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Administration,
Environmental Licensing Programme,
Office of Climate, Licensing & Resource Use,
Environmental Protection Agency,
Headquarters,
PO Box 3000,
Johnstown Castle Estate,
County Wexford

28th January 2011

Re: A0388-01 – Allihies Waste Water Discharge Certificate of Authorisation – Reply to Notice in accordance with Regulation 25(c)(ii) of the Waste Water Discharge (Authorisation) Regulations 2007

Dear Ms. Stafford,

I refer to your letter of the 14th December 2010 concerning the above. The following is our reply to your request for further information in accordance with Regulation 25(c)(ii).

Assessment of Effects of the Waste Water Discharges on European Sites
With reference to Circular L8/08 and the flow diagram in Appendix 1 attached, it can be concluded that the wastewater discharging from the agglomeration will not have significant effects on any relevant European sites.

The discharge point from the agglomeration is located within the designated area of Kenmare River SAC (Site Code 2158) and adjacent to the Beara Peninsula SPA (Site Code 4155). The agglomeration discharges into Ballydonegan Bay which is a large, well exchanged body of water with high dilution and the pe of the agglomeration is <500pe. A Habitats Directive Assessment (Screening Report) for Allihies Agglomeration has been carried out and is attached. It can be concluded from this that an appropriate assessment is not required for this agglomeration.

Yours sincerely,

Niall O'Mahony,
Senior Engineer,
Cork County Council

Enclosures

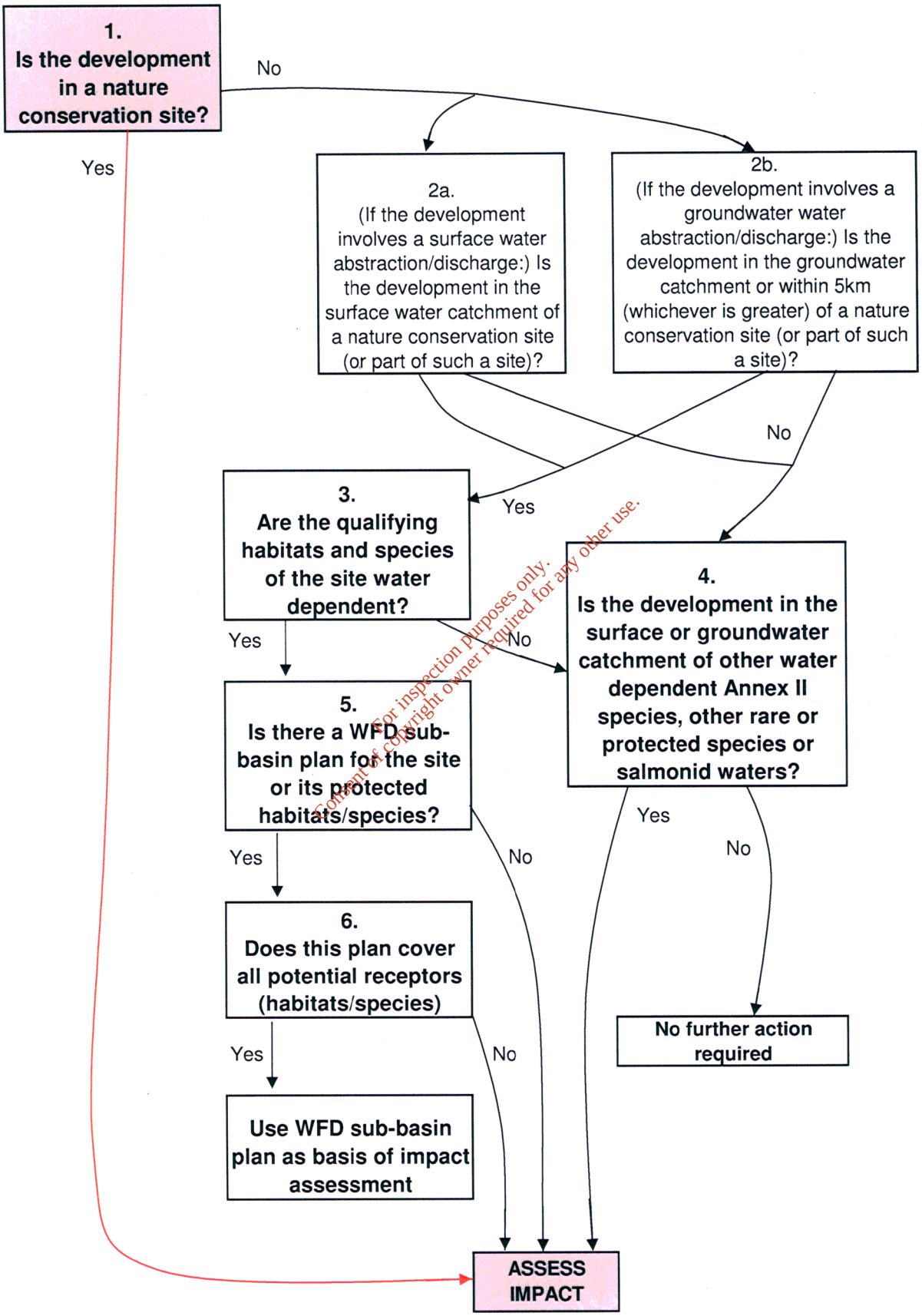
Circular L8/08 2 September 2008
Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments

APPENDIX 1
Water Services Schemes - Natural Heritage Checklist for Local Authorities

What projects must be screened?

