CORK COUNTY COUNCIL

WESTERN DIVISION

WATER SERVICES

Courthouse, Skibbereen, Co. Cork

APPLICATION FOR WASTE WATER DISCHARGE CERTIFICATE

GOLEEN, CO. CORK.

Application Form
22nd December 2009

CORK COUNTY COUNCIL

WESTERN DIVISION

WATER SERVICES

Courthouse, Skibbereen, Co. Cork

Re: Waste Water Discharge Certificate Application for the Agglomeration of Goleen

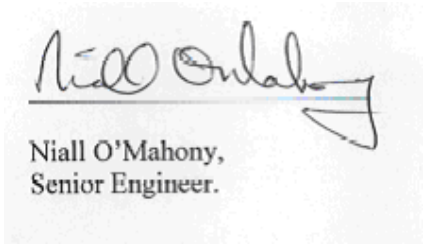
Dear Sir/Madam,

Please find enclosed Cork County Council's Waste Water Discharge Certificate Application for the agglomeration of Goleen.

The following documentation is enclosed:

- 1 Nr. Signed original in hardcopy
- 1 Nr. Copy in hardcopy
- 2 Nr. CD-ROM with all documentation in electronic searchable PDF (OCR'd format)
- 1 Nr. CD-ROM with GIS Data, Tabular Data

The content of the electronic files is a true copy of the original hardcopy.



Comhairle Contae Chorcaí
Cork County Council

Environmental Directorate,
Inniscarra, Co. Cork.
Tel No. (021) 4532700 • Fax No. (021) 4532727
Web: www.corkcoco.ie
An Stiúrthóireacht Comhshaoil,
Inis Cara, Co. Corcaigh.
Teil: (021) 4532700 • Faics: (021) 4532727
Suíomh Gréasáin: www.corkcoco.ie

Mr. Frank Clinton,
Program Manager,
Office of Climate, Licensing & Resource Use,
Environment Protection Agency,
Headquarters,
PO Box 3000,
Johnstown Castle Estate,
County Wexford.

16th December, 2009

Re: Waste Water Discharge (Authorisation) Regulations 2007 – fees payable in respect of applications to be submitted by 22nd December, 2009.

Dear Mr. Clinton,

I refer to the 72 certificate applications and 3 discharge authorisation licence applications which will be submitted by the council under the above regulations before the 22nd December next.

I note that the fees payable in respect of these applications amount to €246,000 and refer you to our letter of 7th November 2008 (sent by Ted O'Leary, Senior Executive Officer) seeking a rebate/reduction, as is provided for under Art 38 (3) of the regulations. I note that since that letter the council has paid a further €570,000 in applications fees meaning that the total amount paid by the council to date amounts to € 1,245,000.

As you will appreciate, in the current economic climate, the amount payable in respect of this final batch of applications is a significant sum that was not budgeted for in 2009. Moreover we have paid a substantial amount in fees already and have made our case for a reduction/rebate. Accordingly, I must advise that we are not submitting payment in respect of these applications as we anticipate the rebate due to the council exceeds the fees payable.

Yours faithfully,

Louis Duffy,
Director of Service,
Environment & Emergency Services Directorate

This is a draft document and is subject to revision.

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

Waste Water Discharge Certificate of Authorisation Application Form

EPA Ref. Nº: *(Office use only)*	

Environmental Protection Agency
PO Box 3000, Johnstown Castle Estate, Co. Wexford
Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699
Web: www.epa.ie Email: info@epa.ie

Tracking Amendments to Draft Application Form

Version No.	Date	Amendment since previous version	Reason
V. 1.	12/06/2009	N/A	
V.2.	17/06/2009	Delete reference to Design Build and Operate	To accurately reflect the information required for the small schemes programme
		Delete the requirement to provide contact information for the associated waste water treatment plant	To accurately reflect the information required and the scale of the waste water works
		Replace references to the Water Services investment Programme with the Small Schemes Programme	To accurately reflect the information required for the small schemes programme
		Update references to new legislation	To reflect changes in legislation
		Inclusion of the requirement to submit information on private WWTPs within the agglomeration.	To obtain an overview of all discharges within the agglomeration.

