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Environmental Licensing Programme

Office of Climate, Licensing & Resource Use

Environmental Protection Agency

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01st October 2014

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RE: Knightstown Waste Water Discharge Licence Application D0421-01

Dear Loretta Joyce,

In response to the Regulation 18(3)(b) request for further information notice dated the 29th of July 2014, please find attached the Appropriate Assessment (Natura Impact Statement) Report for Knightstown agglomeration as requested.

Best Regards,

Gerry Galvin

Chief Technical Advisor

Habitats Directive Assessment – Natura Impact Statement

For the proposed Waste Water Discharge License in respect of the Knightstown agglomeration, which discharges into Valencia Harbour/Portmagee Channel SAC

IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 6
OF THE
EU HABITATS DIRECTIVE 92/43/EEC



Environmental Assessment Unit, Planning Department, Kerry County Council September 2014

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1. Introduction

Introduction

An Appropriate Assessment screening report was prepared in 2010 with respect of the Portmagee, Knightstown and Cahersiveen Agglomerations. The findings were generally supported by the subsequent NPWS (2012) conservation objective report prepared for the Portmagee Channel and Valencia Harbour SAC, which outlined that the annex I habitats listed for protection in the SAC were achieving 'favourable conservation status'. Notwithstanding this, it is noted that the receiving waters of Portmagee Channel and Valencia Harbour have now been classified as 'intermediate', and the discharges, in-combination with other sources, are potentially impacting on the status of this waterbody.

Having regard to the above and to the sensitivities in the area, the EPA as competent Authority have determined that the proposal should proceed to Stage II Natura Impact Statement stage. This Natura Impact Statement will consider whether the discharges from the Knightstown agglomeration, alone or in combination with other projects or plans, will have adverse effects on the integrity of a Natura 2000 site, and will include any mitigation measures necessary to avoid, reduce or offset negative effects.

For the purposes of this report, the project under consideration therefore refers to the 'proposed waste water discharge license for the Knightstown Agglomeration' but will take into consideration the potential for potential 'accumulative' and 'in combination' with other WwTPs, developments and activities in the area. It is noted that the Knightstown WwTP has recently been upgraded and therefore this report assesses discharges from the upgraded WwTP. Potential for impact on other Natura 2000 sites is summarised in Appendix A of this report, while other plans and projects in the area and which were taken into consideration as part of cumulative impact assessment are listed in Appendix B.

2. Stage 2 Appropriate Assessment

Describe the elements of the project that are likely to give rise to significant effects on the site

Consent of copylight owner required for any other thee.

Describe the elements of the project that are likely to give rise to significant effects on the site

Waste water treatment plant (WwTP) discharges can contribute nutrient and organic loading (nitrogen and phosphorous) to waterbodies, which in turn can impact on ecological habitats and communities. There is potential that the discharges from the WwTP are reducing the quality of the waters, habitat and communities within the Valencia Harbour / Portmagee Channel SAC given that the outfall is located within this cSAC. The WwTP discharges to qualifying habitat associated within the SAC (Large shallow inlets and bays), while other qualifying habitats are located in the wider area (Reefs, Mudflats and sandflats not covered by seawater at low tide). The NPWS (2012) conservation objective report for the SAC has identified a number of community types associated with 'large shallow inlets and bays' habitat which are located in proximity to the agglomeration and its outfalls. No qualifying species are listed for protection in the SAC.

Agglomeration population

The population of the Knightstown settlement on the night of the last census (April 2011) was 215 individuals. It is noted that of the 285 permanent dwellings in the settlement only 28% were occupied on census night, which reflects the important tourist function of the settlement. It is also noted that the census settlement boundaries extend beyond those of the WwTP catchment as 16% of the occupied households stated that they were connected to individual WwTPs and not to the public scheme. Refer to Appendix C for further details.

Primary Treatment Plant Design

Treatment Design Capacity 800

Secondary Treatment Plant Design

The WwTP in Knightstown is a Sequential Batch Reactor Technology (SBR) WwTP and incorporates the following equipment:

- Diffused Aeration System
- Duty/Standby Forward Feed Pumps
- Ultrasonic level measurement
- Dissolved oxygen measurement
- Automatic Decant System
- Duty/Standby WAS Pumps
- Dedicated Sludge Holding Tanks

Hydraulic Load = 500 P.E x 200l/h/day Organic Load = 500 P.E x 60 g BOD/p/day

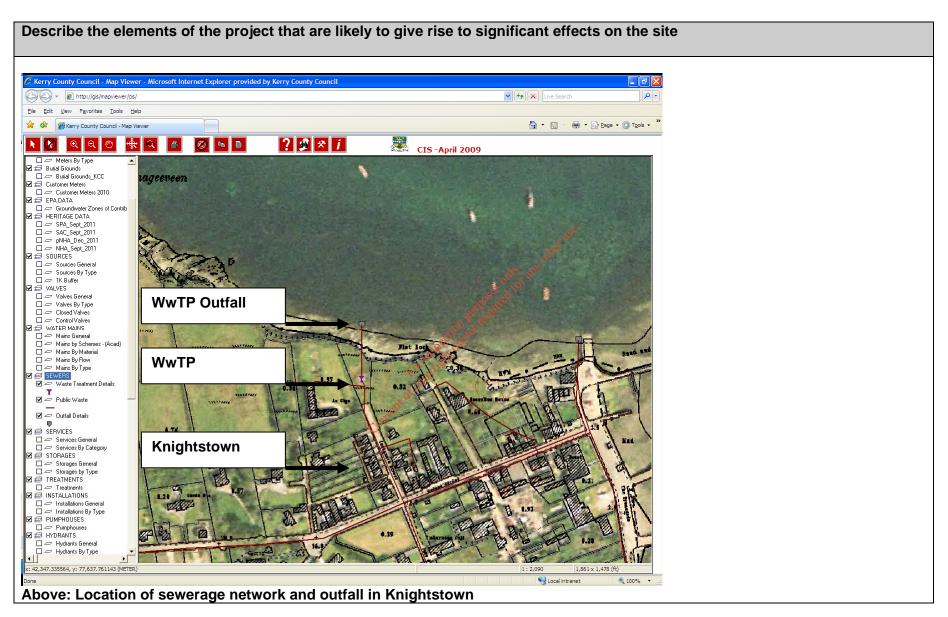
Total PE = 500

Quality of effluent required

20 mg/l BOD, 30 mg/l SS, 15 mg/l TN

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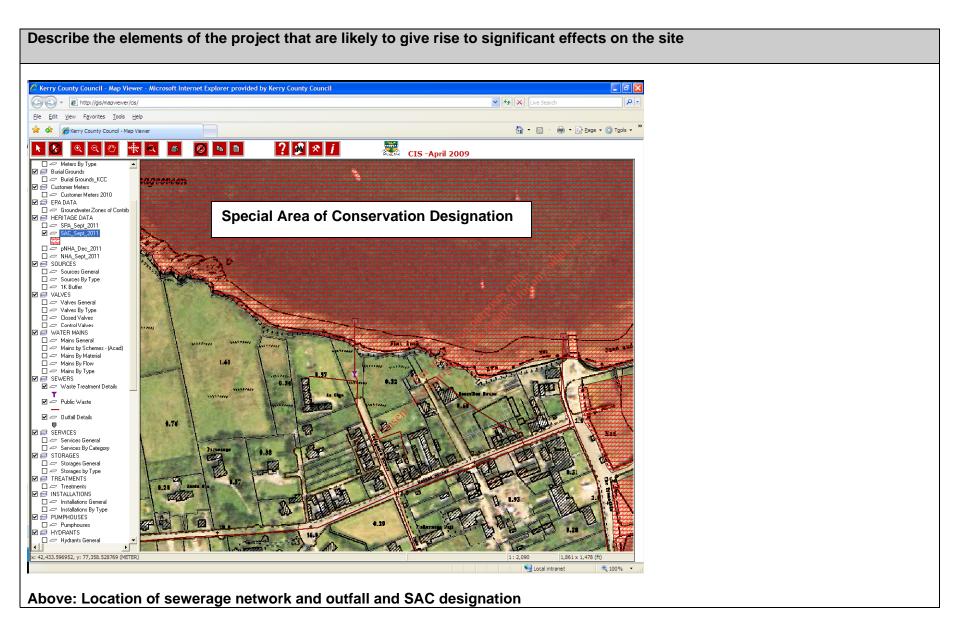


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PLANNING DEPT

KERRY COUNTY COUNCIL

SEPTEMBER 2014



2.2 Set out the conservation objectives of the site

European and national legislation places a collective obligation on Ireland and its citizens to maintain at favourable conservation status areas designated as candidate Special Areas of Conservation. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

According to the EU Habitats Directive, favourable conservation status of a habitat is achieved when its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future.

The overall objective for the site is to maintain the favourable conservation condition of the Annex I habitat(s) for which the SAC has been Mudflats and sandflats not covered by seawater at low tide [1140] and hard like the large shallow inlets and bays [1160]
Reefs [1170] selected, which are:

These habitats are listed in the S3.3 of this report, along with any theoretical impact. No qualifying species are listed for protection in the SAC.

Specific conservation objectives for the features of interest for the Valencia Harbour / Portmagee Channel SAC were published by the NPWS in October 2012 and are available online at www.NPWS.ie.

