



Guidance on Completion of Methodology for Determining Enforcement Category of Licences

Guidance Revision:

This is the first revision of the OEE Guidance for Determining the Enforcement Category of Licences since the original guidance was first issued in February 2007. The changes relate to the following:

- the deadline for annual completion of the RBME methodology,
- change from EPER to AER-PRTR reporting,
- changes to OEE contact information and
- updates to Appendices to incorporate more recent Statutory Instruments and data.

For ease of reference a more detailed description of the changes is included in *Appendix 6*

Date: 16/June/2010

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EXECUTIVE SUMMARY

The EPA's Office of Environmental Enforcement (OEE) have developed an environment-based enforcement methodology to allow it to prioritise its enforcement efforts while at the same time meeting the principles and objectives set out in its Enforcement Policy and also having regard to relevant environmental legislation. A review of enforcement procedures internationally revealed that environmental considerations are key in developing enforcement strategies, in prioritising enforcement activities and in allocating resources. The outcome of the assessment procedure for facilities may be linked to annual subsistence charges for OEE enforcement activities. Allocation of greater resources to high enforcement category facilities and those with a poor compliance record, and charging accordingly will assist the OEE to meet the principles outlined in its policy.

The key objectives and principles of the OEE in terms of licence enforcement are set out in its Enforcement Policy. This policy informs stakeholders of the factors which will be taken into account in determining appropriate enforcement responses to breaches of environmental legislation. Underlying the enforcement policy of the OEE are the principles of: **proportionality** in the application of environmental law and in securing compliance, **consistency** of approach, **transparency** about how the OEE operates, **targeting** of enforcement action and implementation of the **polluter pays principle**. It is not intended that the methodology would be used for any other purposes other than the classification of facilities with regard to enforcement of IPPC and/or Waste Licences that are issued by the EPA.

Prior to developing the methodology, a review of how licences are enforced by various international environment agencies was carried out, and best practices highlighted. A number of countries were identified as 'front runners' in the field of licence enforcement, particularly in that they apply environmental considerations as factors. A detailed study was carried out of the licence enforcement systems in England, Scotland, Norway and the Netherlands.

The methodology for prioritisation of licence enforcement implemented by the UK Environment Agency (UK EA) provided a basis on which to develop a system for the OEE. The Environmental Protection Operator Pollution and Risk Appraisal (EP OPRA) system comprises a risk based environmental impact led approach to assessing the environmental risks of an IPPC installation, and to planning enforcement activities. This system is also used for determining application and subsistence fees. Personnel from the UK EA provided guidance and advice throughout the duration of the project.

On the basis of international best practices, an Environment-Based Assessment Tool was developed to assist with prioritising enforcement activities. The methodology allocates an enforcement category to licensed facilities on the basis of five environment-based attributes:

1. Complexity;
2. Emissions;
3. Location;
4. Operator Management; and
5. Enforcement Record.

The enforcement category of each IPPC and Waste licensed facility is assessed under each of the above headings, and an overall enforcement category is obtained. This overall enforcement category will then be reviewed by the OEE and either confirmed (in the majority of cases) or adjusted as appropriate. Enforcement categories vary from A1 (extremely high enforcement category) to C2 (very low enforcement category). In line with their enforcement policy, the EPA will use the overall category obtained in developing their annual inspection programme and in guiding the allocation of resources for enforcement activities.

The Environment Based Enforcement Methodology was developed in conjunction with the assessment tools on Environmental Liability Risk Assessment (ELRA). The first step in the ELRA methodology incorporates an *'Initial Screening and Operational Risk Assessment'*. The attributes used to classify the operational risk for the ELRA methodology are generally the same criteria to the complexity, location and enforcement record attributes of the environment based enforcement methodology.

The assessment will be completed on an annual basis for all licensed facilities and the outcome will assist the OEE in prioritising its enforcement efforts. Testing of the system on a number of facilities has verified the accuracy and effectiveness of the methodology in assessing the enforcement category attributable to various licensed activities and assisted in identifying areas where the methodology necessitated refinement.

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1 INTRODUCTION

The Office of Environmental Enforcement (OEE) of the EPA has developed a methodology for assigning an enforcement category to waste and IPPC licensed facilities. The methodology comprises an assessment of the complexity of activities, the emissions, the environmental performance and the sensitivity of the receiving environment of each licensed facility. The assessment will be completed on an annual basis for all licensed facilities. The outcome will enable licensed facilities to assess their enforcement category with a view to improving environmental performance and will also assist the OEE in prioritising its enforcement efforts.

In general, the methodology entails a systematic approach to allocating greater resources to enforcing the licence conditions of those facilities that carry out highly complex operations on-site, facilities with significant emissions to all media, facilities with poor environmental performance and facilities that are located in proximity to highly sensitive receiving environments.

The principles underlying the methodology reflect those of the OEE's enforcement policy, i.e. **proportionality** in the application of environmental law and in securing compliance, **consistency** of approach, **transparency** about how the OEE operates, **targeting** of enforcement action and implementation of the **polluter pays principle**.

This document is designed to assist the user to determine the enforcement category of individual waste and IPPC licensed facilities. This document is accompanied by the digital Assessment Tool in the form of an excel spreadsheet. Appendix 1 contains a technical specification. Guidance is provided on how to complete the assessment spreadsheet that scores facilities on the basis of the following attributes:

1. Complexity
2. Emissions
3. Location
4. Operator management
5. Enforcement record

For a particular facility, the digital Assessment Tool is completed for each of the attributes. A score is obtained and an individual high, medium or low enforcement category is assigned for each attribute, depending on the score. In the case of emissions, there are separate forms for emissions to air, discharges to water, discharges to sewer and waste management.

The methodology will be completed on an annual basis for all licensed facilities and will be submitted to the OEE via a dedicated email account: **rbme@epa.ie** (deadline date for return to be confirmed in writing each year). The information required to complete the methodology will become available as the Annual Environmental Report is being prepared. As with the

AER the methodology will be based on the data for the previous calendar year. The overall enforcement category of the facility depends on the combination of categories obtained for each attribute. In general, when the environment based assessment results in attributes that result in predominantly high enforcement categories, the overall outcome will allocate the facility a high enforcement category outcome. The reverse is true where the attributes predominantly result in the low enforcement category outcome. Figure 1-1 illustrates the structure of the assessment and Figure 1-2 illustrates the breakdown of the Emissions attribute.

There are three main enforcement categories which vary from high to low, with sub-classes in each as follows:

- A1
 - A2
 - A3
 - B1
 - B2
 - B3
 - C1
 - C2
- } High Enforcement Category
- } Medium Enforcement Category
- } Low Enforcement Category

On completing the spreadsheet, the Enforcement Category Summary table will automatically indicate the outcome for the facility in question. The EPA will use the overall enforcement category in developing their annual inspection programme and in allocating resources for enforcement activities.

The system is designed to allocate the facility's enforcement category (as A1, A2 etc.) according to the above listed attributes (complexity, emissions etc.). However, some activities will automatically be assigned a high enforcement category (A1) regardless of the outcome of the assessment. This is detailed further in Section 2.1.

Section 2 of this document details the methodology for completing the spreadsheet for each attribute in terms of the information that the user will need to obtain in order to carry out the assessment and the methodology for completing the spreadsheet. Section 3 describes the enforcement category summary and overall outcome.

In order to complete the assessment, the user will require the following documentation and information specific to the facility on which the assessment is being carried out:

1. The Waste or IPPC Licence;
2. The most recent Annual Environmental Report;
3. Report on E-PRTR (was EPER) compounds;
4. Information necessary to complete the 'Location' attribute;

5. Information on the company's Environmental Management System;
6. The enforcement record of the licensee; and
7. This Guidance Document.

It is anticipated that following the initial completion of the methodology that the time and effort involved in completing the methodology in subsequent years will be lessened as much of the information contained in the methodology relates to "fixed attributes" which are unlikely to change year on year. It will be the situation that, regardless of environmental performance and management at the facility, the enforcement category cannot go below a certain level.

It is intended that the methodology will be completed on an annual basis, therefore ensuring that the enforcement category that is assigned to a facility is current and relevant. As part of the annual determination of enforcement categories for licensed facilities the Agency will provide an appeals procedure. This procedure will provide a structure to ensure that any concerns that a licensee may have can be presented to the OEE and consideration will be given to any such appeals prior to the finalisation of a facilities enforcement category.

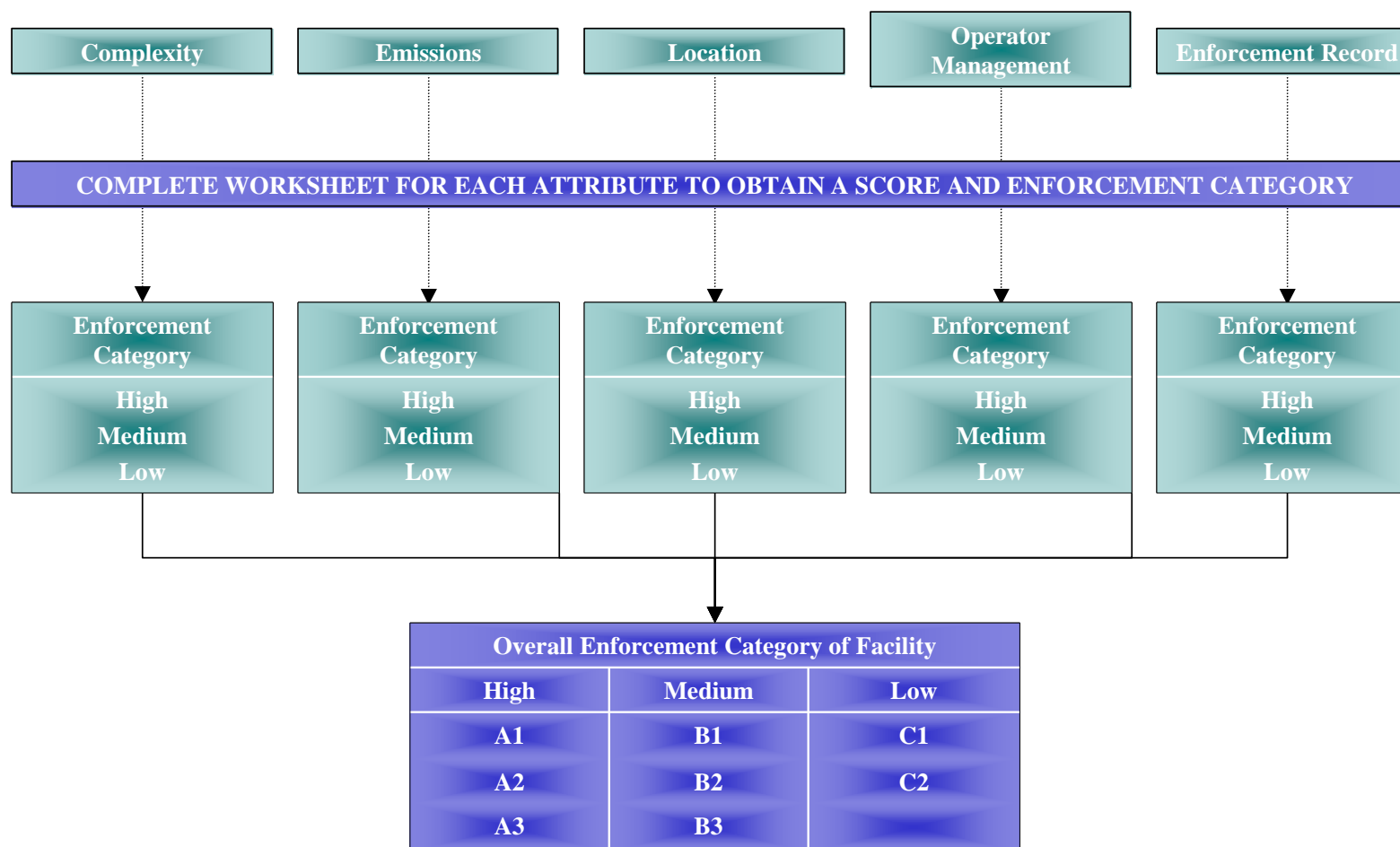


Figure 1-1 Summary of Methodology for Determining Enforcement Category of Licences

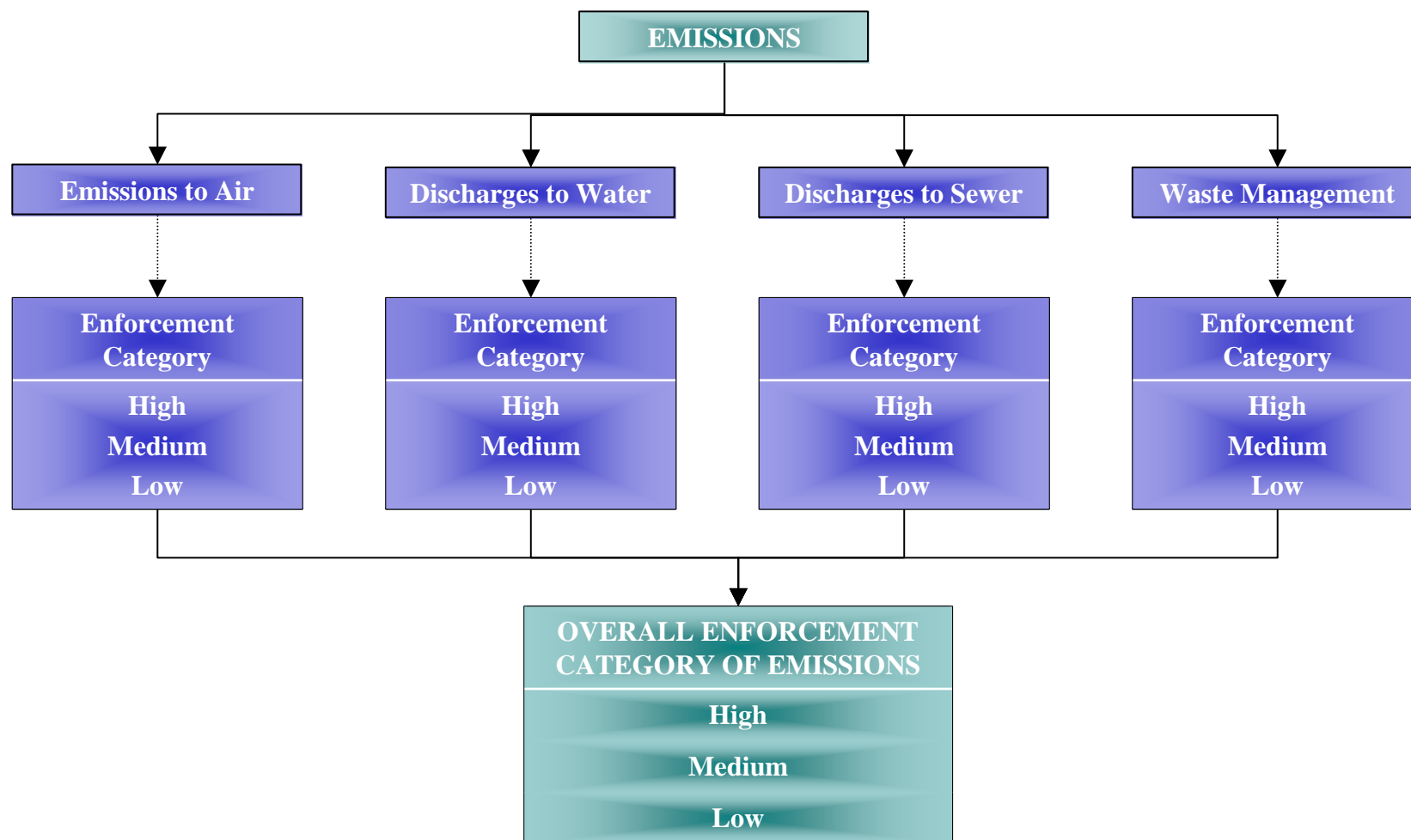


Figure 1-2 Summary of Assessment of Facility Emissions

2 DESCRIPTION OF SCORING SYSTEM

2.1 Complexity

The complexity score is based on the type of activity/activities carried out at an IPPC or Waste Licensed facility.

In the Assessment Tool, activities requiring a facility to be subject to a Waste or IPPC Licence are set as out in the following legislation:

- Schedule 1 of the Protection of the Environment Act (2003);
- Schedule 3 of the Waste Management Act (1996) (disposal activities);
- Schedule 4 of the Waste Management Act (1996) (recovery activities).

With regard to Schedule 1 of the Environmental Protection Agency Act (1992), the activities listed have been significantly amended by the POE Act (2003). Where a facility is licensed under Schedule 1 of the Environmental Protection Agency Act (1992) the corresponding activity under the POE Act (2003) should be selected.

Some of these activities are more complex than others and in general terms the more complex they are, the greater the regulatory effort that will be required to enforce the licence conditions. Each scheduled activity has been assessed and assigned one of five complexity grades, G1 (the least complex) to G5 (the most complex). Appendix 2 details all scheduled activities (derived from the legislation listed above), together with the complexity grades that have been assigned to each. It should be noted that where there are more than two licensed activities taking place, the user must enter the two activities that are of the highest complexity grades.

The activities which will automatically be assigned a high enforcement category are outlined in Table 2-1 below. Facilities that are licensed to carry out these activities will automatically result in the highest A1 enforcement category on completion of the assessment tool.

Note that **Activity 11.1 of Schedule 1 of the POE Act (2003)** licenses an IPPC facility to carry out waste disposal/recovery activities. The wording of the activity is as follows:

The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required.

Where activity 11.1 is selected, the user must then choose either ‘Incineration’ (which will score high for complexity and default the final outcome to enforcement category A1) or

'Incineration where it is not the main activity at the facility' (which will score high for complexity but will not default the final outcome to a higher score).

