Appropriate Assessment Conclusion Statement - Removal of Sea Lettuce, West Cork.

The deposition of sea lettuce is an increasing problem along the coast of County Cork, interfering with public access as well as having potential health impacts. Cork County Council proposes to remove approx. 10,000 tonnes pa wet weight of sea lettuce from each of four beaches, Inchydoney, Coolmain, Harbour View and Garretstown during the months of June to Sept between 2010 and 2012. This will involve an estimated 15 removal events pa from Harbour View, 20 removal events pa from Inchydoney, 15 removal events pa from Coolmain and 9 removal events pa from Garretstown. As three of these beaches lie within sites that are designated under the EU Habitats Directive and EU Birds Directive, an assessment of the potential for impacts of this work on these sites is required. Cork County Council is both the proponent of this project and the competent authority to assess the potential for impacts of the work on designated sites within the potential impact zone. To this end, Cork County Council commissioned RPS to prepare a Habitats Directive Assessment Report to bring together the necessary information to allow it to make this assessment. This document contains an evaluation of the Habitats Directive Assessment Report produced by RPS on behalf of CCC and the Appropriate Assessment Conclusion Statement. The evaluation has been carried out in accordance with guidance provided in the EU Guideline Document, Assessment plans and projects affecting Natura 2000 sites. The Appropriate Assessment Conclusion Statement The Habitats Directive Assessment Report is contained in appendix I of this document.

Sharon Casey,
Heritage Officer

11/06/2010

1 Appropriate Assessment Conclusion Statement

Development Type	*Removal of accumulations of Sea Lettuce from four beaches in West Cork Area.*
Development Location	*Garretstown, Coolmaine, Harbour View and Inchydoney beaches.*
Natura 2000 sites within impact zone	*Clonakilty Bay Special Area of Conservation, Clonakilty Bay Special Protection Area, Courtmacsherry Estuary Special Area of Conservation and Courtmacsherry Estuary proposed Special Protection Area.*
Qualifying Interests of Natura 2000 site	***Clonakilty Bay SAC:*** *Mudflats and sandflats not covered by seawater at low tide;* *Annual vegetation of drift lines;* *Embryonic shifting dunes;* *Shifting dunes along the shoreline with Ammohila arenaria (white dunes);* *Fixed coastal dunes with herbaceous vegetation (grey dunes):* *Atlantic decalcified fixed dunes (Calluno-Ulicetea).* ***Courtmachsherry Estuary SAC:*** *Estuaries;* *Mudflats and sandflats not covered by seawater at low tide;* *Annual vegetation of drift lines;* *Perennial vegetation of stony bank;* *Salicornia and other annuals colonizing mud and sand;* *Atlantic salt meadows (Glauco-Puccinellietalia maritimae);* *Mediterranean salt meadows (Juncetalia maritime);* *Embryonic shifting dunes;* *Shifting dunes along the shoreline with Ammophila arenaria (white dunes);* *Fixed coastal dunes with herbaceous vegetation (grey dunes).* ***Clonakilty Bay SPA:*** ***Site is selected for:*** *Black-tailed Godwit* ***Additional Special Conservation Interests:*** *Shelduck* *Dunlin* *Curlew* *Wetland & Waterbirds* ***Courtmacsherry Estuary SPA:*** *Golden Plover* *Black-tailed Godwit* *Curlew* *Common Gull*

	Additionsl Special Conservation Interests for this site *Great Northern Diver* *Shelduck* *Wigeon* *Red-breasted Merganser* *Lapwing* *Dunlin* *Bar-tailed Godwit* *Black-headed Gull*

Description of the project

Removal of approx. 10,000 tonnes pa wet weight of sea lettuce from each of the above beaches - June to Sept involving estimated 15 removal events from Harbour View, 20 removal events from Inchydoney, 15 removal events from Coolmain and 9 removal events from Garretstown. (see report for more detail)

Description of the Natura 2000 site

See section 3.4 Habitats Directive Assessment Report for descriptions of each site (attached).