For new projects and significant changes to any existing operations, if the answer is 'yes' to any of the following, the project (i.e. construction, operation and maintenance) must be screened for its impacts:	
1. Is the development in or on the boundary of a nature conservation site NHA/SAC/SPA?	Yes
2. Will nationally protected species be directly impacted? Wildlife Acts (1976 and 2000), Flora Protection order (S.I. 94 of 1999)?	No
3. Is the development a surface water discharge or abstraction in the surface water catchment, or immediately downstream of a nature conservation site with water dependant qualifying habitats/ species?	No
4. Is the development a groundwater discharge or abstraction in the ground water catchment or within 5 km of a nature conservation site with water-dependant qualifying habitats/species?	No
5. Is the development in the surface water or groundwater catchment of salmonid waters?	No
6. Is the treatment plant in an active or former floodplain or flood zone of a river, lake, etc?	No
7. Is the development a surface discharge or abstraction to or from marine waters and within 3km of a marine nature conservation site?	No
8. Will the project in combination with other projects (existing and proposed) or changes to such projects affect the hydrology or water levels of sites of nature conservation interest or the habitats of protected species?	No

Flow Diagram - Route Highlighted Red & Shaded Grey



Conclusion: A Screening Report is required for Allihies

Habitats Directive Assessment (Screening Report) in respect of

Application by Cork County Council to the EPA

for discharge certificate in respect of

Allihies Agglomeration

A0388-01

January 2011

1 Introduction

1.1 Allihies is a small village towards the end of the Beara peninsula on the R575 in West Cork, approximately 16km from Castletownbere. The waste water works in Allihies was constructed in the 1970's. The entire collection network is a gravity system, collecting waste water from the village and discharges it in to a septic tank located south of the village and adjacent to Ballydonegan Beach. The discharge point from the septic tank is located 100m west of the septic tank and is through a 9" concrete pipe which discharges to Ballydonegan Bay below low water level. The septic tank has a design capacity of 32m3, and it was originally designed for a p.e. of 167.

1.2 The plant is located 1.5km from the village and the discharges in to Ballydonegan Bay . The discharge point is within The Kenmare River SAC and adjacent to the Beara Peninsula SPA Natura 2000 designated sites. These are designated under the **EU Habitats Directive (92/43/EEC)** as transposed into Irish Law under the European Union (Natural Habitats) Regulations SI 94/1997. As this is the case, and in accordance with requirements under this Directive, the potential impacts of proposed developments that have the potential to impact on Special Protection Areas and Special Areas of Conservation must be assessed. The procedure to do this is called a **Habitats Directive Assessment.** The purpose of such an assessment is to identify whether there may be potential for elements of the project to have a significant impact on nature conservation sites within its impact zone, and if so, to predict the potential for such impacts to affect the overall integrity of such nature conservation sites. The European Union has provided guidance as to how to make a Habitats Directive Assessment which identifies four main stages in the process as follows:

Stage One: Screening
The process which identifies the likely impacts upon a Natura 2000 site of a project or plan, wither alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

Stage Two: Appropriate assessment
The consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.

Stage Three: Assessment of alternative solutions
The process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain.
An assessment of compensatory measures, where in the light of an assessment of imperative reasons of overriding public interest, it is deemed that the project or plan should proceed.

1.3 This document brings together all of the information necessary to make determination as to whether there are likely to be significant impacts arising from the Allihies Waste Water Treatment Plant on the Kenmare River SAC and adjacent Beara Peninsula SPA and represents the first stage of this process (Screening).

Step 1:
Provide a description of the plan and other plans and projects that, in combination, have the potential to have significant effects on Natura 2000 sites within the potential impact zone;

Step 2:
Identify Natura 2000 sites which may be impacted by the plan, and compile information on their qualifying interests and conservation objectives;

Step 3:
Determine whether the plan needs to be screened for potential impacts on Natura 2000 sites;

Step 4:
Carry out an assessment of likely effects - direct, indirect and cumulative - undertaken on the basis of available information as a desk study or field survey or primary research as necessary;

Step 5:
Assess the significance of any such effects on the Natura 2000 sites within the impact zone.

1.4 The assessment has been prepared in accordance with the following guidance:

European Commission (2000) Managing Natura 2000 sites: the provisions of Article 6 of the Habitats Dreictive 92/43/EEC.

European Commission (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habtiats Directive 92/43/EEC.

Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Environment, Heritage and Local Government, 2009.