Those conservation objectives were supported by a further document published by the NPWS in August 2012 entitled Valencia Harbour/Portmagee Channel SAC (site code: 2262) Conservation objectives supporting document - marine habitats. That document outlined that 'significant anthropogenic disturbance may occur with such intensity and/or frequency as to effectively represent a continuous or ongoing source of disturbance over time and space (e.g. effluent discharge within a given area). Drawing from the principle outlined in the European Commission's Article 17 reporting framework that disturbance of greater than 25% of the area of an Annex I habitat represents unfavourable conservation status, this Department takes the view that licensing of activities likely to cause continuous disturbance of each community type should not exceed an approximate area of 15%. Thereafter, an increasingly cautious approach is advocated'. This has been taken into account as part of this assessment.

2.3 Status of key habitats and species of	interest and potential for t	heoretical impact	
Features of Interest	Overall objective	Potential for theoretical impact	
Mudflats and sandflats not covered by seawater at low tide	·	The coastal waters at this location are currently classified as 'intermediate'. Such a status refers to waterbodies which do not talk into the Eutrophic or Potentially Eutrophic classifications but in	

2.2 Set out the conservation objectives of the site

2.2 Set out the conservation objectives of	f the site	
		the complexity of the linkages between the causes and the responses of waterbodies to eutrophication.
		More specifically, eutrophication (should it occur) may lead to a reduction in invertebrate species diversity within the Mudflat and Sandflat habitat, with a consequential increase in the numbers of high-nutrient specialist species. As agglomeration discharges contribute to nutrient loading within the waterbody a theoretical potential for impact on this habitat type is possible.
Large shallow inlets and bays	To maintain the favourable conservation condition Earling action the favourable conservation condition	The coastal waters at this location are currently classified as 'intermediate'. Such a status refers to waterbodies which do not fall into the Eutrophic or Potentially Eutrophic classifications but in which breaches of one or two of the following criteria occur: enrichment by the stated nutrients, accelerated growth of algae and higher forms of plants, undesirable disturbance to the balance of organisms present and to the quality of the water concerned as indicated by measurement of oxygen status)
	Consent	The key ecological relationships that define the structure and function of this habitat could potentially be impacted by nutrient enrichment by way of eutrophication and altered trophic status within the overall waterbody. The directive on urban waste water treatment defines eutrophication thus: 'Eutrophication' means the enrichment of water by nutrients, especially compounds of nitrogen and/or phosphorus, causing an accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned. This definition recognises the complexity of the linkages between the causes and the

2.2 Set out the conservation objectives o	f the site	
		responses of waterbodies to eutrophication. More specifically, eutrophication (should it occur) may lead to a reduction in species diversity within this habitat type with a consequential increase in the numbers of high-nutrient specialist species. As agglomeration discharges contribute to nutrient loading within the waterbody a theoretical potential for impact on this habitat type is possible.
Reefs	To <u>maintain</u> the favourable conservation condition	The coastal waters at this location are currently classified as 'intermediate'. Such a status refers to waterbodies which do not fall into the Eutrophic or Potentially Eutrophic classifications but in which breaches of one or two of the following criteria occur: • enrichment by the stated nutrients,
	Consent of conviring to the red	 accelerated growth of algae and higher forms of plants, undesirable disturbance to the balance of organisms present and to the quality of the water concerned as indicated by measurement of oxygen status) The key ecological relationships that define the structure and function of this habitat could potentially be impacted by nutrient enrichment by way of eutrophication and altered trophic status within the overall waterbody. The directive on urban waste water treatment defines eutrophication thus: 'Eutrophication' means the
		enrichment of water by nutrients, especially compounds of nitrogen and/or phosphorus, causing an accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned. This definition recognises

2.2 Set out the conservation objectives of the site			
	the complexity of the linkages between the causes and the responses of waterbodies to eutrophication.		
	More specifically, eutrophication (should it occur) may lead to an increase in ephemeral species such as the green seaweed <i>Ulva</i> and <i>Enteromorpha sp, which</i> could potentially reduce the depth to which kelp and other foliose and filamentous algae grow. As agglomeration discharges contribute to nutrient loading within the waterbody a theoretical potential for impact on this habitat type is possible.		

2.3 Describe how the project will affect key species and key habitats

This section of the report describes how the project is likely to impact on the status of qualifying Valencia Harbour and Portmagee Channel habitats for which a theoretical impact has been identified

Mudflats and sandflats not covered by seawater at low tide

The following extract is taken from the European Commission's Interpretation Manual of European Union Habitats published in April 2013.

'Sands and muds of the coast of the ceans, their connected seas and associated lagoons, not covered by sea water at low tide, devoid of vascular plans, usually coated by blue algae and diatoms. They are of particular importance as feeding grounds for wildfowl and waders. The diverse intertidal communities of invertebrates and algae that occupy them can be used to define subdivisions... The habitat is described as being the Annex I habitat 'mudflats and sandflats not covered by seawater at low tide (1140)'.

On a National Level, 'pollution to surface waters' has been ranked to be of 'high importance' under main pressures and threats to this habitat type (The status of EU protected habitats and species in Ireland 2013, Habitats Assessments V.2 NPWS, DAH&G). It is noted that the mudflats and sandflats contained in the SAC are not designated as an SPA for waders and wildfowl in this instance.

2.3 Describe how the project will affect key species and key habitats This section of the report describes how the project is likely to impact on the status of qualifying Valencia Harbour and Portmagee Channel habitats for which a theoretical impact has been identified www.npws.ie/media/CO002 × ← → C www.npws.ie/media/CO002262.pdf Knightstown Legend 1140 Mudflats and sandflats not covered by sea water at low tide OSi Discovery Series County Boundary Ν SITE CODE: Above: location of Mudflat and sandflats not covered by the sea water at low tide (NPWS 2012)

2.3 Describe how the project will affect key species and key habitats

This section of the report describes how the project is likely to impact on the status of qualifying Valencia Harbour and Portmagee Channel habitats for which a theoretical impact has been identified

As can be seen from the mudflat and sandflat map attached above, this habitat type is not located in the immediate vicinity of the Knightstown agglomeration. It is further noted that this habitat type was determined to be in favourable conservation condition in 2012. Subsequent to this, the Knightstown WwTP has been upgraded with the provision of secondary treatment facilities which is likely to result in reduced nutrient loading within the waterbody which would impact positively on this habitat type.

Having regard to the above, and taking into account the current 'intermediate' status of the coastal waters at this location, it is considered that this project is not one which is likely to have a significant impact on the conservation status of this habitat type within the SAC. The coastal waters at this location have not been determined to be 'eutrophic' and the recent upgrading of the Knightstown WwYP has reduced the likelihood of such a change in trophic status within the waterbody occurring.

Large shallow inlets and bays

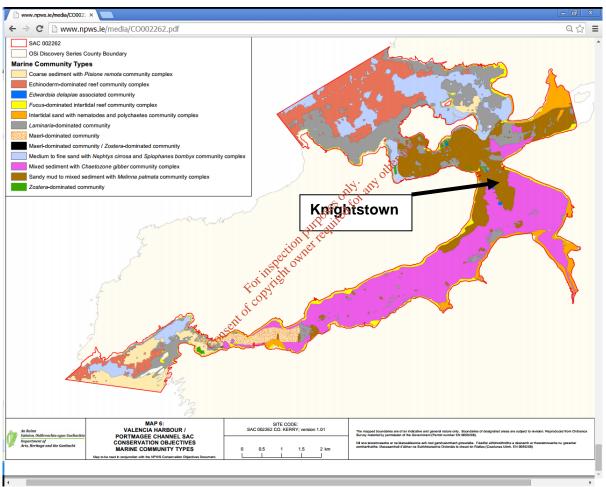
These are large indentations of the coast where incontrast to estuaries, the influence of freshwater is generally limited. These shallow indentations are generally sheltered from wave action and contain a great diversity of sediments and substrates with a well developed conation of benthic communities. These communities have generally a high biodiversity. The limit of shallow water is sometimes defined by the distribution of the Zostereten and Potometeci associations. Several physicographic types may be included under this category providing the water is shallow over a major part of the area.

Communities in the vicinity of the Knightstown agglomeration include:

- Sandy mud to mixed sediment with *Melinna palmata* community complex. This is an extensive community within the SAC with an indicative estimated area of 359Ha. This proposal will not adversely impact on its favourable conservation status.
- Zostera-dominated community. This is indicatively estimated to be approx 6Ha in the SAC and is the most sensitive community in the vicinity of the agglomeration.
- Fucus-dominated intertidal reef community complex. This is an extensive community within the SAC with an
 indicative estimated area of 127Ha. This proposal will not adversely impact on its favourable conservation
 status.
- Laminaria-dominated community. This is an extensive community within the SAC with an indicative estimated area of 451Ha. This proposal will not adversely impact on its favourable conservation status.

2.3 Describe how the project will affect key species and key habitats

This section of the report describes how the project is likely to impact on the status of qualifying Valencia Harbour and Portmagee Channel habitats for which a theoretical impact has been identified



Above: Marine Community Types in the Valencia Harbour / Portmagee Channel SAC as identified in the NPWS (2012) Conservation Objective report for the SAC

2.3 Describe how the project will affect key species and key habitats This section of the report describes how the project is likely to impact on the status of qualifying Valencia Harbour and Portmagee Channel habitats for which a theoretical impact has been identified × y www.npws.ie/media/CO002 ← → C www.npws.ie/media/CO002262.pdf @☆ ≡ Knightstown

Above: Marine Community Types in the Valencia Harbour / Portmagee Channel SAC as identified in the

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This section of the report describes how the project is likely to impact on the status of qualifying Valencia Harbour and Portmagee Channel habitats for which a theoretical impact has been identified

NPWS (2012) Conservation Objective report for the SAC

It is noted that on a National Level, 'pollution to surface waters' has been ranked to be of 'low importance' as a main pressure and threat to this habitat type (The status of EU protected habitats and species in Ireland 2013, Habitats Assessments V.2 NPWS, DAH&G). It is further noted that the NPWS (2012) conservation objective supporting document has outlined that the habitats are achieving favourable conservation status.