Table 2-1 Automatic AI Enforcement Category Activities

Activity	Description
Protection of the Environment Act 2003, Schedule 1	
PoE 11.1	The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required: * Incineration of waste
Waste Management Act 1996, Schedule 3	
D5	Specially engineered landfill, including placement into lined discreet cells which are capped and isolated from one another and the environment where (a) engineered landfill accepting > 100,000 TPA non hazardous waste or (b) hazardous waste landfill
D8	Incineration on land or at sea
D13	Storage prior to submission to any activity referred to in Schedule 3, other than temporary storage, pending collection on the premises where the waste concerned is produced where (a) non-hazardous waste > 100,000 TPA or (b) hazardous waste > 10,000 TPA
Waste Management Act 1996, Schedule 4	
R13	Storage prior to submission to any activity referred to in Schedule 4, other than temporary storage, pending collection on the premises where the waste concerned is produced where (a) non hazardous waste > 100,000 TPA or (b) hazardous waste > 10,000 TPA;

2.1.1 Instructions for Determining Complexity Enforcement Category

In order to determine the complexity score (and hence complexity enforcement category) for a facility, the following steps are undertaken:


1. Compile a list of all scheduled activities for the facility as set out in the IPPC or waste licence where more than one activity is specified in the IPPC/Waste Licence;
2. Identify the complexity grade of each activity using the look-up table provided in Appendix 2 of this document;
3. Having identified the two activities of the highest complexity grade, select the 'Add/Delete 1' button on the complexity spreadsheet, and the *Complexity Attribute Form* will appear (see Figure 2-1);
4. Select the *Schedule Reference* from the dropdown menu and the description of the activity will appear.

5. For a number of activities a quantity (production quantity, waste quantity etc.) may then have to be selected. In this case the *Complexity Band Form* with the list of quantities will appear. The quantity must be selected from the list and 'Ok' selected. The *Complexity Grade* will automatically be assigned.
6. To insert the information onto the spreadsheet select 'Add' and then 'Finished'
7. If applicable, enter a second activity using the 'Add/Delete 2' button and follow the procedure described above. Activities can be amended where necessary.
8. If activities have not yet commenced on-site, tick the box beside the statement: "*Licensed activities have not commenced on site.*" The assessment outcome will automatically default to one grade lower than otherwise would be obtained by completing the assessment. For example, if the assessment results in a facility being assigned an enforcement category outcome of A1, it will obtain a B1 where activities have not yet commenced on site. (Note that where there may be more than one licensed activity taking place on site this statement applies to all on site activities i.e. No licensed activities have commenced on site).
9. If licensed activities have ceased on-site, tick the box beside the statement: "*Licensed activities have ceased on site.*" This will not impact on the complexity score or the assessment outcome, but will provide information to the user. (Note that where there may have been more than one licensed activity taking place on site this statement applies to all on site activities i.e. All licensed activities have ceased on site).

The total complexity score is the sum of the scores for the two highest complexity grades. The scores for the individual grades are:

Complexity Grade	Score
G1	1
G2	2
G3	3
G4	4
G5	5

Complexity Attributes



Organisation Name	0
Licence Number	0

Band	Score
G1	1
G2	2
G3	3
G4	4
G5	5

Number	Schedule 1 of Protection of the Environment Act, 2003 Schedule 3 & 4 of the Waste Management Act, 1996 ¹	Description of Activity	Complexity Band	Score
1				
2				
TOTAL				0

¹ As amended by the Protection of the Environment Act, 2003.

☐ Licensed activities have not commenced on site.

☐ Licensed activities have ceased on site.

Score	Enforcement Category
≥ 5	High
3 - 4	Medium
≤ 2	Low

COMPLEXITY ENFORCEMENT CATEGORY Low

Comments

Figure 2-1 Complexity Attribute Form

The complexity attribute of the facility in question is assigned one of the following enforcement categories, depending on the complexity score:

Complexity Score	Enforcement Category
≥ 5	High
3 – 4	Medium
≤ 2	Low

2.2 Emissions

This attribute incorporates emissions to air, water, sewer and the management of waste from the facility. In general, the higher the level of emissions and/or the number of different substances released, the greater the regulatory effort the EPA will be required to expend on the installation. In order to determine the enforcement category of the emissions of a facility, each medium, (air, water etc.) is considered separately and a score is obtained. Depending on

the score, the enforcement category result for each emission (i.e. air, water, sewer and waste) is classified and scored as follows:

Air/Water/Sewer/Waste Enforcement Category	Air/Water/Sewer/Waste Score
High	3
Medium	2
Low	1

At the beginning of each emission form (air, water etc.) a tick box is included to indicate if this particular category of emissions does not apply. In general, licensed emissions points only are considered so if there are no licensed emission points, tick the 'This form was not required' box. In the Emissions to Air, Discharge to Water and Discharge to Sewer forms where the quantity emitted (kg/yr) for a particular substance is < 10% of the minimum threshold given in the drop down menu, it should not be included. 'Not Applicable' may be selected from the drop down menu for that substance. (e.g. A Cu discharge to sewer of 0.37 kg/yr can be entered as 'Not Applicable' as it is < 10% of the minimum threshold of 25 kg/yr. In this case only discharges greater than or equal to 2.5 kg/yr must be included).

At the end of each emission form the following questions have been included:

- Air Emissions: In the last 12 months, have there been > 3 non-compliances with emission limit values for emissions to air?
- Discharges to Water: In the last 12 months, have there been > 3 non-compliances with emission limit values for discharges to water?
- Discharges to Sewer: In the last 12 months, have there been > 3 non-compliances with emission limit values for discharges to sewer?
- Waste Management: In the last 12 months, have there been > 3 non-compliances with regard to waste management?

If there have been greater than 3 non-compliances with ELV's set for air, water, sewer or waste then the box at the bottom of the form should be ticked. If, for example, there have been more than 3 non-compliances (see EPA letters / monitoring and licensees monitoring) with emission limit values (ELV's) for emissions to air, then this form automatically defaults to a high enforcement category, regardless of the score obtained for the quantity of E-PRTR (was EPER) substances emitted, noise and odour emissions. The same rule applies to discharges to water, discharges to sewer and waste management. Note that for a waste management facility, non-compliances with regard to waste management applies to non-compliances with conditions related to facility operation (e.g. landfill cover, waste inspections, annual tonnage set for waste etc.)

2.2.1 Emissions to Air

The score for emissions to air takes account of the following:

- The most prevalent and potentially polluting **substances** emitted to air by IPPC and waste facilities in Ireland;
- The distance from the facility at which **odours** can be detected;
- The **noise** emissions from the facility; and
- Non-compliances with emission limit values for emissions to air.

Note that licensed emission points only are considered when determining the enforcement category (high, medium or low) of emissions to air. Where a facility has an emission point from e.g. a boiler that is not licensed, then emissions from that point are not included in total emissions.

2.2.1.1 Substances Emitted

Each substance is scored from 1- 3 depending on the quantity of emissions, as shown for the example of CH₄ (methane) in Table 2-2.

Table 2-2 Emissions Scoring

Description		Quantity Emitted	Emissions Score
1.1	CH ₄ (kg/yr)	> 100,000	3
		50,000 – 100,000	2
		< 50,000	1
		Not applicable	0

It will be possible to select only one quantity emitted (kg/yr) (or range) for each substance on the digital assessment tool. For each substance listed, the quantity emitted (or range) should be selected. If the substance is not emitted from the facility, select 'Not applicable'. Where the quantity emitted (kg/yr) for a particular substance is < 10% of the minimum threshold given in the drop down menu, it should not be included. 'Not Applicable' may be selected from the drop down menu for that substance. The 'Check' box can be clicked to ascertain if any information is missing from the form.

The main substances considered are the EPER, European Pollutant Emission Register (superceded by E-PRTR) substances that are reported by the EPA to Europe (i.e. Operators of EPA-Licensed facilities are required to report their annual Releases (emissions) and Off-Site Waste Transfers under S.I. 123 of 2007, the Pollutant Release and Transfer (PRTR) Regulations, and Submit an Annual Environmental Report to the EPA in accordance with their EPA Licences). Additional E-PRTR (was EPER) substances are included in a separate drop-down menu on the air emissions spreadsheet (select 'Other Compounds'). These substances, together with the thresholds are listed in Appendix 3. As indicated in Table 2-2, the emissions score for each substance depends on the annual quantity that is emitted. The

thresholds for high, medium and low emissions are detailed in Appendix 3 and are based on the following:

- Upper thresholds are $> 100\%$ of the E-PRTR (was EPER) threshold and if a facility emits this quantity of any substance it scores 3 points;
- Median thresholds are between 50% to 100% of the E-PRTR (was EPER) thresholds and if a facility emits this quantity of any substance it scores 2 points; and
- Lower thresholds are below 50% of the EPER thresholds (now E-PRTR) and 1 point is scored if a facility is below this value for any substance.
- Where the quantity emitted (kg/yr) for a particular substance is $< 10\%$ of the minimum threshold given in the drop down menu it should not be included. 'Not Applicable' may be selected from the drop down menu for that substance and it scores 0 points.

2.2.1.2 Odour Emissions

Odour emissions are outlined in Table 2-3 below. The score for this question is based on the distance from the facility boundary at which odours are detected either by the licensee or the EPA.

Table 2-3 Odour Scoring

Number	Description	Distance	Score
4.1	Distance from facility boundary at which odours are detected	> 250 m	3
		50 – 250 m	2
		< 50 m	1
		No odour detected	0

2.2.1.3 Noise Emissions

With regard to noise emissions, if the daytime or night time licensed noise levels were exceeded at any sensitive location due to on site activities, or if there is any clearly audible tonal or impulsive component in noise emissions from activities on site, the facility scores 3 points. The time scale to which this question relates is the 12 month period for which the assessment applies.

2.2.1.4 Air Emissions Score

The scores obtained for each substance, and for odour and noise emissions are summed and the facility is assigned a high enforcement category (≥ 6 points), medium enforcement category (3 – 5 points) or low enforcement category (≤ 2 points) for air emissions depending on the total score obtained. If the facility's assessment for air emissions results in the **high enforcement category**, then the **total air emissions score** is **3**. Furthermore the total air emissions score is 2 points or 1 point where the enforcement category outcome is medium or low respectively. An example of the scoring of emissions to air is illustrated in Figure 2-3.

Table 2-4 Air Emissions Score

Enforcement Category	Total Score
High ≥ 6	3
Medium 3 – 5	2
Low ≤ 2	1

2.2.1.5 Instructions for Determining Air Emissions Score

In order to determine the Air Emissions Score for a facility, the following steps are undertaken:

1. Determine the quantities (**kg/yr**) of E-PRTR (was EPER) substances emitted to air from the facility's licensed emission points during the 12 month period for which the assessment applies as detailed in Figure 2-2. The methodology outlined in Figure 2-2 should be carried out for each E-PRTR (was EPER) substance emitted from the facility. Note that for each substance, the quantity refers to the total quantity from all licensed emission points;
2. Select the correct range of emission rate on the drop-down menu on the air emission spreadsheet (**kg/yr**). (See Figure 2-3);
3. Where the facility has odorous emissions, select the distance from the facility boundary at which odours are detected. This is assessed by odour impact assessments/patrols carried out by the EPA or licensee. Detailed odour monitoring (eg. olfactometric) is not necessary to confirm the presence/absence of odours.
4. Where noise emissions occur from the facility, indicate whether daytime/night time levels are exceeded at any noise sensitive location or whether tonal or impulsive noise components are clearly audible at noise sensitive locations due to on-site activities. Use the monitoring results detailed in the AER. Information on whether elevated noise levels are due to on-site activities should be interpreted in the noise monitoring report;
5. Click the 'Check Button' to determine if any additional information is required to be added to the form, if so complete the form; and
6. The enforcement category for emissions to air will default to high (regardless of the quantities of substances emitted) if there have been significant non-compliances with emission limit values. This is included for by a tick box (as outlined in Section 2.2) (See Figure 2-3.)

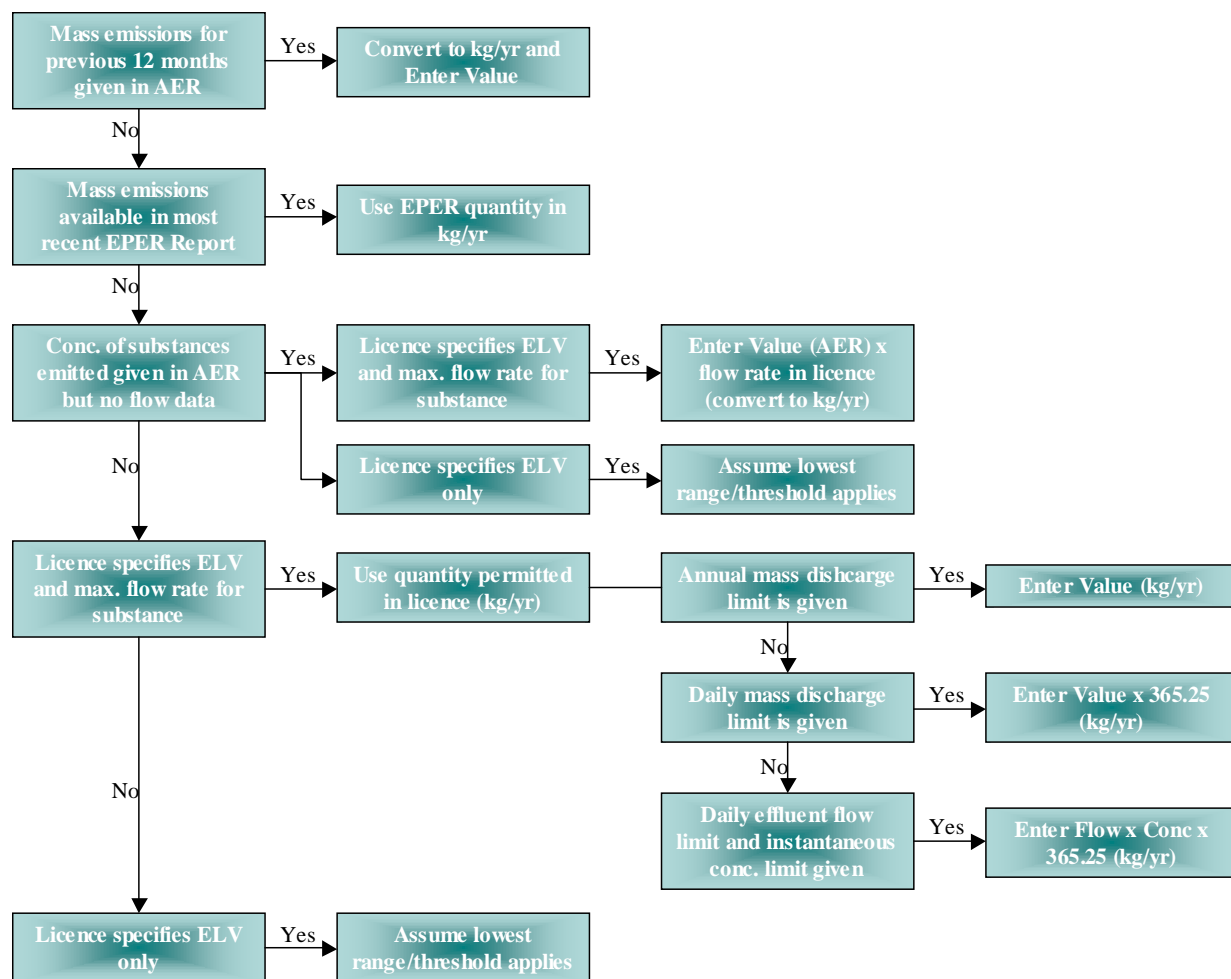



Figure 2-2 Methodology for Determining Annual Mass Emissions for E-PRTR (was EPER) Substances

Emissions to Air



Check

Introduction

☐ This form was not required.

Number	Description	Quantity Emitted	Emissions Score	Total Points
1. ENVIRONMENTAL THEMES				
1.1	CH ₄ (kg/yr)	> 100 000	3	3
1.2	CO ₂ (kg/yr)	< 50 000 000	1	1
4. ODOUR				
4.1	Distance from facility boundary at which odours are detected	No Odour Detected	0	0
5. NOISE				
5.1	Is the daytime/ nighttime noise level exceeded or is there any clearly audible tonal or impulsive component in the noise emission from the activity at a noise sensitive location as a result of on-site activities?	No		0
6. OTHER COMPOUNDS				
6.15	PM ₁₀ (kg/yr)	< 25 000	1	1
TOTAL				5

Enforcement Category	Total Score
High ≥ 6	3
Medium 3 - 5	2
Low ≤ 2	1

☐ In the last 12 months have there been > 3 non-compliances with emission limit values for emissions to air?

AIR EMISSIONS SCORE

2

Figure 2-3 Air Emissions Spreadsheet

2.2.2 Discharges to Water and Discharges to Sewer

The score for discharges to water takes account of the following:

- The most prevalent and potentially polluting **substances** discharged to water from IPPC and waste facilities in Ireland; and
- Non-compliances with emission limit values for discharges to water.

The score for discharges to sewer takes account of the following:

- The most prevalent and polluting **substances** discharged to sewer from IPPC and waste facilities in Ireland; and
- Non-compliances with emission limit values for discharges to sewer.

2.2.2.1 Substances Discharged to Water and Sewer

The substances taken account of are the E-PRTR (was EPER) substances that are reported by the EPA to Europe. Additional E-PRTR (was EPER) substances are included in a separate drop-down menu on the discharges to water and sewer spreadsheets (select 'Other Compounds'). Ammonia is also included in this separate category (under Other). These substances, together with the thresholds are listed in Appendix 3. Where the quantity emitted (kg/yr) for a particular substance is <10% of the minimum threshold given in the drop down menu, it should not be included. 'Not Applicable' may be selected from the drop down menu for that substance.