2 Appropriate Assessment Screening Matrix

2.1 Description of project	
Location	Allihies WWTP, Allihies, Castletownbere, Co. Cork. See attached Map.
Description of the key components of the project	The treatment system in Allihies is a primary treatment plant (septic tank) adjacent to Ballydonegan Bay. Built in the 70's with a capacity of 32m3, it was originally designed for a p.e. of 167. Treated effluent from the septic tank outfalls to Ballydonegon Bay via an existing outfall pipe west of the septic tank.
Distance from designated sites in potential impact zone*	The discharge point is within Kenmare River SAC and approximately 50m from Beara Peninsula SPA.

Site 1

2.2 Description of the Natura 2000 sites within the potential impact zone[1]	
Name	Kenmare River SAC
Site Code	002158
Site Description	Kenmare River, Co. Kerry, is a long and narrow, south-west facing bay. It is a deep, drowned glacial valley and the bedrock is mainly Old Red Sandstone which forms reefs along the middle of the bay throughout its length. The SAC extends from Kenmare to the north east to Crow Head east of Dursey Island in the south west. The discharge from the Allihies Wastewater Treatment Plant enters Ballydonegan Bay. More information on the Kenmare River SAC is contained appendix 1 of this document.
Qualifying Interests of Kenmare River SAC	The site is of special interest for the follow habitats: Large shallow inlets and bays; Reefs; Perennial vegetation of stony banks; Vegetated sea cliffs of the Atlantic and Baltic coasts; Atlantic salt meadows (Glauco-Puccinellietalia maritimae): Mediterranean salt meadows (Juncetalis maritimi) Shifting dunes along the shoreline with Ammophila arenaria (white dunes); Fixed coastal dunes with herbaceous vegetation (grey

[1] Natura 2000 sites within the potential impact zone of the proposed development have been identified in accordance with guidance provided in the NPWS circular L8/08.

	dunes); European dry heaths; Calaminarian grasslands of the Violetalia calaminariae: Submerged or partly submerged sea caves. And the following species: Vertigo angustior; Rhinolophus hipposideros; Lutra lutra: Phoca vitulina.
Other Notable Features of Kenmare River SAC	The Site Synopsis is contained in appendix 1.
Conservation Objectives	Objective 1: To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Large shallow inlets and bays; Reefs; Perennial vegetation of stony banks; Vegetated sea cliffs of the Atlantic and Baltic coats; Atlantic salt meadows (Glauco-Puccinellietalia maritimae); Mediterranean salt meadows (Juncetalia maritime); Shifting dunes along the ; shoreline with Ammophila areanaria (white dunes); Fixed coastal dunes with herbaceous vegetation (grey dunes); European dry heaths; Calaminarian grasslands of the Violetalia calaminariae; Submerged or partly submerged sea caves. Objective 2: To maintain the Annex II species for which the sSAC has been selected at favourable conservation status: Vertigo angustior; Rhinolophus hipposideros; Lutra lutra; Phoca vitulina. Objective 3: To maintain the extent, species richness and biodiversity of the entire site. Objective 4: To establish effective liaison and co-operation with landowners, legal user and relevant authorities. *Source - National Parks and Wildlife Service*

2.3 Assessment Criteria	
Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site.	**Discharge from Allihies WWTP:** *Treated wastewater from the Allihies Waste Water Treatment Plant is discharged to Ballydonegan Bay which forms part of the Kenmare River SAC.* *The discharge consists of treated effluent from the Allihies Waste Water Treatment Plant.* **Other Discharges within the SAC within Cork County:** Ardgroom WWTP discharges to the Ownagappul River which flows into Kenmare River SPA. *See Map in Appendix 3 for discharge locations.*

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site taking into account the following: o Size and scale o Land-take o Distance from the Natura 2000 site or key features of the site: o Resource requirements (water abstraction etc.) o Emissions (disposal to land, water or air) o Excavation Requirements o Transportation Requirements o Duration of construction, operation, decommissioning o Other.	Discharges could give rise to elevated nutrients entering Ballydonegan Bay. Increased nutrient levels may impact on the ecology of an area by changing the composition of floral communities and reducing the ability of less robust plants to survive. Increased nutrient levels may also result in increasing the invertebrate populations in the estuary, thereby increasing bird population levels. However the potential for the treatment plant to result in elevated nutrients within the waters is reduced by two main factors: 1. The treatment provided is considered as appropriate as set out in the Urban Wastewater Treatment Regulation standards for p.e <2000. 2. The treated effluent enters Ballydonegan Bay which is a large and well exchanged body of water with unlimited dilution capacity. ***1 The treatment provided is appropriate.*** *Treated effluent from the Allihies WWTP and receiving water quality were sampled as part of the Certificate of Authorisation application in 2009 (see appendix 2 for effluent testing results). The results of monitoring indicate that the wastewater treatment plant is not having a negative effect on the receiving waters.* **Note 1**: See appendix 2 for effluent quality results for 2009. **Note 2**: The samples taken are grab samples. *2 The treated effluent enters Ballydonegan Bay which is a large and well exchanged body of water with unlimited dilution capacity.*
Describe any likely changes to the site arising as a result of: o Reduction in habitat area o Disturbance to key species o Habitat or species fragmentation o Reduction in species density o Changes in key indicators of conservation value (water quality etc) o Climate Change	**Reduction in habitat area:** *Treated effluent is discharging to a large well-exchanged body of water where dilution and dispersion potential is high. No significant impacts are evident or predicted on species within Ballydonegan Bay from the operation of this facility.* **Disturbance to key species:** *The operation of the WWTP does not cause any disturbance to habitats & species within the SAC.* **Habitat or species fragmentation:** *No habitat fragmentation has been caused as a result of the operation of this facility.* **Reduction in species density:** *Treated effluent is discharging to a large well-exchanged body of water where dilution and dispersion potential is high. No significant impacts are evident or predicted on species for which the SAC is designated.* **Changes in key indicators of conservation value eg water**

