

Bantry Bay Inner Pollution Reduction Programme

Name Bantry Bay Inner Shellfish Area	
Map number III	
Year of designation	1994
Area 11.04 km ²	
River Basin District	South Western RBD
County Cork	
Location of sampling point	51 deg 41.17 min North (Lat) 9 deg 28. 26.7 min West (Long)
Catchment area 231.02 km ²	
Adjacent PRP	Adrigole Harbour, Glengarriff, Bantry Bay South, League Point, Castletownbere

1.0 INTRODUCTION

"I, John Gormley, T.D., Minister for the Environment, Heritage and Local Government pursuant to the provisions of Section 6 of the European Communities (Quality of Shellfish Waters) Regulation 2006 (as amended) S. I. No. 268 of 2006, taking into account the public consultation process and the Strategic Environmental Assessment carried out under Directive 2001/42/EC, on the assessment of certain plans and programmes on the environment hereby establish the following pollution reduction programme for Bantry Bay Inner."

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Mr John Gormley TD Minister for the Environment, Heritage and Local Government <u>19/01/2010</u> DATE

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 Bantry Bay Inner 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 Bantry Bay Inner has been established by the Minister for the Environment, Heritage and Local Government in order to protect and improve water quality in the designated shellfish growing areas in Bantry Bay Inner 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 Bantry Bay Inner. 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. The relevant mitigation measures are included in Annex 2 of the PRP. The mitigation measures arising from the SEA are noted in black, while the mitigation measures arising from the HDA noted in blue.

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, Heritage 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, Heritage 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, Heritage and Local Government.

The contact person is:

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2.0 STATUS/IMPACTS

Overall status	The results of monitoring 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) indicate faecal contamination within / in the vicinity of this shellfish area. The results of WFD monitoring do not indicate any water quality issues within / in the vicinity of this shellfish area. Monitoring of shellfish flesh for food hygiene purposes indicates faecal contamination in this shellfish area. The bivalve mollusc production areas in Bantry Bay Inner are classified as 'Class B' and 'Class C' for the purposes of EC Regulation 854/2004.	
	Chapter 3 of the Characterisation Report refers.	
Other issues	None	
3.0 PRESSURES/RISKS		
3.1 Key Pressures	Analysis of the Characterisation Report for this designated shellfish water suggests that the key pressures are urban wastewater systems and on-site waste water treatment systems. Chapter 5 (summary at 5.3) of the Characterisation Report refers.	
Urban wastewater systems	Bantry	
On-site waste water treatment systems	There are 1,673 on-site waste water treatment systems in this catchment (including the settlements at Ardnagashel and Ballylickey) and their density is higher than the national average. The characterisation report indicates that a substantially smaller number are located within the coastal region of the catchment, which may have a direct impact on the shellfish area. The hydrological condition of the majority of the catchment is unsuitable posing a risk to surface and groundwaters. The risk to surface waters from pathogens and phosphorus is high throughout the catchment as is the likelihood of inadequate percolation.	
	The European Court of Justice has ruled against Ireland in relation to on-site wastewater treatment systems (ref. Case C-188/08). The Court found that by failing to adopt the necessary legislation to comply with Articles 4 and 8 of Council Directive 75/442/EEC as regards domestic waste waters disposed of in the countryside through septic tanks and other individual waste water treatment systems, Ireland has failed to fulfil its obligations under that directive. To address the	

	ruling, the Department of the Environment, Heritage and Local Government will be bringing forward legislation in the first half of 2010. It is intended that the legislation will provide for the setting of standards for the performance and operation of all septic tanks and similar on-site wastewater treatment systems. The legislation will also provide for the monitoring and inspection of the performance of such treatment systems and will set out the responsibilities of households served by those systems (including requirements to carry out remedial actions where necessary). In order to ensure prompt compliance with the Court ruling, it is intended that this legislation will be in place by Q3 2010.	
3.2 Potential Secondary Pressures	Agriculture Port Activities	
Agriculture	Estimates of fertiliser usage in this catchment are similar to the national averages though the estimate of livestock density is lower than the national average The land close to the coastline is low-lying and dominated by dry soils but the upper reaches of the catchment are mountainous with wet soils, which mean that there is a potential risk of agricultural runoff.	
Port Activities	Bantry Bay commercial and fishing port is situated on the southern shore of the shellfish area. A ferry services operates out of the port to Whiddy Island which forms the western boundary of the shellfish area.	
4.0 PROTECTED AREAS		
Designated Shellfish Areas	Bantry Bay Inner designated Shellfish Waters	
	Adjacent Area - Adrigole Harbour, Glengarriff, Bantry Bay South, League Point, Castletownbere designated Shellfish Water	