Identify potential adverse impacts of the plan on the Natura 2000 site

The removal of sea lettuce will not give rise to adverse impacts on the Special Protection Areas as it is occurring at a time when few birds are expected to be utilising these areas.

A number of potentially adverse impacts have been identified which could affect habitats for which the Special Areas of Conservation have been designated. These are;

- *Removal of sand resulting in the destabalisation of two habitats for which the Special Areas of Conservation are designated – Annual vegetation of drift lines and Embryonic shifting dunes.*
- *Incidental removal of the seed source for these two same habitat types.*
- *Damage to a range of shoreline habitats arising during vehicles accessing the beaches.*

Describe how these impacts will be avoided

The following mitigation meaures have been agreed and will be implemented:

- Monitoring of all sites by an ecologist will be carried out prior to each removal episode to identify the location of priority habitat relative to the location of sea lettuce for the purpose of instructing contractors where they can work (it is estimated that there will be 49 removal episodes pa over the four sites).
- Contractors will be briefed prior to removal of sea lettuce to agree access routes and to inform them of areas to be avoided etc.
- The amount of sand to be removed will be minimised by establishing a maximum ratio of sand to sea lettuce per load which shall be subject to spot checking. The contract shall be designed disincentivise the removal of sand;
- Annual monitoring of the extent of two annexed habitats at each site will be carried out to determine whether there is any change in the extent or quality of these habitats during the period that sea lettuce is to be removed. Two other locations will

be identified where baseline monitoring will be carried out. These will be locations which support the same habitats and where sea lettuce also accumulates but where there is no programme of sea lettuce removal.

Set out timescale and identify the mechanisms through which mitigation measures will be secured, implemented and monitored.

- Monitoring of each site will be carried out in advance of each sea lettuce removal episode over the lifetime of this project;
- Briefing of contractors will be carried out prior to the first sea lettuce removal episode to agree access routes, establish the maximum sand to sea lettuce ratio and identify and agree areas where work can take place;
- Spot checks will be carried out to ensure that agreed access routes are being used, that loads are in compliance with the sand to sea lettuce ratio established and to ensure that no work is being carried out on or close to annexed habitats;
- The appropriate assessment report identified that there is a possibility that the seed source for two annexed habitats A baseline monitoring programme will be established whereby a minimum of two other beach sites that support the relevant habitats and where sea lettuce removal is not taking place will be visited in August of each year to measure the extent and quality of annexed habitats; The results of the monitoring

Conclusion of assessment

Based on the assumption that mitigation measures are fully implemented, I am satisfied that there will be no residual impacts on Clonakilty Bay Special Area of Conservation and Courtmacsherry Estuary and that this project can therefore proceed.

Completed By	Sharon Casey, Heritage Officer
Date	15/06/2010

2 Evaluation Of Habitats Directive Assessment Report Prepared In Support Of This Proposed Project.

	Review Criteria	Review Grade	Comments
1 Features of the project or plan			
1.1	The purposes and objectives of the project are fully explained	A	Removal of sea lettuce from each of 4 beaches June-Sept 2010-2012 (10,000 tonnes wet weight pa). Section 3.2 HDA Report.
1.2	Plans, diagrams and maps are provided which clearly identify the location of the proposed project.	A	Figs: 3.1-3.5
1.3	The size, scale, area and land-take/cover of the project are fully explained	B	Projected levels of removal of sea lettuce and numbers of trips required is provided in section 3.2. This may vary between years but is best estimate based on 2009 figures.
1.4	Provides details of the physical changes that will take place during the various stages of implementing the project	A	No significant physical changes within the Natura 2000 sites are anticipated.
1.5	Describes the resources requirements for the construction/operation and decommissioning of the project of plan (including water resources, construction material and human presence).	B	Detailed methodology is included in management protocol which identifies staff and other resource requirements. The level of monitoring by ecologist remains to be determined and will be included in the final draft of the protocol.
1.6	Describes the timescales for the various activities that will take place as a result of implementing the project (including likely start and finish dates).	A	Included in management protocol.
1.7	Describes any wastes arising, or other residues (including quantities), and their means of disposal.	B	The final destination of the sea lettuce is not dealt with in either report, but is being considered in a separate study.
1.8	Identifies any wastes and other residues (including quantities) that may be of particular concern in the context of the Natura 2000 site.	A	The only waste which will be generated arising from the proposed works is Sea Lettuce.

