

Waterford County Council



Environmental Risk Assessment for Unregulated Waste Disposal Site

Appropriate Assessment

Lismore Landfill

Attachment E.1

Waterford County Council
Civic Offices
Dungarvan
Co Waterford

March 2012

Habitats Directive Project Screening Assessment

Table 1: Project Details

Development Consent Type	Environmental Risk Assessment for Historic landfill
Development Location	Townpark East, Lismore , Co. Waterford
File Ref	-
Description of the project	Historic Landfill

Table 2: Identification of Natura 2000 Sites (SACs and SPAs) Which May Be Impacted By The Proposed Development

Please answer the following five questions in order to determine whether there are any Natura 2000 sites which could potentially be impacted by the proposed development.

Impacts on SACs		
1	<p>Impacts On Freshwater Habitats <i>Is the development within a Special Area of Conservation whose qualifying interests include freshwater habitats, or in the catchment of same?</i></p> <p>Sites to consider: Blackwater River, Lower River Suir, Waterford Estuary</p> <p>Habitats to consider: Rivers, Lakes and Lagoons.</p>	Yes within catchment of Blackwater River SAC
2	<p>Impacts On Wetland Habitats <i>Is the development within a Special Area of Conservation whose qualifying interests include wetland habitats, or within 1 km of same?</i></p> <p>Sites to consider: Comeragh Mountains</p> <p>Habitats to consider: Bogs, Fens, Marshes and Wet Heaths.</p>	No
3	<p>Impacts on Intertidal and Marine Habitats <i>Is the development located within a Special Area of Conservation whose qualifying interests include intertidal and/or marine habitats and species, or within the catchment of same.</i></p> <p>Sites to consider: Tramore Dunes and Backstrand</p> <p>Habitats to consider: Mudflats, Sandflats, Saltmarsh, Estuary; Shingle, Reefs, Sea Cliffs.</p>	No
4	<p>Impacts On Woodlands , Grasslands and Dry Heaths <i>Is the development within a Special Area of Conservation whose qualifying habitats include woodlands or grasslands habitats, or within 200m of same.</i></p> <p>Sites to consider: Glendine Wood Nire Valley Woods, Ardmore Head, Helvick Head</p> <p>Habitats to consider: Woodlands, Grasslands or Dunes.</p>	No
Impacts on SPAs		
5	<p>Impacts On Birds <i>Is the development within a Special Protection Area, or within 1 km of same.</i></p> <p>Sites to consider: Tramore Backstrand, Dungarvan Bay, Blackwater Callows, Blackwater Estuary, Helvick Head –Ballyquin Coast, Mid Waterford Coast</p>	No

Conclusion Table 2:

If the answer to all of these questions is **No**, significant impacts can be ruled out for Natura 2000 sites. No further assessment is required, proceed to the Habitats Directive Conclusion Statement.

If the answer to any of these questions is **Yes** please refer to tables 3 and 4 below.

Table 3: Determination of Possible Impacts On Natura 2000 Sites.

Where it has been identified that there is a Natura 2000 site within the potential impact zone of the proposed development, it is necessary to try to determine the nature of the possible impacts. Please answer the following questions as appropriate.

1	Impacts on designated freshwater habitats (rivers, lakes streams and lagoons). Sites to consider: Blackwater River, Lower River Suir, Waterford Estuary <i>Please answer the following if the answer to question 1 in table 2 was yes.</i> <i>Does the development involve any of the following:</i>	
	Works inside the boundary of designated site	
1.1	All works within the boundary of any SAC whose qualifying features include freshwater habitats/species, excluding small extensions/alterations to existing buildings.	No
	Works outside the boundary of designated site	
1.2	Discharge to surfacewater or groundwater within the boundary of an SAC whose qualifying features include freshwater habitats/species.	
1.3	Abstraction from surfacewater or groundwater within 1km of the boundary of an SAC whose qualifying features include freshwater habitats or species.	
1.4	Removal of topsoil within 100m of the boundary of an SAC, whose qualifying features include freshwater habitats/species.	
1.5	Infilling or raising of ground levels within 100m the boundary of any SAC whose qualifying features include freshwater habitats/species.	
1.6	Construction of drainage ditches within 1km of the boundary of an SAC whose qualifying features include freshwater habitats/species.	
1.7	Installation of waste water treatment systems; percolation areas; septic tanks within 100 m of the boundary of an SAC site whose qualifying features include freshwater habitats/species.	
1.8	Construction within a floodplain of EU designated watercourse whose qualifying features include freshwater habitats/species.	
1.9	Crossing or culverting of rivers or streams within 1km of the boundary of any SAC whose qualifying features include freshwater habitats.	
1.10	Storage of chemicals hydrocarbons or organic wastes within 100 m of the boundary of an SAC whose qualifying features include freshwater habitats/species.	
1.11	Development of a large scale, within catchment of an EU designated watercourse or waterbody, which involves the production of an EIS.	
1.12	Development or expansion of quarries within catchment of an EU designated watercourse or waterbody.	
1.13	Development or expansion of windfarms within catchment of an EU designated watercourse or waterbody.	
1.14	Development of pumped hydro electric stations within catchment of an EU designated watercourse or waterbody.	