5.1 Key Pressures	
Urban Wastewater Systems	Overview: A system for the licensing or certification by the EPA of wast water discharges from areas served by local authority sewer networks was established in accordance with the requirements of the Waste Water Discharge (Authorisation) Regulations, 200 (S.I. No. 684 of 2007).
	In accordance with these Regulations the EPA is not allowed to grant an authorization for a waste water discharge, which, in the opinion of the EPA, would:
	• cause a deterioration in the chemical status or ecological statu (or ecological potential as the case may be) in the receiving bod of surface water,
	• exclude or compromise the achievement of the objective established for protected species and natural habitats in the cas of European sites where the maintenance or improvement of th status of water is an important factor in their protection or which is inconsistent with the achievement of environmental qualit standards established under national Regulations in relation to designated bathing waters, designated shellfish waters, area designated for the protection of freshwater fish and area designated for the abstraction of water intended for huma consumption.
	The requirements of the European Communities (Quality of Shellfish Waters) Regulations, 2006 (as amended) have been full integrated into the EPA licensing process In addition this process takes into account the effect of viruses on the quality of shellfis waters. The licence will require detailed actions includin infrastructural works, if required, by the licensee within specifie time-frames if the discharge does not comply with the abov Regulations. Each licence granted will be subject to enforcement by the EPA. Full details of each application and licence decision can be viewed online at <u>www.epa</u> .ie.
	The following is the position with the key waste water treatmer plant for Bantry Bay Inner:
	Bantry- no waste water treatment was in place until recently. A scheme is included in the current Water Services Investmer Programme 2007-2009 to provide a secondary WWTP which i currently being commissioned and will be operational in Q1 2010 It is proposed to provide UV disinfection in Q2 2010. A licence application was made by Cork County Council in June 2000 pursuant to the requirements of the Waste Water Discharg (Authorisation) Regulations, 2007.
	In the case above, compliance with any EPA Wastewate Discharge Authorisation will require detailed actions, including infrastructural works, if required, by the licensee within specifie

	time-frames if the discharge does not comply with the above Regulations. Each licence granted will be subject to enforcement by the EPA. The financial investments to ensure compliance with any EPA licence conditions requiring additional urban waste water collection or treatment can be made under the Water Services Investment Programme.	
On-site waste water treatment systems	Cork County Council to identify systems directly adjacent to estuarine and coastal waters and water courses as well as systems serving large populations. Cork County Council to undertake investigation of the likely extent of microbial contamination of Designated Shellfish Waters from adjoining dwellings and Section 4 licensed activities and by not later than end December 2010 to submit a report to the Minister and the relevant statutory authority on the microbial risk to shellfish waters and the measures / enforcement programme to be implemented under the Water Pollution Acts and section 70 of the Water Services Act 2007. Section 70 places a duty of care on owners of septic tanks and provides local authorities with enforcement powers including prosecution to address any problems identified. The Minister and the relevant statutory authority undertake to review this report and take action in terms of additional measures if required. A scheme is included in the current Water Services Investment Programme 2007-2009 (Ballylickey Sewerage Scheme) to provide a collection network and waste water treatment facility for the settlement.	
5.2 Potential Secondary Pressures		
Agriculture	At this time effective and targeted implementation of the Good Agricultural Practice Regulations is deemed sufficient to address this pressure. Cork County Council to undertake inspection and assessment of farming activities in the vicinity of the shellfish growing waters and, by not later than end December 2010 to submit a report to the Minister and the relevant statutory authority on the possible risk of microbial contamination to the designated waters from adjoining agricultural lands, as well as a report on the measures / enforcement programme to be implemented. The Minister and the relevant statutory authority undertake to review this report and take action in terms of additional measures if required.	
Port Activities	Under the Prevention of Pollution at Sea Acts no ship is allowed to discharge within 3 miles of Bantry Bay. The disposal of ship generated waste (including sewage and bilge water) is covered by the European Communities (Port Reception Facilities for Ship Generated Waste and Cargo Residues) Regulations 2003 (S.I 117/2003) (as amended). The disposal of ship generated waste is facilitated by the making of an application to the Competent Authority, disposal is arranged by the ships agent and conformity checking is carried out by the competent authority.	
Future Development	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.
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.
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.

Water Services Authority	Agglomeration Name	Registration Number	Population Equivalent	Status
Cork County Council	Bantry	D0168-01	501 to 1,000	Under Assessment

Annex 1 – Discharge Authorisations

Annex 2 - Mitigation Recommendations from the SEA process

The Strategic Environmental Assessment carried out for the Shellfish PRPs has highlighted potential positive and negative environmental impacts (including cumulative impacts) associated with implementation of the range of measures outlined in the National Toolkit of Measures, all of which are aimed at controlling pressures which impact on shellfish water quality.

