swords and Malahide wastewater treatment plants to the highest standards. <ul style="list-style-type: none"> <li>Prepare a preventative maintenance programme for Swords WWTP</li> <li>Prepare a preventative maintenance programme for Malahide wastewater treatment plant.</li> </ul>	% Compliance with Urban Wastewater Treatment Regulations. % Compliance with Urban Wastewater Treatment Regulations.	Fully compliant with the Urban Wastewater Treatment Regulations Fully compliant with the Urban Wastewater Treatment Regulations	32200001 32200001	Pat Brannelly Pat Brannelly	
Operate and maintain the rural wastewater treatment plants of the County to the highest standards. <ul style="list-style-type: none"> <li>Implement Preventative Maintenance Programme for Swords Area</li> <li>Prepare and Implement Preventative Maintenance Programme for Ballycoolen Area</li> </ul>	% Compliance with Urban Wastewater Treatment Regulations. % Compliance with Urban Wastewater Treatment Regulations.	Fully compliant with the Urban Wastewater Treatment Regulations. Fully compliant with the Urban Wastewater Treatment Regulations.	32200001 32200001	Pat Brannelly Pat Brannelly	
Operate and maintain the public toilets in the County to the highest standards.	No. of complaints received regarding the condition of toilets.	Providing a high quality public toilet service in the County	32300001	Pat Brannelly	
Operate and maintain the water network in the County to the highest standards by; <ul style="list-style-type: none"> <li>Producing high quality water in the network</li> <li>Responding to reports of watermain bursts</li> <li>Holding regular meetings between Leakage Team and Depot Management</li> <li>Managing leakage repair process</li> </ul>	% Water samples in compliance with Drinking Water Regulations. % Compliance with Standards of Service. No. of meetings held and documented. <ul style="list-style-type: none"> <li>No. of leaks identified.</li> <li>No. of leaks repaired.</li> <li>No. of leaks outstanding.</li> </ul>	Fully compliant with Drinking Water Regulations and Standards of Service. 90% within 12 hours 100% within 24 hours Improved co-ordination in response to leakage repairs. Reduction in the number of leaks and reduce levels of Unaccounted for Water	31110001 31120001	James Walls	

Action	Service Indicator	Target	Budget Code	Team Leader	Review
	<ul style="list-style-type: none"> <li>▪ 27% Target for UFW</li> </ul>	UFW			
Production of high quality drinking water in compliance with relevant legislation at Leixlip WTP and Bog of the Ring.	% Water samples in compliance with Drinking Water Regulations.	Fully compliant with Drinking Water Regulations	31400001 31400004	Bill O'Brien Bill O'Brien	
<u>Cryptosporidium Risk analysis</u> (Leixlip and Bog of the Ring). <ul style="list-style-type: none"> <li>• Carry out improvements to treatment systems.</li> <li>• Regular liaison meetings to be held with Kildare County Council.</li> </ul>	100% Complete  No. of meetings held with Kildare County Council.	Minimise risk to the water supply in the County	31400001 31400004	Bill O'Brien Bill O'Brien	

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### 3.2. Service Improvements 2007

Action	Service Indicator	Target	Budget Code	Team Leader	Review
Full implementation of Fingal County Council Water Conservation Bye-Laws 2004 <ul style="list-style-type: none"> <li>Implement enforcement procedures when hosepipe ban breaches occur</li> <li>Deliver permitting system to all known commercial operators of hydrant standpipes.</li> <li>Implement enforcement procedures for standpipe permit breaches.</li> </ul>	Number of non-compliance's with Bye – Laws. Permits issued  No. of Enforcement actions taken	Compliance with Bye-Laws All commercial operators using standpipes have permit. Rigorous enforcement where breaches occur	38190001	James Walls Paul Smyth	
Hold formal meetings between Operations and Design every two months	No. of Meetings held	6 meetings in the year	31100001	Lar Spain	
Rural Sewage Treatment Plants (7 no.): <ul style="list-style-type: none"> <li>Engage Consultant to prepare an operating manual for each plant and provide training.</li> <li>Liaise with Mechanical Dept. on maintenance and mechanical equipment upgrade for the plants to;               <ul style="list-style-type: none"> <li><input type="checkbox"/> have plants on telemetry system</li> <li><input type="checkbox"/> Install flowmeters.</li> </ul> </li> </ul>	Consultant Engaged, Operating Manuals Prepared, Training Provided  Telemetry installed Flowmeters installed	February 2007 April 2007 May 2007  December 2007 December 2007	32200001	Pat Brannelly	
Operate and maintain the Pump stations (40 no.) to the highest standards: <ul style="list-style-type: none"> <li>Liaise with Mechanical Dept. on maintenance and mechanical equipment upgrade issues for the plant.               <ul style="list-style-type: none"> <li>◆ Pump stations to be put on telemetry</li> <li>◆ Flowmeters to be installed,</li> <li>◆ Provide isolation of sump overpumping arrangements at pump stations.</li> </ul> </li> </ul>	Telemetry installed Flowmeters installed Isolation provided	December 2007 December 2007 December 2007	32100001	Pat Brannelly	
Closer liaison with Human Resources Department in management of Depots <ul style="list-style-type: none"> <li>◆ Address findings of staffing report on Maintenance Depots</li> <li>◆ Hold regular meetings between head office (Admin and HR) and depots to deal with outstanding difficulties.</li> </ul>	Specific elements of Report findings addressed. No. of Meetings held	December 2007  4 meeting in the year	32100001 31100001	Pat Brannelly James Walls	

