

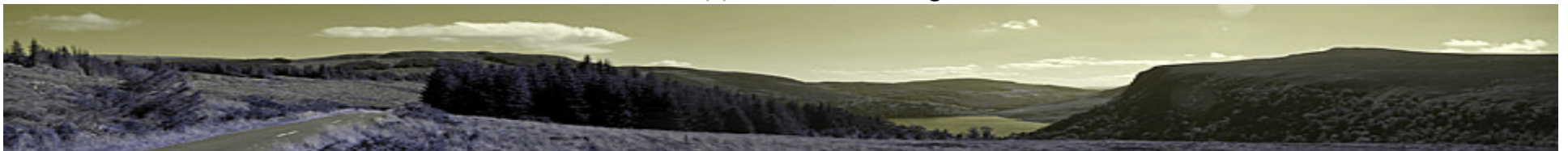
eastern
river basin district

Draft Programme of Measures

Dargle WMU

-
1. Water Framework Directive
 2. Overview of Water Management Unit
 3. Status of Water
 4. Objectives
 5. Protected Areas
 6. What are the Problems to address?
 7. Programme of Measures
 8. Alternative Objectives
 9. What happens next?
 10. What can you do?

Appendix 1-4: Programme of Measures



Document Control Sheet

Project	Eastern River Basin District			
Report	Draft - Dargle - River and Lake Programme of Measures – for download			
Date	December 2008			
Project No: 39325		Document Reference: 39325/ERBD40/DG134 - S		
Version	Author	Reviewed	Checked	Date
Draft 1	AOC/AC	AGH	AOC	DEC 2008



Water Framework Directive

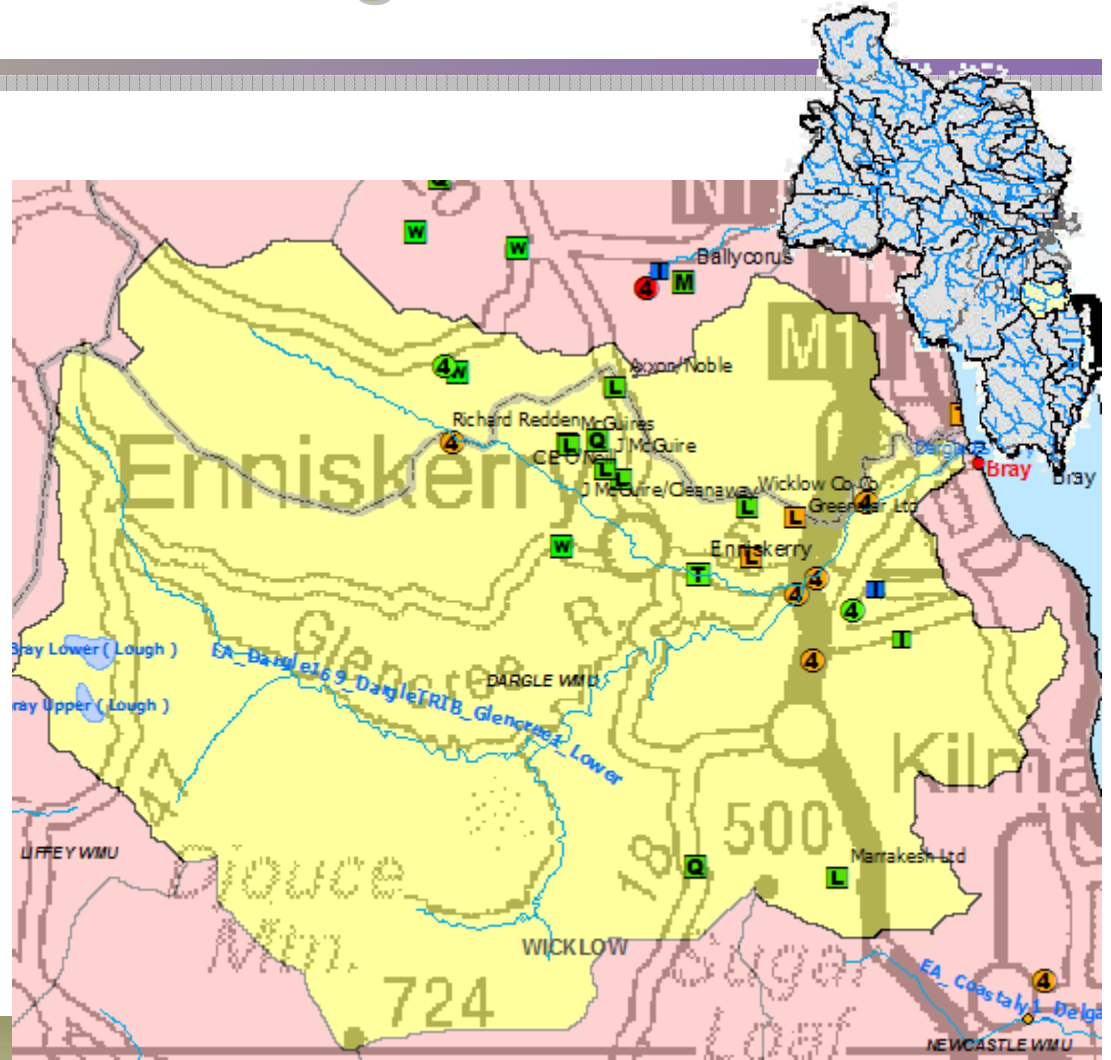
- ❑ The Draft River Basin Management Plan was published on the 22nd December 2008 for Public Consultation.
- ❑ This Programme of Measures accompanies the River Basin Management Plan created for the Eastern River Basin District.
- ❑ The River Basin Management Plan can be downloaded from the website, whilst more detail of the Programme of Measures is contained in the River Basin Management System which can be accessed through your Local Authority.
- ❑ The River Basin Management System is a web-based tool that assists Local Authorities to store information about the condition of their waters and the Programme of Measures for their improvement.
- ❑ For more information please visit www.erbd.ie



Overview of Water Management Unit

































Geography

- ❑ Local Authorities: 80% Wicklow, 20% Dun Laoghaire-Rathdown
- ❑ River Length: 43 km
- ❑ 2 Lakes: Bray Lough Upper and Bray Lough Lower
- ❑ Total Lake Area: 0.38 km²
- ❑ Land use: Predominantly land is natural mountains and bog.
 - 31% Bogs
 - 21% Pasture
 - 14% Forestry
 - Urban populations cover 9% of the area for example at Enniskerry