	quality: *While there is no ongoing monitoring of water quality for Ballydonegan Bay, some sampling and testing were done and submitted as part of the Wastewater Certificateof Authorisation Application. This testing, while insufficient for a complete analysis indicates that there is no deterioration in water quality associated with the Allihies discharge.*
Describe any likely impacts on the Natura 2000 site as a whole in terms of: o Interference with the key relationships that define the structure of the site o Interference with key relationships that define the function of the site	**Interference with the key relationships that define the structure of the site:** *The structure of the SAC is not impacted by the operation of this facility.* **Interference with key relationships that define the function of the site:** *The function of the SAC is not impacted by the operation of this facility.*
Describe from the above those elements of the project of plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.	No significant impacts are predicted.

Site 2

2.2 Description of the Natura 2000 sites within the potential impact zone[2]	
Name	Beara Peninsula SPA
Site Code	004155
Site Description	The Beara Peninsula SPA is a coastal site situated on the west coast of Co. Cork, south-west of the town of Kenmare. It encompasses the high coast and sea cliff sections of the western end of the peninsula from Reenmore Point/Cod's Head in the north, around to the end of Dursey Island in the west, and as far east as Bear Island in the south. The site includes the sea cliffs, the land adjacent to the cliff edge (inland for 300 m) and several upland areas further inland of the coast about Eagle Hill, Knockgour, Allihies and Firkeel. The discharge from the Allihies Wastewater Treatment Plant enters Ballydonegan Bay.

[2] Natura 2000 sites within the potential impact zone of the proposed development have been identified in accordance with guidance provided in the NPWS circular L8/08.

	More information on the Beara Peninsula SPA is contained appendix 1 of this document.
Qualifying Interests of Beara Peninsula SPA	The site is of special interest for the follow species: Chough and Fulmar
Other Notable Features of Beara Peninsula SPA	The Site Synopsis is contained in appendix 1. Black Guillemot & Peregrine Chough & other breeding seabirds
Conservation Objectives	• population data on the species concerned indicate that it is maintaining itself, and • the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and • there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long term-basis. *Source - National Parks and Wildlife Service*
2.3 Assessment Criteria	
Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site.	**Discharge from Allihies WWTP:** *Treated wastewater from the Allihies Waste Water Treatment Plant is discharged to Ballydonegan Bay close to the Beara Peninsula SPA.* *The discharge consists of treated effluent from the Allihies Waste Water Treatment Plant.* **Other Discharges within the SPA:** *No other discharge into the SPA* *See Map in Appendix 3 for discharge locations.*
Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site taking into account the following: o Size and scale o Land-take o Distance from the Natura 2000 site or key features of the site: o Resource requirements (water abstraction etc.) o Emissions (disposal to land, water or air) o Excavation Requirements	Discharges could give rise to elevated nutrients entering Allihies. Increased nutrient levels may impact on the ecology of an area by changing the composition of floral communities and reducing the ability of less robust plants to survive. Increased nutrient levels may also result in increasing the invertebrate populations in the estuary, thereby increasing bird population levels. However the potential for the treatment plant to result in elevated nutrients within the waters is reduced by two main factors: 1 The treatment provided is considered as appropriate as set out in the Urban Wastewater Treatment Regulation standards for p.e <2000. 2 The treated effluent enters Ballydonegan Bay which is a large and well exchanged body of water with unlimited dilution capacity. ***1 The treatment provided is appropriate.*** *Treated effluent from the Allihies WWTP and receiving water quality were sampled as part of the Certificate of*