Action	Service Indicator	Target	Budget Code	Team Leader	Review
Digitise and Update Drainage records	Digitising and updating to be completed by June 2007	Improved management of the drainage network.		Brendan Colgan	
Prepare report on the review of plant and equipment levels at maintenance depots	Report completed	May 2007	32100001	Pat Brannelly	
Prepare a plan for dealing with high tides and heavy rain <input type="checkbox"/> Swords depot <input type="checkbox"/> Ballycoolen depot	Policy document completed	March 2007		Pat Brannelly	
Prepare a detailed report on the management and maintenance of the public toilet service	Report completed	May 2007	32300001	Pat Brannelly	
Liaise with Operator on the ongoing management of the Barnageera WWTP	Improved water quality.	Barnageera Plant fully operational in Feb. 2007	32200004	Pat Brannelly	
Develop an integrated approach and response to; <ul style="list-style-type: none"> <li>• Misconnections in the existing network</li> <li>• surface water infiltration</li> <li>• separating out surface water and foul sewers.</li> <li>• overflows</li> </ul>	Pilot Study completed  No. of complaints regarding surface water infiltration	June 2007 – Dec. 2008.  Continued improvements to the surface water and foul sewer networks by June 2007	C3230000  32200004	Brendan Colgan  Pat Brannelly	
Develop Quality Assurance System and/or EMS system for: <input type="checkbox"/> Swords WWTP <input type="checkbox"/> Malahide WWTP	Development of QA System	Consultant engaged by August 2007	32200002 32200003	Pat Brannelly	
Minimise the environmental impact of Swords, Malahide and Barnageera WWTP's by; <ul style="list-style-type: none"> <li><input type="checkbox"/> Monitoring the impact on the inner Broadmeadow Estuary and publish results on Council website.</li> <li><input type="checkbox"/> Resolve the problem at the inlet pumps at Swords</li> <li><input type="checkbox"/> Improve liaison between Plant Manager and Pollution Control regarding test results from IPPC Licences</li> <li><input type="checkbox"/> Develop a plan for policing and prohibiting illegal discharges to sewers.</li> <li><input type="checkbox"/> Develop a plan for providing a reception facility for sewage, sludge, septic tank contents etc.</li> </ul>	% Compliance with Urban Wastewater Treatment Regulations.	Fully compliant with the Urban Wastewater Treatment Regulations.	32200002 32200003	Pat Brannelly	
Carry out visual improvements and	2 No. of pump stations	Minimise the visual impact	31110001	James Walls	

Action	Service Indicator	Target	Budget Code	Team Leader	Review
maintenance of pump stations and other water infrastructure in the County.	structures improved in 2007.	of pump stations	31120001		
Carry out improvements where water pressure problems arise <ul style="list-style-type: none"> <li>➤ Develop programme to install PRVs where high pressure identified</li> <li>➤ Devise and implement a plan for areas of low pressure (&lt;15m)</li> <li>➤ Investigate use of GIS to record and manage data for pressure, quality and repairs</li> </ul>	<ul style="list-style-type: none"> <li>▪ No of areas logged</li> <li>▪ No of PRVs installed</li> <li>▪ Water loss reduction</li> <li>▪ No of properties identified</li> <li>▪ No of properties improved</li> </ul> Report finalised	Sept. 2007  July 2007  Sept. 2007	C3230001	James Walls	
Investigate and develop response to problems with quality of water infrastructure in new developments.	No. of complaints received regarding water quality in new developments.	Report Prepared by June 2007	31110001 31120001	James Walls	
Continued high quality management of the Leixlip and Bog of the Ring Water Treatment Plants <ul style="list-style-type: none"> <li>▪ Develop Quality Assurance system for Leixlip and Bog of The Ring WTP's.</li> <li>▪ Replace PLC's at Leixlip WTW</li> </ul>	Appoint Consultant Commission QA System All PLC's replaced in 2007	System commissioned by September 2007 Securing the operation of the facility.	31400001 31400004	Bill O'Brien	
Improved co-ordination in the Regional delivery of the water service by; <ul style="list-style-type: none"> <li>▪ Concluding legal agreements with other utilities to view their services on the GIS</li> <li>▪ Water GIS: Increase accessibility options, including stand alone mobile computers and connectivity via the web</li> <li>▪ Network model: set up a network model maintenance framework agreement for the region.</li> <li>▪ Rollout of DMS to region</li> <li>▪ Completing upgrade works for telemetry and GIS interfaces with the DRWDWMP.</li> <li>▪ Establishing procedures for data collection to update water GIS</li> </ul>	Improvement in the Regional delivery of the water service.	March 2007  March 2007  April 2007  December 2007 June 2007  June 2007	31100007	David Wade	