2	<p>Impacts on designated wetland habitats (bog, heath, marsh, fen).</p> <p>Sites to consider: Comeragh Mountains</p> <p><i>Please answer the following if the answer to question 2 in table 2 was yes.</i></p> <p><i>Does the development involve any of the following:</i></p>	
	Works inside the boundary of designated site	
2.1	All works within the boundary of an SAC whose qualifying features include heath, marsh, fen or bog, excluding small extensions/alterations to existing buildings.	
	Works outside the boundary of designated site	
2.2	Construction of roads or other infrastructure on peat habitats within 1km of any SAC whose qualifying features include heath, marsh, fen or bog.	
2.3	Development of a large scale within 1km of any SAC, whose qualifying features include heath, marsh, fen or bog, which involves the production of an EIS.	
3	<p>Impacts on designated intertidal and marine habitats (mudflats, sandflats, estuaries, reefs and sea cliffs).</p> <p>Sites to consider: Tramore Dunes and Backstrand</p> <p><i>Please answer the following if the answer to question 3 in table 2 was yes.</i></p> <p><i>Does the development involve any of the following:</i></p>	
	Works inside the boundary of designated site	
3.1	All works within the boundary of any SAC whose qualifying features include intertidal or marine habitats, excluding small extensions/alterations to existing buildings.	
	Works outside the boundary of designated site	
3.2	Coastal protection works within 5km of any SAC whose qualifying features include intertidal or marine habitats.	
3.3	Development of piers, slipways, marinas, pontoons or any other infrastructure within 5km of any SAC whose qualifying features include intertidal or marine habitats.	
3.4	Dredging within 5km of any SAC whose qualifying features include intertidal or marine habitats.	
3.5	Works within 1km of any SAC whose qualifying features include intertidal or marine habitats, which will result in discharges to rivers or streams directly connected to the designated site.	
3.6	Infilling of coastal habitats within 500m of any SAC whose qualifying features include intertidal or marine habitats.	
3.7	Removal of topsoil or infilling of terrestrial habitats within 100m of any SAC whose qualifying features include intertidal or marine habitats.	
3.8	Development of a large scale within 1km of any SAC whose qualifying features include intertidal or marine habitats, which involves the production of an EIS.	

4	Impacts on other designated woodlands and grasslands (woodland, upland grassland, lowland grassland, coastal grassland including dunes). Sites to consider: Glendine Wood Nire Valley Woods, Ardmore Head, Helvick Head <i>Please answer the following if the answer to question 4 in table 2 was yes.</i> <i>Does the development involve any of the following:</i>	
	Works inside the boundary of designated site	
4.1	All works within the boundary of any SAC whose qualifying interests include woodland or grassland habitat types excluding small extensions/alterations to existing buildings.	
	Works outside the boundary of designated site	
4.2	Development within 200m of any SAC whose qualifying interests include woodland or grassland habitat types.	
4.3	Development of a large scale within 1km of any SAC, whose qualifying interests include woodland or grassland habitat types, which involves the production of an EIS.	
5	Impacts on birds in SPAs Sites to consider: Tramore Backstrand, Dungarvan Bay, Blackwater Callows, Blackwater Estuary, Helvick Head –Ballyquin Coast, Mid Waterford Coast <i>Please answer the following if the answer to question 5 in table 2 was yes.</i> <i>Does the development involve any of the following:</i>	
	Works inside the boundary of designated site	
5.1	All works within the boundary of any SPA excluding small extensions/alterations to existing buildings.	
	Works outside the boundary of designated site	
5.2	Erection of wind turbines within 1km of any SPA.	
5.3	All construction works within 100m of any SPA.	
5.4	Infilling of coastal habitats within 500m of intertidal SPA.	
5.5	Works within 1km of coastal/wetland SPAs which will result in discharges to rivers or streams that are directly connected to designated sites.	
5.6	Development of cycleways or walking routes within 100m of SPAs.	