Risk Assessment Legend

See www.erbd.ie for more information on Article 5 Risk Assessment

Risk	Symbol with Level of Risk	Risk	Symbol with Level of Risk
Abstraction			
CSO	 1a  1b  2a  2b	WWTPs	 1a  1b  2a  2b
Hydrometric Station	 ACTIVE  INACTIVE  OBSOLETE	WTPs	 2a
IPC Facilities	 1a  1b  2a  2b	Landfills	 1b  2a  2b
IPC Rivers	 1a  1b  2a  2b	Mines	 1a  1b  2a
Section 4	 1a  1b  2a  2b	Quarries	 2a
		Based on Article 5 Risk Assessment: 1a : At risk, 1b : Probably at risk, 2a : Probably not at risk, 2b : Not at risk	

Status of Water

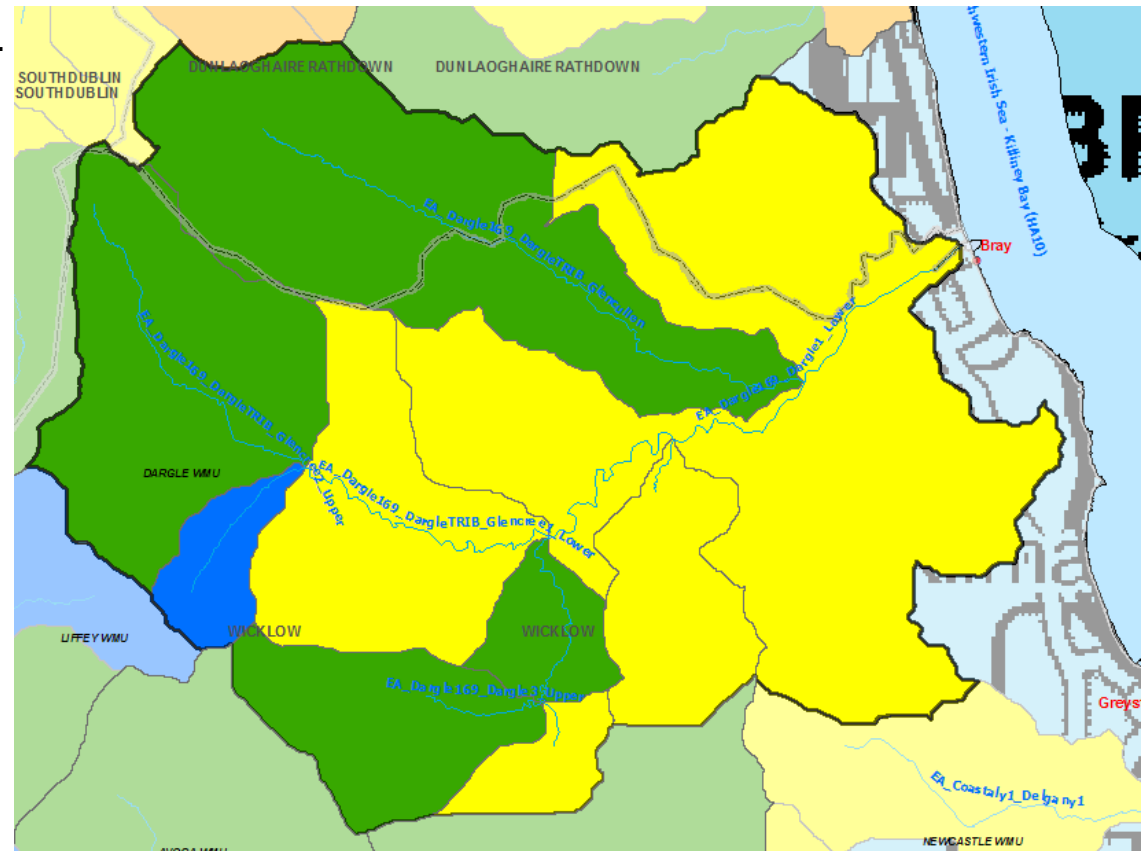
The existing condition of our waters was determined by the Environmental Protection Agency using water quality, ecology and morphology monitoring data.

River Status:

High	11%
Good	44%
Moderate	44%

Lake Status:

High	50%
Good	50%



The percentage status is determined by the number of reportable segments or sub basins. For this reason the percentage might not seem representative.

Objectives

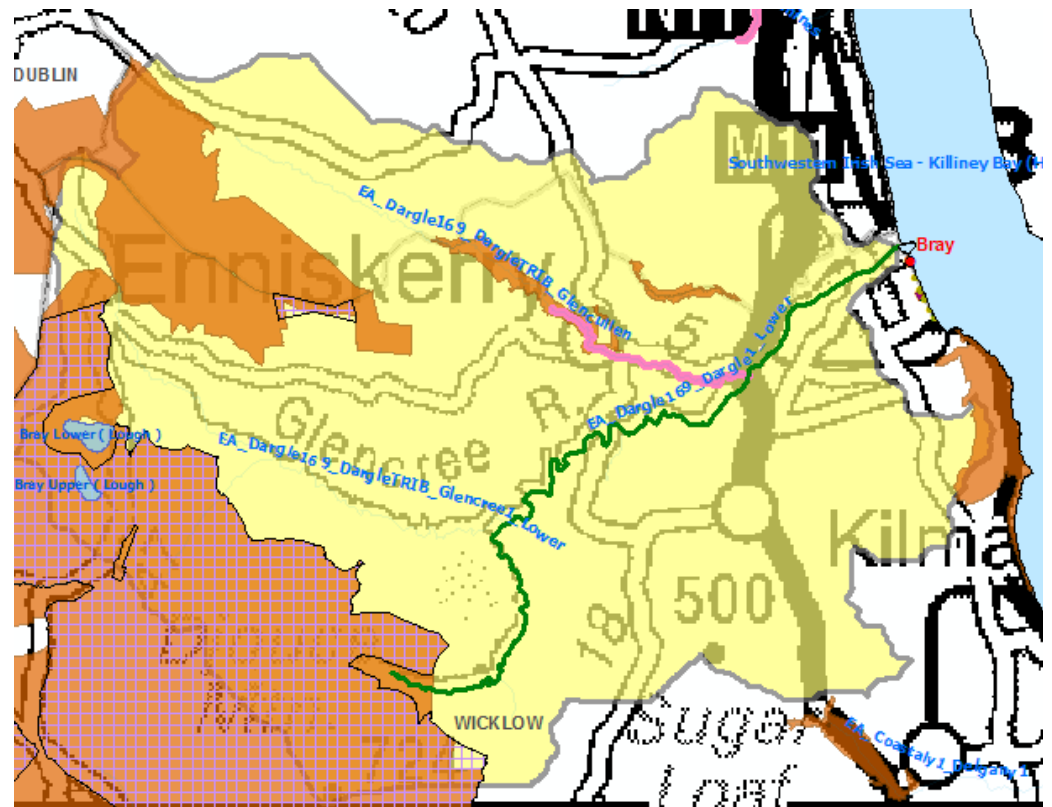
- ❑ Waters must be of satisfactory quality and sufficient quantity to protect the aquatic environment and its beneficial uses.
- ❑ We have four core objectives:
 1. Prevent deterioration and in particular maintain High or Good Status
 2. Improve waters to achieve Good Status where appropriate
 3. Progressively reduce chemical pollution
 4. Achieve our protected area objectives










Protected Areas








- Some areas require greater protection because they contain rare and vulnerable habitats or wildlife. Other protected areas are sensitive because of their beneficial use for humans, such as drinking water sources or shellfish areas.