Each substance is scored from 1- 3 depending on the level of emissions.

2.2.2.2 Discharges to Water/Sewer Score

The scores obtained for each parameter are summed and the facility is classified as high, medium or low risk for discharges to water and discharges to sewer depending on the total score obtained. The overall score is as detailed in Table 2-5.

Table 2-5 Discharges to Water/Sewer Score

Enforcement Category	Total Score
High ≥ 6	3
Medium 3 – 5	2
Low ≤ 2	1

2.2.2.3 Instructions for Determining Discharges to Water/Sewer Scores

In order to determine a facility's score for **discharges to water/discharges to sewer**, the following steps are undertaken:

1. Determine the quantities (**kg/yr**) of E-PRTR (was EPER) substances discharged to water/sewer from the facility's licensed discharge points as detailed in Figure 2-2. The methodology outlined in Figure 2-2 should be carried out for each E-PRTR (was EPER) substance discharged from the facility to water/sewer. Note that for each substance, the quantity refers to the total quantity from all licensed emission points;
2. Select the correct range of discharge rate on the discharges to water/sewer spreadsheets (**kg/yr**) on the drop-down menu;
3. Click the 'Check Button' to determine if any additional information is required to be added to the form, if so complete the form; and
4. The enforcement category for discharges to water/sewer will default to high (regardless of the quantities of substances emitted) if there have been significant non-compliances with emission limit values. This is included for by a tick box (as outlined in Section 2.2).

2.2.3 Waste Management

In calculating a facility's score for waste management, disposal of waste (both on-site and off-site) is taken into account. This includes both IPPC and Waste licensed facilities.

The score is determined by completing the spreadsheet illustrated in Figure 2-4. This spreadsheet is derived from the recommended method of reporting on waste quantities outlined in the EPA "Guidance Note for Annual Environmental Report" for IPC facilities.

When the spreadsheet has been completed, a waste management score will be obtained. The enforcement category assigned for waste management depends on the score obtained – see Table 2-6.

Two questions relate specifically to the landspreading of waste. The scores obtained are as follows:

- Are organic wastes sent off-site for landspreading? (Yes: 2 points, No: 0 points)
- Is the waste stabilised or does it undergo treatment prior to landspreading? (Yes: -1 point, No 0 points)

Table 2-6 Waste Management Score

Enforcement Category	Total Score
High ≥ 9	3
Medium 5 – 8	2
Low ≤ 4	1

2.2.3.1 Instructions for Determining Waste Management Score

1. From the Annual Environmental Report determine the following:

Non-hazardous and Hazardous waste:

- Quantity disposed of on-site (**tonnes**);
- Quantity disposed of off-site (**tonnes**);
- Quantity recovered on-site (**tonnes**); and
- Quantity recovered off-site (**tonnes**).

In order to verify that waste is recovered on-site, the facility should ideally hold a certificate of recovery for the quantity declared. If the AER does not distinguish between the quantity of waste recovered on or off site, the facility operator will be required to clarify this.

Enter the quantities of non-hazardous and hazardous waste disposed of on/off-site and recovered on/off-site on the waste management spreadsheet.

2. Answer the questions on landspreading and stabilisation of organic wastes.
3. Click the 'Check Button' to determine if any additional information is required to be added to the form, if so complete the form.
4. The enforcement category for waste management will default to high risk (regardless of the quantities of non-hazardous/hazardous waste disposed of/recovered on/off site) if there have been significant non-compliances with emission limit values. This is included for by a tick box (as outlined in Section 2.2).

Waste Management


☐ This form was not required.

Number	Description	Quantity of Waste (tonnes/annum)	Yes/No	Points Available	Points Scored
NON-HAZARDOUS WASTE (LAST 12 MONTHS)					
1	Quantity of non-hazardous waste disposed of on-site	>2,000	No	7	
		200 - 2,000	No	5	
		<200	No	3	
		0	No	0	
2	Quantity of non-hazardous waste disposed of off-site	> 2,000	No	4	
		200 - 2,000	No	3	
		< 200	No	2	
		0	No	0	
3	Quantity of non-hazardous waste recovered on-site	> 2,000	No	4	
		200 - 2,000	No	3	
		< 200	No	2	
		0	No	0	
4	Quantity of non-hazardous waste recovered off-site	> 2,000	No	3	
		200 - 2,000	No	2	
		< 200	No	1	
		0	No	0	
HAZARDOUS WASTE (LAST 12 MONTHS)					
5	Quantity of hazardous waste disposed of on-site	> 500	No	9	
		10 - 500	No	7	
		< 10	No	5	
		0	No	0	
6	Quantity of hazardous waste disposed of off-site	> 500	No	7	
		10 - 500	No	5	
		< 10	No	3	
		0	No	0	
7	Quantity of hazardous waste recovered on-site	> 500	No	7	
		10 - 500	No	5	
		< 10	No	3	
		0	No	0	
8	Quantity of hazardous waste recovered off-site	> 500	No	4	
		10 - 500	No	3	
		< 10	No	2	
		0	No	0	
LANDSPREADING					
9	Are organic wastes sent off-site for landspreading?			2	
10	Is the waste stabilised or does it undergo treatment prior to landspreading?			-1	
TOTAL				0	

Enforcement Category	Total Score
High ≥ 9	3
Medium 5 - 8	2
Low ≤ 4	1

☐ In the last 12 months have there been > 3 non-compliances with regard to waste management?


Figure 2-4 Waste Management Spreadsheet

2.2.4 Emissions Summary

The scores for emission to air, discharges to water and sewer and waste management are displayed in the emissions summary spreadsheet indicated in Figure 2-5. The scores for each (1 – 3) are multiplied together to obtain a total emissions score. Where the

emissions/discharges to two or more media (or waste management) emerge as high risk, and the total emissions score is ≥ 9 , then the overall emissions outcome is classified as high risk. This result will feed into the enforcement category summary spreadsheet.

Emissions Summary



Introduction

Sheet Reference	Score
Emissions to Air	2
Emissions to Water	1
Emissions to Sewer	2
Waste Management	2

EMISSIONS SCORE

8

Score	Enforcement Category
≥ 9	High
5 - 8	Medium
≤ 4	Low

EMISSIONS ENFORCEMENT CATEGORY

Mid

Figure 2-5 Emissions Summary Spreadsheet

2.3 Location

This attribute identifies whether the installation may affect any key environmental receptors including human beings. Factors taken into consideration in determining the location score include:

- The proximity of the nearest sensitive receptor;
- The proximity of protected ecological sites such as pNHA (proposed National Heritage Areas), cSACs (candidate special areas of conservation), and SPAs (Special Protection Areas);

- Groundwater protection including aquifer classification, vulnerability and source protection zones;
- The sensitivity of receiving water in terms of EPA water quality classification;
- Designated and potentially eutrophic coastal and estuarine waters; and

⇒ *Proximity of human occupation/presence*

Measure the distance of the nearest sensitive receptor from the boundary of the site, or for landfills, from the landfill footprint. A sensitive receptor is defined as any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity. The score will depend on the proximity. (See spreadsheet below – Figure 2-6).

⇒ *Proximity of SACs, SPAs, and NHAs*

The distance from the site boundary to protected areas designated as pNHA (Irish Wildlife Acts 1976, 2000), cSAC (Habitats Directive 1992) and/or SPAs (Birds Directive 1979) unless the facility falls within a designated site (in which case it receives the highest score). For landfills, the distance is measured from the landfill footprint.

⇒ *Groundwater Protection*

An aquifer classification can be obtained for any site located within the 26 counties by accessing the GSI Website (www.gsi.ie). If more than one aquifer class underlies the subject site, the rating should be based on the higher aquifer resource classification. However, the user should use his/her discretion in certain cases. For example, if only a very small area of the subject site is underlain by a Regionally Important Aquifer, but the majority of the site including the area of the development, is underlain by a Locally Important Aquifer, it would be more appropriate to base the rating on the Locally Important Aquifer classification.

Site-specific vulnerability information should be used if available. The GSI Vulnerability Mapping Guidelines should be used to assign a site-specific vulnerability rating. Details of subsoil thickness and type is required in order to assign a site specific vulnerability rating. If a site-specific vulnerability rating is not available, a GSI vulnerability rating should be used, if available. Groundwater Protection Schemes have been prepared for all 26 counties. Interim vulnerability ratings are available for all areas by accessing the GSI website (www.gsi.ie).

If the subject site has more than one vulnerability classification, the rating should be based on the most sensitive vulnerability class. However, the user should again use his/her discretion in certain cases. For example, if only a very small area of the subject site is classified as having Extreme vulnerability, but the majority of the site including the area of the development, is classified as having High vulnerability, it might be more appropriate to base the rating on the High vulnerability classification.

The Groundwater Protection Schemes also delineate the location of municipal and large group scheme groundwater abstraction wells and their associated Source Protection Zones. It

is possible using the on-line database (www.gsi.ie) or by telephone enquiry to the GSI (01 6782782) to determine if the subject site is located within a Source Protection Zone. Source protection zones refer to those surrounding both potable water and commercial wells.

The scores obtainable for each parameter are detailed in Figure 2-6.

⇒ *Sensitivity of Receiving Water*

Facilities are scored on the basis of the quality and therefore sensitivity of receiving waters. The biotic index (Q-value) of receiving waters can be obtained from the EPA website (<http://www.epa.ie/OurEnvironment/Water/Rivers/RiverWaterQualityReports/> and/or <http://maps.epa.ie/internetmapviewer/mapviewer.aspx>) and this is converted to the EPA water quality classification system as outlined in Table 2-7. The more sensitive (and the higher the Q value), the higher the score.

Table 2-7 *Water Quality Classification*

Biotic Index	Quality Status	Quality Class	Score
Q 5, 4-5, 4	Unpolluted	Class A	3
Q 3-4	Slightly polluted	Class B	2
Q3, 2-3	Moderately polluted	Class C	1
Q2, 1-2, 1	Seriously polluted	Class D	0

Particular regard should be had to the receiving waters to which the facility is discharging, whether such waters are designated coastal, estuarine, shellfish and bathing waters or if they are potentially eutrophic coastal and estuarine waters.

- Designated coastal and estuarine waters are areas designated as sensitive in the Third Schedule of S.I. 48/2010 - Urban Waste Water Treatment (Amendment) Regulations (2010). These are listed in Appendix 4;
- Designated shellfish waters are those listed in Schedule 3 of the S.I. No. 268/2006 — European Communities (Quality of Shellfish Waters) Regulations 2006 as amended by S.I. No. 464/2009 — European Communities (Quality of Shellfish Waters)(Amendment) (No. 2) Regulations 2009 and S.I. No. 55/2009 — European Communities (Quality of Shellfish Waters) (Amendment) Regulations 2009. See Appendix 4;
- Designated bathing waters are those Bathing Areas listed in the First Schedule of S.I. 177/1998- Quality of Bathing Waters (Amendment) Regulations, 1998. See Appendix 4;
- Potentially eutrophic coastal and estuarine waters are as detailed in the EPA report on Water Quality in Ireland: Key Indicators of the Aquatic Environment 2007-2008 (2009). These are listed in Appendix 5;


The total location score is the sum of the score obtained for the nearest sensitive receptor, protected ecological sites, groundwater protection and sensitivity of receiving waters.

The scoring system for allocating a facility's location attribute into a high, medium or low enforcement category is set out in Table 2-8.

Table 2-8 *Location Score*

Score	Enforcement Category
≥ 13	High
7 – 12	Medium
≤ 6	Low

Location



Number	Parameters	Yes/No	Points Available	Points Scored	
NEAREST SENSITIVE RECEPTOR					
1	a) If within 50m of the site boundary	No	5		
	b) If greater than 50m but less than 250m of boundary	No	3		
	c) If greater than 250m but less than 1km of boundary	No	1		
	d) Not Applicable	No	0		
PROTECTED ECOLOGICAL SITES					
Distance from site boundary to protected areas designated as pNHA (Irish Wildlife Acts 1976,2000), cSAC (Habitats Directive 1992) and/or SPA (Birds Directive 1979):					
2	a) Within or directly bordering protected site	No	2		
	b) < 1 km to protected site	No	1		
	c) > 1 km from protected site	No	0		
GROUNDWATER PROTECTION					
Aquifer Classification					
3	a) Is the site underlain by a Regionally Important Aquifer?	No	2		
	b) Is the site underlain by a Locally Important Aquifer?	No	1		
	c) Is the site underlain by a Poor Aquifer?	No	0		
Vulnerability					
4	a) Is the vulnerability of the site classified as extreme?	No	3		
	b) Is the vulnerability of the site classified as high?	No	2		
	c) Is the vulnerability of the site classified as Moderate?	No	1		
	d) Is the vulnerability of the site classified as low or is no information available on the vulnerability of the site?	No	0		
Source Protection Zones					
5	Is the subject site located within a Source Protection Zone or is any well located within 1km of the site's boundary?	No	3	0	
SENSITIVITY OF RECEIVING WATERS					
6.1	Class A River	No	3		
	Class B River	No	2		
	Class C River	No	1		
	Class D River	No	0		
	Not Applicable	No	0		
6.2	Designated Coastal, Estuarine, Shellfish & Bathing Waters	No	2		
	Potentially Eutrophic Coastal & Estuarine Waters	No	1		
	Not Applicable	No	0		

Figure 2-6 Location Spreadsheet

2.4 Operator Management

Under operator management, facilities are rewarded for environmental management practices that exceed the standard set out by the conditions of the licence. The operator management score depends on the following factors:

- Environmental management practices
- Incidents

This criterion is based on a series of yes/no type questions. In order to complete the operator management section the following is required:


- Information on any environmental management system (EMS) in place at the facility
- Information on whether or not the company's environmental management system (EMS) is subject to an external audit with a published methodology. (e.g. ISO 14000 or EMAS etc.).
- Information on any annual environmental training plan being implemented at the facility
- Information on any environmental committee which meets regularly at the facility
- Details of the number of notifiable incidents or releases (as set out in the notification condition of the licence).

The scoring system awards negative points if the facility has an environmental management system, if the EMS is subject to an external audit with a published methodology, if there is an environmental training plan being implemented at the facility or if there is an environmental committee which meets regularly at the facility. The score obtained for Incidents depends on the number of notifiable incidents. Figure 2-7 provides an example. The scores that allocate a facility's operator management attribute with a high, medium or low enforcement category are set out in Table 2-9.

Table 2-9 Operator Management Score

Score	Enforcement Category
≥ 3	High
2	Medium
≤ 1	Low

Operator Management



Number	Description	Yes/No	Points Available	Points Scored
ENVIRONMENTAL MANAGEMENT				
1.1	Does the facility have an Environmental Management System (EMS) in place?		-1	
1.2	Is the EMS subject to an external audit with a published methodology?		-3	
1.3	Is an Environmental Training Plan being implemented at the facility?		-1	
1.4	Is there an Environmental Committee which meets regularly at the facility?		-1	
			SUB TOTAL	0
			MIN	-6

Number	Description	Frequency	Yes/No	Points Available	Points Scored
INCIDENTS					
2.1	In the last year, has there been any release or notifiable incidents under notification condition of licence?	11 or more	No	12	
		6 - 11	No	8	
		1 - 5	No	4	
		0	No	0	
				SUB TOTAL	0
				MAX	12
				TOTAL	0

Score	Enforcement Category
≥ 3	High
2	Medium
≤ 1	Low

OPERATOR MANAGEMENT ENFORCEMENT CATEGORY

Low

Comments

Figure 2-7 Operator Management Spreadsheet

2.5 Enforcement Record

The score received by a facility for its enforcement record depends on the following:

- Number of complaints;
- Number of non compliances notified;
- Number of section notices; and
- Whether or not there are soil or groundwater contamination issues at the facility.

Complaints are those received by the EPA and non-compliances refer to those notified by the EPA. The number of non-compliances refers to the number of conditions not complied with – the total is summed from each site inspection/audit report or other EPA notification. If two non-compliances relate to the same condition (but on two separate inspections/audits), then this non-compliance is counted twice. 1 notification of non-compliance might include a number of individual non-compliances. You should refer to any notification of non-compliance issued by the agency for the year in question. If for example the Agency issued one notification of non-compliance which contained 3 non-compliances with the IPPC/Waste Licence then the total number of non-compliances in this case is 3.

In scoring facilities on these factors, section notices and convictions are given a higher weighting than non-compliances, which in turn are weighted more highly than complaints.

Soil or groundwater contamination is defined by background concentrations of contaminants above the target values that have been caused by the activities and/or previous activities at the facility.

Also, a tick box is included at the end of the sheet that is ticked if the facility has been convicted by the EPA during the 12 month period for which the assessment applies. If yes, the outcome of the assessment will automatically default to one enforcement category higher than otherwise obtained (see Section 3).


Figure 2-8 illustrates the enforcement record spreadsheet.

The scores that designate a facility's enforcement record as being high, medium or low risk are set out in Table 2-10.

Table 2-10 Enforcement Record Scoring

Score	Enforcement Category
≥ 12	High
6 – 11	Medium
≤ 5	Low

Enforcement Record



Number	Description	Frequency	Yes/No	Points Available	Points Scored
1	Number of complaints received by the agency within the last year?	None	No	0	
		1-5	No	1	
		6-10	No	2	
		11 or more	No	3	
2	Number of non-compliances noted by the agency within the last year?	None	No	0	
		1-5	No	3	
		6-10	No	5	
		11 or more	No	9	
3	Have any Section Notices been issued within the last year?	None	No	0	
		? 1	No	5	
4	Are there soil or groundwater contamination issues on the site?			3	
TOTAL					
					0

☐ Licensee has been successfully convicted by the Agency in the last 12 months.