Environmental Protection Agency

Application for a Waste Water Discharge Certificate of Authorisation
Waste Water Discharge (Authorisation) Regulations, 2007.

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ABOUT THIS APPLICATION FORM

This form is for the purpose of making an application for a Waste Water Discharge Certificate of Authorisation under the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) or for the review of an existing Waste Water Discharge Certificate of Authorisation.

The Application Form **must** be completed in accordance with the instructions and guidance provided in the *Waste Water Discharge Certificate of Authorisation Application Guidance Note.* The Guidance Note gives an overview of Waste Water Certificates of Authorisation, outlines the certification application process (including the number of copies required) and specifies the information to be submitted as part of the application. The Guidance Note and application form are available to download from the licensing page of the EPA's website at www.epa.ie.

A valid application for a Waste Water Discharge Certificate of Authorisation must contain the information prescribed in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007). Regulation 24 of the Regulations sets out the statutory requirements for information to accompany a Certificate of Authorisation application. The application form is designed in such a way as to set out these questions in a structured manner and not necessarily in the order presented in the Regulations. In order to ensure a legally valid application with respect to Regulation 24 requirements, please complete the Regulation 24 Checklist provided in the following web based tool: **http://78.137.160.73/epa_wwd_licensing/**

This Application Form does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Waste Water Discharge (Authorisation) Regulations, 2007. **While every effort has been made to ensure the accuracy of the material contained in the Application Form, the EPA assumes no responsibility and gives no guarantee, or warranty concerning the accuracy, completeness or up-to-date nature of the information provided herein and does not accept any liability whatsoever arising from any errors or omissions.**

Should there be any contradiction between the information requirements set out in the Application Form and any clarifying explanation contained in the accompanying Guidance Note, then the requirements in this Application Form shall take precedence.

PROCEDURES

The procedure for making and processing of applications for waste water discharge Certificates of Authorisation, and for the processing of reviews of such Certificates, appears in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) and is summarised below. The application fees that shall accompany an application are listed in the Third Schedule to the Regulations.

An application for a Certificate of Authorisation must be submitted on the appropriate form (available from the Agency website – **http://www.epa.ie/whatwedo/licensing/wwda/**) with the correct fee, and should contain relevant supporting documentation as attachments. The application should be based on responses to the form and include supporting written text and the appropriate use of tables and drawings. Where point source emissions occur, a system of unique reference numbers should be used to denote each discharge point. These should be simple, logical, and traceable throughout the application.

The application form is divided into a number of sections of related information. The purpose of these divisions is to facilitate both the applicant and the Agency in the provision of the information and its assessment. **Please adhere to the format as set out in the application form and clearly number each section and associated attachment, if applicable, accordingly.** Attachments should be clearly numbered, titled and paginated and must contain the required information as set out in the application form. Additional attachments may be included to supply any further information supporting the application. Any references made should be supported by a bibliography.

All questions should be answered. Where information is requested in the application form, which is not relevant to the particular application, the words "not applicable" should be clearly written on the form. The abbreviation "N/A" should not be used.

Additional information may need to be submitted beyond that which is explicitly requested on this form. Any references made should be supported by a bibliography. The Agency may request further information (under notices provided for in the Regulations) if it considers that its provision is material to the assessment of the application. Advice should be sought from the Agency where there is doubt about the type of information required or the level of detail.

Information supplied in this application, including supporting documentation will be put on public display and be open to inspection by any person.

Applicants should be aware that a contravention of the conditions of a waste water discharge Certificate of Authorisation is an offence under the Waste Water Discharge (Authorisation) Regulations, 2007.