○ Transportation Requirements ○ Duration of construction, operation, decommissioning ○ Other.	*Authorisation application in 2009 (see appendix 2 for effluent testing results). The results of monitoring indicate that the wastewater treatment plant is not having a negative effect on the receiving waters.* **Note 1**: See appendix 2 for effluent quality results for 2009. **Note 2**: The samples taken are grab samples. ***2*** *The treated effluent enters Ballydonegan Bay which is a large and well exchanged body of water with unlimited dilution capacity.*
Describe any likely changes to the site arising as a result of: ○ Reduction in habitat area ○ Disturbance to key species ○ Habitat or species fragmentation ○ Reduction in species density ○ Changes in key indicators of conservation value (water quality etc) ○ Climate Change	**Reduction in habitat area:** *Treated effluent is discharging to a large well-exchanged body of water where dilution and dispersion potential is high. No significant impacts are evident or predicted on species within Ballydonegan Bay from the operation of this facility.* **Disturbance to key species:** *The operation of the WWTP does not cause any disturbance to habitats & species within the SPA.* **Habitat or species fragmentation:** *No habitat fragmentation has been caused as a result of the operation of this facility.* **Reduction in species density:** *Treated effluent is discharging to a large well-exchanged body of water where dilution and dispersion potential is high. No significant impacts are evident or predicted on species for which the SPA is designated.* **Changes in key indicators of conservation value eg water quality:** *While there is no ongoing monitoring of water quality for Ballydonegan Bay, some sampling and testing were done and submitted as part of the Wastewater Certificate of Authorisation Application. This testing, while insufficient for a complete analysis indicates that there is no deterioration in water quality associated with the Allihies discharge.*
Describe any likely impacts on the Natura 2000 site as a whole in terms of: ○ Interference with the key relationships that define the structure of the site ○ Interference with key relationships that define the function of the site	**Interference with the key relationships that define the structure of the site:** *The structure of the SPA is not impacted by the operation of this facility.* **Interference with key relationships that define the function of the site:** *The function of the SPA is not impacted by the operation of this facility.*

Describe from the above those elements of the project of plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.	No significant impacts are predicted.

3. Finding of No Significant Effects Report Matrix

Name of project or plan	Allihies WWTP discharge
Name and location of Natura 2000 site	Kenmare River SAC & Beara Peninsula SPA
Description of the project or plan	The treatment system in Allihies is a primary treatment plant (septic tank). Built in the 1970's with a capacity of 32m3, it was originally designed for a p.e. of 167. Treated effluent from the septic tank outfalls to Ballydonegan Bay via an existing outfall pipe west of the septic tank.
Is the project or plan directly connected with or necessary to the management of the site (provide details)?	No
The assessment of significance of effects	
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 Site.	Discharges from the Allihies WWTP either alone or in combination with discharges from other sources could give rise to elevated nutrients entering Ballydonegan Bay and surrounding waters. Increased nutrient levels may impact on the ecology of an area by changing the composition of floral communities and reducing the ability of less robust plants to survive. Increased nutrient levels may also result in increasing the invertebrate populations in the estuary, thereby increasing bird population levels. The effluent discharged from Allihies is considered as appropriately treated under the Urban Wastewater Treatment Regulations, it is considered that the discharge from Allihies is not contributing negatively on the SAC or SPA.
Explain why these effects are not considered significant.	Appropriate treatment is being carried out as laid down in the Urban Waste Water Treatment Regulations and is discharging to a large well-exchanged body of water where dilution and dispersion potential is high. No significant impacts are evident or predicted on species for which the SAC & SPA are designated.
List of agencies consulted: provide contact name and telephone or email address	National Parks and Wildlife Service - Web site
Response to consultation	

[redacted]ata collected to carry out the assessment			
Who carried out the assessment	**Sources of data**	**Level of assessment completed**	**Where can the full results of the assessment be accessed and viewed**
Orla O'Brien, Cork County Council	Water Quality Monitoring Data CCC; Waste water Discharge Assessment certificate of Authorisation application, Report prepared by Cork County Council	Desktop review of cited data.	This report.

Appendix 1: Ecological Data

SITE SYNOPSIS

SITE NAME: KENMARE RIVER SAC

SITE CODE: 002158

Kenmare River, Co. Kerry, is a long and narrow, south-west facing bay. It is a deep, drowned glacial valley and the bedrock is mainly Old Red Sandstone which forms reefs along the middle of the bay throughout its length. Exposure to prevailing winds and swells at the mouth diminishes towards the head of the bay. Numerous islands and inlets along the length of the bay provide further areas of additional shelter in which a variety of habitats and unusual communities occur.

Kenmare River has a very wide range of marine communities from exposed coast to ultra-sheltered areas. The site contains three marine habitats listed on Annex I of the EU Habitats Directive, namely reefs, large shallow bay and caves. There is also an extremely high number of rare and notable marine species present (24) and some uncommon communities. Kenmare River is the only known site in Ireland for the northern sea-fan, *Swiftia pallida* and is the only known area where this species and the southern sea-fan *Eunicella verrucosa* co-occur. Midway along the south coast of Kenmare River, a series of sea caves stretch back into the cliff. They typically support encrusting sponges, ascidians and bryozoans.

In the more exposed areas within Kenmare River the sublittoral sediment is composed mainly of coarse shelly sand and gravel forming small dunes frequently with sparse bivalves including *Lutraria*. In sheltered areas the muddy sand has communities characterised by burrowing megafauna. Some areas have the Norwegian Prawn *Nephrops norvegicus* and others the burrowing sea cucumber *Neopentadactlya mixta*. Kenmare River is one of only four known locations in Ireland for the burrowing anemone *Pachycerianthus multiplicatus*. Communities characterised by burrowing brittlestars including the uncommon *Ophiopsila annulosa* also occur. Red calcareous free living algae generally termed 'maerl' (also known as 'coral') occur in the sheltered bays and at one site the rare burrowing brittlestar *Amphiura securigera* occurs.