Target 4 for the SAC as set out in the NPWS (2012) conservation objective supporting document, is outlined as follows:-

Target 4 Conserve the high quality of Zostera-dominated community, subject to natural processes.

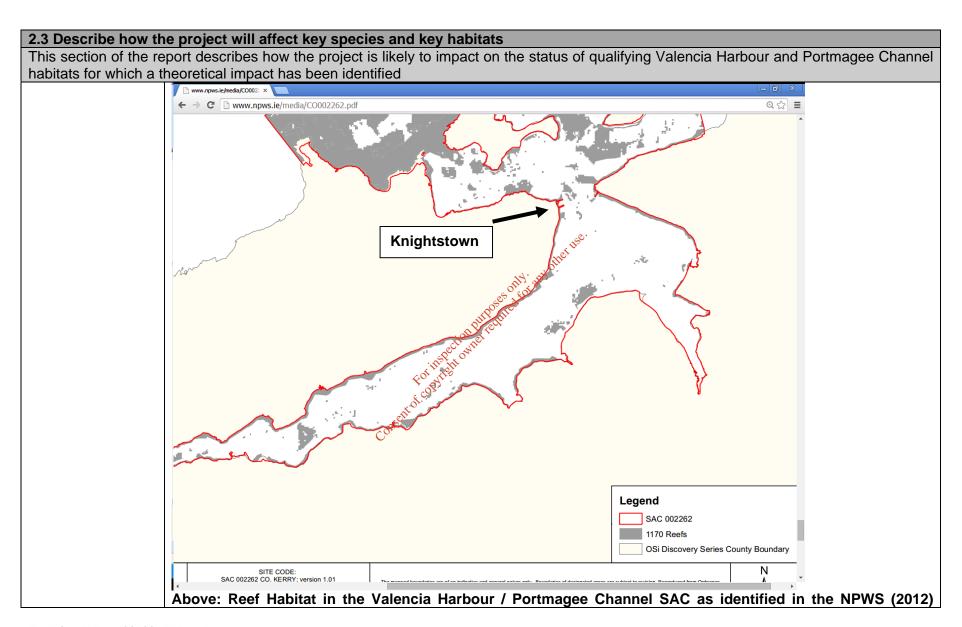
- It is important to ensure the quality as well as the extent of the Zostera-dominated community is conserved. For example, shoot density can provide an indication of the habitat quality as well as giving information on the habitat complexity and refuge capability; all important components in maintaining the structural and functional integrity of the habitat.
- Within this SAC, the density of Zostera in 2007 was estimated to range from abundant (12 individuals m-2) to
 occasional (2 to 5 individuals m-2) on the AFOR scale (semi-quantitative abundance measure).
- Any significant anthropogenic disturbance to the quality (i.e. shoot density) of this community should be avoided.

Many factors influence the growth and distribution of seagrasses such as Zoostera. These include sufficient light, nutrients and inorganic carbon which are basic needs for photosynthesis, but also a suitable substratum, moderate exposure, temperature and various biological factors affect distribution (Greve and Binzer 2004).

The NPWS conservation objective reports have outlined that a high quality zostera-dominated community is located offshore from the Knightstown agglomeration. This suggests that discharges from the agglomeration have not significantly adversely impacted on that community. Recent upgrade works to the WwTP facilities at Knightstown, which will reduce nutrient input to the coastal waters would not be likely to impact negatively on this community type as nutrient requirements are lower than for other aquatic organisms such as macro algae and phytoplanktonas and growth is seldom limited by nutrients (Greve and Binzer 2004).

Having regard to the above, and taking into account the current 'intermediate' status of the coastal waters at this

2.3 Describe how t	he project will affect key species and key habitats
	eport describes how the project is likely to impact on the status of qualifying Valencia Harbour and Portmagee Channel
habitats for which a	theoretical impact has been identified
	location, it is considered that this project is not one which is likely to have a significant impact on the conservation
	status of this habitat type within the SAC.
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This section of the report describes how the project is likely to impact on the status of qualifying Valencia Harbour and Portmagee Channel habitats for which a theoretical impact has been identified

Conservation Objective report for the SAC

Reefs may have a rocky substrate (non-biogenic reefs) or be constructed by animals (biogenic reefs). They are hard compact substrata on solid and soft bottoms, which arise from the sea floor in the sublittoral and littoral zone. Reefs may support a zonation of benthic communities of algae and animal species as well as concretions and corallogenic concretions.

On a National Level, 'pollution to surface waters' has been ranked to be of 'medium importance' under main pressures and threats to this habitat type (The status of EU protected habitats and species in Ireland 2013, Habitats Assessments V.2 NPWS, DAH&G).

The reef communities in the vicinity of the WwTP are fron-biogenic reefs and have been classified as being dominated by *Fucus* and *Laminaria* Spp. It is noted that the reef communities in the SAC were reported to be achieving favourable conservation status within the SAC in 2012. Subsequent upgrade works to the WwTP facilities at Knightstown would impact positively on this habitat type and reduce the likelihood of eutrophication occurring within the waterbody.

Having regard to the above, and taking into account the current 'intermediate' status of the coastal waters at this location, it is considered that this project is not one which is likely to have a significant impact on the conservation status of this habitat type within the SAC.

2.4 Describe how the integrity of the site (determined by structure and function and conservation objectives) is likely to be affected by the project or plan (e.g. loss of habitat, disturbance, disruption, chemical changes, hydrological changes etc)

Key ecological relationships that define the structure and function of the Valencia Harbour and Portmagee Harbour SAC and which could potentially be impacted by a proposal of this nature relate to water quality and the potential for nutrient enrichment. Testing / monitoring results available suggest that there is no recent deterioration in water quality associated with the discharges. The overall nature conservation objective as set out in the conservation objective report for the Natura 2000 site is to maintain the favourable conservation condition of the key habitats (NPWS 2012) - suggesting that the overall ecological integrity is not being adversely impacted. Recent upgrade works to the WwTP infrastructure within the Knightstown agglomeration are likely to impact positively on the ecological integrity of the SAC and overall waterbody by way of reduced nutrient input and improved water quality.

2.5 Describe mitigation measures that are to be introduced to avoid, reduce or remedy the adverse effects on the integrity of the site

Based on the above, and in particular having regard to the recent upgrade works carried out to the Knightstown WwTP infrastructure, it is considered that adverse effects on the integrity of Natura 2000 sites (inc Valencia Harbour and Portmagee Harbour SAC) are not occurring and are not likely to occur either from the Knightstown Agglomeration discharges or in combination with other projects or plans.

Therefore, it is considered that mitigation measures, other than continuing monitoring of the effluent quality of the WwTP discharges are not required at this stage.

3. Conclusions

It is considered that this project (wastewater discharge licenses for the Knightstown Agglomeration, Co Kerry) is one which is <u>not</u> likely to adversely impact on the ecological integrity of Natura 2000 sites, either by itself or in combination with other plans or projects.

Actg. E Planner and Ecologist Environmental Assessment Unit,

Planning Department, Kerry County Council

Date: 15/09/2014

For inspection

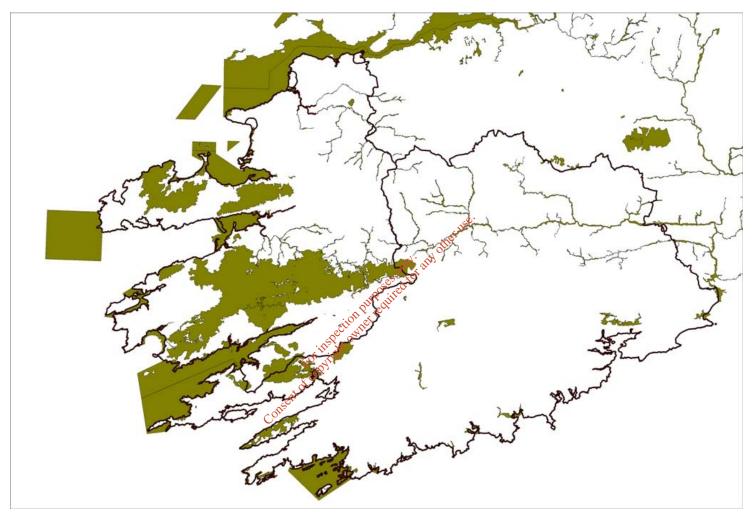
Appendix A: Consideration of in-situ and ex-situ Natura 2000 Sites

DEHLG guidance recommends that, at a minimum, Natura 2000 sites located within 15km of proposed project should be considered. In this section of the report the information available on Natura 2000 sites within or immediately adjoining the project area in situ and ex situ are mapped and tabulated, as appropriate, and this information was used in carrying out the overall screening report.

