

## Revised / Updated Mannin Bay Pollution Reduction Programme



<b>Name</b>	<b>Mannin Bay Shellfish Area</b>
Map number	10
Year of designation	2009
Area	3.9 km <sup>2</sup>
River Basin District	Western RBD
County	Galway
Location of sampling point	53 deg 27.517 min North (Lat) 10 deg 02.770 min West (Long)
Catchment area	16.68 km <sup>2</sup>
Adjacent PRP	Clifden Bay/Arbear Bay

## **1.0 INTRODUCTION**

### **1.1 Programme Objective**

Compliance with the standards and objectives established by the Quality of Shellfish Waters Regulations 2006 (S.I. No. 268 of 2006) (as amended) for the designated shellfish growing waters at Mannin Bay and with Article 5 of Directive 2006/113/EC of the European parliament and of the Council on the quality required for shellfish waters.

### **1.2 Pollution Reduction Programme**

This pollution reduction programme for the shellfish growing waters at Mannin Bay has been established by the Minister for the Environment, Community and Local Government in order to protect and improve water quality in the designated shellfish growing areas in Mannin Bay and in particular, to ensure compliance with the standards and objectives for these waters established by the 2006 Quality of Shellfish Waters Regulations (S.I. No. 268 of 2006) and with Article 5 of Directive 2006/113/EC of the European parliament and of the Council on the quality required for shellfish waters.

### **1.3 Supporting Characterisation Report and Toolkit of Measures**

The Pollution Reduction Programme stems from the work undertaken in the characterisation report for Mannin Bay. The characterisation is designed to achieve the following:

- establish the catchment that influences the water quality of the designated area;
- identify the different types of pressures or impacts prevalent in the catchment;
- establish an initial assessment of the water quality within the catchment and within the designated shellfish area using all water quality data available;
- from the above three elements identify the pressures that are active in the catchment and subsequently impacting the water quality in the designated shellfish area;
- having identified the pressures impacting on the water quality the characterisation report prioritises them in relation to their impact.

The characterisation report thus provides a prioritised list of pressures/impacts/effects on water quality. The pollution reduction programme or action plan takes this prioritised list and addresses each issue with actions to help ensure that compliance with the relevant water quality standards is achieved or ensured.

The measures/actions included in this PRP to address the identified pressures on shellfish water quality in this catchment are based on a National Toolkit of Measures. The National Toolkit has been derived from earlier work carried out on the River Basin Management Plans under the Water Framework Directive (WFD), reflecting the common objective to improve water quality in the two Directives. In addition, designated shellfish waters are part of the WFD Register of Protected Areas, providing a further link between the Pollution Reduction Programmes and River Basin

Management Planning.

Within each individual PRP specific measures from the National Toolkit are applied, where required, to address the key and secondary pressures identified in each of the designated shellfish waters.

#### **1.4 Strategic Environmental Assessment and Habitats Directive Assessment**

The Strategic Environmental Assessment (SEA) and Habitats Directive Assessment (HDA) processes were carried out in tandem with the PRP compilation process. These assessments both informed the development of alternatives considered for the PRP and included detailed high-level assessments highlighting the potential positive and negative impacts (including cumulative impacts) associated with application of the measures contained in the National Toolkit. In addition, a more focussed assessment was also carried out which considered the individual and cumulative impacts associated with implementation of the measures brought forward into this individual PRP.

As a result of the SEA and HDA assessments mitigation measures were identified in order to reduce potential negative impacts associated with implementation of the PRP.

#### **1.5 Monitoring of Water Quality**

The Marine Institute is carrying out a monitoring programme to monitor the condition of waters in the shellfish growing area and to verify compliance, or otherwise with the water quality standards outlined in Schedules 2 and 4 of the Quality of Shellfish Waters Regulations (S.I. No. 268 of 2006) and summarised in Table 1 of the Characterisation Report (Chapter 1 of the Characterisation Report refers). The Marine Institute will submit a report on water quality in respect of the designated area to the Minister each year, and will immediately bring to the attention of the Department of the Environment, Community and Local Government any non-compliance with a water quality standard to enable investigation to be undertaken.

#### **1.6 Review/monitoring of Pollution Reduction Programme**

This pollution reduction programme will be kept under review by the Minister and will be updated and amended as needed from time to time, having regard to water quality conditions within the shellfish growing area including changes in water quality in response to the implementation of measures and other factors arising in the catchment that may affect water quality in the designated area.

The pollution reduction programme will be reviewed at intervals not exceeding three years and, where necessary, at lesser intervals if the monitoring data indicates a deterioration in water quality status or a risk that the objectives or standards laid down in the Regulations will not be achieved.

When the Pollution Reduction Programme is being reviewed the most current baseline data will be consulted.

Prior to the incorporation of the PRP into the second cycle of the River Basin Management Plans a review of the Strategic Environmental Objectives for Water will be carried out as against those drawn up for assessment of the first cycle River Basin Management Plans to ensure that the Shellfish PRP help to meet the wider Water Framework Directive water quality objectives.