Action	Service Indicator	Target	Budget Code	Team Leader	Review
<ul style="list-style-type: none"> <li>• Review existing situation</li> <li>▪ Draft written procedures</li> <li>▪ Co-operate with Dublin Region Watermains Rehabilitation Project</li> </ul>		Continued co-operation 2007		James Walls	
Increase public awareness of water quality issues through information leaflets,	No. of leaflets developed and made available	2 No. targeted campaigns	31100099	Aoife Lawler.	
Enhance existing complaints database prior to introduction of a Contact Management System to include GIS capacity	Existing Database fully operational with Corporate Contact Management System introduced by the end of 2007 and linked to GIS	Better management of watermain bursts, sewer chokes, flooding & pollution incidents	38190001	Ann Egan	
Management and Conservation of our drinking water – <ul style="list-style-type: none"> <li>▪ Inform on best practice, including website for reduction in water consumption and encourage customers to use water efficiently.</li> <li>▪ Expanded Roll out of water barrels campaign</li> </ul>	Monthly Review of Website  No. of water barrels purchased by customers during campaign.	Ongoing update of website with further training for Water Services Staff  Campaign extended by April 2007	38190001	Caroline Kelly	
“Promote and Conserve Our Water”. <ul style="list-style-type: none"> <li>• Ensure all correspondence, press releases etc. promotes and informs re. water conservation.</li> <li>• Follow up campaign in schools</li> </ul>	100% press releases include water conservation message.  No. of schools signed up to Campaign	Envelopes with Water Conservation logo in 2007  2 <sup>nd</sup> Quarter 2007	38190001  38190001	Caroline Kelly  Caroline Kelly	
Register of all Water Services Wayleaves	All current wayleaves registered on Database	Database fully in place by 3 <sup>rd</sup> Quarter 2007	38190001	Mary Daly	
Prompt payment & invoicing of accounts – Development of a Tracking system to ensure prompt payment of invoices for Bulk Water, Drainage & Fluoridation bills.	Payments received when due.	Reduction in level of uncollected and bad debts	38190001	Caroline Kelly	
Financial Monitoring – Recoupment of all expenditure and DEHLG returns on all Capital Projects <ul style="list-style-type: none"> <li>▪ Project Office</li> <li>▪ Design Section</li> </ul>	Amounts outstanding against schemes.	All monies claimed as they become due	31100004  31100005	Karen Murray  Caroline Kelly	
Control Accounts in line with	Completed within deadline.	February 2007	38190001	Caroline Kelly	