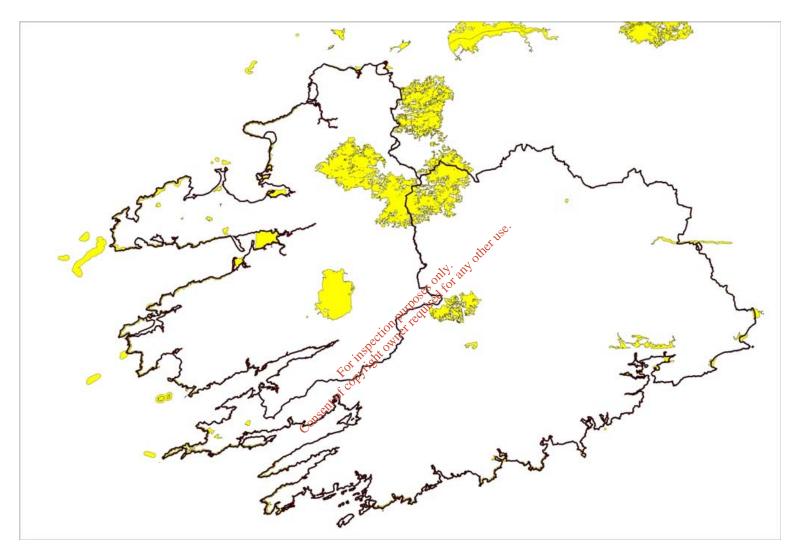
The following sites, the majority of which are ex-situ sites, were identified as being located within 15km of the proposed project(s).

- SAC 000335 Ballinskelligs Bay & Inny Estuary
- SAC 000365 Killarney National Park, Macgillycuddy'S Reeks & Caragh River Catchment
- SAC 002262 Valencia Harbour/Portmagee Channel
- SPA 004003 Puffin Island
- SPA 004007 Skelligs
- SPA 004154 Iveragh Peninsula

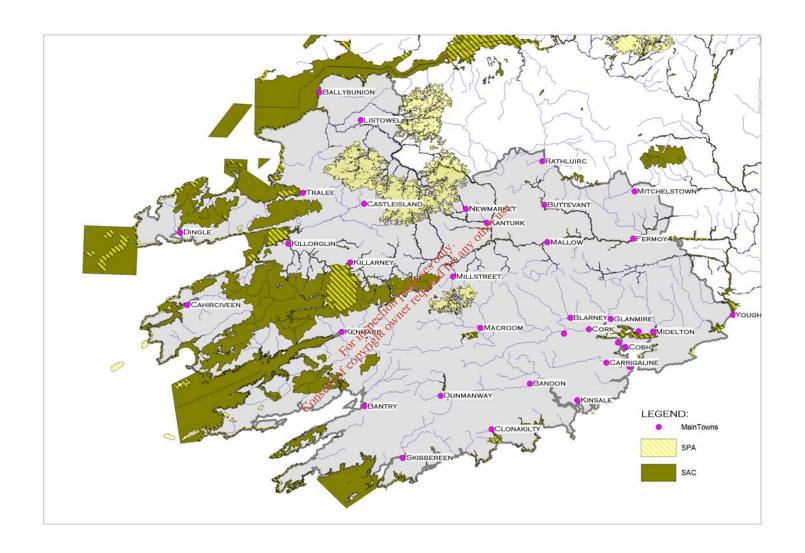
The following maps show the Natura 2000 sites located in the South West Region. Information, detailed conservation objectives, data and maps of these and other Irish Natura 2000 sites, are available on the NPWS website at http://www.npws.ie



Special Areas of Conservation within or adjoining the South West Region (SAC and cSAC)



Special Protected Areas within or adjoining the South West Region (SPAs and pSPAs)



Location of Natura 2000 sites in relation to the Region's Main Towns and Watercourses

Natura 2000 sites, the reasons for their designation, (draft) conservation objectives and the environmental conditions considered necessary to support their site integrity

Name of Site	Reason for designation	Environmental conditions necessary to support	Reasons for screening out of Natura
		site integrity	2000 site, where relevant
	ARE LOCATED WITHIN THE PLAN AREA OR WHICH AR		
SACs / cSACs WHICI SAC 000335 - Ballinskelligs Bay & Inny Estuary	This site is of considerable conservation significance particularly for the presence of 2 types of salt marsh Atlantic salt meadows (Glauco-Puccinellietaliamaritimae); Mediterranean salt meadows (Juncetalia maritime) The site also contains a population of the rare liverwort species Petalophyllum ralfsii — a species located on sand dunes within the site and that is listed on Annex II. Nationally important populations of common Scoter and Ring Plover are also present. Conservation Objectives 1. To maintain the Annex I habitats for which the cSAC has been selected atfavourable conservation status: Atlantic salt meadows (Glauco-Puccinellietaliamaritimae); Mediterranean salt meadows (Juncetalia maritimi) 2. To maintain the Annex II species for which the cSAC has been selected atfavourable conservation status: Petalophyllum ralfsii. 3. To maintain the extent, species richness and biodiversity of the entire site. 4. To establish effective liaison and co-operation with landowners, legal users andrelevant authorities.	Habitat Management (control of drainage, grazing / mowing, burning, fertiliser / lime input, reseeding, fishing, dumping, killing / removal of significant biological material, pesticide use etc) No significant erosion / trampling / accretion associated with human impacts (fires, livestock grazing, motorised vehicles, recreational activities etc). No change in land use which would result in significant habitat loss or fragmentation (human activities such as land improvement / reclamation, development, track / roadway provision etc) Limited disturbance (light, noise, human activity including recreational pressure, bait digging etc) Adequate quality water The control of introduced or invasive species (bracken etc) Limited dredging activities No physical barriers to significantly restrict movement of	There are no connecting pathways between the discharge location (source) and the Natura 2000 site (receptor). Therefore no impacts are anticipated or considered to be likely at this site as a result of the on-going discharges at Knightstown.
SAC 000365 -	The site is of great ecological interest, with at least	Habitat Management (control of drainage, grazing /	There are no connecting pathways between

Name of Site	Reason for designation	Environmental conditions necessary to support site integrity	Reasons for screening out of Natura 2000 site, where relevant
SACs / cSACs WHICH	I ARE LOCATED WITHIN THE PLAN AREA OR WHICH AR		
SACs / cSACs WHICH Killarney National Park, Macgillycuddy's Reeks & Caragh River Catchment	ten habitats which are listed on Annex I of the EU Habitats Directive. The site is a candidate SAC selected for blanket bog, Yew wood and alluvial woodlands, priority habitats on Annex I of the E.U. Habitats Directive. The site is also selected as a candidate SAC for lowland oligotrophic lakes, upland oligotrophic lakes, floating river vegetation, alpine heath, dry heath, wet heath, Molinia meadows, old Oak woodlands, Rhynchosporion, Calaminarian grassland and Juniper scrub, all habitats listed on Annex I of the E.U. Habitats	mowing, burning, fertiliser / lime input, reseeding, fishing, dumping, tree felling, killing / removal of significant biological material, pesticide use etc) No significant erosion / trampling associated with human impacts (drainage, fires, peat extraction, livestock grazing, motorised vehicles, recreational activities etc). Adequate water supply	the discharge location (source) and the Natura 2000 site (receptor). Therefore no impacts are anticipated or considered to be likely at this site as a result of the on-going discharges at Knightstown.
	Salmon, Brook Lamprey, River Lamprey, Sea Lamprey, Lesser Horseshoe Bat and Otter. Overall, the site is of high ecological value because of the diversity, quality and extensiveness of many of the habitats and impressive list of rare species of flora and fauna. In recognition of its importance the Killarney National Park has been designated a World Biosphere Reserve. Conservation Objectives 1. To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Depressions on peat substrates of the Rhynchosporion; Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia	defocestation, peat extraction, development, track / roadway provision etc) No significant loss of bat roosting sites or of woodland / scrub / hedgerows located in the vicinity of roosting sites Limited disturbance (light, noise, human activity including recreational pressure, camping etc) The control of fish stocking and introduced or invasive species (Rhododendron, Zebra Mussel, bracken etc)	
	uniflorae); Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae	Presence of suitable quiet stretches of river for Otters	

Name of Site	Reason for designation	Environmental conditions necessary to support site integrity	Reasons for screening out of Natura 2000 site, where relevant
SACs / cSACs WHICH	ARE LOCATED WITHIN THE PLAN AREA OR WHICH ARI	EX SITU SITES	
SAOS / CSACS WING	and/or of the Isoëto-Nanojuncetea; Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation; European dry heaths; <i>Juniperus communis</i> formations on heaths or calcareous grasslands; Calaminarian grasslands of the Violetalia calaminariae; <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (Molinion	No artificial barriers significantly impairing adult salmon and lamprey from reaching existing and historical spawning grounds and smolts from reaching the sea No significant aggregate extraction No significant aggregate extraction To interest the property of the pro	
	authorities.		
SAC 002262 - Valencia Harbour / Portmagee Channel	This site is of particularly interest because it contains important examples of three habitats listed on Annex 1 of the EU Habitats Directive mainly: Mudflats and sandflats not covered by seawater at low tide; Large shallow inlets and bays; Reefs.	Habitat Management (control of aquaculture, fishing dumping, killing / removal of significant biological material, pesticide use etc) Adequate water quality (limited sediment input, limited	Potential for adverse impact on this Natura 2000 site was considered in detail within the main body of this report and ruled out beyond reasonable scientific doubt.
	Conservation Objectives	nutrient input etc)	
	Conservation Objectives To maintain the Annex I habitats for which the cSAC has been selected at favourable	No change in land use which would result in significant habitat loss or fragmentation (human activities such as	