The Annex I habitat 'perennial vegetation of stony banks' is well represented at two locations within Kenmare River – Pallas Harbour and Rossdohan Island. Characteristic species recorded here include Thrift (*Armeria maritima*), Common Scurvygrass (*Cochlearia officinalis*), Rock Samphire (*Crithmum maritimum*) and Sea Campion (*Silene vulgaris* subsp. *maritima*). Beaches in outer Kenmare River are composed of coarse, mobile sand and have sand hoppers in the high shore and polychaete worms in the low shore. More sheltered coves, sometimes backed by sand dunes, have sandhoppers in the upper shore, lugworm (*Arenicola marina*) in the mid-shore and the razor shell *Ensis arcuatus* and the burrowing sea-urchin *Echinocardium cordatum* in the lower shore.

Within the Derrynane Bay area on the south side of the Iveragh Peninsula there are good examples of a number of habitats listed on Annex I of the EU Habitats Directive including dry heath, fixed dunes, marram dunes, sea cliffs and salt meadows (both Atlantic and Mediterranean types). Of particular note within the dry heath habitat here is the occurrence of the rare Kerry Lily (*Simethis planifolia*) which, except for one recently discovered site in Co. Cork, is unknown in Ireland outside of the Derrynane area. Kerry Lily is protected under the Flora (Protection) Order 1999. Several other locally uncommon plant species add to the importance of this area: Chaffweed (*Anagallis minima*), Crowberry (*Empetrum nigrum*), Madder (*Rubia peregrina*) and Roseroot (*Rhodiola rosea*).

Fixed dunes, a priority habitat on the Habitats Directive, occur at Derrynane. In damp slacks amongst the sand dunes, the rare snail *Vertigo angustior* has been found. This species is listed on Annex II of the EU Habitats Directive. The nationally endangered and protected Red Data Book species, Natterjack Toad, has also been recorded from this area and, following a re-introduction programme, has re-established itself at the site.

Kenmare River holds an important population of Common Seal (maximum annual count of 121, including pups, since 1989). Some 40 of these frequent the Greenane Islands and Brennel Island groups. Otters are also known to occur within the site. Both the Common Seal and the Otter are listed on Annex II of the EU Habitats Directive. Two internationally important roosts of the Lesser Horseshoe Bat, another species listed on Annex II of the EU Habitats Directive, are included in the site: approximately 100 bats were recorded hibernating in a souterrain near Dunkerron in 2001, while over 100 bats have been counted in recent summers in a two-storey cottage near Killaha.

An Common/Arctic Tern (20+ pairs) have been recorded breeding on rocky islands in Derrynane Bay and on other islands within the site including Eyeries Island, Spanish Island and Brennel Island. In 1995 two pairs of the scarce Little Tern bred.

Recreational activities pose the greatest potential threat to many parts of Kenmare River. Within this large coastal site there are several resorts for water sports and a number of popular beaches. Bait digging is also a potential threat in some areas. Housing developments within the areas of dry heath present another possible threat to the integrity of the site. The seals and bats may be vulnerable to disturbance. Grazing at Derrynane is managed for the conservation of the dune habitats and the rare species they contain.

Kenmare River contains an exceptional complement of marine and terrestrial habitats, many of which are listed on Annex I of the EU Habitats Directive. The presence of a number of rare species, including two species listed on Annex II of the Directive and a protected plant, together with the ornithological interest of the area, adds further to the importance of the site.

20.8.2004

SITE SYNOPSIS

SITE NAME: BEARA PENINSULA SPA

SITE CODE: 004155

The Beara Peninsula SPA is a coastal site situated on the west coast of Co. Cork, south-west of the town of Kenmare. It encompasses the high coast and sea cliff sections of the western end of the peninsula from Reenmore Point/Cod's Head in the north, around to the end of Dursey Island in the west, and as far east as Bear Island in the south. The site includes the sea cliffs, the land adjacent to the cliff edge (inland for 300 m) and several upland areas further inland of the coast about Eagle Hill, Knockgour, Allihies and Firkeel. The high water mark forms the seaward boundary. Most of the site is underlain by Devonian sandstones and siltstones, though Carboniferous rocks are found about Black Ball Head and on Bear Island; small areas of igneous rocks occur at Cod's Head, Dursey Island, Black Ball Head and Bear Island.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Chough and Fulmar.

Vegetated sea cliffs dominate the site; these occur along the length of the site and support a good variety of plant species typical of the habitat, including Thrift (Armeria maritima), Sea Campion (Silene vulgaris subsp. maritima), Sea Spleenwort (Asplenium marinum) and Rock Seaspurry (Spergularia rupicola). The cliff-tops support heath or coastal grassland. Apart from the sea cliffs themselves, the site includes areas of dry heath, wet heath, blanket bog, freshwater marsh, upland acid grassland, dense Bracken (Pteridium aquilinum), scrub, semi-improved and improved pasture grassland, dune grassland, exposed rock, streams, shingle, bedrock shores and islets.