The provision of information in an application for a waste water discharge Certificate of Authorisation which is false or misleading is an offence under Regulation 35 of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

Note: Drawings. The following guidelines are included to assist applicants:

- *All drawings submitted should be titled and dated.*
- *All drawings should have a unique reference number and should be signed by a clearly identifiable person.*
- *All drawings should indicate a scale and the direction of north.*
- *All drawings should, generally, be to a scale of between 1:20 to 1:500, depending upon the degree of detail needed to be shown and the size of the facility. Drawings delineating the boundary can be to a smaller scale of between 1:1000 to 1:10560, but must clearly and accurately present the required level of detail. Drawings showing the waste water treatment plant location, if such a plant exists, can be to a scale of between 1:50 000 to 1:126 720. All drawings should, however, be A3 or less and of an appropriate scale such that they are clearly legible. Provide legends on all drawings and maps as appropriate.*
- *In exceptional circumstances, where A3 is considered inadequate, a larger size may be requested by the Agency.*

It should be noted that it will not be possible to process or determine the application until the required documents have been provided in sufficient detail and to a satisfactory standard.

SECTION A: NON-TECHNICAL SUMMARY

Advice on completing this section is provided in the accompanying Guidance Note.

A non-technical summary of the application is to be included here. The summary should identify all environmental impacts of significance associated with the discharge of waste water associated with the waste water works. This description should also indicate, where applicable, the hours during which the waste water works is supervised or manned and days per week of this supervision.

The following information must be included in the non-technical summary:

A description of:

- the waste water works and the activities carried out therein,
- the sources of emissions from the waste water works,
- the nature and quantities of foreseeable emissions from the waste water works into the receiving aqueous environment as well as identification of significant effects of the emissions on the environment,
- the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the waste water works,
- further measures planned to comply with the general principle of the basic obligations of the operator, i.e., that no significant pollution is caused;
- measures planned to monitor emissions into the environment.

Supporting information should form **Attachment Nº A.1**

The Wastewater Works and Activities Carried Out Therein

Introduction

Goleen is situated 14km south-west of Schull on the eastern fringe of a highly scenic area that stretches from the village of Goleen to Crookhaven and Mizen Head. The settlement has a good range of facilities for its size, including a school, shops and a regular bus service.

The coastal area adjacent to the village lies within the Barleycove to Ballyrisode Point candidate Special Area of Conservation and proposed Natural Heritage Area. The designated scenic route A118 passes through in the village. A small stream flows through Goleen and discharges to Ballydivlin Bay via the estuary.

Existing Situation

Existing Waste Water Treatment Plant

Goleen sewerage scheme was constructed in 1970 and consists of two independent collection systems (Northern and Southern) draining to two septic tanks with outfalls to Ballydivlin Bay.

The Northern Collection System serves the northern side of the village, from Goleen school northwards. The majority of properties in Goleen are located in this Northern area of the village, including most of the commercial properties, and about 70 residential properties.

The Southern Collection system serves the southern side of the village, from Cape View House, running northwards, to the junction with the R591 Crosshaven road. Approximately 30 residential properties are served by this collection system.

There are two septic tanks serving the agglomeration. The first tank (Septic Tank No.1) is located west of the pier, on the south side of the estuary. It is 6.1m x 4.5m x 1.2 to 1.8m deep. The northern collection system, as described above, discharges into this septic tank. The volume of the tank is approx. 41m^3 with a design capacity of (41,000-2000)180 = 217PE

Septic Tank No.2 serves the southern collection system and is located 0.75km from the village on the eastern side of the R591 Crookhaven Road. It is 5.9m x 2.6m x 1.0m to 1.5m deep. The volume of this tank is 19m^3 with a design capacity of (19,000-2000)180 = 94PE

There are currently two outfalls, one from each septic tank. The outfall from Septic tank No.1 discharges directly to the estuary, on the west side of the pier.
The second outfall discharges from Septic Tank No.2, directly to Ballydivlin Bay, approximately 0.5km south of the estuary.

Sources of Emissions from the Waste Water Works

The WWTP handles organic and hydraulic flows from the following sources:

- Domestic Population
- Commercial Sector

The sources of emissions from this agglomeration are mainly domestic with commercial activities ranging from pubs, restaurants and a grocery store.

The existing peak summer PE is currently estimated at 407 with a consequent dry weather flow (DWF) of 89.5m^3 per day, however the winter PE is significantly less at approxiartely 150 PE.

For the purposes of this application the relevant PE chosen for the licence period is 490 being the PE estimated at end of that period.