A: the information provided is complete, with no significant omissions, and the conclusions drawn can be reasonably and objectively accepted.
B: the information provided is not complete, but, in the circumstances of the particular case, the conclusions drawn can be reasonably and objectively accepted.
C: the information provided is not complete; there are significant omissions, and it will be necessary to seek clarification on certain issues before the conclusions drawn can be reasobaly and objectively accepted.
D: the information provided is wholly inadequate and there can be no confidence in the conclusions drawn from the evidence.

	Review Criteria	Review Grade	Comments
1.9	Describes any additional services required to implement the project or plan (including pipelines, overhead electricity lines, etc., their location and means of construction)	n/a	No additional service requirements are anticipated. This question is not applicable.
Overall grade, section 1 : A			
2 Cumulative effects			
2.1	Identifies all projects or plans that may, in combination with the proposed project or plan, give rise to adverse effects on the Natura 2000 site.	A	Both the County Development Plan and the Clonakilty Town Plan were examined to identify policies or objectives which might cause in combination impacts. None were identified. No planned projects were identified by consultants with steering group made up of Council staff and NPWS which might cause in combination impacts.
2.2	Defines the boundaries used when identifying cumulative effects.		
2.3	Defines the timescales over which cumulative effects have been considered.		
2.4	Identifies the potential cumulative pathways.		
Overall grade, section 2: A			
3 Description of the Natura 2000 site			
3.1	Describe the site in terms of its physical area, habitat types, presence of key species, etc.	A	All of the relevant Natura 2000 sites, their qualifying interests (section 3.4) and conservation objectives (section 4.2) are fully described. These are Clonakilty Bay SAC, Clonakilty Bay SPA, Courtmacsherry Estuary SAC and Courtmacsherry Estuary proposed SPA. Habitats and species at most potential for impact are also identified. These are annual vegetation of drift lines, embryonic shifting dunes in both SACs.
3.2	Sets out in full the conservation objectives of the site including the factors that contribute to the conservation value of the site.		
3.3	Explains any planned or contemplated nature conservation initiatives likely to affect the site in the future.	B	Strategies proposed in Clonakilty Bay SAC draft management plan are contained in report (section 4.2.1.1). There are no draft plans for any of the other Natura 2000

	Review Criteria	Review Grade	Comments
			sites. It is unclear whether active management of this site by NPWS or others on their behalf is underway.
3.4	Explains the existing baseline conditions – including species and habitat dynamics and ecology (including seasonal fluctuations), the physical and chemical composition and the key structural and functional relationships that maintain the sites integrity	B	Summary descriptions of each of the Natura 2000 sites are provided including brief indication of the condition status of these sites and the principle threats that have been identified which could impact on these. In the context of the scale of the proposed work, I consider that sufficient information has been provided (section 3.4).
3.5	Provides details of the value of the site to the Natura 2000 network.		
3.6	Provides an indication of how the baseline conditions of the site will change in the future in the absence of the project or plan.	B	Some information is provided in relation to the likely ecological consequences of allowing sea lettuce to accumulate on each of the beaches. There is potential for some positive benefit for birds by way of providing a food source. There is also a possibility that accumulations of sea lettuce may be depriving the drift line of seeds that are caught up in same.
3.7	Describes the methodologies use to gather information on the baseline conditions of the site	A	Information has been collated from existing files on each of these sites held by NPWS. The NPWS participated on Steering Group that directed the development of this Habitats Directive Report.
3.8	Identifies the organisations consulted to gather information on the baseline conditions of the site		
Overall grade, section 3: B			
4 Screening			
4.1	Where no significant impacts are predicted on the Natura 2000 site, a finding of no	A	A finding of no significant impacts has been made