Score	Enforcement Category
≥ 12	High
6 - 11	Medium
≤ 5	Low

ENFORCEMENT RECORD CATEGORY Low


Comments

Figure 2-8 Enforcement Record Spreadsheet

3 ENFORCEMENT CATEGORY SUMMARY

The assessment summary spreadsheet displays the enforcement category that the facility has attained for each attribute. This is illustrated in Figure 3-1.

Enforcement Category Summary



Organisation Name	0
Case Number	0

Fixed Attributes	Enforcement Category
Complexity	Low
Location	Low

Enforcement Category due to Fixed Attributes	C2
--	----

Sheet Reference	Enforcement Category
Complexity	Low
Emissions	Low
Location	Low
Operator Management	Low
Enforcement Record	Low

OVERALL ENFORCEMENT CATEGORY	C2
	C2

Figure 3-1 Enforcement Category Summary Spreadsheet

The overall enforcement category is determined by the combination of enforcement categories obtained for each attribute. On the enforcement category summary spreadsheet, the category obtained due to ‘fixed’ attributes alone is given as well as the overall enforcement category. Fixed attributes include complexity and location. The activities that are carried out on site and the sensitivity of the receiving environment surrounding the facility are not in control of the facility operator and so are fixed. Other attributes reflect the environmental performance of the operator, i.e. the quantity of potentially polluting substances emitted, the environmental management of the operation and the history of compliance with the EPA licence.

There are three principal enforcement categories into which facilities may fall:

- A – High
- B – Medium
- C – Low

These are broken down further into sub-classes. Table 3-1 details the outcome of the assessment.

Table 3-1 Assessment Outcome

Parameter 1	Parameter 2	Parameter 3	Parameter 4	Parameter 5	Enforcement Category
High	High	High	High	High	A1
High	High	High	High	Medium	
High	High	High	High	Low	
High	High	High	Medium	Medium	A2
High	High	High	Medium	Low	
High	High	High	Low	Low	
High	High	Medium	Medium	Medium	A3
High	High	Medium	Medium	Low	
High	High	Medium	Low	Low	
High	High	Low	Low	Low	B1
High	Medium	Medium	Medium	Medium	
High	Medium	Medium	Medium	Low	
High	Medium	Medium	Low	Low	B2
Medium	Medium	Medium	Medium	Medium	
Medium	Medium	Medium	Medium	Low	
Medium	Medium	Medium	Low	Low	B3
High	Medium	Low	Low	Low	
High	Low	Low	Low	Low	C1
Medium	Medium	Low	Low	Low	
Medium	Low	Low	Low	Low	C2
Low	Low	Low	Low	Low	

Parameters 1 – 5 represent any combination of complexity, emissions, location, operator management and enforcement record.

There are several scenarios where the assessment may default to a higher/lower enforcement category outcome. These are outlined as follows:

- Certain activities will automatically be assigned a high enforcement category (A1). These are listed in Table 2-1;
- If licensed activities have not yet commenced on-site, then the assessment outcome will be one enforcement category lower than would otherwise be obtained, e.g. where a facility's enforcement category is A1 and activities have not yet commenced on site, then the overall outcome will be B1;
- If a facility has been convicted during the 12 month period for which the assessment applies, the assessment outcome will be one category higher than otherwise obtained e.g. where a facility's enforcement category is B1 and the box for convictions on the enforcement record form is ticked, then the overall outcome will be A1.

An Assessment Outcome that has defaulted to a higher/lower value will be displayed in red below the 'Overall Enforcement Category' and this value (in red) will be taken for use by the OEE as the overall or final enforcement category.

The 'Overall Enforcement Category' will then be reviewed by the OEE and either confirmed (in the majority of cases) or adjusted as appropriate.

4 CONCLUSIONS

The Office of Environmental Enforcement (OEE) of the EPA has developed an environment-based enforcement methodology for assessing the enforcement category of waste and IPPC licensed facilities. The assessment will be completed on an annual basis for all licensed facilities. The outcome will assist the OEE in prioritising its enforcement efforts. In general, the methodology entails a systematic approach to allocating greater resources to enforcing the licence conditions of facilities with a high enforcement category outcome. The principles underlying the methodology reflect those of the OEE's enforcement policy, i.e. **proportionality** in the application of environmental law and in securing compliance, **consistency** of approach, **transparency** about how the OEE operates, **targeting** of enforcement action and implementation of the **polluter pays principle**.

The methodology for Environment Based Enforcement of Licences described in this Guidance Document has been designed to assist the OEE in prioritising its enforcement activities. The system will be used to allocate an enforcement category to all Waste and IPPC licensed facilities, therefore the same methodology will be applied to a vast range of activities. Testing of the methodology on a large sample of facilities has verified its accuracy and effectiveness in allocating the enforcement category attributable to various licensed

activities. It has also assisted in identifying areas where the methodology necessitated further refinement.

Appendix 1

Technical Specification

TECHNICAL SPECIFICATION

The tool for determining the enforcement category of licences is operated on an Excel spreadsheet. The following are the requirements to run the tool:

1. The user's version of Windows must be Windows 97 or newer
2. The user must choose to 'enable macros' when opening the spreadsheet
3. The macro security settings must be set to 'medium' or 'low' (tools-macro-security)

Appendix 2
Schedule 1 of Protection of Environment Act (2003)
3rd and 4th Schedules of Waste Management Act (1996)

PROTECTION OF THE ENVIRONMENT ACT, 2003 AND WASTE MANAGEMENT ACT, 1996 OEE BANDING (G1 LEAST COMPLEX TO G5 MOST COMPLEX)

Ref.	Activities	Grade
Protection of the Environment Act, 2003		
1 Minerals and Other Materials		
POE 1.1.1	The production of asbestos.	G1
POE 1.1.2	The extraction, production and processing of raw asbestos, not included in paragraph 1.1.1.	G3
POE 1.2	The extraction of aluminium oxide from an ore, not included in paragraph 5.13.	G4
POE 1.3	The extraction and processing (including size reduction, grading and heating) of minerals within the meaning of the Minerals Development Acts 1940 to 1999, where an activity involves—(a) a metalliferous operation, or (b) any other operation where either the level of extracted or processed minerals is greater than 200,000 tonnes per annum or the total operational yield is greater than 1,000,000 tonnes, and storage of related mineral waste	G5
POE 1.4	The extraction of peat in the course of business which involves an area exceeding 50 hectares.	G1
2 Energy		
POE 2.1	The operation of combustion installations with a rated thermal input equal to or greater than 50 MW.	G3
	<ul style="list-style-type: none"> • 50 megawatts or more • 300 megawatts or more 	G4
3 Metals		
POE 3.1.1	The production of pig iron or steel (primary or secondary fusion) including continuous casting, with a capacity exceeding 2.5 tonnes per hour.	G4
POE 3.1.2	The initial melting or production of iron or steel, not included in paragraph 3.1.1.	G3
POE 3.2.1	The processing of ferrous metals:(a) hot-rolling mills with a capacity exceeding 20 tonnes of crude steel per hour, (b) smitheries with hammers the energy of which exceeds 50 kilojoule per hammer, where the calorific power used exceeds 20 MW, (c) application of protective fused metal coars with an input exceeding 2 tonnes of crude steel per hour.	G3
POE 3.2.2	The processing of iron and steel in forges, drawing plants and rolling mills where the production area exceeds 500 square metres, not included in paragraph 3.2.1	G4
POE 3.3.1	The operation of ferrous metal foundries with a production capacity exceeding 20 tonnes per day.	G3
POE 3.3.2	The production, recovery, processing or use of ferrous metals in foundries having melting installations with a total capacity exceeding 5 tonnes, not included in paragraph 3.3.1	G2

Ref.	Activities	Grade
POE 3.4.1	The—(a) production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes, (b) smelting, including the alloyage, of non-ferrous metals, including recovered products, (refining, foundry casting, etc.) with a melting capacity exceeding 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals.	G3
POE 3.4.2	The production, recovery or processing of non-ferrous metals, their compounds or other alloys including antimony, arsenic, beryllium, chromium, lead, magnesium, manganese, phosphorus, selenium, cadmium or mercury, by thermal, chemical or electrolytic means in installations with a batch capacity exceeding 0.5 tonnes, not included in paragraph 3.4.1.	G3
POE 3.5	The reaction of aluminium or its alloys with chlorine or its compounds, not included in paragraph 5.13.	G4
POE 3.6.1	The roasting or sintering of metal ore (including sulphide ore).	G3
POE 3.6.2	The calcining of metallic ores in plants with a capacity exceeding 1,000 tonnes per year.	G2
POE 3.7	Swaging by explosives where the production area exceeds 100 square metres.	G4
POE 3.8	The pressing, drawing and stamping of large castings where the production area exceeds 500 square metres.	G2
POE 3.9	Boilermaking and the manufacture of reservoirs, tanks and other sheet metal containers where production area exceeds 500 square metres.	G2
4 Mineral Fibres and Glass		
POE 4.1	The processing of asbestos, and the manufacture and processing of asbestos-based products.	G1
POE 4.2.1	The melting of mineral substances including the production of mineral fibres with a melting capacity exceeding 20 tonnes per day.	G2
POE 4.2.2	The manufacture of glass fibre or mineral fibre, not included in paragraph 4.2.1 or 4.3.	G1
POE 4.3	The manufacture of glass including glass fibre with a melting capacity exceeding 20 tonnes per day or 5,000 tonnes per year	G4
POE 4.4	The production of industrial diamonds.	G3
5 Chemicals		
POE 5.1	The manufacture of chemicals in an integrated chemical installation, not included in paragraphs 5.12 to 5.17.	
	<ul style="list-style-type: none"> annual production < 2000 te annual production < 2000 te 	G3 G4

Ref.	Activities	Grade
POE 5.2	<p>The manufacture of olefins and their derivatives or of monomers and polymers including styrene and vinyl chloride, not included in paragraphs 5.12 to 5.17.</p> <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 - 2000 te • annual production > 2000 te 	<p>G2</p> <p>G3</p> <p>G4</p>
POE 5.3	<p>The manufacture, by way of chemical reaction processes, of organic or organo-metallic chemical products other than those specified in paragraph 5.2 and not included in paragraphs 5.12 to 5.17.</p> <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	<p>G2</p> <p>G3</p> <p>G4</p>
POE 5.4	<p>The manufacture of inorganic chemicals, not included in paragraphs 5.12 to 5.17.</p> <ul style="list-style-type: none"> • annual production < 2000 te • annual production > 2000 te 	<p>G3</p> <p>G4</p>
POE 5.5	The manufacture of artificial fertilisers, not included in paragraphs 5.12 to 5.17.	G4
POE 5.6	<p>The manufacture of pesticides, pharmaceutical or veterinary products and their intermediates, not included in paragraphs 5.12 to 5.17.</p> <ul style="list-style-type: none"> • annual production < 2000 te • annual production > 2000 te 	<p>G3</p> <p>G4</p>
POE 5.7	<p>The manufacture of paints, varnishes, resins, inks, dyes, pigments or elastomers where the production capacity exceeds 1,000 litres per week, not included in paragraphs 5.12 to 5.17.</p> <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	<p>G2</p> <p>G3</p> <p>G4</p>
POE 5.8	<p>The formulation of pesticides, not included in paragraphs 5.12 to 5.17.</p> <ul style="list-style-type: none"> • annual production < 2000 te • annual production > 2000 te 	<p>G3</p> <p>G4</p>
POE 5.9	<p>The chemical manufacture of glues, bonding agents and adhesives, not included in paragraphs 5.12 to 5.17.</p> <ul style="list-style-type: none"> • annual production < 2000 t • annual production > 2000 t 	<p>G3</p> <p>G4</p>
POE 5.10	<p>The manufacture of vitamins involving the use of heavy metals, not included in paragraphs 5.12 to 5.17.</p> <ul style="list-style-type: none"> • annual production < 2000 te • annual production > 2000 te 	<p>G3</p> <p>G4</p>

Ref.	Activities	Grade
POE 5.11	The storage, in quantities exceeding the values shown, of any one or more of the following chemicals (other than as part of any other activity) and not included in paragraphs 5.12 to 5.17—methyl acrylate (20 tonnes); acrylonitrile (20 tonnes); toluene di-isocyanate (20 tonnes); anhydrous ammonia (100 tonnes); anhydrous hydrogen fluoride (1 tonne).	G3
POE 5.12	The production of basic organic chemicals, such as:	
	(a) simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic); where <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	G2 G3 G4
	(b) oxygen-containing hydrocarbons such as alcohols, aldehydes, ketones, carboxylic acids, esters, acetates, ethers, peroxides, epoxy resins; where <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	G2 G3 G4
	(c) sulphurous hydrocarbons; where <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	G2 G3 G4
	(d) nitrogenous hydrocarbons such as amines, amides, nitrous compounds, nitro compounds or nitrate compounds, nitriles, cyanates, isocyanates; where <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	G2 G3 G4
	(e) phosphorus-containing hydrocarbons; where <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	G2 G3 G4
	(f) halogenic hydrocarbons; where <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	G2 G3 G4
	(g) organometallic compounds; where <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	G2 G3 G4

Ref.	Activities	Grade
	(h) basic plastic materials (polymers, synthetic fibres and cellulose-based fibres); where <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	G2 G3 G4
	(i) synthetic rubbers; where <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	G2 G3 G4
	(j) dyes and pigments; where <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	G2 G3 G4
	(k) surface-active agents and surfactants; where <ul style="list-style-type: none"> • annual production < 100 te • annual production 100 – 2000 te • annual production > 2000 te 	G2 G3 G4
POE 5.13	The production of basic inorganic chemicals, such as:	
	(a) gases, such as ammonia, chlorine or hydrogen chloride, fluorine or hydrogen fluoride, carbon oxides, sulphur compounds, nitrogen oxides, hydrogen, sulphur dioxide, carbonyl chloride; where <ul style="list-style-type: none"> • annual production < 2000 te • annual production > 2000 te 	G3 G4
	(b) acids, such as chromic acid, hydrofluoric acid, phosphoric acid, nitric acid, hydrochloric acid, sulphuric acid, oleum, sulphurous acids; where <ul style="list-style-type: none"> • annual production < 2000 te • annual production > 2000 te 	G3 G4
	(c) bases, such as ammonium hydroxide, potassium hydroxide, sodium hydroxide; where <ul style="list-style-type: none"> • annual production < 2000 te • annual production > 2000 te 	G3 G4
	(d) salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate; where <ul style="list-style-type: none"> • annual production < 2000 te • annual production > 2000 te 	G3 G4
	(e) non-metals, metal oxides or other inorganic compounds such as calcium carbide, silicon, silicon carbide; where <ul style="list-style-type: none"> • annual production < 2000 te • annual production > 2000 te 	G3 G4

Ref.	Activities	Grade
POE 5.14	The production of phosphorous-based, nitrogen-based or potassium-based fertilisers (simple or compound fertilisers); where <ul style="list-style-type: none"> annual production < 2000 te annual production > 2000 te 	G3 G4
POE 5.15	The production of basic plant health products and of biocides; where <ul style="list-style-type: none"> annual production < 2000 te annual production > 2000 te 	G3 G4
POE 5.16	The use of a chemical or biological process for the production of basic pharmaceutical products; where <ul style="list-style-type: none"> annual production < 2000 te annual production > 2000 te 	G3 G4
POE 5.17	The production of explosives; where <ul style="list-style-type: none"> annual production < 2000 te annual production > 2000 te 	G3 G4
6 Intensive Agriculture		
POE 6.1	The rearing of poultry in installations, whether within the same complex or within 100 metres of the same complex, where the capacity exceeds 40,000 places.	G1
POE 6.2	The rearing of pigs in an installation, whether within the same complex or within 100 metres of the same complex, where the capacity exceeds— 750 places for sows in a breeding unit, or 285 places for sows in an integrated unit, or 2,000 places for product	G1
7 Food and Drink		
POE 7.1	The manufacture of vegetable and animal oils and fats where the capacity for processing raw materials exceeds 40 tonnes per day, not included in paragraph 7.8.	G2
POE 7.2.1	The treatment and processing of milk, the quantity of milk received being greater than 200 tonnes per day (average value on a yearly basis).	G3
POE 7.2.2	The manufacture of dairy products where the processing capacity exceeds 50 million gallons of milk equivalent per year, not included in paragraph 7.2.1.	G3
POE 7.3.1	Brewing (including cider and perry production) in installations where the production capacity exceeds 25 million litres per year, not included in paragraph 7.8.	G3
POE 7.3.2	Distilling in installations where the production capacity exceeds the equivalent of 1,500 tonnes per year measured as pure alcohol, not included in paragraph 7.8.	G3
POE 7.3.3	Malting in installations where the production capacity exceeds 100,000 tonnes per year, not included in paragraph 7.8.	G3
POE 7.4.1	The operation of slaughterhouses with a carcass production capacity greater than 50 tonnes per day; where <ul style="list-style-type: none"> discharge to local authority sewer discharge to surface water 	G3 G4