#### **1.7 Monitoring of Environmental Impacts**

Article 10 of the SEA Directive requires that monitoring be carried out in order to identify at an early stage any unforeseen adverse effects due to implementation of the PRP, with the view to taking remedial action where adverse effects are identified through monitoring. An Environmental Monitoring Programme has been developed which focuses on aspects of the environment that are likely to be impacted by the PRPs. The Environmental Monitoring Programme is included in Table 5 of the National Toolkit of Measures. The Department of the Environment, Community and Local Government will be the authority responsible for collecting and collating data under the Environmental Monitoring Programme. The data will be collected at the same time the pollution reduction programme is reviewed.

### **1.8 Monitoring Implementation of Pollution Reduction Programme**

This PRP is effectively a sub-basin plan of the River Basin Management Plan for the catchment and will be implemented during the first implementation cycle under the Water Framework Directive (i.e up to 2015).

Implementation of the pollution reduction programme will be monitored by Water Quality Section of the Department of the Environment, Community and Local Government.

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### **2.0 STATUS/IMPACTS**

Overall status	<p>The results of monitoring (2012) undertaken for the purposes of the Shellfish Waters Directive (2006/113/EC) and Schedules 2 and 4 of the Quality of Shellfish Waters Regulations (S.I. No. 268 of 2006) do not indicate any water quality issues within / in the vicinity of this shellfish area.</p> <p>The results of Shellfish Water monitoring for parameter 9 (metals) previously indicated a slightly elevated level of arsenic (1 sample result) within / in the vicinity of this shellfish area. The most up to date results do not indicate any water quality issues for any of the parameters within / in the vicinity of this shellfish area. However due to the previous indication for parameter 9, it is prudent to continue with the actions outlined in this Pollution Reduction Programme.</p>
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	<p>Monitoring of shellfish flesh for food hygiene purposes (2012) does not indicate any faecal contamination in this shellfish area. The bivalve mollusc production areas in Mannin Bay are classified as 'Class A' for the purposes of EC Regulation 854/2004.</p> <p>Chapter 3 of the Characterisation Report refers.</p>
Other issues	None
<b>3.0 PRESSURES/RISKS</b>	
<b>3.1 Key Pressures</b>	<p>Analysis of the Characterisation Report for this designated shellfish water suggests that there are no key pressures currently impacting shellfish water quality. The level of arsenic will however need to be investigated.</p> <p>Chapter 5 (summary at 5.3) of the Characterisation Report refers.</p>
<b>3.2 Potential Secondary Pressures</b>	<p>Analysis of the Characterisation Report for this designated shellfish water suggests that there are no secondary pressures potentially impacting shellfish water quality.</p> <p>Chapter 5 (summary at 5.3) of the Characterisation Report refers.</p>
<b>4.0 PROTECTED AREAS</b>	
Designated Shellfish Areas	<p>Mannin Bay designated Shellfish Waters</p> <p>Adjacent Areas- Clifden Bay/Ardbear Bay designated Shellfish Waters</p>

## 5.0 ACTION PROGRAMME – MEASURES

Other (specific pollutants – arsenic)	<p>No report received from Galway County Council. Metal levels in compliance.</p> <p>Results from the continued monitoring of metals should be kept under review, to ensure compliance with relevant standards for Parameter 9.</p>
Future Development	<p>Under Article 4 of the European Communities (Quality of Shellfish Waters) Regulations 2006 (S.I. No. 286 of 2006) (as amended), every public authority that has functions the performance of which may affect shellfish waters shall perform those functions in a manner that will promote compliance with the objectives of this pollution reduction programme and with the objectives of the Shellfish Waters Directive.</p> <p>The functions of particular importance – in light of the objectives of Directive 2006/113/EC and of this PRP – include waste water treatment (licensing and operations), implementation of the GAP Regulations, waste management (licensing and operations), effluent discharge licences, planning and development and building control.</p> <p>Continued monitoring will be carried out during the lifetime of the PRP. Should this monitoring identify pressures that are impacting on shellfish water quality in the designated area, the PRP will be appropriately amended.</p>

**Compliance with the Parameters set out in the Directive<sup>1</sup>**

The Directive prescribes the minimum ((Mandatory (I)) quality criteria which must be met by shellfish waters and guideline values (G) which Member States must endeavour to observe. Not all of the Parameters have both Guide and Mandatory values.

		<b>Compliance with Mandatory Values (Y/N)</b>	<b>Compliance with Guide Values (Y/N)</b>
Parameter 1	PH (I)	Y	
Parameter 2	Temperature (G)		Y
Parameter 3	Coloration (after filtration) (I)	Y	
Parameter 4	Suspended Solids (I)	Y	
Parameter 5	Salinity (I & G)	Y	Y
Parameter 6	Dissolved Oxygen (I & G)	Y	Y
Parameter 7	Petroleum Hydrocarbons (I)	Y	
Parameter 8	Organohalogenes (I & G)	Y	Y
Parameter 9	Trace Metals (I & G)	Y	Y
Parameter 10	Faecal Coliforms (G)		Y

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<sup>1</sup> Compliance for Parameters 1 to 7 - taken from 2011 monitoring results  
 Compliance for Parameters 8 & 9 - taken from 2010 monitoring results  
 Faecal Coliform compliance – 2012 monitoring results