

SITE SYNOPSIS

SITE NAME: CORK HARBOUR SPA

SITE CODE: 004030

Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas and Owenacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas Estuary, inner Lough Mahon, Lough Beg, Whitegate Bay and the Rostellan inlet.

Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably *Macoma balthica*, *Scrobicularia plana*, *Hydrobia ulvae*, *Nephtys hombergi*, *Nereis diversicolor* and *Corophium volutator*. Green algae species occur on the flats, especially *Ulva lactuca* and *Enteromorpha* spp. Cordgrass (*Spartina* spp.) has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Salt marsh species present include Sea Purslane (*Halimione portulacoides*), Sea Aster (*Aster tripolium*), Thrift (*Armeria maritima*), Common Saltmarsh-grass (*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Lax-flowered Sea-lavender (*Limonium humile*) and Sea Arrowgrass (*Triglochin maritima*). Some shallow bay water is included in the site. Cork Harbour is adjacent to a major urban centre and a major industrial centre. Rostellan lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds.

Cork Harbour is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl, for which it is amongst the top five sites in the country. The five-year average annual core count for the entire harbour complex was 34,661 for the period 1996/97-2000/01. Of particular note is that the site supports an internationally important population of Redshank (1,614) - all figures given are average winter means for the 5 winters 1995/96-1999/00. A further 15 species have populations of national importance, as follows: Great Crested Grebe (218), Cormorant (620), Shelduck (1,426), Wigeon (1,750), Gadwall (15), Teal (807), Pintail (84), Shoveler (135), Red-breasted Merganser (90), Oystercatcher (791), Lapwing (3,614), Dunlin (4,936), Black-tailed Godwit (412), Curlew (1,345) and Greenshank (36). The Shelduck population is the largest in the country (9.6% of national total), while those of Shoveler (4.5% of total) and Pintail (4.2% of total) are also very substantial. The site has regionally or locally important populations of a range of other species, including Whooper Swan (10), Pochard (145), Golden Plover (805), Grey Plover (66) and Turnstone (99). Other species using the site include Bat-tailed Godwit (45), Mallard (456), Tufted Duck (97), Goldeneye (15), Coot (77), Mute Swan (39), Ringed Plover (51), Knot (31), Little Grebe (68) and Grey Heron (47). Cork Harbour is an important

site for gulls in winter and autumn, especially Common Gull (2,630) and Lesser Black-backed Gull (261); Black-headed Gull (948) also occurs.

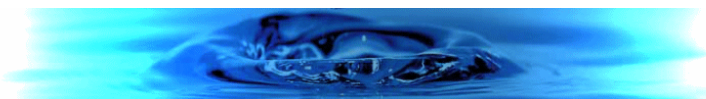
A range of passage waders occur regularly in autumn, including Ruff (5-10), Spotted Redshank (1-5) and Green Sandpiper (1-5). Numbers vary between years and usually a few of each of these species over-winter.

The wintering birds in Cork Harbour have been monitored since the 1970s and are counted annually as part of the I-WeBS scheme.