The site supports an important population of breeding Chough, a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 62 breeding pairs were recorded from the site in the 1992 survey and 54 in the 2002/03 survey. The birds are found along the coast from Bear Island in the south to Reenmore Point/Cod's Head in the north, including Dursey Island. Studies have shown that Chough forage mainly within 300 m inland of the cliff tops used for breeding and these areas have been included in the site. Inland breeding pairs occur in the Slieve Miskish and Caha Mountains, with additional pairs likely to be breeding on other inland cliffs. The area around the old copper mines at Allihies is regularly used by both breeding birds and a wintering flock. Large flocks of Chough occur on Dursey Island, especially in the summer months, as well as in the uplands, in both summer and winter. The largest flocks recorded are on Dursey Island (42 birds in September 2003), Knockgur (30 birds in July 2004) and Eagle Hill (34 birds in September 2003). Choughs roost in small numbers on the Beara Peninsula; two regularly used roosting sites (identified during a study from September 2003 to August

2004) are Dursey Sound (maximum of 17 roosting birds) and Allihies copper mines (maximum of 37 roosting birds).

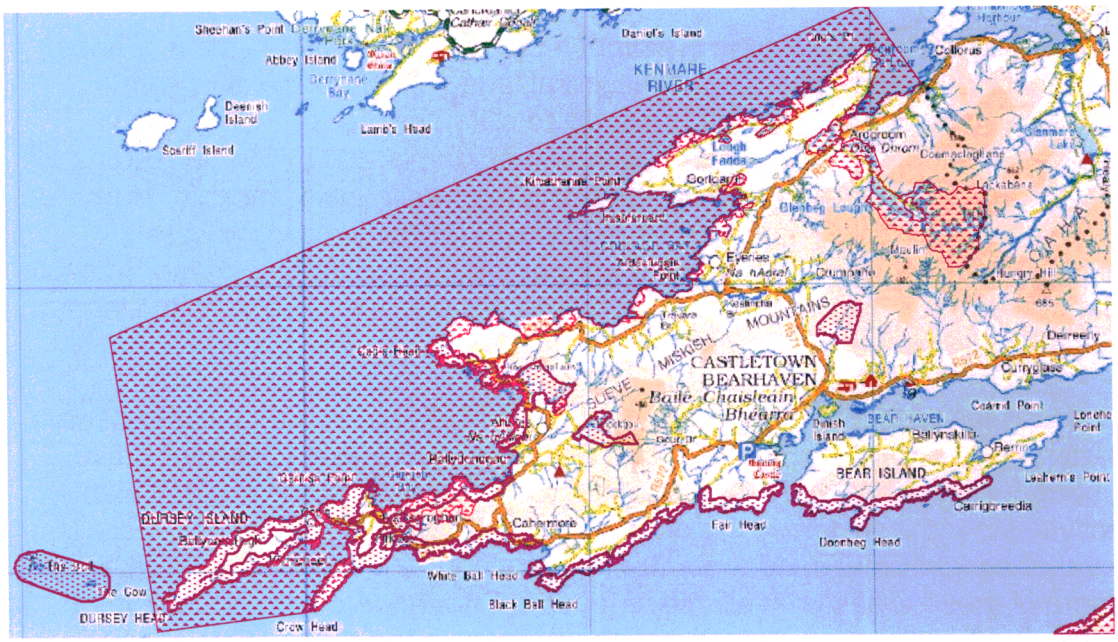
The habitats and topography present on the Beara Peninsula favour Chough. It is characterised by marginal agricultural land with large tracts of semi-natural vegetation, all in close proximity to cliffs used for breeding. Small improved fields, along with heath, sometimes dominated by Gorse (Ulex gallii and U. europaeus), and coarse grassland form an intimate mosaic. Many earth and stone banks and walls, remnants of formerly more intricate enclosed field systems, remain throughout the peninsula. The interior of the Beara Peninsula is mountainous, in places rising to over 650 m, with steep-sided valleys and exposed rock.

Landuse is predominantly extensive grazing of sheep, and to a lesser degree, cattle. This grazing and the resultant tight vegetation sward is beneficial to Chough. The habitats present are quite robust and there are few noticeable activities negatively impacting on the Chough population. However, there is a level of agricultural abandonment. The resultant rank vegetation renders some of these areas unavailable to feeding Chough. Also, the reduction in cattle numbers and increase in sheep numbers in the recent past, is less beneficial to Chough, as sheep grazing results in a more uniform vegetation sward. One other potential threat is the residue left in livestock dung due to the application of broad-spectrum anti-parasitic drugs.

The site also holds a nationally important population of Fulmar (575 pairs) and Black Guillemot (87 individuals in 1999), as well as smaller populations of other breeding seabirds: Shag (12 pairs), Herring Gull (20 pairs), Lesser Black-backed Gull (4 pairs) and Razorbill (5 pairs) – all seabird data from 2000. The site is also used by Peregrine (4 pairs in 2002).