Conclusion Table 3: If the answer to all of the above is no or n/a, significant impacts on Natura 2000 sites can be ruled out. No further assessment is required, proceed to the Screening Conclusion Statement. If the answer to any question in table 3 is yes, you may require further information, unless you are satisfied that the project proponents have incorporated adequate mitigation into their design to avoid impacts on the Natura 2000 site (eg water pollution protection measures). Such information should be provided in the form of a Natura Impact Statement which should address the particular issues of concern as identified through the above.

Table 4: Consideration of Potential Impacts on Protected Species

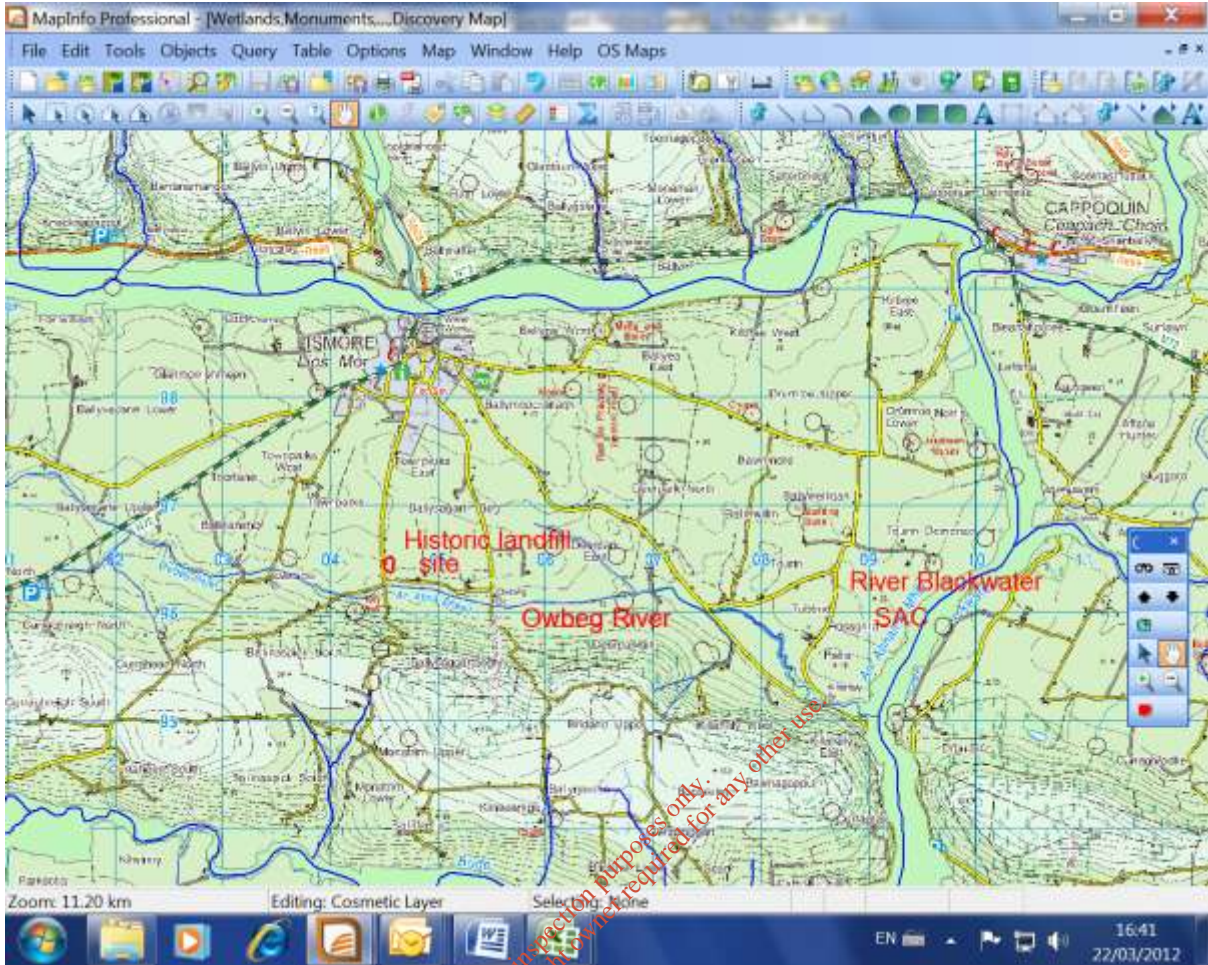
Many of our Special Areas of Conservation are designated for species as well as for habitats. These are listed below, alongside the sites for which they are designated. Included is a short list of the types of activities which could have an impact on these species. Please tick if you are concerned that the proposed development could have an impact on these species.