Name of Site	Re	eason for designation	Environmental conditions necessary to support	Reasons for screening out of Natura
			site integrity	2000 site, where relevant
SACs / cSACs WHICH	I AR	E LOCATED WITHIN THE PLAN AREA OR WHICH AR	E EX SITU SITES	
		conservation status: Mudflats and sandflats not covered by seawater at low tide; Large shallow	land improvement / reclamation, development etc)	
		inlets and bays; Reefs.	Limited disturbance (light, noise, human activity including	
	2.	To maintain the extent, species richness and biodiversity of the entire site.	recreational pressure, bait digging etc)	
	3.	To establish effective liaison and co-operation with landowners, legal users and relevant	·	
		authorities.	Limited dredging activities	
			No physical barriers to significantly restrict movement of sand and communities associated with mobile substrate	
			No significant change in water clarity and average light attenuation	
			No significant change in temperature and salinity of the water	
			No significant aggregate extraction or dredging activities	

Name of Site	Reason for designation	Environmental conditions necessary to support	Reasons for screening out of Natura	
	_eeti	site integrity	2000 site, where relevant	
SPAs / pSPAs WHICH	I ARE LOCATED WITHIN THE PLAN AREA OR WHICH AR	E EX SITU SITES		
SPA 004003 -	Site is selected for:	Habitat Management (control of aquaculture, grazing,	There are no connecting pathways between	
Puffin Island	Manx Shearwater, Storm Petrel, Razorbill, Puffin,	fishing etc)	the discharge location (source) and the Natura	
	Assemblage of 20,000 waterbirds		2000 site (receptor).	
	_	Adequate water quality		
	Additional Special Conservation Interests:		Therefore no impacts are anticipated or	
	Fulmar, Lesser Black-backed Gull	No significant erosion associated with human impacts	considered to be likely at this site as a result of	
		(livestock grazing, motorised vehicles, recreational	the on-going discharges at Knightstown.	
	Main conservation objective:	activities etc).		
	To maintain the special conservation interests for			
	this SPA at favourable conservation status: Manx	No change in land use which would result in significant		
	Shearwater, Storm Petrel, Razorbill, Puffin,	habitat loss or fragmentation (human activities such as		
	Assemblage of 20,000 waterbirds, Fulmar, Lesser	land improvement / reclamation etc)		

Name of Site	Reason for designation	Environmental conditions necessary to support site integrity	Reasons for screening out of Natura 2000 site, where relevant
SPAs / pSPAs WHICH	ARE LOCATED WITHIN THE PLAN AREA OR WHICH ARI	E EX SITU SITES	
	Black-backed Gull.	Avoidance of disturbance (noise, human activity including recreational pressure etc)	
		The control of introduced or invasive species	
SPA 004007 - Skelligs	Site is selected for: Manx Shearwater, Storm Petrel, Gannet, Puffin, Assemblage of 20,000 waterbirds	Habitat Management (control of aquaculture, grazing, fishing etc) Adequate water quality	No connecting pathways were identified between the discharge location (source) and the Natura 2000 site (receptor).
	Additional Special Conservation Interests: Fulmar, Kittiwake, Guillemot Main conservation objective: To maintain the special conservation interests for this SPA at favourable conservation status: Manx Shearwater, Storm Petrel, Gannet, Puffin, Assemblage of 20,000 waterbirds, Fulmar, Kittiwake, Guillemot.	No significant erosion associated with human impacts (livestock grazing, motorised vehicles, recreational activities etc). No change in fant use which would result in significant habitat loss of tragmentation (human activities such as land improvement / reclamation, afforestation, development, etc) Avoidance of disturbance (noise, human activity including recreational pressure etc)	Therefore no impacts are anticipated or considered to be likely at this site as a result of the on-going discharges at Knightstown.
SPA 004154 - Iveragh Peninsula	Site is selected for: Peregrine, Guillemot, Chough Additional Special Conservation Interests: Fulmar, Kittiwake Main conservation objective: To maintain the special conservation interests for this SPA at favourable conservation status: Peregrine, Guillemot, Chough, Fulmar, Kittiwake.	The control of introduced or invasive species Habitat Management (control of drainage, control of the use of agricultural pesticides, grazing / mowing, burning, fertiliser / lime input, reseeding, aquaculture, fishing etc) No significant erosion associated with human impacts (drainage, fires, livestock grazing, motorised vehicles, recreational activities etc). No change in land use which would result in significant habitat loss or fragmentation (human activities such as land improvement / reclamation, afforestation, development, track / roadway provision, dumping etc)	Chough predominantly feed on soil invertebrates associated with improved pasture, unimproved and grassland and coastal grass type habitats. A 2003 study by Gray et al noted that Kerry held the largest number of birds in the Country (31%) and that the population in Kerry remained fairly stable*. It is noted that the high water mark generally demarcates the boundary of this Natura 2000 site and accordingly, the designated habitat is unlikely to be affected by way of the project. This view is supported by the River Basin Management Plan for the South West which

Name of Site	Reason for designation	Environmental conditions necessary to support site integrity	Reasons for screening out of Natura 2000 site, where relevant
SPAs / pSPAs WHIC	H ARE LOCATED WITHIN THE PLAN AREA OR WHICH AF		
		Limited disturbance (light, noise, human activity including recreational pressure etc)	did not list this Natura 2000 site as a protected area in the South Dingle Bay Water Management Unit.
		The control of introduced or invasive species	* Gray, N., Thomas, G., Trewby, M. and Newton, S.F. (2003) 'The status and distribution of Chough <i>Pyrrhocorax</i> pyrrhocorax in the Republic of Ireland 2002/03. Irish Birds (7) P147-156.
		utlases of M. any other use.	There are therefore no connecting pathways between the discharge location (source) and the Natura 2000 site (receptor). Accordingly no impacts are anticipated or considered to be likely at this site as a result of the on-going discharges at Knightstown.

Appendix B: Description of other strategies, plans, programmes and projects reviewed in order to identify potential 'in-combination' effects on Natura 2000 Sites

In this section of the report, other strategies, plans, programmes and projects are described in order to consider the potential for 'in combination' effects. In this instance, 'in combination' is taken to refer to the cumulative effect of influences acting on sites from all plans and projects in the context of prevailing environmental conditions. Underlying environmental trends such as sea level rises, climate change and increased flood risk have also been taken into account in the potential for significant effects.

Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
The UN Convention on Biological Diversity was a direct result of the	- Afor stry other
Earth Summit in Rio de Janeiro. It came into force in 1993, being ratified	of tar.
by Ireland in 1996. Its objective is the conservation of global biodiversity	od Ko
as well as to ensure equitable access to the world's genetic resourcest	
It requires each party to develop strategies, plans or programmes for the	
conservation and sustainable use of biological diversity and that these	
global, regional and national levels.	
Agenda 21 was the main outcome of the United Nations' Conference on	-
Environment and Development that was held in Rio de Janeiro in 1992.	
That Conference endorsed the concept of sustainable development,	
,	
	The UN Convention on Biological Diversity was a direct result of the Earth Summit in Rio de Janeiro. It came into force in 1993, being ratified by Ireland in 1996. Its objective is the conservation of global biodiversity as well as to ensure equitable access to the world's genetic resources. It requires each party to develop strategies, plans or programmes for the conservation and sustainable use of biological diversity and that these should be integrated into other national initiatives that may have biodiversity implications. Monitoring programmes and appropriate designations for protected areas must be established, while undesirable alien species which threaten ecosystems should be controlled. In April 2002, the Parties to the Convention committed themselves to achieve, by 2010, a significant reduction of the current rate of biodiversity loss at global, regional and national levels. Agenda 21 was the main outcome of the United Nations' Conference on Environment and Development that was held in Rio de Janeiro in 1992.

Strategy/Plan/ Programme/ Project	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
	to promote sustainable development at local and regional level.	
Johannesburg Plan of Implementation	This international policy initiative sets out an action plan for the implementation of the activities adopted at the World Summit on Sustainable Development in 2002. It covers topics such as poverty eradication, changing unsustainable patterns of production and consumption, managing natural resources, sustainable development and other aspects of the implementation of Agenda 21.	To strengthen the commitment to sustainable development from Governments at all levels.
Kyoto Protocol	The Kyoto Protocol is an agreement made under the United Nations' Framework Convention on Climate Change. It was decided in December 1997 and entered into force on 16 February 2005. Its objective is to substantially reduce greenhouse gas emissions as a response to climate change. Developed countries, the so-called Annex I states, have to reduce their greenhouse gas emissions by a collective average of 5% below their 1990 levels. An Annex I country which fails to meet its Kyoto obligation is subject to possible penalties, although the Protocol also makes provision for flexible mechanisms which permit the purchasing of greenhouse gas emission allowances from other states. The National Climate Change Strategy sets out how Ireland is participating in this process.	
The European Integrated Maritime Policy and Action Plan (2007)	The Integrated Maritime Policy Action Plan from 2007 set out a particularly ambitious work programme. It included new working methods, cross-cutting tools and a wide range of specific actions that aimed to benefit the maritime economy, protect marine environment, strengthen research and innovation, foster development in coastal and outermost regions, address international maritime affairs, and raise the visibility of Europe's maritime dimension.	 It is envisaged that the European Integrated Maritime Policy Action Plan will create new economic development opportunities for this region. Strategic policy orientations include: Integration of maritime governance, where permanent structures for cross-sectoral collaboration and stakeholder consultation need to be put in place at European, national and regional levels of government, building on hitherto achievements. Development of cross-cutting policy tools, namely maritime spatial planning, comprehensive marine knowledge and data, and integrated maritime surveillance. These tools can streamline the way we manage maritime space and maritime activities and help preserve marine ecosystems. Defining boundaries of sustainability, to be set in the framework of the Marine Strategy Framework Directive, will help develop all maritime activities with greater regard to their