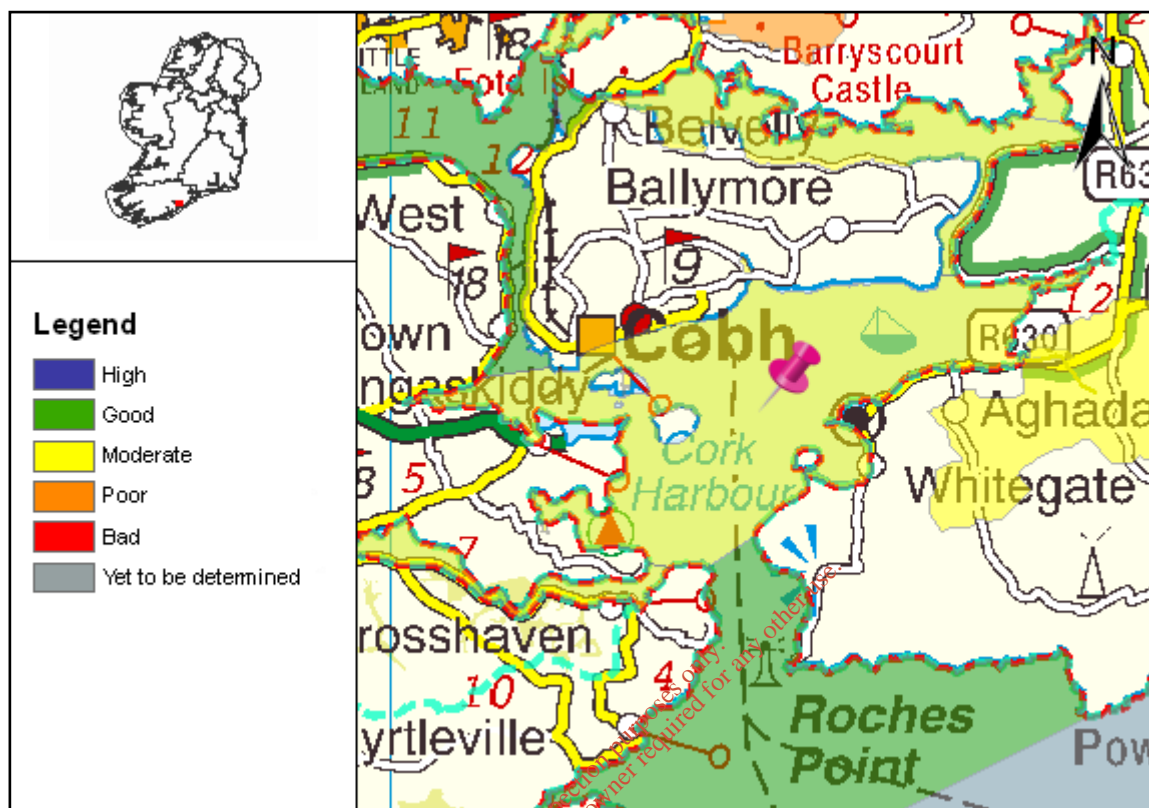
Cork Harbour has a nationally important breeding colony of Common Tern (3-year mean of 69 pairs for the period 1998-2000, with a maximum of 102 pairs in 1995). The birds have nested in Cork Harbour since about 1970, and since 1983 on various artificial structures, notably derelict steel barges and the roof of a Martello Tower. The birds are monitored annually and the chicks are ringed.

Extensive areas of estuarine habitat have been reclaimed since about the 1950s for industrial, port-related and road projects, and further reclamation remains a threat. As Cork Harbour is adjacent to a major urban centre and a major industrial centre, water quality is variable, with the estuary of the River Lee and parts of the Inner Harbour being somewhat eutrophic. However, the polluted conditions may not be having significant impacts on the bird populations. Oil pollution from shipping in Cork Harbour is a general threat. Recreational activities are high in some areas of the harbour, including jet skiing which causes disturbance to roosting birds.

Cork Harbour has is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its population of Redshank. In addition, there are at least 15 wintering species that have populations of national importance, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Golden Plover, Bar-tailed Godwit, Ruff and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it.

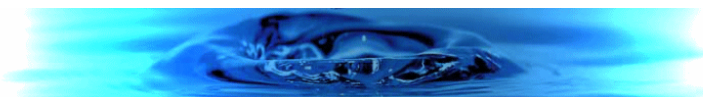


Full Report for Waterbody Cork Harbour



Date Reported to Europe: 22/12/2008

Date Report Created 02/06/2009



Summary Information:

WaterBody Category: Coastal Waterbody

WaterBody Name: Cork Harbour

WaterBody Code: IE_SW_060_0000

Overall Status: **Moderate**

Overall Objective: **Restore**

Overall Risk: **1a** At Risk

Applicable Supplementary Measures: Urban & Industrial;

Report data based upon Draft RBMP, 22/12/2008.