Action	Service Indicator	Target	Budget Code	Team Leader	Review
recommendations of Local Govt. Auditor					
Implement a Monitoring system on all Capital expenditure in order to prevent any unauthorised payments. <ul style="list-style-type: none"> <li>▪ Project Office</li> <li>• Design Section</li> </ul>	No unauthorised payments	All payments covered by M.O.	31100004 31100005	Karen Murray Caroline Kelly	
Ensure that an open and transparent recording system is put in place for monies collected under Water Pricing.	No. of complaints from non-domestic customers regarding system.	Fully operational open and transparent system	38190001	Caroline Kelly	
Produce and issue leaflet to notify domestic and non-domestic customers of the costs (capital and operational) associated with the provision of their water services	Information leaflet to all non-domestic customers prior to 1 <sup>st</sup> quarter bill. Information to domestic customers by end of 2 <sup>nd</sup> Quarter.	1 <sup>st</sup> Quarter 2007 2nd Quarter 2007	38190001 38190001	Mary Daly Mary Daly	
Cost efficient Quality Financial Management Continue implementing Govt's Water Pricing Policy to all non-domestic customers	Full financial implementation to all non-domestic customers	Full financial implementation to all non-domestic customers	38190001	Mary Daly	
Effective, efficient and economical monthly budgetary control by all budget holders	Achieving budgetary targets.	Monthly review by Budget Holders	38190001	Ann Egan	
Monitoring of capital expenditure from development levies	Minimum 3 Claims per year	April, August and December 2007	38190001	Ann Egan	
Develop procedures manuals for <ul style="list-style-type: none"> <li><input type="checkbox"/> Public procurement</li> <li><input type="checkbox"/> Works Programme Levy Claims</li> <li><input type="checkbox"/> Protection of Drinking Water Supplies</li> <li><input type="checkbox"/> Drinking Water Quality</li> <li><input type="checkbox"/> Quality Assurance System Leixlip and Bog of the Ring WTPs</li> <li><input type="checkbox"/> Quality Assurance System Swords, Malahide and Rural WWTPs</li> <li><input type="checkbox"/> Developer Leaks</li> <li><input type="checkbox"/> Preventative Maintenance Schedule</li> <li><input type="checkbox"/> Developer Agreements</li> <li><input type="checkbox"/> Standards of Infrastructure</li> <li><input type="checkbox"/> Project Control System/ Project Management</li> <li><input type="checkbox"/> Water pollution Incident Recording</li> </ul>	Procedures Manuals in place by 2 <sup>nd</sup> Quarter 2007	Clarity of procedures and roles and responsibilities in the Section	38190001	Caroline Kelly/ Anne Egan Anne Egan Lar Spain Bill O'Brien Bill O'Brien  Pat Brannelly  James Walls James Walls Anne McElligott Anne McElligott Pat Finn/ Brendan Colgan Aoife Lawler	



Action	Service Indicator	Target	Budget Code	Team Leader	Review
<input type="checkbox"/> Trade Effluent Discharge Licence <input type="checkbox"/> Water Quality Data <input type="checkbox"/> Document Control <input type="checkbox"/> Tender Management				Aoife Lawler Aoife Lawler John Mulcahy John Mulcahy	
Tendering – E.Tendering for Annual Plant and Materials Lists <ul style="list-style-type: none"> <li>▪ Investigate the Regional option for Plant and Materials procurement</li> </ul>	All documents in PDF Format for e-tender site.	Plant & Materials Lists compiled by 4 <sup>th</sup> Quarter 2007	38190001	Caroline Kelly	
Implement Project Control and establish Project Management Procedures <ul style="list-style-type: none"> <li>▪ Design Office</li> <li>▪ Projects Office</li> </ul>	Improved procedure for Department Claims	New system fully operational by March 2007	31100005 31100004	Caroline Kelly Karen Murray	
Implement Framework Agreement for engagement of consultants and contractors.	Increased output on the Revenue Supported Works Programme.	Framework Agreement in use in 2007	C3230001	Brendan Colgan Pat Finn	

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### 3.3. New Services/Research 2007

Action	Service Indicator	Target	Budget Code	Team Leader	Review
Environment S.P.C. Programme 2007 New Policies <input type="checkbox"/> Sustainable procurement options <input type="checkbox"/> Odour Control Policy for Wastewater Treatment Plants. <input type="checkbox"/> Incentivising Water Conservation Measures - Literature Review. <input type="checkbox"/> Development and Promotion of a SuDS Policy Policy Implementation <input type="checkbox"/> Leakage Reduction Report <input type="checkbox"/> Pilot Programme Rainwater Harvesting <input type="checkbox"/> Standards of Service Review <input type="checkbox"/> Fats, Oils and Greases Implementation	Programme delivered by the 4 <sup>th</sup> Quarter 2006	Policy Papers delivered and considered by the S.P.C. Implementation of policy monitored by SPC.	38190001	Paul Smyth, Peter O'Reilly, Lar Spain and John Mulcahy	
Prepare document establishing clarity of procedures/responsibility for rivers and streams of the County	Improved management of the Streams and Rivers in the County	Document prepared by February 2007	32100001	Pat Brannelly	
FCC to act as lead Authority on Telemetry/GIS and Network Model on behalf of the Region	Telemetry/ GIS and Network model in place	4 <sup>th</sup> Quarter 2006	31100007	David Wade	
Implement bulk metering and billing of all new developments (from construction to taking in charge)	No. of Bulk Meters Installed	Bulk meters on all residential developments > 40 units.	31110001 31120001	James Walls	
Contribute to the Review of the Development Contribution Scheme	Active engagement in the review process	Jun 07 - Dec 07	C3230001	Anne McElligott	
Extended implementation of the Water Pollution Control Acts <input type="checkbox"/> Review all licences greater than 3 years old <input type="checkbox"/> Review procedure for licensing / supervising construction sites	No. of licences reviewed New procedure in place	12 No. Licenses in 2007 March 2007	31100099 31100099	Aoife Lawler Aoife Lawler	
Participation in the National Action Programme to implement the Nitrates Directive	Full Implementation	Implement policies as notified to FCC	31100099	Aoife Lawler	
Implement ERBD River Monitoring Programme	Full Implementation	Jan 2007	31100099	Aoife Lawler	