Drinking Water (1)	✓	River Glencullen,
Special Protected Areas	✓	Wicklow Mountains
Special Areas of Conservation (Habitat) (4)	✓	Wicklow Mountains, Knocksink Wood, Ballyman Glen, Bray Head
Salmonid Water (1)	✓	River Dargle
Register Protected Areas, Water Dependant Habitat (1)	✓	River Dargle
National Heritage Areas (9)	✓	Ballybetagh Bog, Knocksink Wood, Ballyman Glen, Bray Head, Dargle River Valley, Glencree Valley, Great Sugar Loaf, Kilmacanoge Marsh, Powerscourt Waterfall



Protected Areas Legend

Type of Protected area	Symbol
Drinking water – Monitoring point	
Drinking Water – Rivers	
Drinking Water - Groundwater	
Drinking Water – Surface water	
Nutrient Sensitive rivers	
Nutrient Sensitive Areas	
National Heritage Areas	

Type of Protected area	Symbol
Special Protected Areas	
Special Areas of Conservation	
Beaches	
Recreational lakes	
Salmonid Waters	
Register protected Areas – Water Dependant Habitats	
Shellfish	

What are the problems to address?

In the Eastern River Basin District an online management system allows local authorities to store, assess and make Programmes of Measures on all the information emerging relating to the Water Framework Directive.

The first step is to identify any issues that might prevent us from reaching the ultimate target of 'Good Status' (please see plan for a full definition of 'Good Status').

In Dargle the problems are:

- Water has a high oxygen demand (Biochemical oxygen demand)
- Low Ecological Rating

What could be causing these problems?

Pressure	County	% contribution
Agriculture	DLRCC	28
	Wicklow	10
Usage and Discharge of Dangerous Substances	DLRCC	5
Forestry	DLRCC	10
	Wicklow	5
Landfills, Quarries, Mines and Contaminated Lands	DLRCC	17
	Wicklow	3
Wastewater and Industrial Discharges	DLRCC	10
	Wicklow	75
Wastewater from Unsewered Properties	DLRCC	30
	Wicklow	2

- ❑ The Glencullen River in Dun Laoghaire Rathdown (DLRCC) is at Good Status and is in a very natural condition. A number of pressures are identified that will need to be further investigated to ensure they cause no deterioration of status here.
- ❑ In Wicklow the pressures identified the largest contributor identified is wastewater and industrial discharges from Combined Sewer Overflows (wastewater discharge), licensed discharges and misconnected sewers.
- ❑ Bray Loughs Upper and Lower are at High and Good Status respectively and no significant pressure is identified.

All percentages are estimated based on available data, analysis and expert judgement.

Programme of Measures

- Having assessed the current condition of our waters, the extent of areas to protect, and the risks and pressures affecting our waters, we can now determine the measures needed to bring them all back to good status.
- We must aim to achieve full implementation of all basic measures before 2015. If the implementation of all Basic Measures before 2015 will not get us to Good Status then we must select necessary Supplementary Measures.

<i>Basic Measures</i>	Measures required by law
<i>Supplementary Measures</i>	Non-statutory measures deemed necessary

- The following pages detail the proposed Programme of Measures. We have also proposed an Alternative Programme of Measures that, in light of the large number of measures to be taken, prioritises certain measures for the first cycle of the plan (2010 – 2015).
- ***Please see the Appendix for the full list of basic and supplementary measures selected in both the Proposed and Alternative Programme of Measures.***

Proposed Programme of Measures

This proposed Programme of Measures aims to achieve the 4 core objectives as described earlier by fully implementing all basic measures and also implementing supplementary measures where deemed necessary.

Basic Measures:

A full list of basic measures is listed in the Draft River Basin Management Plan. It includes the regulations enacted from the following 11 European Directives and also requires member states to create measures for 11 other issues:

11 European Directives

1. Bathing Water Directive
2. Habitats Directive
3. Birds Directive
4. Drinking Water Directive
5. Major Accidents (Seveso) Directive
6. Environmental Impact Assessment Directive
7. Sewage Sludge Directive
8. Urban Waste Water Treatment Directive
9. Plant Protection Products Directive
10. Nitrates Directive
11. Integrated Pollution Prevention Control Directive

11 Other Basic Measures

1. Cost recovery for water use
2. Measures to promote efficient and sustainable use
3. Protection of drinking water sources
4. Control of abstraction and impoundment
5. Authorisation of discharges to groundwater
6. Control of point source discharges
7. Control of diffuse source pollution
8. Control of priority substances
9. Control of physical modifications of surface waters
10. Controls on other activities impacting water status
11. Prevention or reduction of the impact of accidental pollution incidents

Proposed Programme of Measures - Rivers

- **Supplementary Measures (In descending order of cost):**

Top Ten Supplementary Measures - River Sub-catchment
GDSDS Compliance - CSOs
Preservation and/or restoration of the bank
DAFF restoration works on intensive landuse for Freshwater Morphology
Inspections and Upgrades
Investigate and eliminate misconnections
Upgrade WWTW and Collecting Systems <2000 PE
CSO - Upgrades and Rehabilitation
Facilitate Fish Migration
Implement Community Digestors for Alternative Energy
Survey Banks/Coast

Proposed Programme of Measures - Lakes

- ❑ *Bray Lower Lough , Bray Upper Lough*
- ❑ Basic Measures – Full Implementation of all Basic Measures (2010-2015)
- ❑ Supplementary Measures