	Review Criteria	Review Grade	Comments
	significant impacts statement is provided which clearly sets out why this conclusion has been drawn and provides evidence that the relevant nature conservation agencies and authorities are in agreement with this finding.		in relation to Clonakilty Bay SPA and to Courtmacsherry SAC. The findings have been agreed with the National Parks and Wildlife Service. I consider these findings to be acceptable. No further assessment has been provided in relation to these sites.
4.2	Where likely significant impacts are identified, these are clearly explained and where possible quantified	A	Potential impacts on Clonakilty Bay SAC and Courtmacsherry SAC have been identified and a more detailed assessment of these potential impacts is provided in the second part of the Habtiats Directive Report (see below)
4.3	Evidence is provided of the assessment methodologies used in the screening process	A	Data used to make assessment included NPWS site synopses, natura 2000 site forms, field survey and IWeBs Data.
4.4	There is clear evidence in the documentation that sufficient account and assessment have been taken of the possibility of cumulative impacts from other projects or plans	A	Both the County Development Plan and the Clonakilty Town Plan were examined to identify policies or objectives which might cause in combination impacts. None were identified. No planned projects were identified by consultants with steering group made up of Council staff and NPWS which might cause in combination impacts. I am in agreement with the findings of the consultants.
Overall grade, section 4: A			
5 Appropriate Assessment			
5.1	The methods of assessment and prediction	B	The report finds that loss

	Review Criteria	Review Grade	Comments
	are clearly explained and the sources of information are provided and fully justified		of or damage to Annex I habitats would be a negative impact and would be contradictory to the stated conservation objectives of the draft conservation plan for Clonakilty Bay SAC. No analysis of the significance of impacts on either site in relation to the structure and functions of the site, the loss or area, or the disruption or fragmentation of the site is provided. As the consultants recommend strategies which will avoid any such loss or damage, I consider that the level of assessment which has been completed is adequate.
5.2	The effects of the project on the conservation objectives of the site are explained in full		
5.3	The impact of the project on the defining structure and functions of the site are explained in full		
5.4	Any loss of area of the site, or reduction in species population, is quantified and assessed in terms of its impact upon the conservation objectives of the site and its impact on key habitats and species		
5.5	Likely impacts on the site due to disturbance, disruption, fragmentation and chemical changes, etc. are fully assessed and explained		
Overall grade, section 5: B			
6.1	The competent authority has identified appropriate mitigation measures and these have been assessed in terms of their likely impacts	B	Mitigation measures are designed to avoid impacts on the Natura 2000 sites in question and focus primarily on avoidance of works on Annexed habitats. There is some uncertainty as to whether the removal of sea lettuce might also result in the removal of plant seed which contributes to the maintenance of annexed habitats. It is believed however that the loss of seed during sea lettuce sand removal will be likely to be offset by the fact that the sea lettuce itself may be preventing the replenishment of seed to these habitats from marine sources. In order to investigate this further, a monitoring programme
6.2	There is clear evidence that the mitigation measures have been assessed against the mitigation hierarchy (with the avoidance of adverse impact on the site being the preferred outcome)		
6.3	There is clear evidence that the the mitigation measures have the support of the relvant nature conservation agencies		
6.4	There is clear evidence that the mitigation measures can be secured over the short, medium and long term through legal or financial mechanisms		

	Review Criteria	Review Grade	Comments
			has been devised to establish whether the removal of sea lettuce is impacting on the development or maintenance of annexed habitats on these beaches.
Overall grade, section 6: B			
Overall review grade for the Article 6 assessments of the case			
1	Features of the project	A	
2	Cumulative effects	A	
3	Description of the Natura 2000 site	B	
4	Screening	A	
5	Appropriate Assessment	B	
6	Mitigation	B	

Overall grade for the assessment A
Conclusion: I am satisfied with the findings of report that subject to mitigation measures included, there will be no impact on the Clonakilty Bay Special Area of Conservation or on Courtmachserry Estuary Special Area of Conservation arising from these works.

Appendix I: Removal of Sea Lettuce West Cork, Habitats Directive Assessment Report