Strategy/Plan/ Programme/ Project	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
		 cumulative impacts on the environment. Development of sea-basin strategies, which allows adapting priorities and policy-making tools to the unique geographical, economical and political context of each maritime region. Development of international dimension of the Integrated Maritime Policy, to strengthen the EU's position in multilateral and bilateral relations. Renewed focus on sustainable economic growth, employment and innovation through, for example, strengthened links between energy and climate change polices and the IMP which will help promote renewable energies from the sea and develop climate change adaptation strategy for coastal and maritime areas.
Sustainable Development – A Strategy for Ireland 1997	The aim outlined for Ireland in our first sustainable development strategy, published in 1997, was "to ensure that economy and society in Ireland can develop to their full potential within a well protected environment, without compromising the quality of that environment with responsibility towards present and future generations and the wider international community". The principal goals and polices defined in the 1997 publication Sustainable Development: A Strategy for Ireland continue to inform the development and delivery of policies and programmes in the area of environmental protection and sustainable development. The integration of environmental considerations into other policy areas is a key means of securing balanced development.	Secure protection and enhancement of the natural environment; Accommodate new development needs in an environmentally sustainable way.
National Spatial Strategy 2002- 2020	The identification of development corridors is only the initial step in the process of balanced regional development. The success of the spatial strategy in its role of achieving strong and sustainable economic growth is dependent on a number of factors including the development of an area's Potential, Critical Mass and Linkages.	 Promotion of the strengthening, consolidating and development of gateway and hub settlements. Promotion of rural diversification Associated infrastructural developments
	The NSS, prepared by the Department of the Environment, Heritage and Local Government is a twenty-year planning framework designed to achieve a better balance of social, economic, and physical development, and population growth between regions. Its focus is on people, on	Possible impacts may arise where there is a requirement to provide for new development / infrastructure. Avoidance on or near protected areas should be implemented or where this is not possible favouring of infrastructure that carries a lower risk of damage to protected areas should be emphasised in the RPGs.

Strategy/Plan/	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme,
Programme/		considered for potential 'in combination' effects include:
Project		
	places and on building communities.	
	Implementation of the NSS at regional and local level is through the	
	formulation of guidelines, integrated planning frameworks, Development	
	Plans and strategies.	
	i lano ana otratogroo.	
	The NSS has identified the important need to support the role of smaller	
	towns, villages and rural areas at the local level.	
Making	This document focuses on the link between economic activity and	A broad emphasis on eco-efficiency as a means of achieving
Ireland's	pressures on the environment. Sustainable development emerged as an	both environmental and economic objectives,
Development	idea in the late 1980s and led to the Earth Summit in Rio de Janeiro in	Pressing ahead with the catchment-based approach to water
Sustainable	1992. At the Summit, world leaders agreed to implement an action	quality including through investment in waste water infrastructure
2002	programme for sustainable development called, Agenda 21. The Irish	and additional regulations where necessary,
	Government published Sustainable Development: A Strategy for Ireland in 1997 which applies Agenda 21 in Irish circumstances.	Development of a national strategy to meet the requirements
	iii 1997 Willich applies Agenda 21 iii ilish circumstances.	the Gothenburg Protocol and the related EU Directive
	Making Ireland's Development Sustainable reviews progress with	concerning transboundary air emissions, Implementing the policy approaches to waste management
	sustainable development in Ireland since Rio, assesses the challenge	set out in Government policy statements,
	we now face and sets out policies and actions to meet that challenge.	Implementation of a National Spatial Strategy, addressing
	a in all the	among other things issues relating to settlement patterns.
National	This National Climate Change Strategy 2007-2012 was published in	The Strategy for reducing emissions is shared across all sectors
Climate	April 2007, develops from the 2000 Climate Change Strategy, and it	but the main focus is on reducing transport emissions,
Change	builds on the commitment to sustainable development set out in	encouraging more use of renewable energy sources, reducing
Strategy, 2007-	Towards 2016 taking into account the review contained in Ireland's	energy consumption of buildings, changes in agriculture including
2012	Pathway to Kyoto Compliance (2006). Its purpose is to demonstrate how	promoting forestry, reducing herds, altering feeding regimes and
	Ireland is to meet its 2008-2012 Kyoto commitments and to identify	greater use of agricultural waste and biomass for energy
	further policy measures needed for the period from 2012 and after 2020.	production. The Strategy sees local authorities as the key agents
		for change at the local level in achieving target reductions through
		their waste management plans by ensuring those generating waste pay the full cost of waste collection, treatment and disposal.
National	The National Development Plan 2007 – 2013 Transforming Ireland — A	Cork Gateway
Development	Better Quality of Life for All is a blueprint for the economic and social	Accelerate growth and development within the City.
Plan 2007-	development of the Country up until 2013. One of the principal	Improved transport infrastructure
2013	objectives of the plan is to promote balanced regional development. This	Roads, water services, port relocation and associated
	plan builds on the previous NDP which identified the need for a National	infrastructure to facilitate docklands regeneration;
	Spatial Strategy, in order to promote regional development throughout	Enhancement of tourism, cultural and recreational facilities;

Strategy/Plan/ Programme/	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
Project		orioladica er polonia. In combination choose molade.
	the country by the identification of a number of development corridors as Gateways and Hubs in individual regions. These development corridors have been designated to act as development growth areas that will be promoted in terms of infrastructure and investment to act as economic drivers for their region. The five 'Investment Priorities' of the plan are Economic Infrastructure;	 Lands at Ringaskiddy and Carrigtohill to be developed by IDA Ireland as part of its Strategic Sites Initiative; and Hub Towns Improved transport, telecommunications and water services infrastructure Physical regeneration of local housing stock;
	Enterprise, Science and Innovation; Human Capital; Social Infrastructure; and Social Inclusion.	Economic linkages with surrounding rural areas.
		Rural areas Priority areas for investment include: Infrastructure; Enterprise and Employment; Agriculture and Food; Tourism, Culture and Sport; and
		Marine Sector.
Delivering a Sustainable Energy Future For Ireland - The Energy Policy Framework 2007 – 2020 (White Paper)	Sub-titled the Energy Policy Framework 2007–2020, this document addresses how Ireland is to respond to international energy supply issues in the context of severe limitations on indigenous the supplies. Recognising that 90% of energy is currently imported the White Paper sets down a series of strategic goals. These include actions relating to security of energy supply, of which the development of additional electrical inter-connectors with other European Countries is a particular priority. Other measures include ensuring fuel diversity, the upgrading of the national transmission networks, stimulating hydrocarbon exploration and contingency planning in respect of possible energy supply disruption. The sustainable supply and use of energy is also a theme, with policy proposals to address climate change and energy efficiency. In relation to the use of renewables, a highly ambitious 33% contribution to electricity generation by 2020 is proposed.	Actions outlined to ensure security of energy supply include: Ensuring that electricity supply consistently meets demand Ensuring the physical security and reliability of gas supplies to Ireland Enhancing the diversity of fuels used for power generation Delivering electricity and gas to homes and businesses over efficient, reliable and secure networks Creating a stable attractive environment for hydrocarbon exploration and production Being prepared for energy supply disruptions Actions outlined to promote the sustainability of energy supply and use include: Addressing climate change by reducing energy related greenhouse gas emissions Accelerating the growth of renewable energy sources
	The main areas within which the strategic goals are framed are: Actions to ensure security of energy supply; Actions to promote the sustainability of energy supply and use;	 Promoting the sustainable use of energy in transport Delivering an integrated approach to the sustainable development and use of bioenergy resources

Strategy/Plan/ Programme/ Project	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
	Actions to enhance competitiveness of energy supply; Integrated approach to delivery.	Maximising Energy Efficiency and energy savings across the economy Accelerating Energy Research Development and Innovation Programmes in support of sustainable energy goals
		Actions outlined to enhance the competitiveness of energy supply include: Delivering competition and consumer choice in the energy
	ALQ ^G S.	market Delivering the All-Island Energy Market Framework Ensuring that the regulatory framework meets the evolving energy olicy challenges Ensuring a sustainable future for Semi-State Energy Enterprises Ensuring affordable energy for everyone Creating jobs, growth and innovation in the energy sector
Grid 25 (Eirgrid 2008)	Eirgrid, which is the Transmission System Operator (TSO), has put in place an infrastructure initiative / strategy until 2025 (Grid 25) airced at facilitating reliable, secure and affordable electricity supplies throughout Ireland. Aims include:-	Eirgrid has divided up the network into seven regions. With the exception of part of North Kerry the 'South West Planning Region' is contained within Eirgrids South West Region. North Kerry is located within Eirgrids Western Region.
	 Supporting growth in the regions and ensuring continued reliability and security of supply; Providing high-quality, high voltage bulk power supply for Ireland that will enable the different regions to attract in future industry and boost existing industry; Exploiting Ireland's natural renewable sources of energy (wind and wave); 	West Region Key Developments include: • Up-rating over 250 km of existing networks to facilitate higher capacity power flows, using existing corridors where possible (which will allows for renewable resources from both wind and wave to feed into the National Electricity Grid) • Strengthening the transmission capacity across the Shannon Estuary.
	 Reducing Ireland's carbon emissions by transmitting renewable energy in line with Government policy; Increasing Ireland's connectivity to the European Grid, allowing for both bulk exports of electricity and imports of electricity when appropriate. 	South West Key Developments include: • €730m will be invested in the infrastructure of the region, to include the upgrading of approximately 130 km of transmission network and new transmission developments; • Strengthening of the Cork network to allow power to be exported from the two large gas fired generators in East Cork; • Planned grid reinforcements to connect significant amounts of