Ref.	Activities	Grade
POE 7.4.2	The slaughter of animals in installations where the daily capacity exceeds 1,500 units and where units have the following equivalents— Sch. 1 1 sheep = 1 unit, 1 pig = 2 units, 1 head of cattle = 5 units, and not included in paragraph 7.4.1; where <ul style="list-style-type: none"> discharge to local authority sewer discharge to surface water 	G3 G4
POE 7.5	The manufacture of fish-meal and fish-oil, not included in paragraph 7.8.	G3
POE 7.6	The manufacture of sugar, not included in paragraph 7.8.	G4
POE 7.7.1	The disposal or recycling of animal carcasses and animal waste with a treatment capacity exceeding 10 tonnes per day.	G4
POE 7.7.2	The processing (including rendering) of animal carcasses and by-products, not included in paragraph 7.7.1.	G4
POE 7.8	Treatments or processes for the purposes of the production of food products from:	
	(a) animal raw materials (other than milk) with a finished product production capacity greater than 75 tonnes per day,	G2
	(b) vegetable raw materials with a finished product production capacity greater than 300 tonnes per day (average value on a quarterly basis).	G2
8 Wood, Paper, Textiles and Leather		
POE 8.1	The production of paper pulp, paper or board (including fibre-board, particle-board and plywood) with a production capacity exceeding 20 tonnes per day.	G4
POE 8.2	The production of pulp from timber or other fibrous materials; where <ul style="list-style-type: none"> annual production < 50,000 te annual production > 50,000 te 	G1 G2
POE 8.3	The treatment or protection of wood, involving the use of preservatives, with a capacity exceeding 10 tonnes of wood per day; where <ul style="list-style-type: none"> high pressure treatment with groundwater contamination other high pressure treatment low pressure treatment 	G4 G3 G2
POE 8.4	The manufacture of synthetic fibres, not included in paragraph 5.12; where <ul style="list-style-type: none"> annual production < 2000 te annual production > 2000 te 	G2 G3
POE 8.5.1	The pre-treatment (operations such as washing, bleaching, mercerization) or dyeing of fibres or textiles where the treatment capacity exceeds 10 tonnes per day.	G2
POE 8.5.2	The dyeing, treatment or finishing (including moth-proofing and fireproofing) of fibres or textiles (including carpet) where the capacity exceeds 1 tonne per day of fibre, yarn or textile material, not included in paragraph 8.5.1.	G2
POE 8.6.1	The tanning of hides and skins where the treatment capacity exceeds 12 tonnes of finished products per day.	G3

Ref.	Activities	Grade
POE 8.6.2	The fell-mongering of hides and tanning of leather in installations where the capacity exceeds 100 skins per day, not included in paragraph 8.6.1.	G3
9 Fossil Fuels		
POE 9.1	The extraction, other than offshore extraction, of petroleum, natural gas, coal or bituminous shale.	G4
POE 9.2	The handling or storage of crude petroleum, not included in paragraph 9.3.1 or 9.3.2.	G3
POE 9.3.1	The operation of mineral oil and gas refineries.	G5
POE 9.3.2	The refining of petroleum or gas, not included in paragraph 9.3.1.	G5
POE 9.4.1	The operation of coke ovens; where	
	<ul style="list-style-type: none"> • annual production < 250 te • annual production > 250 te 	G2 G4
POE 9.4.2	The operation of coal gasification and liquefaction plants.	G5
POE 9.4.3	The production of carbon (hard-burnt coal) or electrographite by means of incineration or graphitization.	G5
POE 9.4.4	The pyrolysis, carbonisation, gasification, liquefaction, dry distillation, partial oxidation or heat treatment of coal, lignite, oil or bituminous shale, other carbonaceous materials or mixtures of any of these in installations with a processing capacity exceeding 500 tonnes per day, not included in paragraph 9.4.1, 9.4.2 or 9.4.3.	G5
10 Cement		
POE 10.1	The production of cement: where	
	<ul style="list-style-type: none"> • waste used as fuel • other 	G4 G3
11 Waste		
POE 11.1	The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required:	
	<ul style="list-style-type: none"> • incineration of waste 	G5
	<ul style="list-style-type: none"> • incineration where it is not the main activity at the facility 	G5
12 Surface Coatings		
POE 12.1	Operations involving coating with organo-tin compounds, not included in paragraph 12.2.1 or 12.2.2.	G2
POE 12.2.1	The surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating, with a consumption capacity of more than 150 kg per hour or more than 200 tonnes per year.	G4

Ref.	Activities	Grade
POE 12.2.2	The manufacture or use of coating materials in processes with a capacity to make or use at least 10 tonnes per year of organic solvents, and powder coating manufacture with a capacity to produce at least 50 tonnes per year, not included in paragraph 12.2; where <ul style="list-style-type: none"> < 20 tonnes solvent per annum or powder coating activities; 20 – 100 tonnes solvent per annum > 100 tonnes solvent per annum 	G2 G3 G4
POE 12.3	The surface treatment of metals and plastic materials using an electrolytic or chemical process where the volume of the treatment vats exceeds 30 m ³ .	G3
13 Other Activities		
POE 13.1	The testing of engines, turbines or reactors where the floor area exceeds 500 square metres.	G2
POE 13.2	The manufacture of integrated circuits and printed circuit boards.	G2
POE 13.3	The production of lime in a kiln.	G3
POE 13.4.1	The manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain, with a production capacity exceeding 75 tonnes per day, or with a kiln capacity exceeding 4 m ³ and a setting density per kiln exceeding 300 kg/m ³ .	G4
POE 13.4.2	The manufacture of coarse ceramics including refractory bricks, stoneware pipes, facing and floor bricks and roof tiles, not included in paragraph 13.4.1.	G4
Waste Management Act, 1996		
3rd Schedule – Disposal Activities		
D1	Deposit on, in or under land; where <ul style="list-style-type: none"> unlined landfill accepting > 25,000 tpa non-hazardous waste or facilities without landfill gas flares unlined landfill accepting < 25,000 tpa non-hazardous waste closed unlined landfills 	G5 G4 G4
D2	Land treatment, including biodegradation of liquid or sludge discards in soils.	G3
D3	Deep injection of the soil, including injection of pumpable discards into wells, salt domes or naturally occurring repositories.	G3
D4	Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.	G3

Ref.	Activities	Grade
D5	<p>Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment; where</p> <ul style="list-style-type: none"> engineered landfill accepting > 100,000 tpa non-hazardous waste or hazardous waste landfill engineered landfill accepting < 100,000 tpa non-hazardous waste closed lined landfills inert landfills 	<p>G5</p> <p>G4</p> <p>G3</p> <p>G2</p>
D6	Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in this Schedule.	G3
D7	<p>Physico-chemical treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in this Schedule; where</p> <ul style="list-style-type: none"> <i>Hazardous</i> – < 10,000 tonnes per annum <i>Hazardous</i> – > 10,000 tonnes per annum <i>Non-Hazardous</i> - < 20 tonnes per day <i>Non-Hazardous</i> - > 20 tonnes per day 	<p>G3</p> <p>G4</p> <p>G2</p> <p>G3</p>
D8	Incineration on land or at sea.	G5
D9	Permanent storage, including emplacement of containers in a mine.	G3
D10	Release of waste into a water body (including a seabed insertion).	G3
D11	Blending or mixture prior to submission to any activity referred to in this Schedule.	G3
D12	Repackaging prior to submission to any activity referred to in this Schedule.	G3
D13	<p>Storage prior to submission to any activity referred to in this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced; where</p> <ul style="list-style-type: none"> <i>Non-Hazardous</i> - < 25,000 tpa <i>Non-Hazardous</i> - 25,000 – 100,000 tpa <i>Non-Hazardous</i> - > 100,000 tpa <i>Hazardous</i> - < 10,000 tpa <i>Hazardous</i> - > 10,000 tpa 	<p>G3</p> <p>G4</p> <p>G5</p> <p>G4</p> <p>G5</p>
4th Schedule – Waste Recovery Activities		
R1	<p>Solvent reclamation or regeneration; where</p> <ul style="list-style-type: none"> < 20 tonnes per annum > 20 tonnes per annum 	<p>G2</p> <p>G3</p>

Ref.	Activities	Grade
R2	Recycling or reclamation of organic substances which are not used as solvents; where	
	• < 5,000 tonnes per annum	G2
	• 5,000 – 25,000 tonnes per annum	G3
	• > 25,000 tonnes per annum	G4
R3	Recycling or reclamation of metals and metal compounds:	
	• collection and sorting only;	G1
	• processing	G3
R4	Recycling or reclamation of other inorganic materials.	G2
R5	Regeneration of acids or bases.	G2
R6	Recovery of components used for pollution abatement.	G2
R7	Recovery of components from catalysts.	G2
R8	Oil re-refining or other re-uses of oil.	G3
R9	Use of any waste principally as a fuel or other means to generate energy:	
	• making solid fuel from waste	G4
	• other	G3
R10	Spreading of any waste on land with a consequential benefit for an agricultural activity or ecological system, including composting and other biological transformation processes.	G1
R11	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.	G2
R12	Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.	G2
R13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced; where	
	• <i>Non-Hazardous</i> - < 25,000 tpa	G3
	• <i>Non-Hazardous</i> - 25,000 – 100,000 tpa	G4
	• <i>Non-Hazardous</i> - > 100,000 tpa	G5
	• <i>Hazardous</i> - < 10,000 tpa	G4
	• <i>Hazardous</i> - > 10,000 tpa	G5

Appendix 3

Details of Substances Emitted to Air and Discharges to Water and Sewer

SUBSTANCES EMITTED TO AIR

SUBSTANCE	THRESHOLD	POINTS
ENVIRONMENTAL THEMES		
CH ₄ (kg/yr)	> 100,000	3
	50,000 - 100,000	2
	< 50,000	1
CO ₂ (kg/yr)	> 100,000,000	3
	50,000,000 - 100,000,000	2
	< 50,000,000	1
NH ₃ (kg/yr)	> 10,000	3
	5,000 - 10,000	2
	< 5,000	1
NO _x as NO ₂ (kg/yr)	> 100,000	3
	50,000 - 100,000	2
	< 50,000	1
SO _x as SO ₂ (kg/yr)	> 150,000	3
	75,000 - 150,000	2
	< 75,000	1
METALS AND COMPOUNDS		
Total As, as As (kg/yr)	> 20	3
	10 – 20	2
	< 10	1
Total Cr (kg/yr)	> 100	3
	50 – 100	2
	< 50	1
Total Cu (kg/yr)	> 100	3
	50 – 100	2
	< 50	1
Total Hg (kg/yr)	> 10	3
	5 – 10	2
	< 5	1
Total Ni (kg/yr)	> 50	3
	25 – 50	2
	< 25	1
Total Zn (kg/yr)	> 200	3
	100 – 200	2
	< 100	1
CHLORINATED ORGANIC SUBSTANCES		
Dichloromethane (DCM) (kg/yr)	> 1,000	3
	500 - 1,000	2
	< 500	1
Trichloromethane (kg/yr)	> 500	3
	250 – 500	2
	< 250	1

SUBSTANCE	THRESHOLD	POINTS
OTHER COMPOUNDS		
Benzene (kg/yr)	> 1,000	3
	500 - 1,000	2
	< 500	1
Chlorine and inorganic compounds as HCl (kg/yr)	> 10,000	3
	5,000 - 10,000	2
	< 5,000	1
CO (kg/yr)	> 500,000	3
	250,000 - 500,000	2
	< 250,000	1
Dichloroethane-1,2 (DCE) (kg/yr)	> 1,000	3
	500 - 1,000	2
	< 500	1
Fluorine and inorganic compounds as HF (kg/yr)	> 5,000	3
	2,500 - 5,000	2
	< 2,500	1
HCN (kg/yr)	> 200	3
	100 – 200	2
	< 100	1
Hexachlorobenzene (HCB) (kg/yr)	> 10	3
	5 – 10	2
	< 5	1
Hexachlorocyclohexane (HCH) (kg/yr)	> 10	3
	5 – 10	2
	< 5	1
HFCs (kg/yr)	> 100	3
	50 – 100	2
	< 50	1
N ₂ O (kg/yr)	> 10,000	3
	5,000 - 10,000	2
	< 5,000	1
NMVOC (kg/yr)	> 100,000	3
	50,000 - 100,000	2
	< 50,000	1
PCDD + PCDF (dioxins and furans) as Teq (kg/yr)	> 0.001	3
	0.0005 - 0.001	2
	< 0.0005	1
Pentachlorophenol (PCP) (kg/yr)	> 10	3
	5 – 10	2
	< 10	1
PFCs (kg/yr)	> 100	3
	50 - 100	2
	< 50	1
PM10 (kg/yr)	> 50,000	3
	25,000 - 50,000	2
	< 25,000	1

SUBSTANCE	THRESHOLD	POINTS
Polycyclic Aromatic Carbons (kg/yr)	> 50	3
	25 - 50	2
	< 25	1
SF ₆ (kg/yr)	> 50	3
	25 - 50	2
	< 25	1
Tetrachloromethane (TCM) (kg/yr)	> 100	3
	50 - 100	2
	< 50	1
Trichloroethylene (TRI) (kg/yr)	> 2,000	3
	1,000 - 2,000	2
	< 1,000	1
Total Cd, as Cd (kg/yr)	> 5 (was>10)	3
	2.5 – 5 (was 5-10)	2
	< 2.5 (was <5)	1
Total Pb (kg/yr)	> 20 (was >200)	3
	10 - 20 (was 100-200)	2
	< 10 (was <100)	1
Trichlorobenzenes (TCB) (kg/yr)	> 10	3
	5 - 10	2
	< 5	1
Tetrachloroethylene (PER) (kg/yr)	> 2,000	3
	1,000 - 2,000	2
	< 1,000	1
Trichloroethane-1,1,1 TCE) (kg/yr)	> 100	3
	50 - 100	2
	< 50	1

SUBSTANCES DISCHARGED TO WATER/SEWER

SUBSTANCE	THRESHOLD	POINTS
ENVIRONMENTAL THEMES		
Total Nitrogen (kg/yr)	> 50,000	3
	25,000 - 50,000	2
	< 25,000	1
Total Phosphorous (kg/yr)	>5,000	3
	2,500 - 5,000	2
	<2,500	1
METALS AND COMPOUNDS		
Total Cr (kg/yr)	> 50	3
	25 - 50	2
	< 25	1
Total Cu (kg/yr)	> 50	3
	25 - 50	2
	< 25	1
Total Ni (kg/yr)	> 20	3
	10 - 20	2
	< 20	1
Total Zn (kg/yr)	> 100	3
	50 - 100	2
	< 50	1
CHLORINATED ORGANIC SUBSTANCES		
Dichloromethane (DCM) (kg/yr)	> 10	3
	5 - 10	2
	< 5	1
OTHER COMPOUNDS		
BOD (kg/yr)	> 150,000	3
	10,000 - 150,000	2
	< 10,000	1
Suspended Solids (kg/yr)	> 20,000	3
	10,000 - 20,000	2
	< 10,000	1
OTHER		
Ammonia (kg/yr)	> 3000	3
	1500 – 3000	2
	< 1500	1
Benzene, toluene, ethylbenzene and xylenes as BTEX (kg/yr)	> 200	3
	100 - 200	2
	< 100	1
Brominated diphenylether (kg/yr)	> 1	3
	0.5 - 1	2
	< 0.5	1
Chlorides (kg/yr)	> 2,000,000	3
	1,000,000 - 2,000,000	2
	< 1,000,000	1

SUBSTANCE	THRESHOLD	POINTS
Chloroalkanes (C10-13) (kg/yr)	> 1	3
	0.5 - 1	2
	< 0.5	1
Cyanides as total CN (kg/yr)	> 50	3
	25 - 50	2
	< 25	1
Dichloroethane-1,2 (DCE) (kg/yr)	> 10	3
	5 - 10	2
	< 5	1
Fluorides as total F (kg/yr)	> 2,000	3
	1,000 - 2,000	2
	< 1,000	1
Halogenated organic compounds as AOX (kg/yr)	> 1,000	3
	500 - 1,000	2
	< 500	1
Hexachlorobenzene (HCB) (kg/yr)	> 1	3
	0.5 - 1	2
	< 0.5	1
Hexachlorobutadiene (HCBd) (kg/yr)	> 1	3
	0.5 - 1	2
	< 0.5	1
Hexachlorocyclohexane (HCH) (kg/yr)	> 1	3
	0.5 - 1	2
	< 0.5	1
Organotin compounds as total Sn (kg/yr)	> 50	3
	25 - 50	2
	< 50	1
Phenols (kg/yr)	> 20	3
	10 - 20	2
	< 10	1
Polycyclic Aromatic Carbons (kg/yr)	> 5	3
	2.5 - 5	2
	< 2.5	1
Total As, as As (kg/yr)	> 5	3
	2.5 - 5	2
	< 2.5	1
Total Cd, as Cd (kg/yr)	> 5	3
	2.5 - 5	2
	< 2.5	1
Total Hg (kg/yr)	> 1	3
	0.5 - 1	2
	< 0.5	1
Total organic carbon as total C or COD/3 (TOC) (kg/yr)	> 50,000	3
	25,000 - 50,000	2
	< 25,000	1

SUBSTANCE	THRESHOLD	POINTS
Total Pb (kg/yr)	> 20	3
	10 - 20	2
	< 10	1

Appendix 4

Designated Coastal, Estuarine, Shellfish and Bathing Waters

DESIGNATED COASTAL AND ESTUARINE WATERS

S.I. No. 48/2010: Urban Waste Water Treatment (Amendment) Regulations, 2010

Schedule 1: Sensitive Areas

Part 1

Rivers

Eastern River Basin District

River Boyne, County Meath — 6.5 km section downstream of sewage treatment works outfall at Blackcastle, Navan, County Meath. ([Map 1](#) insert A, of Part 4 to this schedule)

River Liffey — downstream of Osberstown sewage treatment works to Leixlip reservoir, County Kildare. ([Map 1](#) , insert D, of Part 4 to this schedule)

Shannon International River Basin District

River Camlin, County Longford — from sewage treatment works at Longford to entry into the River Shannon. ([Map 2](#) , insert H of Part 4 to this schedule,)

River Nenagh, County Tipperary — downstream of sewage treatment works outfall in Nenagh to entry into Lough Derg. ([Map 2](#) , insert E, of Part 4 to this schedule)

River Tullamore, County Offaly — 0.5 km section downstream of sewage treatment works outfall in Tullamore. ([Map 2](#) , insert F, of Part 4 to this schedule)

Western River Basin District

River Castlebar, County Mayo — downstream of sewage treatment works at Knockthomas to entry into Lough Cullin ([Map 3](#) , insert A, of Part 4 to this schedule)