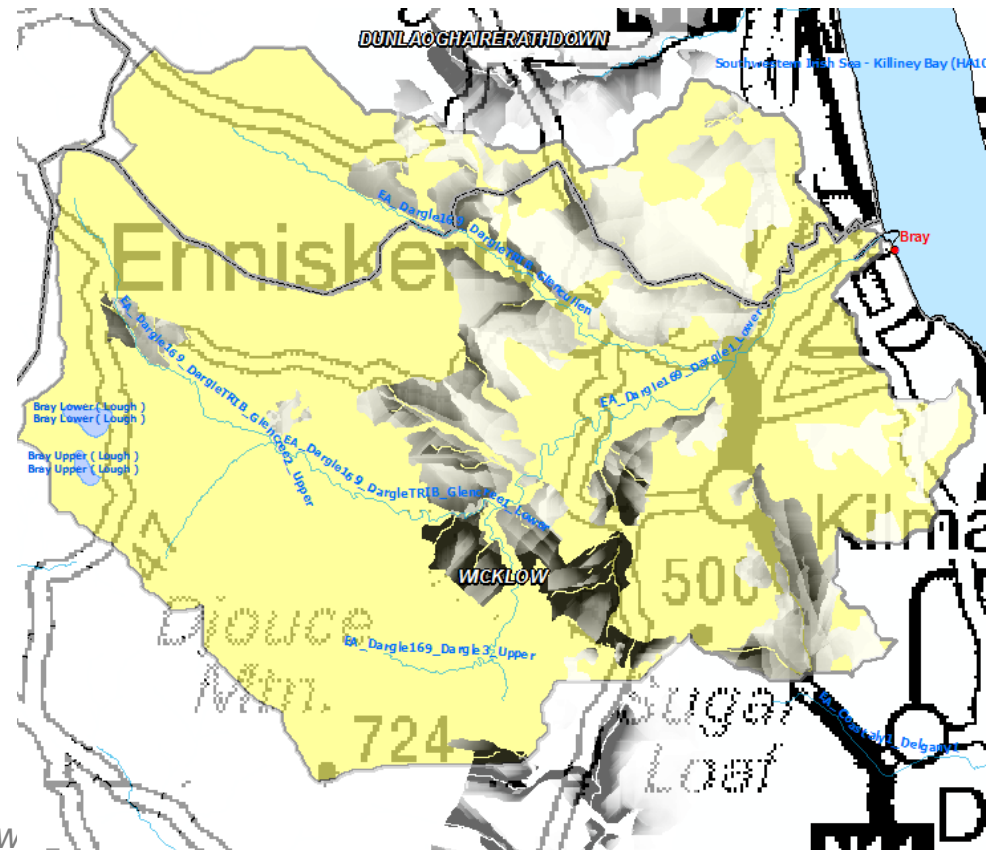
Supplementary Measures
Evaluate Bog Impact
Survey Banks/Coast
For sites not at Favourable conservation Status Set targets and timeframe for achieving status
Develop Guidance on suite of measures for different habitats
Conduct awareness campaign for sustainable domestic water use, including rainwater harvesting and domestic soakaways for stormwater
Modernise Abstraction Legislation, including a system for licensing surface water abstractions

Alternative Programme of Measures – Basic Measures

We have prepared an Alternative Programme of Measures for comparison. This Programme of Measures selects the measures to prioritise for implementation during the first 6 year plan that are thought to be most effective, but still aims to achieve Good Status as early as possible

By prioritising the measures to be implemented in the first cycle, the Alternative Scenario aims to save time and money by focussing on the most effective measures first.

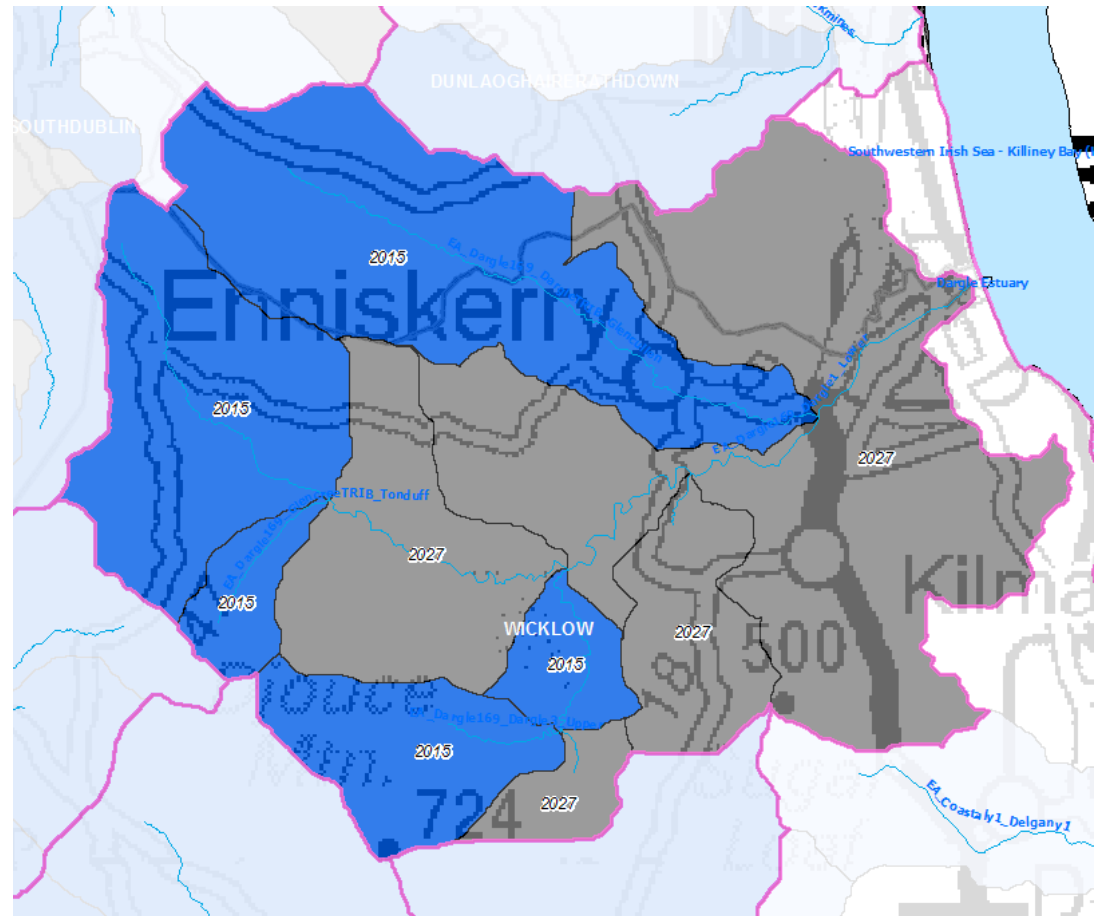
Phosphorus modelling by the ERBD project show of the entire catchment only 15% of the Wicklow land area and 4% of the Dun Laoghaire Rathdown Land area are of high risk of causing direct runoff into the river.