In most cases, the PRPs identify the need for further investigation to supplement existing information on the types and extent of the pressures which are currently affecting shellfish water quality. Following this, the next step in the protection of shellfish waters will be the introduction of measures from the National Toolkit to address the identified pressures. It should be noted that this PRP is a dynamic document and will be updated regularly in order to outline if, and where, measures are required following the completion of the investigations.

The table below outlines the mitigation measures required to reduce potential impacts from measures in the National Toolkit associated with the key and potential secondary pressures currently identified for this catchment. When considering implementation of specific measures from the National Toolkit, it is required that the relevant mitigation measures below be considered to reduce any potential negative impacts (mitigation measures arising from the Habitats Directive Article 6 Assessment are noted in blue).

Should further key and secondary pressures be identified in this catchment in future, then the full list of mitigation measures, which is included in Table 4 of the National Toolkit, should be consulted to determine if any of those apply. In addition, the authority/organisation/individual responsible for implementing each of the mitigation measures below is listed in Table 4 of the National Toolkit.

	NATIONAL TOOLKIT MEASURE	ASSOCIATED MITIGATION MEASURE
WFD4	 POINT SOURCE & DIFFUSE SOURCE DISCHARGES Actions: Water Pollution Acts and regulations: License discharges to surface waters and sewers from small scale industrial and commercial sources. Review licenses at intervals of not less than 3 years. Keep registers of discharge licenses and make them available to the public. Serve notices or directions on persons requiring measures to be taken in order to prevent or control pollution of waters, where necessary. Notify Local Authorities of accidental discharges and spillages of polluting materials which enter, or are likely to enter, waters. Other actions: Urban Wastewater Treatment Plants: Measures for improved management: keep register of plant capacity and update annually; install facilities to monitor influent loads and effluent discharges in accordance with Environmental Protection Agency guidelines and best practice; put auditable procedures in place to monitor compliance of licensed discharges; implement training procedures for staff involved with licensing of discharges; monitor receiving water quality upstream and downstream of the point of discharge. Optimise treatment plant performance by the implementation of a performance management system. Revise existing Industrial Pollution Net industrial licence conditions and reduce allowable pollution load. Investigate contributions to the collection system from unlicensed discharges. Investigate contributions to the collection system of specific substances known to impact ecological status resulting from licensed and unlicensed discharges and issue or revise licenses to reduce or remove such specific substances in the discharge. 	Detailed assessment of higher risk works will be required to include environmental considerations (based on EIA guidance). It is recommended that lower risk work should be compelled to consider environmental issues as part of the registration process.

Ingrade plant to increase capacity where percessary	
necessary.	
Actions: Wastewater Discharge Authorisation Regulations:	
authorities when an application or review is received.	
systems for wastewater are kept in good condition.	
Actions: Planning and Development Act (unsewered systems)	
• Permit on-site waste water treatment systems subject to site	
suitability assessment.	
Other estimate Unconversed Stratement	
PHYSICAL MODIFICATIONS	It is recommended that further environmental assessment is undertaken
	once measures are defined.
Actions required: physical modifications:	
and authorisation system.	
Actions: Planning and Development Act	
part of the planning process.	
	 Actions: Wastewater Discharge Authorisation Regulations: License large Local Authority WWTPs and certify smaller WWTPs as specified in the Regulations (taking account of WFD objectives). Review licenses at intervals not less than 3 years. Enforce compliance with WWTP licensing conditions. Maintain a register of WWTP licences and certificates and make available on request. Inform other relevant public authorities when an application or review is received. Actions: Water Services Act: Prepare and implement Water Services Strategic Plans. Duty of care on owners of premises to ensure that treatment systems for wastewater are kept in good condition. Actions: Planning and Development Act (unsewered systems) Permit on-site waste water treatment systems subject to site suitability assessment. Other actions: Unsewered Systems: Amend Building Regulations to give effect to new codes of practice for single houses and large systems. PHYSICAL MODIFICATIONS Actions: Planning and Development Act: Develop new morphology regulations creating a registration and authorisation system. Actions: Planning and Development Act: Consider the morphological implications of developments as