Strategy/Plan/ Programme/ Project	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
		wind generation; • Significant strengthening of capacity between the South West and the South East to allow excess power to flow from both renewable and conventional sources to supply demand in other parts of the country.
National Biodiversity Plan 2002	The National Biodiversity Plan sets out the framework through which Ireland is to provide for the conservation and sustainable use of biodiversity over a five-year period being prepared as a response to the UN Convention of Biological Diversity.	-
	The National Biodiversity Plan has been developed to coincide with the National Heritage Plan, which sets out the framework for the protection and enhancement of all aspects of Ireland's heritage, which includes our natural heritage over the five years, from 2002.	offy, the other rise.
	Although such issues would generally be dealt with at local or site level, the RPGs should have regard to these objectives and promote such objectives where possible.	
National Heritage Plan 2002	The purpose of the National Heritage Plan is to set out a pear and coherent strategy and framework for the protection and enhancement of Ireland's heritage over the five years from 2002.	-
	The goals of the National Heritage Plan are in line with the principles underlying the Government's Policy Statement of Heritage. The Plan is published with the endorsement of the Government, in fulfilment of a clear commitment in the Government's Action Programme for the Millennium.	
The Economic and Social Aspects of Biodiversity -	The DEHLG document <i>The Economic and Social Aspects of Biodiversity</i> – <i>Benefits and Costs of Bio-diversity in Ireland</i> made significant progress in identifying overall biodiversity patterns across the country and a map was produced indicating biodiversity index value.	-
Benefits and Costs of Bio- diversity in Ireland		

Strategy/Plan/ Programme/ Project	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
Waste Management - Changing Our Ways (1998)	Published in 1998, Waste Management - Changing our Ways, sets out a national policy framework for the adoption and implementation by local authorities of their waste management plans. This was the first in a series of comprehensive government policy documents on the management of waste in Ireland. It endorsed the integrated waste management approach, based on the internationally adopted hierarchy of options which places greatest emphasis on waste prevention, followed by minimisation, re-use, recycling, energy recovery and finally, the environmentally sustainable disposal of residual waste.	 Policy document emphasises the pressing need for Irish waste management to move away from landfill, viewing the ultimate role of landfill as acting as a disposal outlet only for residual waste that cannot be reclaimed or recycled. Policy document specifies that a small national network of regional landfill sites is required, with this network being served by increasing numbers of more localised waste recovery facilities and composting plants. Changing Our Ways reiterates the targets for the progressive reduction of the use of landfill for biodegradable waste which are set down in the EU Landfill Directive, but adds further national targets such as for the reclamation of construction and demolition waste.
National Strategy for Biodegradable Waste	The National Strategy for Biodegradable Waste was published in April 2006, being an obligation on Ireland under the Landfill Directive. An aignist to set out how the three progressive landfill diversion targets of the Directive are to have effect. While significant progress in the development of recycling and waste reclamation initiatives is noted the continuing national dependency on landfill is described as substantial. It states that a major increase in recycling and biological treatment capacity is necessary in order to facilitate the EU requirements for the diversion of biodegradable municipal waste away from landfill.	Prevention and minimisation – avoiding generating the waste
National Hazardous Waste Management Plan	The Primary objective of the National Hazardous Waste Management Plan is to prevent the production of hazardous waste and to minimise the effect of hazardous waste on the environment. The secondary objective is to manage hazardous waste in such a manner is to ensure that environmental pollution is minimised and not transferred from one medium to another; in other words to bring about a qualitative reduction in the quantity of hazardous waste requiring management.	 To describe and predict the type, quantity and origin of hazardous waste, its movement within, into and out of the country and facilities available for the collection, recovery and disposal of the waste. To provide for, as appropriate, the identification of sites at which waste disposal activities that to a significant extent involved hazardous waste have been carried on, the assessment of any risk of environmental pollution and the recommending of measures to prevent or limit such pollution and to identify remedial measures. To have regard to the precautionary principle in relation to the potentially harmful effects of emissions and the risk of environmental pollution. To make recommendations, as respects the management of

Strategy/Plan/ Programme/	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
Project		hazardous waste
OPW Guidelines on Flood Risk 2005	The OPW provide guidance on Planning Policy in relation to flooding. The policy which the Planning Authority should adopt is 'Development should not itself be subject to an inappropriate risk of flooding nor should it cause or exacerbate such a risk at other locations'.	-
The Planning System and Flood Risk Management	These guidelines require the planning system at national, regional and local levels to: • Avoid development in areas at risk of flooding by not permitting	-
(DEHLG 2009)	framework for assessing the location of new development in the development Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals. Ensuring that the requirements of EU and national law in relation to the natural environment and nature conservation are complied with at all stages of flood risk management is a core objective of the draft guidelines.	odly, and other tise.
Sustainable Rural Housing Guidelines (DEHLG 2005)	These guidelines set out in detail how the Government's policies on rural housing are to be implemented by planning authorities in making their development plans and in the operation of the development control system to ensure a vibrant future for all rural areas. While these guidelines facilitate the sustainable development of one-off houses in the open countryside, they also make it clear that in considering development proposals, including the attachment of planning conditions, planning authorities should only consider approving proposals they are satisfied will not adversely affect the integrity of	-

Strategy/Plan/ Programme/ Project	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
Sustainable Residential Development in Urban Areas (DEHLG 2009)	This guidance document revises and updates the Residential Density Guidelines for Planning Authorities published in 1999. The guidelines are focused on creating sustainable communities by incorporating the highest design standards and providing a coordinated approach to the delivery of essential infrastructure and services.	Promote the consolidation of the urban areas by providing for high-density residential development in the right locations, well-serviced in terms of public transport and community facilities and built to the highest possible standards.
Regional Tourism Development Plan 2008-20 (Fáilte Ireland South West)	Strategic Goals 1. Build on the region's position as Ireland's leading tourism destination outside of Dublin, by focusing on innovative developments and marketing while delivering top quality experiences based on the region's natural and cultural assets and well-established range of leisure and business tourism facilities. Specifically: Deliver high quality nature-based holiday experiences integrating wellness with adventure and related activities 'Nature and Nurture's based around established tourism service centres in counties Kerry and Cork Position the City of Cork as a principal gateway to the region and as a major urban destination for business and leisure visitors Exploit the maritime heritage and indigenous strengths of the region's coastal environs Capitalise on the tourism potential of country pursuits and the cultural and linguistic heritage of the rural areas of Cork and Kerry. Improve transportation links to and within the region	 Develop a South West Coastal Walking Route and identify new walking routes in the region Develop the potential for Cruise ships to dock and tender in the South West Develop the heritage and cultural assets of the South West (Castles, Houses, Gardens, Trails etc Ensure the sustained growth of Killarney and Ring of Kerry as a primary tourism hub with particular emphasis on the county's carrying capacity Develop a major attraction to celebrate and stage natural culture Promote the development of Cork's Inner and Outer harbours and explore the potential to develop tourism facilities in Cork's City Quays Explore the potential of development of a necklace of marinas stretching along the coastline and a cluster of 'Centres of Excellence' in sailing Develop the Blackwater and Lee valleys as inland propositions for country pursuits Position the region as a leading destination for nature-based leisure activities. Develop a regional coastal walking route. Develop and market a West Cork island cluster, including a heritage trail and activities. Develop boat-touring along the coastline.
Water Framework Directive / River Basin Management Plans	These provide for a programme of measures and a river basin management strategy, designed to achieve at least good status for all waters and to maintain high status where it exists for the three river basins located in the SW Region (South West RBD, Shannon IRBD and the South East RBD). It is envisaged that the final strategy will make recommendations in relation to managing development within the river	This Directive will set environmental objectives for each particular type of water body, with due consideration to social and economic costs. River Basin Management Plans are central to the framework as they advocate an integrated approach to the management of water bodies and consideration of the cumulative impacts of all activities within a river basin and district. They also