Species	Relevant Sites	Activities which could have impacts on species	Possible Impacts Identified? Y/N
Otter	Lower River Suir River Blackwater Waterford Estuary	Activities that interfere with river banks.	No
Bats (all species outside designated sites)	Blackwater River, Lower River Suir, Waterford Estuary Glendine Wood, Lismore Woods Nire Valley Woods Along with above, in general all sites with any of the following; woods, mature treelines and hedgerows, old buildings and bridges	Activities that result in loss of woodland or hedgerow habitat or causes disturbance to roost sites. Renovations of old buildings; R-pointing of old bridges.	No
Salmon	Lower River Suir River Blackwater Waterford Estuary	Activities that interfere with water quality, levels or the river bed;	Possibly
River Lamprey	Lower River Suir River Blackwater Waterford Estuary	Activities that interfere with water quality, levels or the river bed;	Possibly
Brook Lamprey	Lower River Suir River Blackwater Waterford Estuary	Activities that interfere with water quality, levels or the river bed;	Possibly
Sea Lamprey	Lower River Suir River Blackwater Waterford Estuary	Activities that interfere with water quality on the river bed – estuarine areas;	Possibly
Twaite Shad Allis Shad	Lower River Suir River Blackwater Waterford Estuary	Activities that interfere with water quality or the river bed – estuarine areas;	Possibly
White-clawed Crayfish	Lower River Suir River Blackwater Waterford Estuary	Activities that interfere with water quality or the river bed;	Possibly
Freshwater Pearl Mussel	Lower River Suir River Clodiagh River Lickey River Blackwater	Activities that interfere with water quality, levels or the river bed ;	No
Whorled Snail <i>Vertigo moulinsiana</i>	River Blackwater	Activities that result in loss of fen, marsh or wet grassland habitat within or close to the SAC.	No
Killarney Fern	Glendine Wood Lismore Woods (River Blackwater)	Woodland clearance or other activities resulting in loss or disturbance to woodland habitat within the relevant SACs.	No

Conclusion Table 4: If the answer to all of the above is no, significant impacts on species can be ruled out. If the answer to any of the above is yes, then further information is likely to be required in relation to potential for impact on that particular species. Where potential impacts on the above listed species are within designated sites, then further information should be sought in the form of a Natura Impact Statement. Where impacts are outside designated sites, then a species specific survey should be requested.