The Beara Peninsula SPA is one of the most important sites in the country for Chough. It also supports a range of breeding seabirds, including populations of Fulmar and Black Guillemot of national importance, as well as a significant population of Peregrine. The presence of Chough and Peregrine, both species that are listed on Annex I of the E.U. Birds Directive, is of particular significance.

2 Map of Kenmare River SAC (Co Cork Only) & Beara Peninsula SPA & location of Allihies.



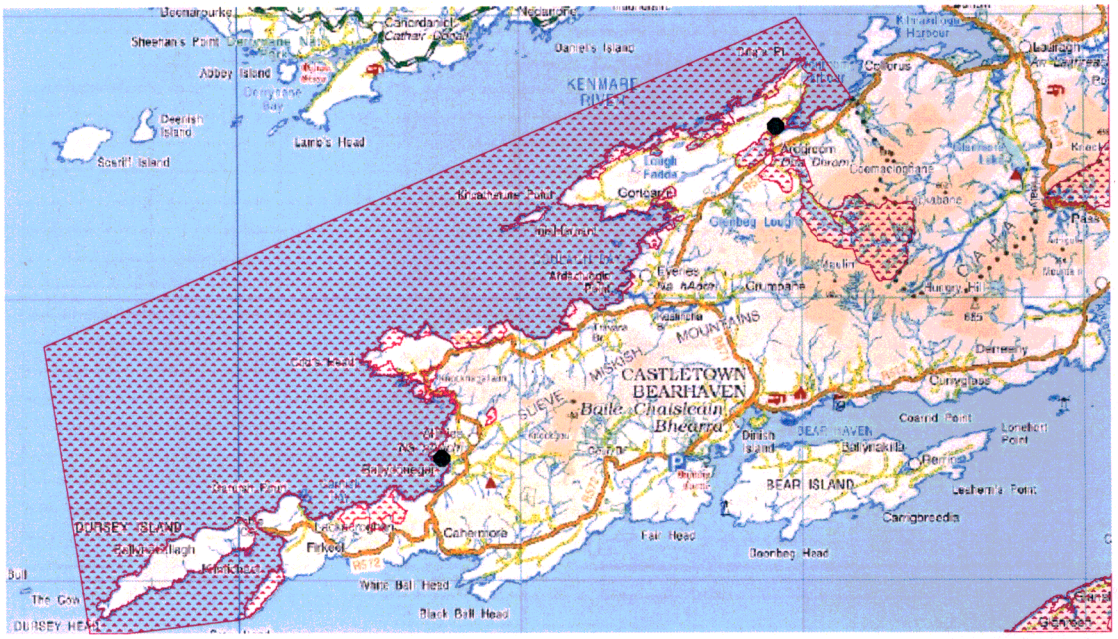
The treatment system in Allihies is a primary treatment plant (septic tank) south of the village and adjacent to the Shoreline. Built in the 1970's with a capacity of 32m3, it was originally designed for a p.e. of 167. Treated effluent from the septic tank outfalls to Ballydonegan Bay via an existing outfall pipe west of the septic tank.

Appendix 2: Treated Effluent Quality Data 2009.

Attachment E4 Allihies assembled data Table E4					
Sample Date	13/10/2009		13/10/2009		
Sample	Effluent		Ambient		
Sample Code	GT1262		GT1263		
Flow M^3/Day	No result		No result		
pH	6.9		8.1		
Temperature °C	No result		No result		
Conductivity uS/cm 20°C	409		46300		
Suspended Solids mg/L	17		16		
Ammonia-N mg/L	5.5		0.5*		
BOD mg/L	16		<1		
COD mg/L	51		23		
TN-N mg/L	10.2		0.16		
Nitrite-N mg/L	0.213		<0.1		
Nitrate-N mg/L	<0.5		<0.5		
TP-P mg/L	0.837		<0.05		
O-PO4-P mg/L	0.64		<0.05		
SO4 mg/L	<30		saline interference		
Phenols µg/L	<0.10		No result		
Atrazine µg/L	<0.01		No result		
Dichloromethane µg/L	<1		No result		
Simazine µg/L	<0.01		No result		
Toluene µg/L	<0.28		No result		
Tributyltin µg/L	No required		No required		
Xylenes µg/L	<0.73		No result		
Arsenic µg/L	0.5		No result		
Chromium ug/L	<20		<20*		
Copper ug/L	<20		<20		
Cyanide µg/L	8		No result		
Fluoride µg/L	39		691		
Lead ug/L	<20		<20		
Nickel ug/L	<20		<20		
Zinc ug/L	<20		<20		
Boron ug/L	<20		3187		
Cadmium ug/L	<20		<20		
Mercury µg/L	0.03		No result		
Selenium µg/L	5.9		No result		
Barium ug/L	<20		<20		

* saline interference

Appendix 3:
Map showing locations of all discharges into Kenmare River SAC (Within Co Cork)



Map showing locations of all discharges into Beara Peninsula SPA.