<b>Action</b>	<b>Service Indicator</b>	<b>Target</b>	<b>Budget Code</b>	<b>Team Leader</b>	<b>Review</b>
Implement Fats, Oils and Greases FOG's Programme	Tender for Contract Appoint contractor Householder Awareness Stage 1 of process completed	February 2007 April 2007 June 2007 September 2007	31100099	Aoife Lawler	

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### 3.4. Revenue Supported Works Programme 2007

Action	Service Indicator	Target	Budget Code	Team Leader	Review
Continue to implement report of November 2004 to address the recurring sewage flooding problems	7 Number resolved by end of 2007	7 no. resolved by December 2007	32100001	Pat Brannelly	
Upgrade 2 public toilets - Loughshinny and Claremont (Howth)	Programme completed	Upgrades completed by December 2007	32300001	Pat Brannelly	
Implement findings of Odour Consultant's report at Swords WWTP.	No. of complaints regarding odours.	January 2007	32200002	Pat Brannelly	
Extend security fence at Swords WWTP	Fence erected	March 2007	32200003	Pat Brannelly	
Administer Interim Sludge Solution	Interim solution in place.	3 <sup>rd</sup> Quarter 2007	32100001	Pat Brannelly	
Levy funded Water Works Programme for minor system deficiencies in 2007.	Programme completed	4 <sup>th</sup> Quarter 2007	C3230001	Maire Mellerick.	
Levy funded Drainage Works Programme for minor system deficiencies in 2007.	Programme completed	4 <sup>th</sup> Quarter 2007	C3230001	Maire Mellerick.	
Levy funded Surface Water Works Programme for minor system deficiencies in 2007.	Programme completed	4 <sup>th</sup> Quarter 2007.	C3230001	Maire Mellerick.	
Review condition and develop programme for improvements/upgrades to water pump stations	<ul style="list-style-type: none"> <li>▪ No of Pump Stations investigated</li> <li>▪ No of Pump Stations improved</li> </ul>	Improve conditions at 5 No. pumping stations	C3230001	James Walls	

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### 3.5. Capital Supported Works Programme 2007

Action	Service Indicator	Target	Budget Code	Team Leader	Review
Non-domestic metering project: FCC to continue its role as lead authority on behalf of the Dublin LA's <ul style="list-style-type: none"> <li>▪ Commence installation of meters and AMR systems.</li> <li>▪ Billing of new customers</li> </ul>	Installation completed  Interim billing commenced	Full rollout of the NDMP in the County by September 2007	C3130091	John Keane	
Dublin Region Drainage GIS <ul style="list-style-type: none"> <li>▪ Liaise with 7 LA's</li> <li>▪ Set up an interim solution</li> <li>▪ Procure a client's representative</li> <li>▪ Prepare contract documents</li> <li>▪ Advertise for tenders</li> </ul>	Improved management of the Drainage network	Ongoing June 07 April 07 October 07 November 07	C3230000	David Wade	
Leixlip Water Treatment Plant Extension	Contract Documents & Tender Water Abstraction Licence Commence Construction	Q1/07 – Q4/07 Q1/07 Q1/07 Q4/07-Q2/09	C3130064	Corrina Elder	
Ballycoolen Reservoir & Water Tower	Construction	Q1/07 - Q3/07	C3130041	Corrina Elder	
Leixlip Ballycoolen Rising Mains	Construction	Q1/07 - Q4/08	C3130112	Corrina Elder	
Sludge Hub Centre	Detailed Design and Tender	Q1/07 - Q4/07	C3230053	Corrina Elder	
North Fringe N2 Branch Sewer	Construction	Q2/07	C3230053	Corrina Elder	
Blanchardstown Sewer Network	Preliminary Report Drainage Area Plan 9C Route Selection Site Investigation	Q1/07-Q3/07 Q1/07-Q3/07 Q1/07 Q1/07-Q3/07	C3230093	Corrina Elder	
Phase 1 of Balbriggan Skerries Waste Water Treatment Plant	Start of Operational and Maintenance Contract Settlement of Claims Final Account	Q1/07  Q1/07 - Q3/07 Q4/07 - Q2/08	C3230048	Niamh McDonald	
Phase 2 Expansion of Balbriggan Skerries Waste Water Treatment Plant	Construction of 40,000PE Extension	Q1/07 - Q4/07	C3230094	Niamh McDonald	
Phase 3 Balbriggan / Skerries Sewerage Upgrade	Contract Documents Tender Process Construction	Q2/06 - Q4/06 Q1/07 - Q2/07 Q4/07 - Q2/09	C3230048	Niamh McDonald	
Portrane Wastewater Treatment Plant DBO Contract and Main Pumping Stations	Pre Qual / Shortlisting Tender Process Construction	Q1/07 Q1/07 - Q3/07 Q4/07 - Q2/09	C3230054	Niamh McDonald	