Lakes

Shannon International River Basin District

Lough Derg and Lough Ree on the River Shannon. ([Map 2](#) , inserts E and H, of Part 4 to this schedule)

South Western River Basin District

Lough Leane, County Kerry. ([Map 4](#) , insert E, of Part 4 to this schedule)

North Western International River Basin District

Lough Oughter, County Cavan. ([Map 5](#) , insert B, of Part 4 to this schedule)

Part 2

Rivers

Shannon International River Basin District

River Brosna — downstream of Mullingar sewage outfall (opposite intersection of regional road (R400) with N52 south of Mullingar), to Lough Ennell. ([Map 2](#) , insert G, of Part 4 to this schedule)

River Hind — downstream of Roscommon Town sewage outfall, to Lough Ree. ([Map 2](#) , insert H, of Part 4 to this schedule)

Little Brosna River — downstream of Roscrea sewage outfall below its confluence with the Bunow River, to the bridge near Brosna House ([Map 2](#) , insert D, of Part 4 to this schedule)

South Western River Basin District

River Blackwater (Munster) — downstream of Mallow railway bridge, to Ballyduff Bridge ([Map 4](#) , insert A of Part 4 to this schedule,)

North Western International River Basin District

River Cavan — from the bridge at Lisdarn downstream of Cavan Town to the Annalee River confluence. ([Map 5](#) , insert C, of Part 4 to this schedule)

South Eastern River Basin District

River Barrow — downstream of Portarlinton sewage outfall, to Graiguenamanagh Bridge. ([Map 6](#) , insert B, of Part 4 to this schedule)

River Nore — downstream of Kilkenny sewage outfall, to Inistioge Bridge. ([Map 6](#) , insert E, of Part 4 to this schedule)

River Suir — downstream of Thurles sewage outfall, to Twoford Bridge. ([Map 6](#) , insert D, of Part 4 to this schedule)

River Suir — downstream of Clonmel sewage outfall, to Coolnamuck Weir. ([Map 6](#) , insert G, of Part 4 to this schedule)

Neagh Bann International River Basin District

River Blackwater (Monaghan) — from the confluence of the River Shambles to Newmills Bridge. ([Map 7](#) , insert A, of Part 4 to this schedule)

River Proules — downstream of Carrickmacross sewage outfall, to confluence with the River Glyde. ([Map 7](#) , insert C, of Part 4 to this schedule)

Lakes

Shannon International River Basin District

Lough Ennell, County Westmeath. ([Map 2](#) , insert G, of Part 4 to this schedule)

Neagh Bann International River Basin District

Lough Muckno, County Monaghan. ([Map 7](#) , insert B, of Part 4 to this schedule)

Lough Monalty, County Monaghan. ([Map 7](#) , insert C, of Part 4 to this schedule)

Estuaries and Bays

Eastern River Basin District

Broadmeadow Estuary (Inner) — from the bridge west of Lissenhall (Broadmeadow River) to the railway viaduct. ([Map 1](#) , insert G, of Part 4 to this schedule)

Liffey Estuary — from Islandbridge weir to Poolbeg Lighthouse, including the River Tolka basin and South Bull Lagoon. ([Map 1](#) , insert F, of Part 4 to this schedule)

South Eastern River Basin District

Slaney Estuary (Upper) — from Enniscorthy railway bridge to Macmine. ([Map 6](#) , insert C, of Part 4 to this schedule)

Slaney Estuary (Lower) — from Macmine to Drinagh / Big Island ([Map 6](#) , insert C, of Part 4 to this schedule)

Barrow Estuary — from the weir at Bahana Wood to New Ross Bridge. ([Map 6](#) , insert F, of Part 4 to this schedule)

Suir Estuary (Upper) — from Coolnamuck Weir to Newtown. ([Map 6](#) , insert G, of Part 4 to this schedule)

South Western River Basin District

Bandon Estuary Upper — from Inishannon Bridge to 1 km downstream of Knockroe. ([Map 4](#) , insert C, of Part 4 to this schedule)

Bandon Estuary Lower — from 1 km downstream of Knockroe to Money Point. (SWRBD [Map 4](#) , insert C, of Part 4 to this schedule)

Blackwater Estuary Upper — from Bullsod Island (1 km downstream Lismore Bridge) to Dromana Ferry. ([Map 4](#) , insert A, of Part 4 to this schedule)

Blackwater Estuary Lower — downstream of Dromana Ferry, to near East Point, Youghal Harbour. ([Map 4](#) , insert A, of Part 4 to this schedule)

Lee Estuary / Lough Mahon — from the salmon weir (downstream of waterworks intake) to Monkstown (excluding North Channel and Great Island) ([Map 4](#) , insert B, of Part 4 to this schedule)

Owennacurra Estuary / North Channel — from North Channel (Great Island) upstream of Marloag Point including Owennacurra Estuary upstream to Dungourney river confluence. ([Map 4](#) , insert B, of Part 4 to this schedule)

Shannon International River Basin District

Lee Estuary Upper (Tralee) — from Ballymullin Bridge to 1.2 km from the seaward end of Tralee Ship Canal / Annagh Island. ([Map 2](#) , insert A, of Part 4 to this schedule)

Feale Estuary Upper — downstream of Finuge Bridge, to Poulnahaha Old Railway Bridge. ([Map 2](#) , insert B, of Part 4 to this schedule)

Cashen / Feale Estuary — downstream of Poulnahaha Old Railway Bridge, to Moneycashen. ([Map 2](#) , insert B, of Part 4 to this schedule)

North Western International River Basin District

Killybegs Harbour — Killybegs Harbour inside Kanes Rock / Carntullagh Head. ([Map 5](#) , insert A, of Part 4 to this schedule)

Neagh Bann International River Basin District

Castletown Estuary — from the weir 130 m downstream St. Johns Bridge (Castletown River) to Giles Quay / Lurgangreen. ([Map 7](#) , insert D, of Part 4 to this schedule)

Part 3

Rivers

Eastern River Basin District

River Boyne — from the point 6.5 km downstream of the sewage works outfall at Blackcastle, Navan to Marry's Weir upstream of Grove Island. ([Map 1](#) , insert B, of Part 4 to this schedule.)

River Liffey — from the Leixlip reservoir, County Kildare, to Islandbridge Weir. ([Map 1](#) , insert E, of Part 4 to this schedule.)

South Eastern River Basin District

River Barrow — from its confluence with the River Triogue to the point downstream of Portarlinton sewage treatment outfall. ([Map 6](#) , insert A, of Part 4 to this schedule.)

Shannon International River Basin District

River Shannon (Upper) — from its confluence with the Camlin River to Lough Ree and from its outflow at Lough Ree to Clonmacnoise. ([Map 2](#) , insert H, of Part 4 to this schedule.)

River Fergus — from the sewage outfall at Clonroadmore, Ennis, County Clare, to the freshwater limit of the Fergus Estuary. ([Map 2](#) , insert C, of Part 4 to this schedule.)

River Brosna — from its outfall at Lough Ennell, County Westmeath, to its confluence with the River Shannon. ([Map 2](#) , insert G, of Part 4 to this schedule.)

Tullamore River — from the point 0.5 km downstream of the sewage treatment works outfall Tullamore to its confluence with the River Clodiagh (Tullamore). ([Map 2](#) , insert F, of Part 4 to this schedule.)

Estuaries and Bays

Eastern River Basin District

Boyne Estuary — from Marry's Weir upstream of Grove Island to Boyne Bar. ([Map 1](#) , insert C, of Part 4 to this schedule.)

South Western River Basin District

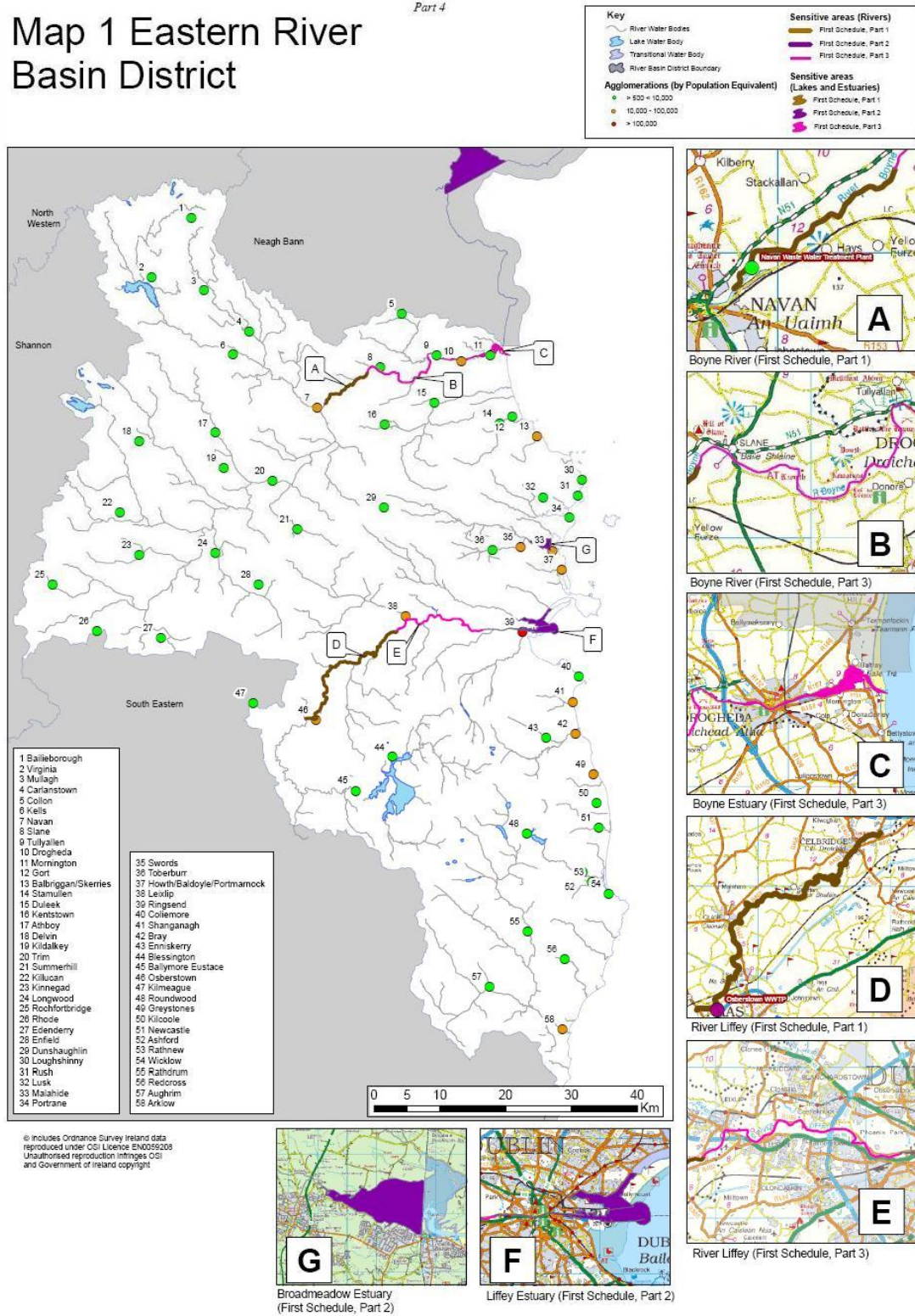
Clonakilty Harbour — from Clonakilty to Ring Harbour / Inchydoney Island. ([Map 4](#) , insert D, of Part 4 to this schedule.)

South Eastern River Basin District

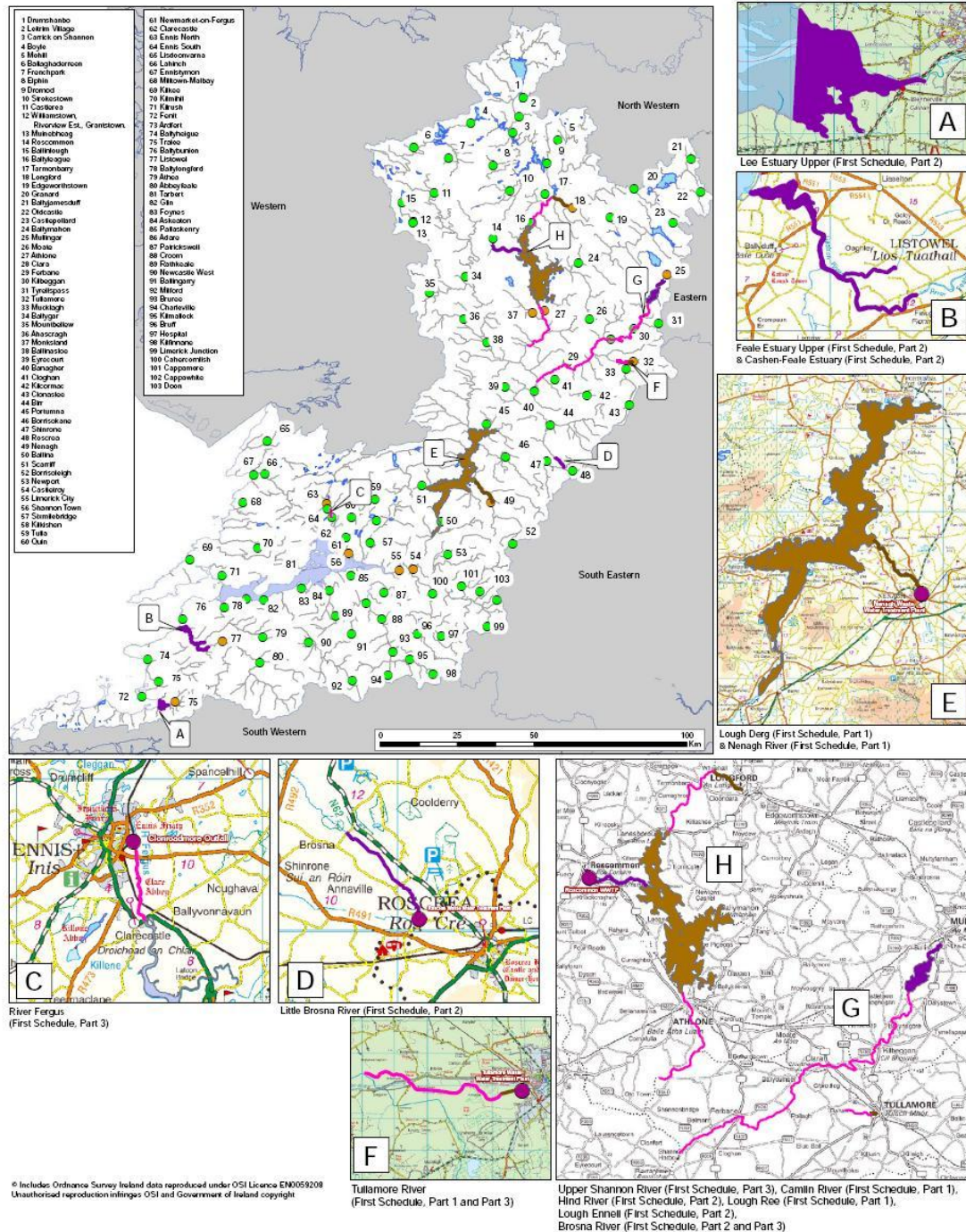
Wexford Harbour — from Drinagh / Big Island to Rosslare Point / Raven Point. ([Map 6](#) , insert C, of Part 4 to this schedule.)