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Status Report

WaterBody Category: Coastal Waterbody

WaterBody Name: Cork Harbour

WaterBody Code: IE_SW_060_0000

Overall Status Result: **Moderate**



Status Element	Description	Result
EX	Status from Monitored or Extrapolated Waterbody	True
	General Conditions	
DIN	Dissolved Inorganic Nitrogen	Moderate
MRP	Molybdate Reactive Phosphorus	Good
DO	Dissolved Oxygen as percent saturation	Good
BOD	Biochemical Oxygen Demand	High
T	Temperature	Pass
	Biological Elements	
PB	Phytoplankton - Phytoblooms	Good
PBC	Phytoplankton - PhytoBiomass (Chlorophyll)	Good
MA	Macroalgae	
RSL	Reduced Species List	Good
SG	Angiosperms - Seagrass and Saltmarsh	
BE	Benthic Invertebrates	
FI	Fish	
	HydroMorphology	
HY	Hydrology	
MO	Morphology	Good (pHMWB)
	Specific Pollutants	
SP	Specific Relevant Pollutants (Annex VII)	Pass
	Conservation Status	
CN	Conservation Status (Expert Judgement)	Moderate
	Protected Area Status	
PA	Overall Protected Area Status	Less than good

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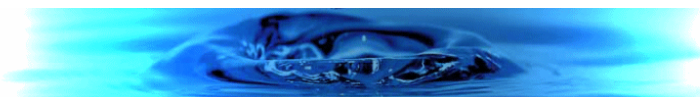


	Heavily Modified Waterbodies	
HY	HydroMorphology for Heavily Modified Waterbodies	Moderate
IS	Interim Status (physico-chemical, biological) for Heavily Modified Waterbodies	Moderate
EP	Overall Ecological Potential for Heavily Modified Waterbodies	Moderate
	Overall Status	
ES	Ecological Status	Moderate
CS	Chemical Status	Fail
O	Overall Ecological Status	Moderate

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Risk Report

WaterBody Category: Coastal Waterbody

WaterBody Name: Cork Harbour

WaterBody Code: IE_SW_060_0000

Overall Risk Result: **1a** At Risk

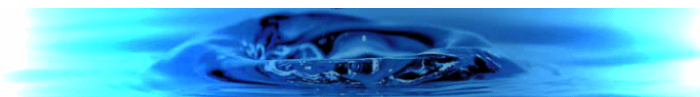


Risk Test Description	Risk
Point Risk Sources	
CP1 WWTPs (2008)	1a At Risk
CP2 CSOs	
CP3 IPPCs (2008)	2b Not At Risk
CP4 Section 4s (2008)	2b Not At Risk
CPO Overall Risk from Point Sources - Worst Case (2008)	
Morphological Risk Sources	
MOR Overall Morphological Risk - Worst Case	1a At Risk
Marine Direct Impacts	
MDI1 Dangerous Substances	1a At Risk
MDI2 OSPAR	x
MDI3 UWWT Regs Designations	x
MDI Marine Direct Impacts Overall - Worst Case	1a At Risk
O	
Overall Risk	
CP Worst case of Point and Marine Direct Impacts Overall (2008)	1a At Risk
RA Coastal Risk Overall - Worst case (2008)	1a At Risk

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Objectives Report

WaterBody Category: Coastal Waterbody

WaterBody Name: Cork Harbour

WaterBody Code: IE_SW_060_0000

Overall Objective: **Restore**

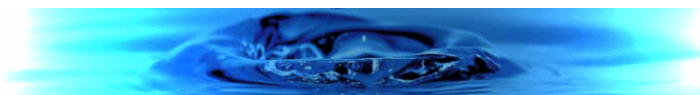


	Objectives Description	Result
	Objectives	
OB1	Objective 1 - Protected Areas	Restore
OB2	Objective 2 - Protect High and Good Status	Not Applicable
OB3	Objective 3 - Restore Less Than Good Status	Not Applicable
OB4	Objective 4 - Reduce Chemical Pollution	Restore
OBO	Overall Objective	Restore
	Deadline	
YR	Default Year by which the objective must be met	2015
OBO	Overall Objective and Deadline	Restore - 2015