WW1	WASTE WATER TREATMENT PLANTS	This measure should be accompanied by an education and awareness
		campaign for householders and commercial premises aimed at reducing
	Measures intended to reduce loading to the treatment plant:	pollution at source. This campaign should include information on the use
	• Limit or cease the direct importation of polluting matter (e.g.	and disposal of household chemicals, oils, detergents, paints, solvents,
	liquid wastes, landfill leachate, sludges).	etc as well as information on phosphorus-related pollution. Consideration
	Investigate the extent of use and impact of under-sink food	should also be given to targeting specific audiences on issues such as
	waste disintegrators and take appropriate actions.	discharges to water and the importance of wetland sites to water quality.
	 Investigate fats/oils/grease influent concentrations and take actions to reduce FOG entering the collection system. 	This measure will require preject level Hebitete Directive Assessment if
	actions to reduce FOG entening the collection system.	This measure will require project level Habitats Directive Assessment if alternative facilities for treatment of waste are constructed, e.g.
		incinerator.
WW2	WASTE WATER TREATMENT PLANTS	This measure will need to link to the development planning process, e.g.
		by including a requirement to address wastewater capacity as part of the
	Impose development controls where there is, or is likely to be in the	scope in any accompanying SEA for development plans.
	future, insufficient capacity at treatment plants.	
		This measure will need to consider whole catchment loading.
WW6 to	WASTE WATER TREATMENT PLANTS	WWG to WW9: Negative impacts on climate associated with GHG
WW9		emissions related to additional energy requirements for these measures
	WW6: Where necessary to achieve water quality objectives install	should be offset by use of renewable energy sources or similar.
	secondary treatment at smaller plants where this level of treatment	
	would not otherwise be required under the urban wastewater	WW6 to WW9: If these alternatives involve the building of a new plant or an extension to an existing plant a Habitats Directive Assessment will be required. Prior to any proposals for a new plant, further
	treatment regulations.	investigation will be required to show that a new plant will have the desired improvements in water
	WW7: Apply a higher standard of treatment (stricter emission	quality for which it is being built.
	controls) where necessary.	
	controls) where necessary.	WW6 to WW8: If additional landtake is required for these measures,
	WW8: Upgrade the plant to remove specific substances known to	-
	impact on water quality status	environmental studies will be undertaken to assess the impact on the
	WW9: Install ultra-violet or similar type treatment.	environment.
		WW9: A Habitats Directive Assessment will be required prior to introduction of
		UV or similar treatment when the discharge is within or adjacent to a protected

		area.
WW10	WASTE WATER TREATMENT PLANTS	A Habitats Directive Assessment will be required to demonstrate that the relocation will not negatively impact on protected areas.
UP3	Relocate the point of discharge. ON-SITE WASTE WATER TREATMENT SYSTEMS	The proplanning process should appear whether Hebitate Directive
UF3	ON-SITE WASTE WATER TREATMENT STSTEWS	The pre-planning process should assess whether Habitats Directive Assessment would be required for new development within or adjacent to
	For new developments:	a protected area.
	• At planning assessment stage, apply the GIS risk mapping /	
	decision support system and codes of practice	
	Notice to planning authority required immediately prior to the	
	installation of on-site effluent treatment systems including	
	percolation areas and polishing filters.	
UP5 to	ON-SITE WASTE WATER TREATMENT SYSTEMS	UP5 & UP6: An education programme should be carried out in tandem
UP7		with new requirements for tank maintenance, including guidance on
	UP5: Enforce requirements for percolation.	disposal of sludges.
	UP6: Enforce requirements for de-sludging.	UP6: Intelligent transport programmes should be put in place to minimise
		the amount of emissions associated with movement of sludges from on-
	UP7: Consider connection to municipal systems.	site treatment systems.
		UP7: Upgraded treatment works should be required to introduce BAT,
		including the use of renewable energy sources, in order to reduce GHG
		emissions and others resulting from increased demand for treatment.
		UP6 & UP7: New wastewater treatment infrastructure, including sludge
		disposal infrastructure, will be subject to environmental assessment at the
		project level to reduce indirect impacts to biodiversity, landscape, cultural
		heritage and climate.
		UP7: A Habitats Directive Assessment will be required for new structures.

*Note: It should be noted that in this case the term Habitats Directive Assessment refers to the assessment process as specified in Article 6 of the Habitats Directive. This starts with screening to determine whether a likely significant impact from the plan/programme is expected to occur to a Natura 2000/Ramsar site as a result of activities in/adjacent to/in the catchment of a Natura 2000/Ramsar site. If, in accordance with Habitats Directive Assessment guidance (guidance produced by the EU and DoEHLG in Ireland), it can be shown that there is no potential for impact at the screening stage, no further assessment may be required. However when the plan/programme being screened lies within or adjacent to a Natura 2000/Ramsar site, such consultation with NPWS is only necessary for those water dependent Natura 2000 sites which are listed in the WFD Register of Protected Areas.