Part 4

Map 1 Eastern River Basin District

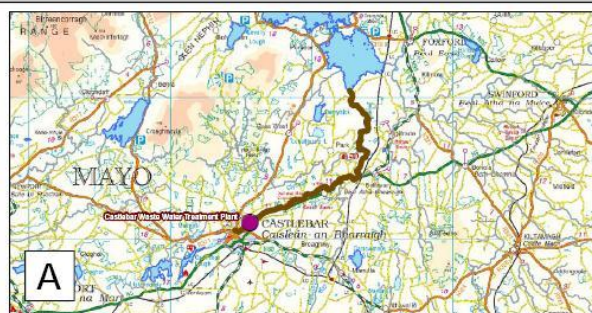
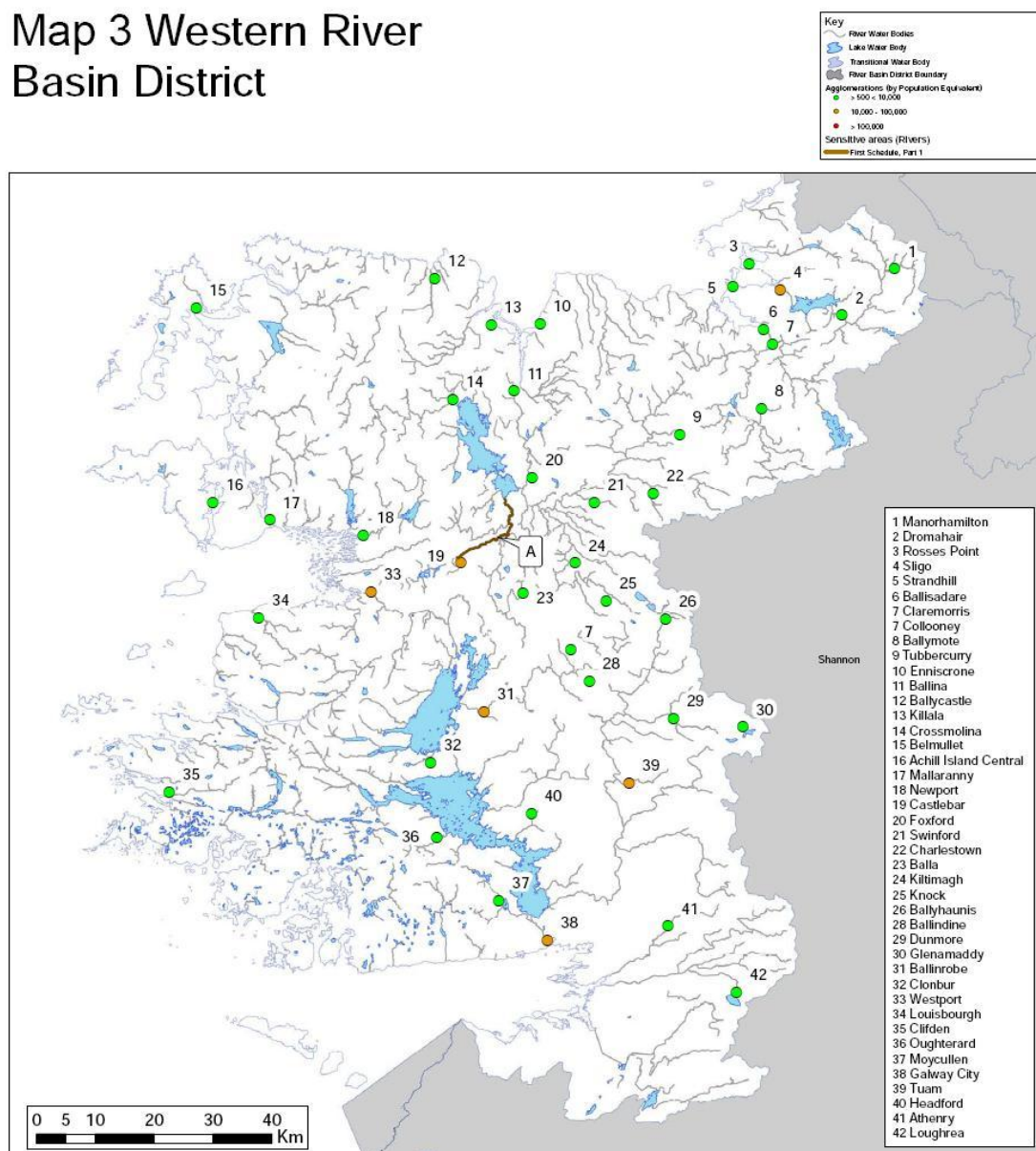


Map 2 Shannon International River Basin District



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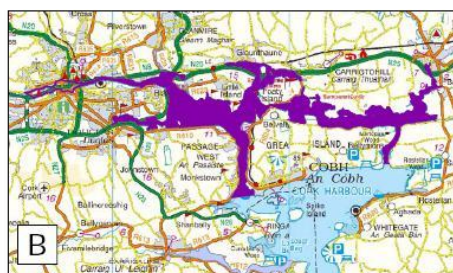
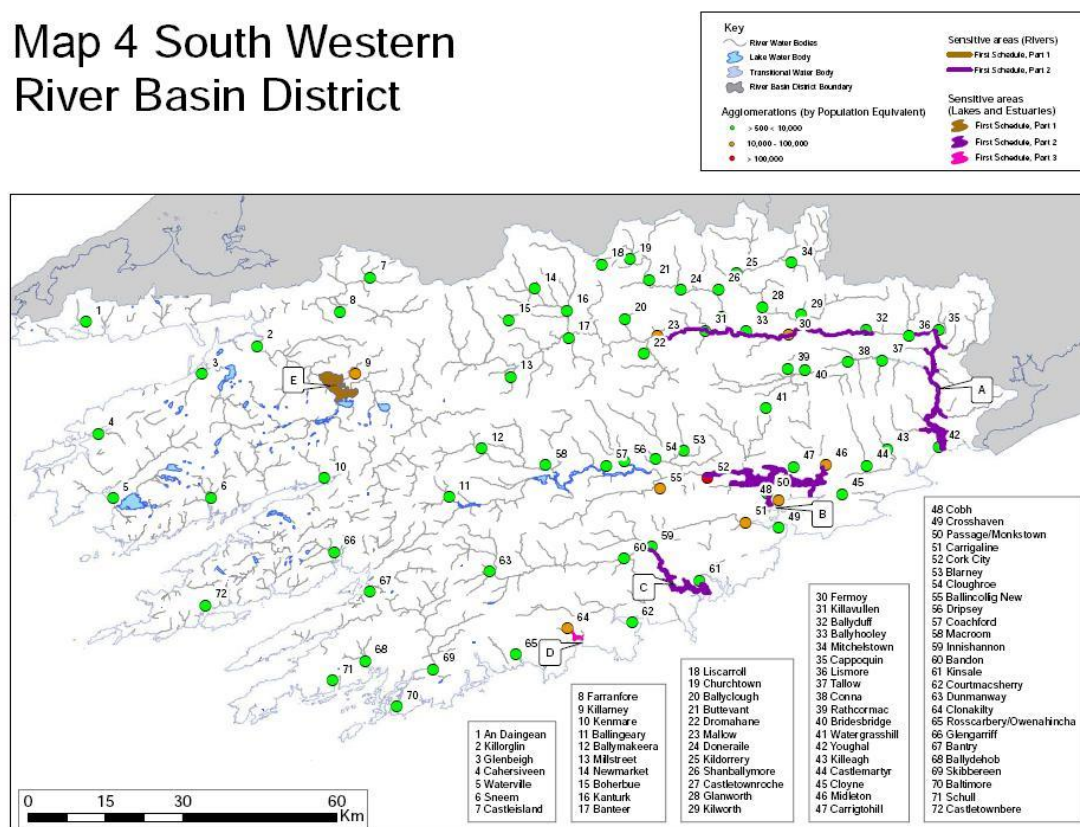
Map 3 Western River Basin District



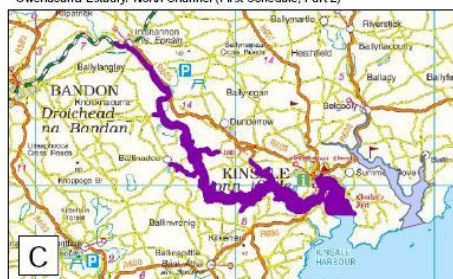
Castlebar River (First Schedule, Part 1)

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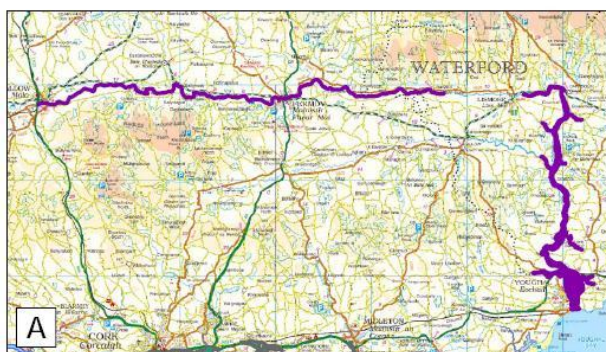
Map 4 South Western River Basin District



Lee Estuary/Lough Mahon (First Schedule, Part 2),
Owenacurra Estuary/ North Channel (First Schedule, Part 2)



Upper Bandon Estuary (First Schedule, Part 2),
Lower Bandon Estuary (First Schedule, Part 2)



Upper Blackwater Estuary (First Schedule, Part 2), Lower Blackwater Estuary (First Schedule, Part 2),
River Blackwater (Munster) (First Schedule, Part 2)

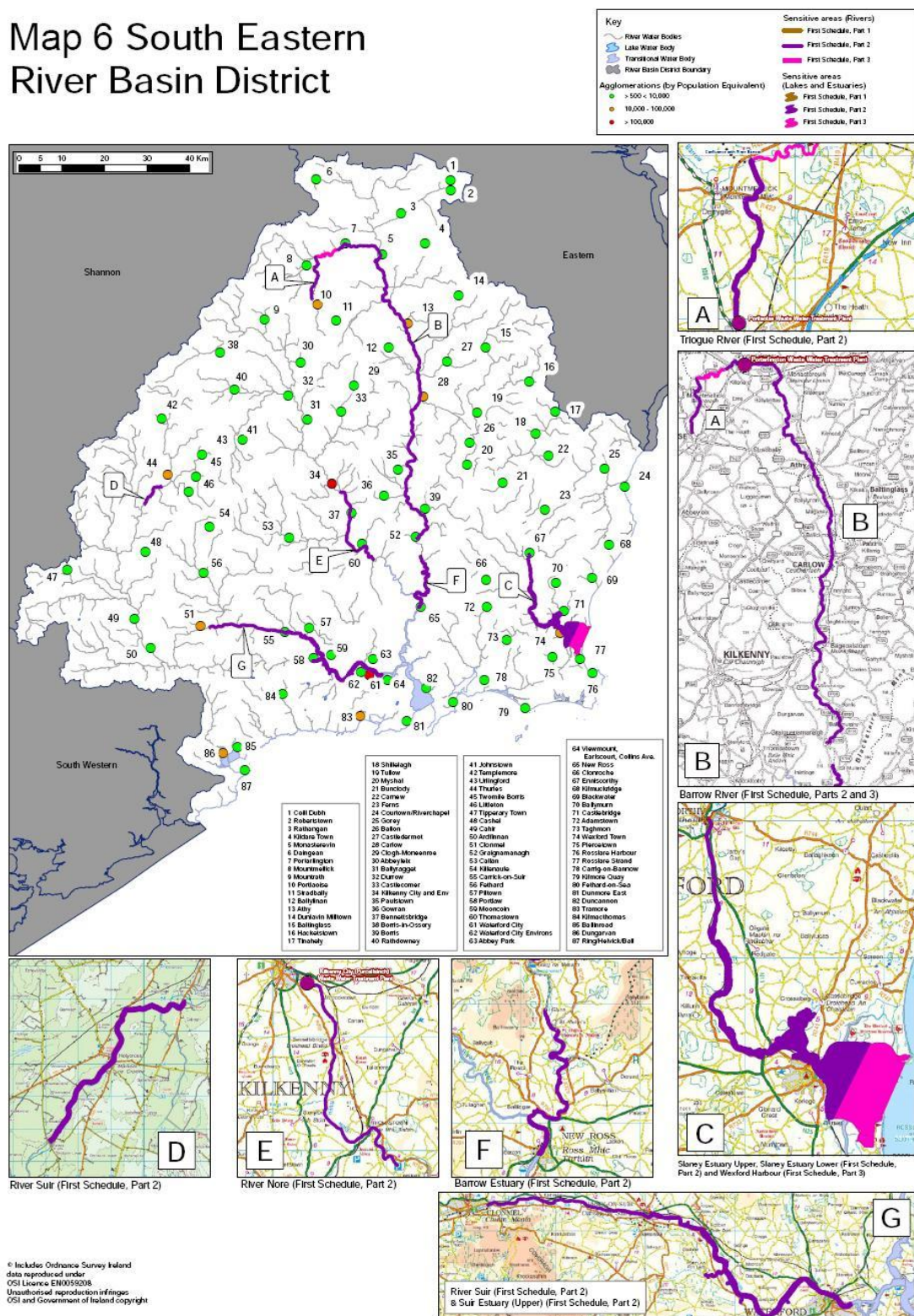


Clonakilly Harbour (First Schedule, Part 3)

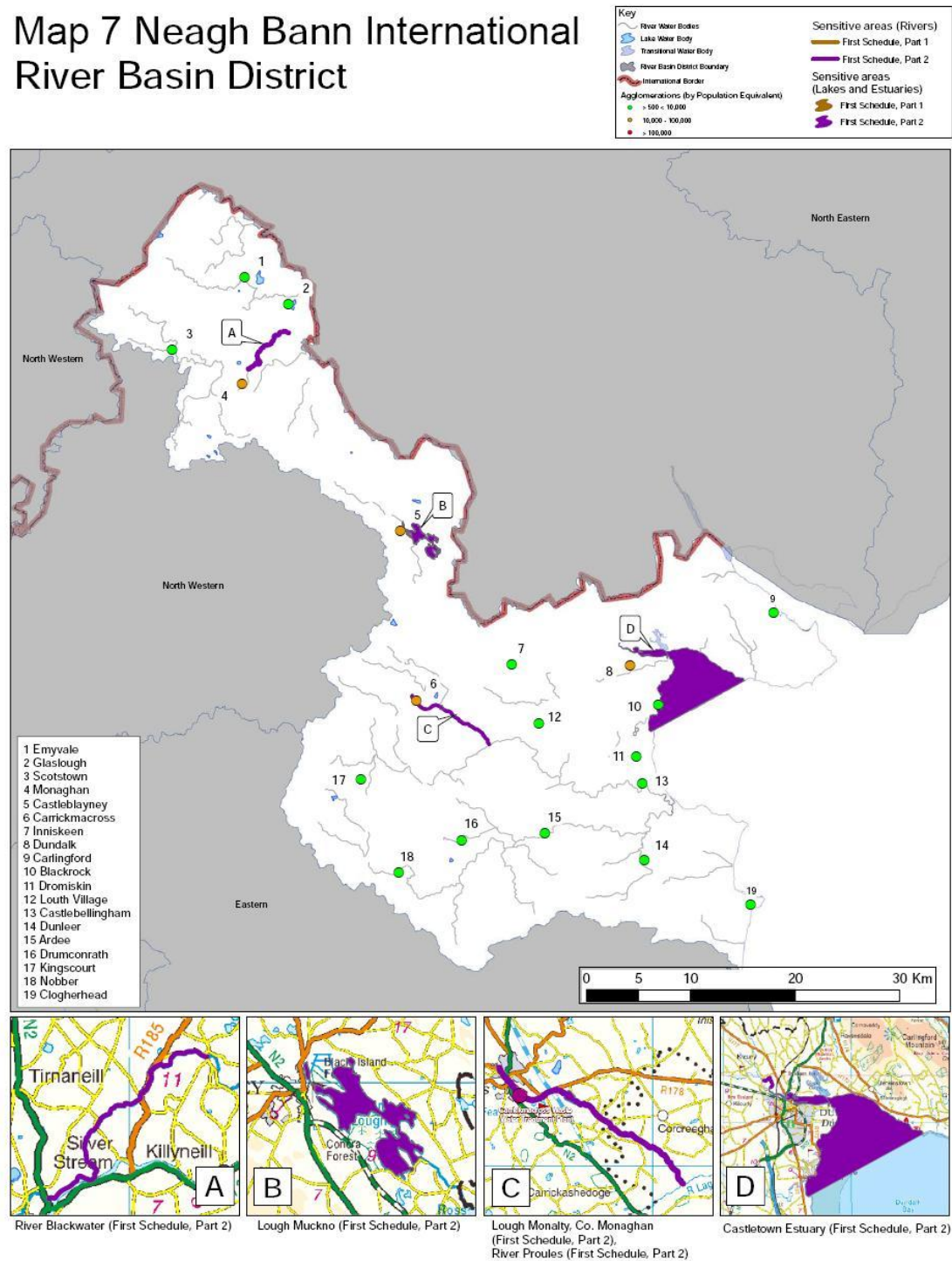


Lough Leane (First Schedule, Part 1)

Map 6 South Eastern River Basin District



Map 7 Neagh Bann International River Basin District



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DESIGNATED SHELLFISH WATERS

S.I. No. 268/2006 — European Communities (Quality of Shellfish Waters) Regulations 2006

Mulroy Bay, Co. Donegal	The designated area covers all points due south of an imaginary line between Melmore Head and Ballyhoorisky Point, to the high water mark, as shown on a map of public record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Killary Harbour, Co. Mayo	The designated area covers the full area of the Harbour below the high water mark from Aasleagh at the head, to Dooneen at the mouth of the harbour, as shown on a map of public record certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Kilkieran Bay, Co. Galway	The designated area is as shown on a map of record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Clarinbridge/Kilnava Bay, Co. Galway	The designated area covers all points East of a line drawn between Kilcolgan Point on Tawin Island, and Eddy Point on island Eddy, and continued on to the Mainland at Doorus, to the high water mark, as shown on a map of public record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Inner Bantry Bay, Co. Cork	The designated shellfish area of Inner Bantry Bay at the head of the bay covers the area of approximately 1100 hectares, east of an imaginary line due south from Ardnamanagh South on the mainland to Whiddy Point East on Whiddy Island, and from Cusroe on Whiddy Island due south to the mainland near Dromclough, to the high water mark, with the exclusion of Bantry Harbour, as shown on a map of public record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Glengarriff Harbour, Co. Cork	The designated area covers all points north of a line drawn between Big Point and the unnamed point south east of Illauncreeveen, and the high water mark, as shown on a map of public record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.

Roaringwater Bay, Co. Cork	The designated area covers that part of inner Roaringwater Bay that lies east of an imaginary line southeast from a point 1 kilometre east of Coosheen Point on the mainland to the northwest of Castle Island, and from the southeast of Castle Island west to the northwest of Skeam West to Skeam East and on to the westerly point of Cunnamore, north of Coolim and Goose Island, to the high water mark, but not including Ballydehob Bay, as shown on a map of public record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Aughinish Bay, Co. Galway	The designated area is as shown on a map of record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Cromane, Co. Kerry	The designated area is as shown on a map of record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Inner Bay, Maharees, Co. Kerry	The designated area covers all points south west of an imaginary line from Rough Point, (062 660E 120 150N), to 065 210E 120 150N, to 062 500E 114 240N to the high water mark, as shown on a map of public record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Kilmakilloge Harbour, Co. Kerry	The designated area covers all points east of an imaginary line from Loughaunacreen point to the most north westerly point of Collorus head to the high water mark (excluding the area south of the road between Lauragh and Ardgroom), as shown on a map of public record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Carlingford Lough, Co. Louth	The designated area is as is shown on a map of record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Clew Bay (East of Old Head), Co. Mayo	The designated area covers all that area up to the high water mark and east of a line drawn from the most northerly point at Old Head to the most easterly point at Gubbaun Point as shown on a map of public record certified by the Minister for the purposes of these Regulations and kept at the head office of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
Bannow Bay, Co. Wexford	The designated area is as is shown on a map of record certified by the Minister for the purposes of these Regulations and kept at the head office

	of the Department of Communications, Marine and Natural Resources or at such other place as the Minister has publicly notified.
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S.I. No. 464/2009 — European Communities (Quality of Shellfish Waters)(Amendment) (No. 2) Regulations 2009

Schedule 3 of the 2006 Regulations is hereby amended by the addition of the shellfish waters specified in Schedule 1 of these Regulations.	
SCHEDULE 1 Shellfish Waters	
Rostellan West	All that area below the High Water Mark and enclosed by the red line as shown on the Map attached to these Regulations.