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Strategy/Plan/ Programme/ Project	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
	basin district	consider the risk posed to the environment.
Waste Management Plans	Kerry, Limerick, Clare Waste Management Plan which covers the period from 2006-11. Cork City Council and Cork County Council carried out a joint Waste Management Strategy for Cork in 1995. These Plans detail the amount of waste being generated in the Counties, the progress made since the previous Plans were introduced and how it is proposed to minimize and treat the waste that is produced in the Counties going forward. The concept of Reduction, Re-use and Recycling is fundamental to Regions Waste Management Plans.	The Kerry/Limerick/Clare Waste Management Plans implementation provides for: Commencement of the process for the provision of thermal treatment capacity Provision of adequate landfill capacity. The Cork Waste Management Plans implementation provides for: Development of a Waste Recovery Facility that will allow active segregation of a large number of waste streams for their more effective recovery and disposal. Development of an engineered residual landfill site in Cork County.
Kerry County Development Plan 2009-2015	The County Development Plan sets out an overall strategy for the proper planning and sustainable development of the County. The following are the overall objectives of the Plan. OS 2-1: Provide an improved quality of life for all the citizens of the area by promoting the area's economic potential, protecting its natural and built environment and safeguarding its cultural heritage. OS 2-2: Provide for the development of the area in a manner which is sustainable and protects its social, cultural, environmental and economic assets for future generations and is compliant with relevant EU and national legislation. OS 2-3: Provide for balanced growth throughout the area by promoting the strengthening of rural communities and provide the infrastructure to facilitate job creation in these areas. OS 2-4: Strengthen towns and villages throughout the County, improve the infrastructure provided, develop the critical mass necessary to maintain and expand the service provision within them, and make them more attractive places in which to live. In this plan, the term village is used to describe a close group of contiguous dwellings and services including shops etc. with a defined urban structure. It does not include a grouping of one-off rural housing dispersed over a townland or group of townlands. OS 2-5: Promote the development of the Tralee Killarney Hub as a	Promote the development of the Tralee-Killarney Hub

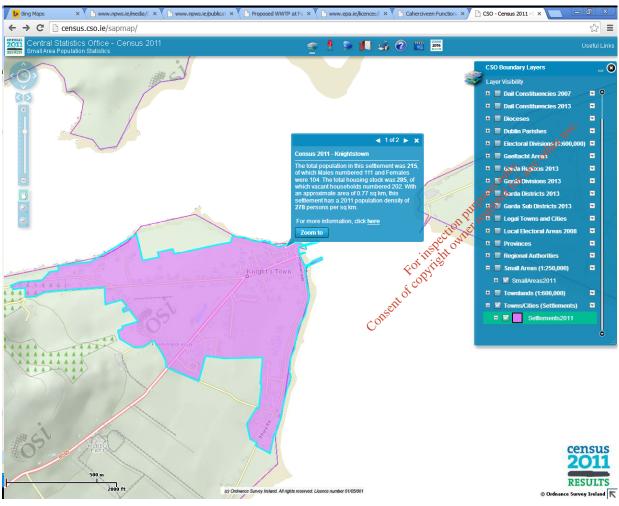
Strategy/Plan/ Programme/ Project	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
Programme/	means of strengthening the economic base of the County and acting as a focus for inward investment. OS 2-6: Ensure that the existing provisions, including land-use zoning, of the adopted Local Area Plans will remain in force pending their review during the lifetime of this Plan. OS 2-7: Provide a high quality of design in private and public development, increasing the quality of the public realm while maintaining the character, form and settlement pattern of the villages. OS 2-8: Provide the infrastructure and support for the development and expansion of employment opportunities, including indigenous knowledge based industries. OS 2-9: Protect the linguistic and cultural heritage of the County and promote Irish as the living community language. OS 2-10: Promote renewable energy measures and sustainable settlement patterns in order to promote energy conservation and sustainable communities and travel patterns in the future. OS 2-11: Protect the landscape of the County as an economic asset in addition to its intrinsic beauty and amenity value. OS 2-12: Facilitate where possible, in accordance with proper planning	
	and sustainable development, family members on their own and color of the county. OS 2-13: To ensure that the reduction of greenhouse gas emissions will be incorporated into development management and policy formulation in the county. OS 2-14: To protect and promote the natural biodiversity of the County through development management and as a core principle of policy formulation. OS 2-15: Ensure that all plans and programmes during the lifetime of this plan are screened for the requirements of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment — The SEA Directive and the associated Planning and Development (Strategic Environmental Assessment) Regulations, 2004. OS 2-8: Provide the infrastructure and support for the development and expansion of employment opportunities, including indigenous knowledge based industries. OS 2-9: Protect the linguistic and cultural heritage of the County and promote Irish as the living community language. OS 2-10: Promote renewable energy measures and sustainable settlement patterns in	

Strategy/Plan/ Programme/ Project	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
Cork County Development Plan 2009-2015	order to promote energy conservation and sustainable communities and travel patterns in the future. OS 2-11: Protect the landscape of the County as an economic asset in addition to its intrinsic beauty and amenity value. OS 2-12: Facilitate where possible, in accordance with proper planning and sustainable development, family members on their own land. OS 2-13: To ensure that the reduction of greenhouse gas emissions will be incorporated into development management and policy formulation in the county. OS 2-14: To protect and promote the natural biodiversity of the County through development management and as a core principle of policy formulation. OS 2-15: Ensure that all plans and programmes during the lifetime of this plan are screened for the requirements of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment – The SEA Directive and the associated Planning Development (Strategic Environmental Assessment) Regulations, 2004. The County Development Plan sets out an overall strategy for the proper planning and sustainable development of the County. The key aims that underpin the strategy were first development in the County. Development Plan 2003 and this plan seeks to maintain and enhance their implementation into the future in order to achieve the following: enhanced quality of life for all, based on high quality residential, working and recreational environments and sustainable transportation patterns; Sustainable patterns of growth in urban and rural areas, reflecting the need to reduce energy consumption and emissions and taking account of the need to plan for the effects of climate change, that are well balanced throughout the County, together with efficient provision of social and physical infrastructure; Sustainable and balanced economic investment, in jobs and services, to sustain the future population of the County together with wise management of the County's environmental, heritage and cultural assets; Responsible guardianship of the Cou	Promote sustainable development in the County, consolidating development within the settlements Promote and encourage sustainable economic growth in the County Protect and develop the County's principle transportation, waste, water services, telecommunications and energy infrastructure It is noted that a HDA screening report for the Cork County Development Plan (2009-2015) indicated that it would not be likely to have significant adverse impacts on Natura 2000 Sites.

Strategy/Plan/ Programme/	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
Froject Kerry County Council Heritage and Biodiversity	This document outlines a series of policies aims and actions to deal with education, access, research and management of the county's heritage and biodiversity assets.	-
Plan 2008-2012 Cork County Heritage Plan 2005-2010 and	The main aims of the Cork County Heritage Plan are stated to be:-	-
County Biodiversity Action Plan	 To raise awareness and to promote appreciation and enjoyment of the heritage of Co. Cork To develop and encourage best practice in relation to the management and care of heritage in Co. Cork and to deliver practical 	, use.
2009-2014	actions to achieve this; To gather and disseminate information about heritage in Co. Cork	ofly, and other tise.
Kerry and Cork	The stated aim of the Cork Biodiversity Action Plan is 'to conserve and enhance biodiversity and to ensure that every person in the county that the opportunity to appreciate and understand its importance in our lives. A number of Noise Action Plans have been prepared by the Socal	
Noise Action Plans	Authorities in the Region to address environmental noise. There plans are prepared as per the requirements of the Environmental Noise Directive. The aim of the Directive and subsequent Regulations is to provide for the implementation of an EC common approach to avoid,	
	prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise. Environmental noise is unwanted or harmful outdoor sound created by human activities, including noise emitted by means of transport, road traffic, rail traffic, air traffic and noise in agglomerations over a specified size.	
	Types of noise not included in the Regulations are noise that is caused by the exposed person, noise from domestic activities, noise created by neighbours, noise at workplaces or noise inside means of transport or due to military activities in military areas.	
Kerry Strategic Water Study	The Kerry Strategic Water Study was commissioned to consider the water services of Kerry over a 25 year period. It identifies the need for priority investment in both water and waste water treatment in the	This report provides for upgrades to existing waste water treatment plants in the County.

Strategy/Plan/ Programme/ Project	Overview of Policy Direction:	Key issues contained in the Strategy / Plan / Programme, considered for potential 'in combination' effects include:
	County.	
Cahersiveen, Waterville &	This plan set out a framework for devleopment in this functional area which includes Valentia Island. It is noted that Overall Development	Increased growth is dependent on the compliance with environmental safeguards.
Sneem Functional	Objective OO-11 'infrastructure' states that it is an objective of the council to 'Ensure that development of zoned land within these	environmental salegualus.
Area Local Area Plan	settlements is dependent on the provision of adequate water and wastewater infrastructure as set out in S1.3 the Strategic Issues section	
2013-2019 Developments / proposals	of this plan and on the provision of other critical infrastructure'. The proposed works are located in a typical rural area where agriculture, forestry, guarries and one off type houses developments predominate.	Potential for impact cumulative impact on water quality and other aspects were considered and discounted.
ргорозиіз	Proposals are also in place for a greenway type development from Renard to Glenbeigh.	र्वार्य त्राप

Appendix C: Population census information for Knightstown Settlement (April 2011)



ENVIRONMENTAL ASSESSMENT UNIT

PLANNING DEPT

KERRY COUNTY COUNCIL

SEPTEMBER 2014

Appendix D: References

Gray, N., Thomas, G., Trewby, M. and Newton, S.F. (2003) 'The status and distribution of Chough *Pyrrhocorax pyrrhocorax* in the Republic of Ireland 2002/03. Irish Birds (7) P147-156.

Greve T.M and Binzer T (2004) Which factors regulate seagrass growth and distribution? PP19-24 In Borum, J., Duarte, C.M., Krause-Jensen D and Greve T.M (eds) European seagrasses: an introduction to monitoring and management. The M&MS project, European Union publication.

NPWS (2012) Conservation Objectives: Valencia Harbour/Portmagee Channel SACO02262. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

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NPWS (2013) The Status of EU Protected Habitats and Species in Ireland. Species Assessments Volume 2, Version 1.0. Unpublished Report, National Parks & Wildlife Services. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.