<b>Action</b>	<b>Service Indicator</b>	<b>Target</b>	<b>Budget Code</b>	<b>Team Leader</b>	<b>Review</b>
Portrane/ Donabate Sewer Network Upgrade	Detailed Design and tender Construction	Q1/07 - Q4/07 Q1/06 - Q4/09	C3230054	Niamh McDonald	
Rush/Lusk/ Sewerage Network Upgrading	Wayleaves Design & Con Docs Tender Process Construction	Q1/07 Q1-07 Q2/07 - Q3/07 Q4/07 - Q4/09	C3230055	Niamh McDonald	
Expansion of Swords Wastewater Treatment Plant	Planning Detailed Design and Tender	Q1/07 Q1/07 - Q4/07	C3230050	Niamh McDonald	
Strategic Environmental Assessment on G.D.S.D.S.	Scoping Report Draft Environmental Report Public Consultation Finalised Environmental Report SEA Statement	Completed February 2007 April 2007 June 2007 July 2007 August 2007	C3230000	Brendan Colgan	
Dublin Bay Project Contract 5.1A (Transfer Howth Sewage to Sutton Pump)	Construction	Oct 06 – Mar 08	C3230000	Brendan Colgan	
Dublin Bay Project Contract 5.1 B(Transfer Howth Sewage to Sutton Pump)	Planning Detailed Design and Tender Construction	Completed February 2007 Feb 07 – Mar 08 Mar 08 – Mar 09	C3230000	Brendan Colgan	
Dublin Bay Project Contract 5.1C (Mechanical/ Electrical)	Detailed Design and Tender Construction	Completed January 2007 Feb 07 – Mar 08	C3230000	Brendan Colgan	
Dublin Bay Project Contract 5.2 Foul Sewerage Upgrading Baldoyle/ Portmarnock/Howth/ Sutton Catchments	Detailed Design and Tender Construction	Dec 06 – May 08 May 08 – May 09	C3230000	Brendan Colgan	
Tolka Flood Relief Works - Mulhuddart Wall and Pump Station	Construction	Completed April 2007	C3230000	Brendan Colgan	
Tolka Flood Relief Works - Mulhuddart Bridge	Planning Detailed Design and Tender	Completed June 2007 Jun 07 – Jun 08	C3230000	Brendan Colgan	
Strand St. Coast Road and James Terrace Sewer, Malahide	Detailed Design and Tender Construction	Completed July 2007 Sep 07 – May 08	C3230000	Brendan Colgan	
Rolestown Sewerage Scheme	Construction	Jan 07 – Feb 08	C3230000	Brendan Colgan	
Toberburr Foul Pumping Station and Rising Main	Detailed Design and Tender Construction	Completed March 2007 Sep 07 – Mar 08	C3230000	Brendan Colgan	
Cloghran Foul Drainage Scheme	Detailed Design and Tender Construction	Completed Sept. 2007 Sep 07 – Mar 08	C3230000	Brendan Colgan	
Beaverstown Donabate Surface Water Scheme	Construction	Mar 07 – Jul 07	C3230102	Brendan Colgan	
Kinsealy Lane and Connolly Avenue Sewer, Malahide	Planning Detailed Design and Tender	Jan 07 – Jul 07 Aug 07 – Feb 08	C3230000	Brendan Colgan	
Rural Wastewater Treatment Plants Upgrading (Temporary)	Planning	Jan 07 – Dec 07	C3230000	Brendan Colgan	