Alternative Objectives – Extended Timescale

- ❑ In some cases due to technical infeasibility, disproportionate cost, the natural condition of the waterbody or new physical modifications it may not be possible to achieve all core objectives by 2015.
- ❑ The main pressure preventing achievement of Good Status is thought to be diffuse agriculture, septic tank and point source pollution. Full implementation of the measures is expected to correct this, however recovery time will mean that the larger rivers will not achieve Good Status before 2015.

2015	56%
2021	56%
2027	100%



The percentage status is determined by the number of reportable segments or subbasins. For this reason the percentage might not seem representative.

What can you do?

You have your say!

- Now is your chance to have a say on the Programme of Measures:
 - Have all issues been addressed?
 - Do you have any measures to add to the proposed Programme of Measures?
 - What do you think about the Alternative Programme of Measures?
 - Would you spend more to achieve our goals faster?

- We can all help to implement this important legislation by thinking about our impact on the water environment in our everyday lives.



How to comment

Please *have your say* in any of the following ways:

1. Email your comments to comments@erbd.ie and include River Basin Management Plan Comments in the subject line

2. Write to:

River Basin Management Plan Comments

Project Co-ordinator

Eastern River Basin District Project Office

Dublin City Council

68-70 Marrowbone Lane, 4th Floor

Dublin 8



Appendix 1:

Proposed Programme of Measures Rivers



Programme of Measures Key

ABS	Abstractions
AGR	Agricultural Point and Diffuse Sources
AGR-PS	Unlicensed Agricultural Point Sources
Chem	Chemical Fertiliser
CROSS	Planning, Development and other sources
DLRCC	Dun Laoghaire Rathdown County Council
DS	Dangerous Substances
ECO	Poor Ecology
FOR	Forestry
IPPC	Industrial Sources
Manure	Manure Fertilisers
MORP	Intensive Land use
S4	Local Authority Licensed Discharges
WWTP	Wastewater Treatment Plants
DATA+	An Absence of sufficient data
HS	To Protect High Status Waters
Septic	Onsite Wastewater Treatment Systems
U-DIFF	Urban Diffuse Pollution

Proposed Programme of Measures

– Basic Measures for Rivers

Local Authority	Parent ID Name	MeasureName	Source
DLRCC	Quality of Surface Water intended for the Abstraction of Drinking Water (S.I. 294 of 1989)	Quality of Surface Water intended for the Abstraction of Drinking Water (S.I. 294 of 1989)	ABS
DLRCC	National Water Pricing Policy Framework (1998)	National Water Pricing Policy Framework (1998)	ABS
DLRCC	Water Supplies Act 1942	Water Supplies Act 1942	ABS
DLRCC	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	AGR
DLRCC	Bathing Water Quality Regulations (S.I. 79 of 2008)	Bathing Water Quality Regulations (S.I. 79 of 2008)	CROSS
DLRCC	EC (Drinking Water) (No 2) Regulations (S.I. 278 of 2007)	EC (Drinking Water) (No 2) Regulations (S.I. 278 of 2007)	CROSS
DLRCC	EC (Environmental Impact Assessment) Regulations and amendments (S.I. 349 of 1989 onwards)	EC (Environmental Impact Assessment) Regulations and amendments (S.I. 349 of 1989 onwards)	CROSS
DLRCC	EC (Quality of Salmonid Water) Regulations (S.I. 293 of 1988)	EC (Quality of Salmonid Water) Regulations (S.I. 293 of 1988)	CROSS
DLRCC	Planning Development Acts 2000 - 2006	Planning Development Acts 2000 - 2006	CROSS
DLRCC	Planning and Development Regulations 2001 - 2007	Planning and Development Regulations 2001 - 2007	CROSS
DLRCC	EC (Control of Major Accident Hazards Involving Dangerous Substances) Regulations (S.I. 74 of 2006)	EC (Control of Major Accident Hazards Involving Dangerous Substances) Regulations (S.I. 74 of 2006)	DS
DLRCC	EC (Authorisation, Placing on the Market, Use and Control of Plant Protection Products), 2003 and amendments	EC (Authorisation, Placing on the Market, Use and Control of Plant Protection Products), 2003 and amendments	DS
DLRCC	EC (Classification Packaging and Labelling of Plant Protection Products and Biocide Products) Regulations, 2001	EC (Classification Packaging and Labelling of Plant Protection Products and Biocide Products) Regulations, 2001	DS
DLRCC	EC (Prohibition of certain active substances in plant protection products) Regulations, 1981 and amendments	EC (Prohibition of certain active substances in plant protection products) Regulations, 1981 and amendments	DS

Proposed Programme of Measures

– Basic Measures for Rivers (cont.)

Local Authority	Parent ID Name	MeasureName	Source
DLRCC	Water Quality Dangerous Substances Regulations, 2001	Water Quality Dangerous Substances Regulations, 2001	DS
DLRCC	Local Government (Water Pollution) Act 1977 (Water Quality Standards for Phosphorus) Regulations, 1998 (S.I. 258 of 1998)	Local Government (Water Pollution) Act 1977 (Water Quality Standards for Phosphorus) Regulations, 1998 (S.I. 258 of 1998)	DS
DLRCC	EU Regulations Registration, Evaluation, Authorisation and Restriction of Chemical substances (REACH) (1907/2006/EC)	EU Regulations Registration, Evaluation, Authorisation and Restriction of Chemical substances (REACH) (1907/2006/EC)	DS
DLRCC	Framework for Major Emergency Management, Office of Emergency Planning, 2006	Framework for Major Emergency Management, Office of Emergency Planning, 2006	DS
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Manage, conserve, restore or protect sites	ECO
DLRCC	Fisheries Act 1959 - 1981	Fisheries Act 1959 - 1981	ECO
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Select sites for identification as sites of community importance	ECO
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Survey conservation status of the natural habitats and species	ECO
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Assess effects of a proposed development on a protected site before granting planning permission	ECO
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Determine priority species (Fauna and Flora) to protect	ECO
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Reintroduce native species; licence introduction of non native species	ECO
DLRCC	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Designate protected areas	ECO
DLRCC	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Preserve protected areas against pollution deterioration and disturbance	ECO
DLRCC	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Prosecute those who do not protect wild birds, their nests or eggs	ECO

Proposed Programme of Measures

– Basic Measures for Rivers (cont.)