S.I. No. 55/2009 — European Communities (Quality of Shellfish Waters) (Amendment) Regulations 2009

2. Schedule 3 of the European Communities (Quality of Shellfish Waters) Regulations 2006 (S.I. No. 268 of 2006) is hereby amended by the addition of the shellfish waters specified in Schedule 1 of these Regulations.	
SCHEDULE 1 SHELLFISH WATERS	
Castletownbere	All that area below the High Water Mark and enclosed by the red line as shown on Map number 1 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Kenmare River	All that area below the High Water Mark and enclosed by the red line as shown on Map number 2 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Valencia Harbour	All that area below the High Water Mark and enclosed by the red line as shown on Map number 3 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Tralee Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 4 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
West Shannon Ballylongford	All that area below the High Water Mark and enclosed by the red line as shown on Map number 5 of the Book of Record Maps certified by the

	Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
West Shannon Poulnasherry Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 6 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
West Shannon Carrigaholt	All that area below the High Water Mark and enclosed by the red line as shown on Map number 7a of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
West Shannon Rinevella	All that area below the High Water Mark and enclosed by the red line as shown on Map number 7b of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Ballyvaughan / Poulnaclough Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 8 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Outer Galway Bay Indreabhán	All that area below the High Water Mark and enclosed by the red line as shown on Map number 9 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Mannin Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 10 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Clifden Bay / Ardbear Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 11 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Streamstown Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 12 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.

Ballinakill Harbour	All that area below the High Water Mark and enclosed by the red line as shown on Map number 13 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Achill Sound South	All that area below the High Water Mark and enclosed by the red line as shown on Map number 14a of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Achill Sound North	All that area below the High Water Mark and enclosed by the red line as shown on Map number 14b of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Blacksod Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 15 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Killala Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 16 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Sligo Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 17 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Drumcliff Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 18 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Donegal Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 19 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Inver Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 20 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of

	the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
McSwynes Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 21 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Loughros Beg	All that area below the High Water Mark and enclosed by the red line as shown on Map number 22 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Gweebarra Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 23 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Trawenagh Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 24 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Dunglow	All that area below the High Water Mark and enclosed by the red line as shown on Map number 25 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Gweedore Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 26 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Sheephaven	All that area below the High Water Mark and enclosed by the red line as shown on Map number 27 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Lough Swilly	All that area below the High Water Mark and enclosed by the red line as shown on Map number 28 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Trawbreaga	All that area below the High Water Mark and enclosed by the red line as

Bay	shown on Map number 29 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Dundalk Bay	All that area below the High Water Mark and enclosed by the red line as shown on Map number 30 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Balbriggan / Skerries	All that area below the High Water Mark and enclosed by the red line as shown on Map number 31 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Malahide	All that area below the High Water Mark and enclosed by the red line as shown on Map number 32 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Wexford Harbour Outer	All that area below the High Water Mark and enclosed by the red line as shown on Map number 33 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Wexford Harbour Inner	All that area below the High Water Mark and enclosed by the red line as shown on Map number 34 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Waterford Harbour	All that area below the High Water Mark and enclosed by the red line as shown on Map number 35 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Dungarvan Harbour	All that area below the High Water Mark and enclosed by the red line as shown on Map number 36 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Ballymacoda	All that area below the High Water Mark and enclosed by the red line as shown on Map number 37 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at

	such other place as the Minister has publicly notified.
Rostellan North	All that area below the High Water Mark and enclosed by the red line as shown on Map number 38a of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Rostellan South	All that area below the High Water Mark and enclosed by the red line as shown on Map number 38b of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Cork Great Island North Channel	All that area below the High Water Mark and enclosed by the red line as shown on Map number 39 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Oyster Haven	All that area below the High Water Mark and enclosed by the red line as shown on Map number 40 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Kinsale	All that area below the High Water Mark and enclosed by the red line as shown on Map number 41 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Baltimore Harbour / Sherkin	All that area below the High Water Mark and enclosed by the red line as shown on Map number 42 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Dunmanus Inner	All that area below the High Water Mark and enclosed by the red line as shown on Map number 43 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Bantry Bay South	All that area below the High Water Mark and enclosed by the red line as shown on Map number 44 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
League Point	All that area below the High Water Mark and enclosed by the red line as shown on Map number 45 of the Book of Record Maps certified by the

	Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.
Adrigole Harbour	All that area below the High Water Mark and enclosed by the red line as shown on Map number 46 of the Book of Record Maps certified by the Minister for the purpose of these Regulations and kept at the head office of the Department of Environment, Heritage and Local Government, or at such other place as the Minister has publicly notified.

DESIGNATED BATHING WATERS

S.I. No. 177/1998: Quality of Bathing Waters (Amendment) Regulations, 1998 & S.I. No. 22 of 2001: Quality of Bathing Waters (Amendment) Regulations, 2001

Schedule

Bathing Areas

Bathing Area	Responsible Local Authority
The bathing place at Ballyallia Lake, Ennis	Clare County Council
The bathing place at Ballycuggeran, Killaloe	
The beach at Bishopsquarter	
Cappagh Pier and beach at Kilrush	
The beach at Fanore	
The beach at Kilkee	
The beach at Lahinch	
The bathing place at Mountshannon, Lough Derg	
The beach at Spanish Point	
White Strand, Doonbeg	
White Strand, Miltown Malbay	

Bathing Area	Responsible Local Authority
The beach at Barley Cove	Cork County Council
The beach at Claycastle, Youghal	
The beach at Coolmaine	
The beach at Fountainstown	
The beach at Garretstown	
White Strand at Garrylucas	
The beach at Garryvoe	
The beach at Inchydoney	
The beach at Owenahincha	
The beach at Redbarn	
The beach at Tragumma	
The beach at the Warren	
The main beach at Youghal	

Bathing Area	Responsible Local Authority
The beach at Ballyhernan, Fanad	Donegal County Council
The beach at Bundoran	
The beach at Carrickfinn	
The beach at Culdaff	

The beach at Downings	
The beach at Drumnatinny	
The beach at Fintra	
The beach at Killahoey	
The beach at Ladys Bay, Buncrana	
The beach at Lisfannon	
The beach at Marbe Hill	
The beach at Murvagh	
The beach at Portnablagh	
The beach at Portnoo/Naran	
The beach at Portsalon	
The beach at Rathmullan	
The beach at Rossnowlagh	
The beach at Stroove	

Bathing Area	Responsible Local Authority
The beach at Killiney	Dun Laoghaire-Rathdown County Council
The beach at Seapoint	

Bathing Area	Responsible Local Authority
The beach at Balbriggan	Fingal County Council
The beach at Donabate	
The beach at Loughshinny	
The beach at Malahide	
The beach at Portmarnock	
The beach at Portrane	
The South beach at Rush	
The beach at Skerries	
Burrow Beach at Sutton	

Bathing Area	Responsible Local Authority
Trá an Dóilin, An Cheathrú Rúa	Galway County Council
The beach at Clifden	
The beach at Guarteen, Roundstone	
The beach at Na Forbacha	
The beach at Cil Mhuirbhígh, Inishmore	
The bathing place at Loughrea Lake	
The bathing place at Portumna	
An Trá Mór, Caol Rua formerly known as An Cnoc	
Trá na mBan, An Spidéal	
Pier Beach, An Spidéal	

Trá Chaladh bhFuinnse	
The beach at Traught, Kinvara	

Bathing Area	Responsible Local Authority
The beach at Ballinskelligs	Kerry County Council
The North beach at Ballybunion	
The South beach at Ballybunion	
The beach at Ballyheigue	
Banna Strand	
The beach at Castlegregory	
The beach at Derrynane	
The beach at Fenit	
The beach at Inch	
The beach at Kells Bay	
The beach at Maharabeg, Castlegregory	
White Strand at Rossbeigh	
White Strand at Caherciveen	
The beach at Ventry	
Irmy beach at Waterville	

Bathing Area	Responsible Local Authority
The bathing place at Keeldra Lake, Cloone	Leitrim County Council

Bathing Area	Responsible Local Authority
The beach at Clogherhead	Louth County Council
The beach at Port, Lurganboy	
The beach at Seapoint	
The beach at Shelling Hill/Templetown	

Bathing Area	Responsible Local Authority
The beach at Bertra	Mayo County Council
The beach at Carrawmore	
The beach at Dooega, Achill	
The beach at Doogort, Achill	
Golden Strand, Achill	
The beach at Keel, Achill	
The beach at Keem, Achill	
The beach at the Harbour, Clare Island	
Ross Strand, Killala	
The beach at Old Head, Louisburgh	
Silver Strand, Louisburgh	
The beach at Mullaghroe, Belmullet	

The beach at Mulranny	
The beach at Rinroe, Carratigue	
The beach at Elly Bay, Belmullet	

Bathing Area	Responsible Local Authority
The beach at Laytown/Bettystown	Meath County Council

Bathing Area	Responsible Local Authority
The beach at Enniscrone	Sligo County Council
The beach at Mullaghmore	
The beach at Rosses Point	

Bathing Area	Responsible Local Authority
The beach at Ardmore	Waterford County Council
The beach at Bonmahon	
The beach at Clonea	
Dunmore Strand, Dunmore East	
Counsellor's Strand, Dunmore East	
The beach at Tramore	

Bathing Area	Responsible Local Authority
The bathing place The Cut, Lough Lene	Westmeath County Council
The bathing place at Liliput, Lough Ennel	
The bathing place at Portnashangan, Lough Owel	

Bathing Area	Responsible Local Authority
The North beach at Ballymoney	Wexford County Council
The North beach at Courtown	
The beach at Curracloe	
The beach at Duncannon	
The beach at Morristcastle	
The beach at Rosslare Strand	

Bathing Area	Responsible Local Authority
The North beach at Brittas Bay	Wicklow County Council
The South beach at Brittas Bay	
The beach at Bray	
The beach at Clogga	
The south beach at Greystones	
The beach at Silver Strand	

Bathing Area	Responsible Local Authority
Dollymount Strand	The Right Honourable the Lord Mayor, Alderman and Burgesses of Dublin
Merrion Strand	
Sandymount Strand	

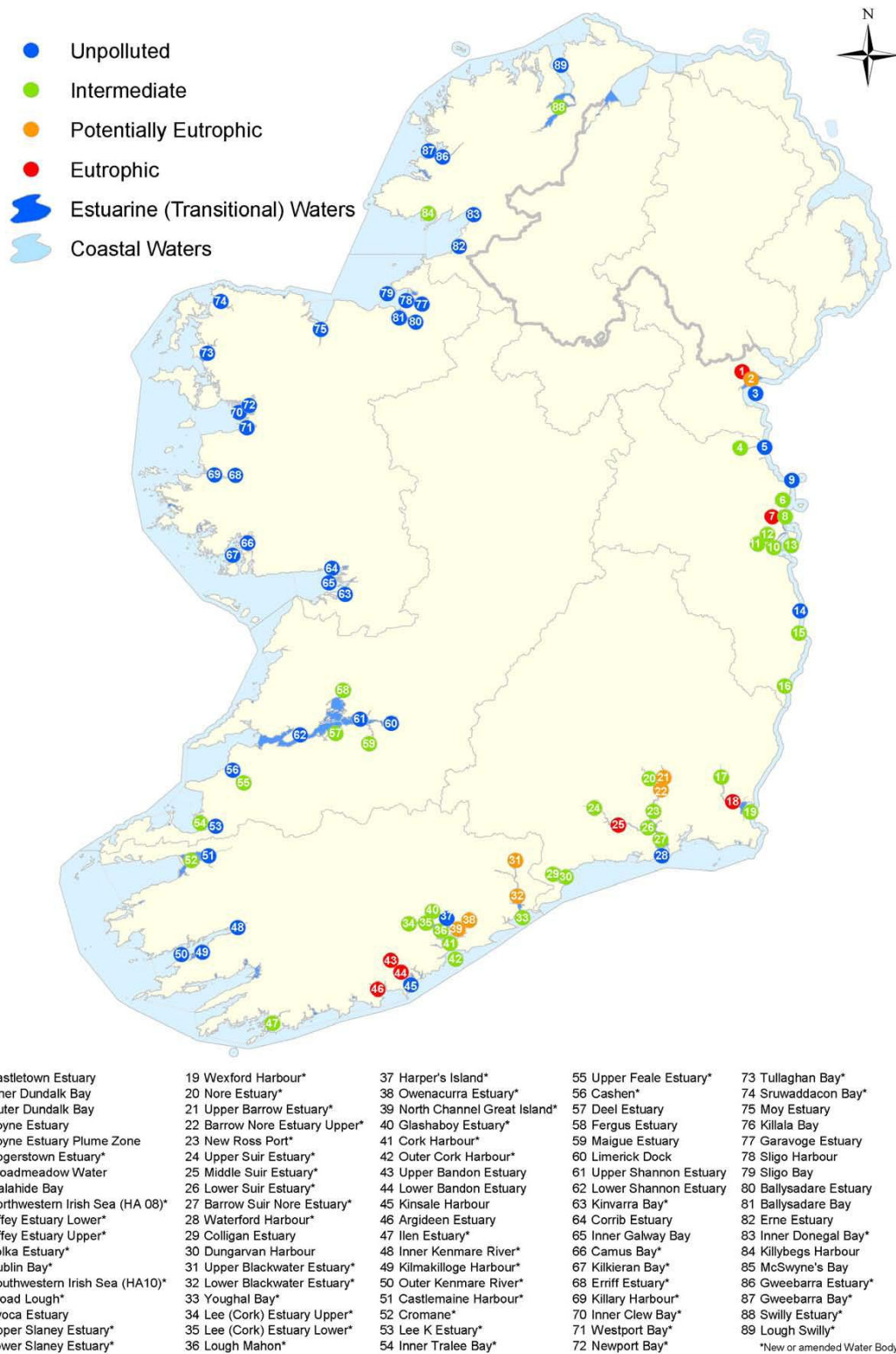
Bathing Area	Responsible Local Authority
The beach at Salthill	The Mayor, Alderman and Burgesses of the County Borough of Galway
Silver Strand, Galway	

Appendix 5

Potentially Eutrophic Coastal & Estuarine Waters

Potentially Eutrophic Waters (Taken from Water Quality in Ireland, Key Indicators of the Aquatic Environment 2007-2008 (2009))

Source: EPA (S. O'Boyle, R. Wilkes and G. McDermott)



Appendix 6

Changes to RBME Guidance Document (June 2010)

1. Deadline for completion of RBME methodology

The RBME guidance document formerly stated that the RBME methodology was to be submitted by 1st June of each year; this is no longer the case. The deadline date for return is to be confirmed in writing to applicable licensees on an annual basis. All RBME queries are now to be addressed to **rbme@epa.ie** (not OEE regional enforcement office).

2. Change from EPER to AER-PRTR reporting

The European Pollutant Emission Register (EPER) was the predecessor of the Pollutant Release and Transfer Register (E-PRTR). It was an inventory of emissions from a number of activities in relation to a specified list of pollutants. The E-PRTR builds on the same principles as EPER but goes beyond it, by including reporting on more pollutants from more activities, and includes releases to land, releases from diffuse sources and off-site transfers of wastes and effluents.

3. Updates to Appendices to incorporate more recent Statutory Instruments and data

Designated coastal and estuarine waters are areas designated as sensitive in the Third Schedule of S.I. 48/2010 - Urban Waste Water Treatment (Amendment) Regulations (2010), (*formerly S.I. 254/2001 - Urban Waste Water Treatment Regulations (2001)*).

Designated shellfish waters are those listed in Schedule 3 of the S.I. No. 268/2006 — European Communities (Quality of Shellfish Waters) Regulations 2006, as amended by S.I. No. 464/2009 — European Communities (Quality of Shellfish Waters) (Amendment) (No. 2) Regulations 2009 and S.I. No. 55/2009 — European Communities (Quality of Shellfish Waters) (Amendment) Regulations 2009 (*formerly S.I. No. 200/1994 - European Communities (Quality of Shellfish Waters), 1994*)).

Designated bathing waters are the Bathing Areas listed in the First Schedule of S.I. 177/1998 - Quality of Bathing Waters (Amendment) Regulations, 1998 (*formerly S.I. No. 155/1992 - Quality of Bathing Waters Regulations, 1992*)).

Potentially eutrophic coastal and estuarine waters are as detailed in the EPA report on Water Quality in Ireland: Key Indicators of the Aquatic Environment 2007-2008 (2009), (*formerly EPA report on Water Quality in Ireland 1998-2000 (2002)*).

4. Appendix 3: Details of Substances Emitted to Air and Discharges to Water and Sewer

Errors were detected in the guidance document for completion of the (Note: correct on RBME tool but errors detected in guidance document)

Emissions to Air		
SUBSTANCE	THRESHOLD	POINTS
Total Cd, as Cd (kg/yr)	> 5 (<i>was >10</i>)	3
	2.5 – 5 (<i>was 5-10</i>)	2
	< 2.5 (<i>was <5</i>)	1
Total Pb (kg/yr)	> 20 (<i>was >200</i>)	3
	10 - 20 (<i>was 100-200</i>)	2
	< 10 (<i>was <100</i>)	1

Emissions to Water/Sewer		
SUBSTANCE	THRESHOLD	POINTS
Suspended Solids (kg/yr)	> 20,000	3
	10,000 - 20,000 (<i>was 1,000-20,000</i>)	2
	< 10,000 (<i>was <1,000</i>)	1