<b>Action</b>	<b>Service Indicator</b>	<b>Target</b>	<b>Budget Code</b>	<b>Team Leader</b>	<b>Review</b>
Rural Wastewater Treatment Plants Upgrading (Permanent)	Planning	Jan 07 – Dec 07		Brendan Colgan	
North Fringe Sillogue Branch Sewer	Planning Detailed Design and Tender	Mar 07 – Aug 08 Sep 07 – Feb 08	C3230000	Brendan Colgan	
North Fringe Airport Branch Sewer Extension	Planning Detailed Design and Tender	Mar 07 – Aug 08 Sep 07 – Feb 08	C3230000	Brendan Colgan	
Old Portmarnock Foul Sewerage Scheme (Station Road)	Planning Detailed Design and Tender	Completed June 2007 Jun 07 – Jan 08	C3230000	Brendan Colgan	
Coastal Zone Protection Scheme	Planning	Jan 07 – Dec 07	C3230000	Brendan Colgan	
Mayne River Surface Water Scheme	Planning	Feb 07 – Nov 07	C3230123	Brendan Colgan	
Ballyboughil River Study	Study Report	Mar 07 - Dec 07	C3230000	Brendan Colgan	
Sluice River Study	Study Report	Apr 07 – Jan 08	C3230000	Brendan Colgan	
Ward River Study	Study Report	Jun 07 – Mar 08	C3230000	Brendan Colgan	
Rush/Lusk Skerries WSS	Preliminary Report Planning	Q3/07-Q2/08	C3230000	Pat Finn	
Donabate Augmentation	Preliminary Report Planning Design & Tender	Completed by Q2/07 Q2/07 – Q4/07	C3130000	Pat Finn	
Kingstown to Lissenhall – including Rolestown extension	Final Account	Q3/06-Q1/07	C3130076	Pat Finn	
Swords North Strengthening – Lissenhall to J'town including Ballyboghil	Preliminary Report Planning Design & Tender	Q4/06-Q2/07 Q2/07-Q4/08	C3130076	Pat Finn	
Balbriggan Water Supply Scheme	Preliminary Report Planning Design & Tender	Q3/06-Q4/07 Q3/07-Q4/08	C3130000	Pat Finn	
Dublication of 36"- Ballycoolin to Kingstown	Preliminary Report Planning Design & Tender	Q1/07-Q1/08 Q1/07-Q3/08	C3130104	Pat Finn	
Ward Water Supply Scheme	Preliminary Report Planning Design & Tender	Q3/06-Q3/07 Q1/07-Q1/08	C3130000	Pat Finn	
Howth Water Supply Scheme	Preliminary Report Planning Design & Tender Construction	Q3/06-Q1/07 Q1/07-Q4/07 Q1/07-Q1/08	C3130000	Pat Finn	
Malahide Reservoir Expansion and High level Water Supply Scheme	Design & Tender Construction	Q4/06-Q3/07 Q4/07-Q2/09	C3130000	Pat Finn	
Blanchardstown High Level	Preliminary Report Planning	Q2/07-Q1/08	C3130000	Pat Finn	
Blanchardstown Low Level	Preliminary Report Planning	Q4/07-Q3/08	C3130000	Pat Finn	

### 3.6. Health & Safety Programme 2006

Action	Service Indicator	Target	Budget Code	Team Leader	Review
Prepare Annual Safety Performance Report 2006	Report Completed	Quarter 2 2007	38190001	PJ Howell	
Continue to cooperate with Architects Dept on review of Swords Depot.	Review Completed	2 <sup>nd</sup> Quarter 2007	31100001 32200002	Pat Brannelly	
<p>Ensure compliance with Health and Safety legislation by;</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Reviewing ancillary safety statements at <ul style="list-style-type: none"> <li>• Swords Depot</li> <li>• Ballycoolen Depot.</li> <li>• Swords WWTP</li> <li>• Malahide WWTP</li> <li>• Bog of the Ring</li> <li>• Leixlip WTP.</li> </ul> </li> <li><input type="checkbox"/> Carrying out site specific risk assessment at <ul style="list-style-type: none"> <li>• Swords Depot</li> <li>• Ballycoolen Depot.</li> <li>• Swords WWTP</li> <li>• Malahide WWTP</li> <li>• Bog of the Ring</li> <li>• Leixlip WTP.</li> </ul> </li> <li><input type="checkbox"/> Carrying out site specific annual review of fire risk at; <ul style="list-style-type: none"> <li>• Swords Depot</li> <li>• Ballycoolen Depot.</li> <li>• Swords WWTP</li> <li>• Malahide WWTP</li> <li>• Bog of the Ring</li> <li>• Leixlip WTP.</li> </ul> </li> <li><input type="checkbox"/> Holding regular safety meetings (bi-monthly) in depots and plants <ul style="list-style-type: none"> <li>• Swords Depot</li> <li>• Ballycoolen Depot.</li> <li>• Swords WWTP</li> </ul> </li> </ul>	<p>No. of accidents incidents reported in the workplace requiring</p> <ul style="list-style-type: none"> <li>▪ Sick leave</li> <li>▪ No sick leave</li> </ul> <p>Review Completed</p> <p>Risk Assessment Completed</p> <p>Review Completed</p> <p>No. of meetings held</p>	<p>Fully compliant with Health and Safety legislation</p> <p>Review completed by September 2007</p> <p>Risk Assessment completed by September 2007</p> <p>Review completed by September 2007</p> <p>6 at each location</p>	<p>31100001 31100005 31100004 38190001</p> <p>31100001 31100001 32200001 32200001 31400004 31400001</p> <p>31100001 31100001 32200001 32200001 31400004 31400001</p> <p>31100001 31100001 32200001 32200001 31400004 31400001</p> <p>31100001 31100001 32200001</p>	<p>Lar Spain Peter O'Reilly John Mulcahy Paul Smyth</p> <p>James Walls James Walls Pat Brannelly Pat Brannelly Bill O'Brien Bill O'Brien</p> <p>James Walls James Walls Pat Brannelly Pat Brannelly Bill O'Brien Bill O'Brien</p> <p>James Walls James Walls Pat Brannelly Pat Brannelly Bill O'Brien Bill O'Brien</p> <p>James Walls James Walls Pat Brannelly</p>	