Local Authority	Parent ID Name	MeasureName	Source
DLRCC	EC (Aerial Fertilisation) (Forestry) Regulations 2006 and amendment 2007	EC (Aerial Fertilisation) (Forestry) Regulations 2006 and amendment 2007	FOR
DLRCC	EPA (Licensing) Regulations, 1994 & 2004	EPA (Licensing) Regulations, 1994 & 2004	IPPC
DLRCC	Waste Management (Use of Sewage Sludge in Agriculture) Regulations, 1998 - 2001	Waste Management (Use of Sewage Sludge in Agriculture) Regulations, 1998 - 2001	Manure
DLRCC	Forestry Act 1946 and 1988	Forestry Act 1946 and 1988	Manure
DLRCC	Local Government (Water Pollution) Act 1 of 1977 and amendments	Enforce Section 4s (discharges to waterbodies)	S4
DLRCC	Urban Waste Water Treatment Regulations, 2001 - 2004	Urban Waste Water Treatment Regulations, 2001 - 2004	WWTP
DLRCC	Waste Water Discharge (Authorisation) Regulations (S.I. 684 of 2007)	Waste Water Discharge (Authorisation) Regulations (S.I. 684 of 2007)	WWTP
DLRCC	Water Services Act 2007	Water Services Act 2007	WWTP
WICKLOW	Quality of Surface Water intended for the Abstraction of Drinking Water (S.I. 294 of 1989)	Quality of Surface Water intended for the Abstraction of Drinking Water (S.I. 294 of 1989)	ABS
WICKLOW	National Water Pricing Policy Framework (1998)	National Water Pricing Policy Framework (1998)	ABS
WICKLOW	Water Supplies Act 1942	Water Supplies Act 1942	ABS
WICKLOW	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	AGR
WICKLOW	EC (Drinking Water) (No 2) Regulations (S.I. 278 of 2007)	EC (Drinking Water) (No 2) Regulations (S.I. 278 of 2007)	CROSS
WICKLOW	EC (Environmental Impact Assessment) Regulations and amendments (S.I. 349 of 1989 onwards)	EC (Environmental Impact Assessment) Regulations and amendments (S.I. 349 of 1989 onwards)	CROSS
WICKLOW	EC (Quality of Salmonid Water) Regulations (S.I. 293 of 1988)	EC (Quality of Salmonid Water) Regulations (S.I. 293 of 1988)	CROSS

Proposed Programme of Measures – Basic Measures for Rivers (cont.)

Local Authority	Parent ID Name	MeasureName	Source
WICKLOW	Planning Development Acts 2000 - 2006	Planning Development Acts 2000 - 2006	CROSS
WICKLOW	Planning and Development Regulations 2001 - 2007	Planning and Development Regulations 2001 - 2007	CROSS
WICKLOW	EC (Authorisation, Placing on the Market, Use and Control of Plant Protection Products), 2003 and amendments	EC (Authorisation, Placing on the Market, Use and Control of Plant Protection Products), 2003 and amendments	DS
WICKLOW	EC (Classification Packaging and Labelling of Plant Protection Products and Biocide Products) Regulations, 2001	EC (Classification Packaging and Labelling of Plant Protection Products and Biocide Products) Regulations, 2001	DS
WICKLOW	EPA (Licensing) Regulations, 1994 & 2004	EPA (Licensing) Regulations, 1994 & 2004	IPPC
WICKLOW	Forestry Act 1946 and 1988	Forestry Act 1946 and 1988	Manure
WICKLOW	Local Government (Water Pollution) Act 1 of 1977 and amendments	Local Government (Water Pollution) Act 1 of 1977 and amendments	S4
WICKLOW	Urban Waste Water Treatment Regulations, 2001 - 2004	Urban Waste Water Treatment Regulations, 2001 - 2004	WWTP
WICKLOW	Waste Water Discharge (Authorisation) Regulations (S.I. 684 of 2007)	Waste Water Discharge (Authorisation) Regulations (S.I. 684 of 2007)	WWTP
WICKLOW	Water Services Act 2007	Water Services Act 2007	WWTP

Proposed Programme of Measures

– Supplementary Measures for Rivers

Local Authority	Measure Name	Measure Type	Source
DLRCC	OPW - Environmental River Enhancement Programme 2008 -2012	Guidance	MORP
DLRCC	Fresh Water Pearl Regulations	Guidance	ECO
DLRCC	For sites not at Favourable conservation Status Set targets and timeframe for achieving status	Guidance	HS
DLRCC	Emphasise linkage between Planning, Water Services, and Environmental Sections within Local Authorities for Planning Purposes	Proposed	CROSS
DLRCC	Conduct awareness campaign for sustainable domestic water use, including rainwater harvesting and domestic soakaways for stormwater	Proposed	ABS
DLRCC	Modernise Abstraction Legislation, including a system for licensing surface water abstractions	Proposed	ABS
DLRCC	Further Investigate cause of failure	Proposed	DATA+
DLRCC	CSO - Upgrades and Rehabilitation	Proposed	WWTP
DLRCC	Diffuse Runoff (Urban) - Implement SUDS	Proposed	U-DIFF
DLRCC	River Polishing - Reed Bed	Proposed	CROSS
DLRCC	Further Investigate cause of failure	Proposed	DATA+
DLRCC	Forest Service - Forestry and Water Quality Guidelines	Proposed	FOR
DLRCC	GSDS Compliance - CSOs	Supplementary	WWTP
DLRCC	Preservation and/or restoration of the bank	Supplementary	MORP
DLRCC	DAFF restoration works on intensive landuse for Freshwater Morphology	Supplementary	MORP
DLRCC	Facilitate Fish Migration	Supplementary	MORP
DLRCC	Investigate and eliminate misconnections	Supplementary	WWTP
DLRCC	Survey Banks/Coast	Supplementary	DATA+
DLRCC	Introduce Soft Edges to Inferior Habitats	Supplementary	MORP
DLRCC	Inspections and Upgrades	Supplementary	Septic
DLRCC	Restrict Cattle Access to rivers - Create Cattle Drinking points	Supplementary	AGR-PS
DLRCC	Enforce Regulations on Septic Systems	Supplementary	Septic
DLRCC	Mitigate impact of quarry activities	Supplementary	DS
DLRCC	Survey Banks/Coast	Supplementary	DATA+
DLRCC	Freshwater Pearl Mussel Management Plans	Supplementary	MORP
DLRCC	Address diffuse silt pollution from green field site development	Supplementary	MORP

Proposed Programme of Measures

– Supplementary Measures for Rivers (cont.)