Habitats Directive Screening Conclusion Statement

Development Type	Historic landfill
Development Location	Townparks East, Lismore
Natura 2000 sites within impact zone	2.2km south of River Blackwater at Lismore 3.16km from River Blackwater SAC at Killahally 2.5km from Blackwater Callows SPA
Planning File Ref	
Description of the project	
Environmental Risk Assessment for Historic landfill	
Describe how the project or plan (alone or in combination) could affect Natura 2000 site(s).	
Leachate from historic landfill through groundwater and to the Owbeg river which is a tributary to the River Blackwater SAC at Killahally	
If there are potential negative impacts, explain whether you consider if these are likely to be significant, and if not, why not.	
<p>The River Blackwater SAC is designated for the following habitats and species:- Estuary, Mudflats, Shingle Banks, Salt Meadows, Floating River Vegetation, Old Oak Woods, Alluvial Woodland, Yew Woodland, Freshwater Pearl Mussel, White-clawed Crayfish, Shad, Lampreys, Salmon, Otter, Killarney Fern.</p> <p>The Blackwater River does not contain Freshwater Pearl Mussel populations in the section of the SAC east of Ballyduff to the Blackwater Estuary.</p> <p>There is no surface hydrological link between the historic landfill site and the River Blackwater SAC.</p> <p>Threats to the favourable conservation status of the protected habitats and species in the River Blackwater SAC include water pollution. A review of the EPA hydrometric data for the Owbeg River shows that water quality in the River Owbeg downstream of the historic landfill is rated as slightly polluted at 2 locations- upstream of Owbeg Bridge and at Owbeg Bridge. Samples upstream in the Owbeg also show slight pollution. At Killahally Bridge water quality is rated as varying between slightly polluted and unpolluted (1990-2009) with the most recent sampling (in 2009) rating it as unpolluted. Forestry and agriculture are the main land uses along the Owbeg and likely sources of runoff to the river.</p> <p>It is likely there is a combination of factors contributing to the slightly polluted status of the Owbeg and while there is no surface hydrological link between the historic landfill and the Owbeg River the limestone bedrock of the historic landfill may act as a groundwater pathway to the Owbeg River and ultimately the River Blackwater. While there may be a risk of runoff from the historic landfill it is considered that the risk is not at a level to cause adverse impacts on the conservation objectives for the River Blackwater SAC and the integrity of the site. This is due to the distance of the landfill site from the SAC Boundary at Killahally (3.16km) and dilution potential in the Owbeg for any runoff that may emanate from the historic landfill site. The most recent water sampling at Killahally which rated the site as unpolluted infers favourable conditions for aquatic species using the River SAC (i.e. Otter and Lamprey species).</p> <p>It is noted that the historic landfill closed in 1991. The Blackwater SAC was designated on 1st July 1999 and thus the river including the section of the Owbeg at Killahally Bridge was deemed of favourable integrity and conservation status to merit recognition as a Natura 2000 site.</p>	
Conclusion of assessment	
Significant impacts can be ruled out. No further assessment required.	
Documentation reviewed for making of this statement.	
NPWS Site Synopsis for River Blackwater SAC EPA Hydrometric data for Owbeg River 1990-2009	
Completed By	Bernadette Guest, Heritage Officer
Date	29 nd March 2012



Map 1. Location of Historic Landfill Site in relation to Owbeg River and River Blackwater SAC

Appendix

Hydrometric data for River Owbeg

River and Code: **OWBEG (WATERFORD)** 18002
 Tributary of: 18B02 BLACKWATER (MUNSTER) OS Catchment No: 190
 OS Grid Ref of confluence: X 090 952
 Date(s) Surveyed: 31/12/1990, 31/12/1994, 31/12/1997, 26/9/2000, 22/7/2003, 1/9/2006, 2/9/2009

Station Nos.	<i>Biological Quality Ratings (Q Values)</i>						
	1990	1994	1997	2000	2003	2006	2009
0100	-	3-4	3	-	-	-	-
0200	4	-	-	-	-	-	-
0400	-	4	3-4	3-4	3	3	3
0500	3	-	-	-	-	-	-
0800	3-4	4	3-4	3-4	4	3-4	4

Assessment: Poor and Good ecological quality respectively at upstream and downstream locations .

Station No.	Station Location	National X	Grid Ref. Y	Discovery Series No.	County Code
0100	Br W of Toortane Ho	202013	96804	81	WD
0200	Br SE of Toortane Ho	0	0	0	WD
0400	Br u/s Owbeg Br	204573	96250	81	WD
0500	Owbeg Bridge	0	0	0	WD
0800	S Br u/s Killahaly Br	207511	96016	81	WD

Station No.	<i>Site Altitude and Upstream Catchment Characteristics (where available):</i>										
	Alt	Area	Sil	Cal	Pasture	Forestry	Bogs	Urban	Misc Ag.	Water	Other
0100	32	6	57	43	55	4	0	0	41	0	0
0200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
0400	18	13	55	45	58	5	0	0	37	0	0
0500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
0800	7	23	44	56	55	8	0	1	33	0	3

Alt is in metres Area is km² and Sil, Cal are % siliceous and calcareous bedrock and Pasture, Forestry, etc., are % of catchment area.