Action	Service Indicator	Target	Budget Code	Team Leader	Review
<ul style="list-style-type: none"> <li>• Malahide WWTP</li> <li>• Bog of the Ring</li> <li>• Leixlip WTP.</li> </ul> <input type="checkbox"/> Reviewing Safety procedures for the following Water Pollution Section work practices <ul style="list-style-type: none"> <li>• Lone workers</li> <li>• Methods of placing booms</li> </ul> <input type="checkbox"/> Continuing vaccination program commenced in 2006 for Operations Staff. <input type="checkbox"/> Reviewing Health and Safety Procedures in the Design and Project Office prior to implementation of new legislation.	<p>Procedure reviewed Procedure documented</p> <p>Review completed</p> <p>Procedure in place for PSDP Procedure in place for PCS</p>	<p>1<sup>st</sup> Quarter 2007 4<sup>th</sup> Quarter 2007</p> <p>March 2007</p> <p>1<sup>st</sup> Quarter 2007 1<sup>st</sup> Quarter 2007</p>	<p>32200001 31400004 31400001 31100099</p> <p>31100001 32200001 31400004 C3130001 C3230001</p>	<p>Pat Brannelly Bill O'Brien Bill O'Brien Aoife Lawler</p> <p>James Walls Pat Brannelly Bill O'Brien Brendan Colgan Pat Finn Niamh McDonald Corrina Elder</p>	

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### 3.7. Staff Training Programme 2006

Action	Service Indicator	Target	Budget Code	Team Leader	Review
Full implementation of PMDS <ul style="list-style-type: none"> <li>• Operation</li> <li>• Design</li> <li>• Project Office</li> <li>• Administration</li> </ul>	PMDS fully implemented in each area in Water Services	Team Plans and Personal Development Plans prepared across all of Water Services by end of February 2007	31100001 31100005 31100004 38190001	Lar Spain Peter O'Reilly John Mulcahy Paul Smyth	
Deliver Leadership Programme for Water Services Staff	Commence Programme by end of Quarter 2 2007	Expand Leadership capacity in Water Services Department	38190001	PJ Howell	
Consult with HR and develop targeted training across all relevant areas	National Indicator for Water Services Staff. (C4)	Maximise staff training and development.	38190001	Paul Smyth	
Continue "Staff Familiarisation Programme" during Summer 2007.	All new staff having attended programme	Summer 2007	31100005 38190001	Pat Brannelly	
Identify and implement Health and Safety training needs for Operations Staff	Health and Safety Training Needs in place for Operations Staff.	H & S training needs identified and implemented 2007	31100001	Lar Spain	
Telemetry Management: Annual training for users in Ballycoolen Training Centre	Training Courses completed	Training completed by 3 <sup>rd</sup> Quarter 2007	31100007	David Wade	
Telemetry Management: Update training/user manuals <ul style="list-style-type: none"> <li>▪ Advanced</li> <li>▪ Systems</li> </ul>	Training Manuals in place	Training and User Manuals completed by 3 <sup>rd</sup> Quarter 2007	31100007	David Wade	
Water GIS Annual Training for users in Ballycoolen Training centre	Training Courses completed	Training completed by 3 <sup>rd</sup> Quarter 2007	31100007	David Wade	
Network Model: Develop in-house training programmes and manuals	Training Courses completed	Training completed by 3 <sup>rd</sup> Quarter 2007	31100007	David Wade	
Network Model: Annual training for users in Ballycoolen Training Centre.	Training Courses completed	Training completed by 3 <sup>rd</sup> Quarter 2007	31100007	David Wade	