Local Authority	Measure Name	Measure Type	Source
WICKLOW	Mitigate impact of quarry activities	Guidance	DS
WICKLOW	Further Investigate cause of failure	Guidance	DATA+
WICKLOW	Emphasise linkage between Planning, Water Services, and Environmental Sections within Local Authorities for Planning Purposes	Proposed	CROSS
WICKLOW	Conduct awareness campaign for sustainable domestic water use, including rainwater harvesting and domestic soakaways for stormwater	Proposed	ABS
WICKLOW	Modernise Abstraction Legislation, including a system for licensing surface water abstractions	Proposed	ABS
WICKLOW	Inspections and Upgrades	Supplementary	Septic
WICKLOW	Upgrade WWTW and Collecting Systems <2000 PE	Supplementary	WWTP
WICKLOW	CSO - Upgrades and Rehabilitation	Supplementary	WWTP
WICKLOW	Implement Community Digestors for Alternative Energy	Supplementary	WWTP
WICKLOW	Investigate and eliminate misconnections	Supplementary	WWTP
WICKLOW	Restrict Cattle Access to rivers - Create Cattle Drinking points	Supplementary	AGR-PS
WICKLOW	Diffuse Runoff (Urban) - Implement SUDS	Supplementary	U-DIFF

Alternative Programme of Measures

– Basic Measures for Rivers

Local Authority	Measure Name	Sub-Measure Name	Source
DLRCC	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	Conduct Farm Surveys	AGR
DLRCC	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	Improve farmyard structure/operations to divert rainwater runoff	AGR-PS
DLRCC	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	Soiled water generation minimisation practises	AGR-PS
DLRCC	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	Fertiliser/manure/soiled water/effluent/slurry/silage storage facilities to prevent seepage to ground or surface water	AGR-PS
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Manage, conserve, restore or protect sites	ECO
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Select sites for identification as sites of community importance	ECO
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Survey conservation status of the natural habitats and species	ECO
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Assess effects of a proposed development on a protected site before granting planning permission	ECO
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Determine priority species (Fauna and Flora) to protect	ECO
DLRCC	EC (Natural Habitats) Regulations 1997- 2005	Reintroduce native species; licence introduction of non native species	ECO
DLRCC	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Designate protected areas	ECO
DLRCC	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Preserve protected areas against pollution deterioration and disturbance	ECO
DLRCC	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Prosecute those who do not protect wild birds, their nests or eggs	ECO
DLRCC	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	Nutrient management	Manure

Appendix 2:

Alternative Programme of Measures Rivers



Alternative Programme of Measures – Basic Measures for Rivers (cont.)

Local Authority	Measure Name	Sub-Measure Name	Source
DLRCC	Local Government (Water Pollution) Act 1 of 1977 and amendments	Enforce Section 4s (discharges to waterbodies)	S4
DLRCC	Urban Waste Water Treatment Regulations, 2001 - 2004	Upgrade domestic WWTWs to secondary treatment for p.e's >2,000 discharging to rivers, lakes, & estuaries	WWTP
WICKLOW	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	Conduct Farm Surveys	AGR
WICKLOW	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	Improve farmyard structure/operations to divert rainwater runoff	AGR-PS
WICKLOW	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	Soiled water generation minimisation practises	AGR-PS
WICKLOW	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	Fertiliser/manure/soiled water/effluent/slurry/silage storage facilities to prevent seepage to ground or surface water	AGR-PS
WICKLOW	EC (Good Agricultural Practice for Protection of Waters) Regulations (S.I. 378 of 2006 and S.I. 526 of 2007)	Nutrient management	Manure
WICKLOW	Local Government (Water Pollution) Act 1 of 1977 and amendments	Enforce Section 4s (discharges to waterbodies)	S4

Alternative Programme of Measures – Supplementary Measures for Rivers

Local Authority	Measure Name	Measure Type	Source
DLRCC	Modernise Abstraction Legislation, including a system for licensing surface water abstractions	Proposed	ABS
DLRCC	Conduct awareness campaign for sustainable domestic water use, including rainwater harvesting and domestic soakaways for stormwater	Proposed	ABS
DLRCC	Restrict Cattle Access to rivers - Create Cattle Drinking points	Supplementary	AGR-PS
DLRCC	River Polishing - Reed Bed	Supplementary	CROSS
DLRCC	Emphasise linkage between Planning, Water Services, and Environmental Sections within Local Authorities for Planning Purposes	Supplementary	CROSS
DLRCC	Further Investigate cause of failure	Supplementary	DATA+
DLRCC	Survey Banks/Coast	Supplementary	DATA+
DLRCC	Further Investigate cause of failure	Supplementary	DATA+
DLRCC	Survey Banks/Coast	Supplementary	DATA+
DLRCC	Mitigate impact of quarry activities	Supplementary	DS
DLRCC	Fresh Water Pearl Regulations	Proposed	ECO
DLRCC	Forest Service - Forestry and Water Quality Guidelines	Guidance	FOR
DLRCC	For sites not at Favourable conservation Status Set targets and timeframe for achieving status	Proposed	HS
DLRCC	OPW - Environmental River Enhancement Programme 2008 -2012	Guidance	MORP
DLRCC	DAFF restoration works on intensive landuse for Freshwater Morphology	Proposed	MORP

Alternative Programme of Measures

– Supplementary Measures for Rivers (cont.)

Local Authority	Measure Name	Measure Type	Source
DLRCC	Freshwater Pearl Mussel Management Plans	Proposed	MORP
DLRCC	Introduce Soft Edges to Inferior Habitats	Supplementary	MORP
DLRCC	Facilitate Fish Migration	Supplementary	MORP
DLRCC	Preservation and/or restoration of the bank	Supplementary	MORP
DLRCC	Address diffuse silt pollution from green field site development	Supplementary	MORP
DLRCC	Inspections and Upgrades	Supplementary	Septic
DLRCC	Enforce Regulations on Septic Systems	Supplementary	Septic
DLRCC	Diffuse Runoff (Urban) - Implement SUDS	Supplementary	U-DIFF
DLRCC	GSDSDS Compliance - CSOs	Supplementary	WWTP
DLRCC	Investigate and eliminate misconnections	Supplementary	WWTP
DLRCC	CSO - Upgrades and Rehabilitation	Supplementary	WWTP
WICKLOW	Modernise Abstraction Legislation, including a system for licensing surface water abstractions	Proposed	ABS
WICKLOW	Conduct awareness campaign for sustainable domestic water use, including rainwater harvesting and domestic soakaways for stormwater	Proposed	ABS
WICKLOW	Restrict Cattle Access to rivers - Create Cattle Drinking points	Supplementary	AGR-PS
WICKLOW	Emphasise linkage between Planning, Water Services, and Environmental Sections within Local Authorities for Planning Purposes	Supplementary	CROSS
WICKLOW	Further Investigate cause of failure	Supplementary	DATA+
WICKLOW	Mitigate impact of quarry activities	Supplementary	DS

Alternative Programme of Measures

– Supplementary Measures for Rivers (cont.)