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Basic Measures Report

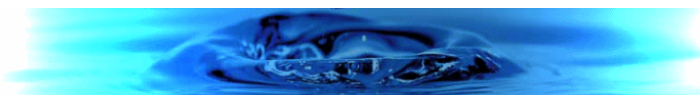
WaterBody Category: Coastal Waterbody
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	Basic Measures Description	Applicable
	Key Directives	
BA	Bathing Waters Directive	No
BI	Birds Directive	Yes
HA	Habitats Directive	No
DW	Drinking Waters Directive	No
SEV	Major Accidents and Emergencies (Seveso) Directive	Yes
EIA	Environmental Impact Assessment Directive	Yes
SE	Sewage Sludge Directive	Yes
UW	Urban Waste Water Treatment Directive	No
PL	Plant Protection Products Directive	Yes
NI	Nitrates Directive	Yes
IP	Integrated Pollution Prevention Control Directive	Yes
	Other Stipulated Measures	
CR	Cost recovery for water use	Yes
SU	Promotion of efficient and sustainable water use	No
DWS	Protection of drinking water sources	No
AB	Control of abstraction and impoundments	No
PT	Control of point source discharges	Yes
DI	Control of diffuse source discharges	Yes
GWD	Authorisation of discharges to groundwater	No
PS	Control of priority substances	Yes
MOR	Control of physical modifications to surface waters	Yes
OA	Controls on other activities impacting on water status	Yes
AP	Prevention or reduction of the impact of accidental pollution incidents	Yes

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Urban and Industrial Discharges Supplementary Measures Report

WaterBody Category: Coastal Waterbody

WaterBody Name: Cork Harbour

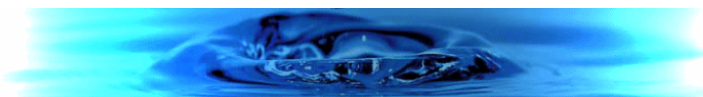
WaterBody Code: IE_SW_060_0000



	Point discharges to waters from municipal and industrial sources	Result
PINDDIS	Is there one or more industrial discharge (Section 4 licence issued by the local authority or IPPC licence issued by the EPA) contained within the water body?	Yes
PINDDISR	Are there industrial discharges (Section 4 licence issued by the local authority or IPPC licence issued by the EPA) that cause the receiving water to be 'At Risk' within the water body?	No
PB1	Basic Measure 1 - Measures for improved management.	Yes
PB2	Basic Measure 2 - Optimise the performance of the waste water treatment plant by the implementation of a performance management system.	No
PB3	Basic Measure 3 - Revise existing Section 4 license conditions and reduce allowable pollution load.	No
PB4	Basic Measure 4 - Review existing IPPC license conditions and reduce allowable pollution load.	No
PB5	Basic Measure 5 - Investigate contributions to the collection system from unlicensed discharges.	Yes
PB6	Basic Measure 6 - Investigate contributions to the collection system of specific substances known to impact ecological status.	Yes
PB7	Basic Measure 7 - Upgrade WWTP to increase capacity.	Yes
PB8	Basic Measure 8 - Upgrade WWTP to provide nutrient removal treatment.	No
PS1	Supplementary Measure 1 - Measures intended to reduce loading to the treatment plant.	Yes
PS2	Supplementary Measure 2 - Impose development controls where there is, or is likely to be in the future, insufficient capacity at treatment plants.	Yes
PS3	Supplementary Measure 3 - Initiate investigations into characteristics of treated wastewater for parameters not presently required to be monitored under the urban wastewater treatment directive.	No
PS4	Supplementary Measure 4 - Initiate research to verify risk assessment results and determine the impact of the discharge.	No
PS5	Supplementary Measure 5 - Use decision making tools in point source discharge management.	No
PS6	Supplementary Measure 6 - Install secondary treatment at plants where this level of treatment is not required under the urban wastewater treatment directive.	No
PS7	Supplementary Measure 7 - Apply a higher standard of treatment (stricter emission controls) where necessary.	No

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PS8	Supplementary Measure 8 - Upgrade the plant to remove specific substances known to impact on water quality status.	No
PS9	Supplementary Measure 9 - Install ultra-violet or similar type treatment.	No
PS10	Supplementary Measure 10 - Relocate the point of discharge.	No

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Map 38a: Rostellan North

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1:25,000

Designated Shellfish Water



Map 38b: Rostellan South

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1:25,000

 Designated Shellfish Water