Local Authority	Measure Name	Measure Type	Source
WICKLOW	Inspections and Upgrades	Supplementary	Septic
WICKLOW	Diffuse Runoff (Urban) - Implement SUDS	Supplementary	U-DIFF
WICKLOW	Upgrade WWTW and Collecting Systems <2000 PE	Supplementary	WWTP
WICKLOW	Investigate and eliminate misconnections	Supplementary	WWTP
WICKLOW	CSO - Upgrades and Rehabilitation	Supplementary	WWTP
WICKLOW	Implement Community Digestors for Alternative Energy	Supplementary	WWTP

Appendix 3:

Proposed Programme of Measures Lakes



Proposed Programme of Measures – Basic Measures for Lakes

Local Authority	WMU	Parent ID Name	MeasureName	Source
WICKLOW	Bray Lower (Lough)	National Water Pricing Policy Framework (1998)	National Water Pricing Policy Framework (1998)	ABS
WICKLOW	Bray Lower (Lough)	Water Supplies Act 1942	Water Supplies Act 1942	ABS
WICKLOW	Bray Lower (Lough)	EC (Environmental Impact Assessment) Regulations and amendments (S.I. 349 of 1989 onwards)	EC (Environmental Impact Assessment) Regulations and amendments (S.I. 349 of 1989 onwards)	CROSS
WICKLOW	Bray Lower (Lough)	Planning Development Acts 2000 - 2006	Planning Development Acts 2000 - 2006	CROSS
WICKLOW	Bray Lower (Lough)	Planning and Development Regulations 2001 - 2007	Planning and Development Regulations 2001 - 2007	CROSS
WICKLOW	Bray Lower (Lough)	EC (Natural Habitats) Regulations 1997- 2005	Manage, conserve, restore or protect sites	ECO
WICKLOW	Bray Lower (Lough)	EC (Natural Habitats) Regulations 1997- 2005	Select sites for identification as sites of community importance	ECO
WICKLOW	Bray Lower (Lough)	EC (Natural Habitats) Regulations 1997- 2005	Survey conservation status of the natural habitats and species	ECO
WICKLOW	Bray Lower (Lough)	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Designate protected areas	ECO
WICKLOW	Bray Lower (Lough)	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Preserve protected areas against pollution deterioration and disturbance	ECO
WICKLOW	Bray Lower (Lough)	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Prosecute those who do not protect wild birds, their nests or eggs	ECO
WICKLOW	Bray Upper (Lough)	National Water Pricing Policy Framework (1998)	National Water Pricing Policy Framework (1998)	ABS
WICKLOW	Bray Upper (Lough)	Water Supplies Act 1942	Water Supplies Act 1942	ABS
WICKLOW	Bray Upper (Lough)	EC (Environmental Impact Assessment) Regulations and amendments (S.I. 349 of 1989 onwards)	EC (Environmental Impact Assessment) Regulations and amendments (S.I. 349 of 1989 onwards)	CROSS
WICKLOW	Bray Upper (Lough)	Planning Development Acts 2000 - 2006	Planning Development Acts 2000 - 2006	CROSS
WICKLOW	Bray Upper (Lough)	Planning and Development Regulations 2001 - 2007	Planning and Development Regulations 2001 - 2007	CROSS
WICKLOW	Bray Upper (Lough)	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	ECO
WICKLOW	Bray Upper (Lough)	EC (Natural Habitats) Regulations 1997- 2005	EC (Natural Habitats) Regulations 1997- 2005	ECO

Proposed Programme of Measures

– Supplementary Measures for Lakes

Local Authority	WMU Name	Measure Name	Measure Type	Source
WICKLOW	Bray Lower (Lough)	For sites not at Favourable conservation Status Set targets and timeframe for achieving status	Proposed	HS
WICKLOW	Bray Lower (Lough)	Develop Guidance on suite of measures for different habitats	Supplementary	HS
WICKLOW	Bray Upper (Lough)	Conduct awareness campaign for sustainable domestic water use, including rainwater harvesting and domestic soakaways for stormwater	Proposed	ABS
WICKLOW	Bray Lower (Lough)	Conduct awareness campaign for sustainable domestic water use, including rainwater harvesting and domestic soakaways for stormwater	Supplementary	ABS
WICKLOW	Bray Upper (Lough)	Modernise Abstraction Legislation, including a system for licensing surface water abstractions	Proposed	ABS
WICKLOW	Bray Lower (Lough)	Modernise Abstraction Legislation, including a system for licensing surface water abstractions	Supplementary	ABS
WICKLOW	Bray Upper (Lough)	Evaluate Bog Impact	Supplementary	Manure
WICKLOW	Bray Lower (Lough)	Evaluate Bog Impact	Supplementary	Manure

Appendix 4:

Alternative Programme of Measures Lakes



Alternative Programme of Measures – Basic Measures for Lakes

Local Authority	WMU	Measure Name	Sub-Measure Name	Source
WICKLOW	Bray Lower (Lough)	EC (Natural Habitats) Regulations 1997- 2005	Manage, conserve, restore or protect sites	ECO
WICKLOW	Bray Lower (Lough)	EC (Natural Habitats) Regulations 1997- 2005	Select sites for identification as sites of community importance	ECO
WICKLOW	Bray Lower (Lough)	EC (Natural Habitats) Regulations 1997- 2005	Survey conservation status of the natural habitats and species	ECO
WICKLOW	Bray Lower (Lough)	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Designate protected areas	ECO
WICKLOW	Bray Lower (Lough)	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Preserve protected areas against pollution deterioration and disturbance	ECO
WICKLOW	Bray Lower (Lough)	EC (Conservation of Wild Birds) Regulations and amendments (S.I. 291 of 1985 onwards)	Prosecute those who do not protect wild birds, their nests or eggs	ECO

Alternative Programme of Measures – Supplementary Measures for Lakes

Local Authority	WMU	Measure Name	Measure Type	Source
WICKLOW	Bray Upper (Lough)	Modernise Abstraction Legislation, including a system for licensing surface water abstractions	Proposed	ABS
WICKLOW	Bray Lower (Lough)	Modernise Abstraction Legislation, including a system for licensing surface water abstractions	Proposed	ABS
WICKLOW	Bray Upper (Lough)	Conduct awareness campaign for sustainable domestic water use, including rainwater harvesting and domestic soakaways for stormwater	Proposed	ABS
WICKLOW	Bray Lower (Lough)	Conduct awareness campaign for sustainable domestic water use, including rainwater harvesting and domestic soakaways for stormwater	Proposed	ABS
WICKLOW	Bray Lower (Lough)	Survey Banks/Coast	Supplementary	DATA+
WICKLOW	Bray Lower (Lough)	For sites not at Favourable conservation Status Set targets and timeframe for achieving status	Proposed	HS
WICKLOW	Bray Lower (Lough)	Develop Guidance on suite of measures for different habitats	Proposed	HS