The nature and quantities of foreseeable emissions from the waste water works into the receiving aqueous environment as well as identification of significant effects of the emissions on the environment

Sewage is currently treated via two separate septic tanks and thus primary treatment occurs prior to discharge. The EPA Document “Treatment Systems for Small Communities, Business, Leisure Centres and Hotels” (EPA 1999) details wastewater inflow characteristics for domestic and commercial sources. As Goleen is considered mainly residential and the amount of industrial / commercial premises in the village are small, therefore, the following are the inflow characteristics assumed: Suspended Solids 500mg/l, BOD 300mg/l.

Based on a population equivalent of 407 and a discharge volume of 60gBOD/person/day the total BOD reaching the treatment plant is estimated at 24.4kg/day BOD in the peak summer and 9.0kg/day BOD in the winter.

The main function of a septic tank is to act as primary settlement tank removing some of the BOD and the majority of the suspended solids. The EPA publication 'Primary, secondary and tertiary treatment' (EPA 1997) estimates that typically 50-70% of suspended solids are removed in primary settlement tanks; BOD is reduced by 20-50% and the bacterial count by 25-75%. According to the National Urban Waste Water Study (NUWWS) the reduction to the BOD load would be approximately 30% and approximately 50% to the Suspended Solids load.

This would result in a peak BOD discharge to the bay of 17.1 kg/day.

The proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the waste water works

During the peak summer period the design capacity of the septic tank can be exceeded. Regular desludging of the tank is carried out to ensure proper operation. We will be seeking funding during the licence period to increase the capacity of the septic tank to cater for the summer peak.

Further measures planned to comply with the general principle of the basic obligations of the operator, i.e., that no significant pollution is caused

Regular desludging of the tank is carried out to ensure proper operation. At present all septic tanks under the control of Cork County Council are monitored and maintained by full time Cork County Council personnel and are regularly desludged thereby ensuring that no significant pollution is caused.

Measures planned to monitor emissions into the environment

The emissions from the existing septic tanks can be monitored through sampling points SW01 GOLE and SW02 GOLE (see Map GOLE B3.01 for locations). Samples were taken from the septic tank, results of which are attached to this application.

It is proposed to sample the influent and effluent from treatment plant and receiving waters once a year in the future for the following parameters:

- pH
- Biochemical Oxygen Demand
- Chemical Oxygen Demand
- Suspended Solids
- Ammonia
- Ortho Phosphate
- Total Nitrogen

SECTION B: GENERAL

Advice on completing this section is provided in the accompanying Guidance Note.

B.1 Agglomeration Details

Name of Agglomeration:	Goleen

Applicant's Details

Name and Address for Correspondence

Only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant.

Provide a drawing detailing the agglomeration to which the Certificate of Authorisation application relates. It should have the boundary of the agglomeration to which the Certificate of Authorisation application relates clearly marked in red ink.

Name*:	Cork County Council
Address:	Water Services (Western Division)
	Courthouse
	Skibbereen
	Co. Cork
Tel:	028-21299
Fax:	028-21995
e-mail:	niall.omahony@corkcoco.ie

*This should be the name of the Water Services Authority in whose ownership or control the waste water works is vested.

*Where an application is being submitted on behalf of more than one Water Services Authority the details provided in Section B.1 shall be that of the lead Water Services Authority.

Name*:	Mr. Niall O'Mahony, S.E.
Address:	Water Services, Western Division,
	Cork County Council,
	The Courthouse, Skibbereen
	Co. Cork
Tel:	028-21299
Fax:	028-21995
e-mail:	niall.omahony@corkcoco.ie

*This should be the name of person nominated by the Water Services Authority for the purposes of the application.

Co-Applicant's Details

Name*:	Not Applicable
Address:	
Tel:	
Fax:	
e-mail:	

*This should be the name of a Water Services Authority, other than the lead authority, where multiple authorities are the subject of a waste water discharge Certificate of Authorisation application.

Attachment B.1 should contain appropriately scaled drawings / maps (≤A3) of the agglomeration served by the waste water works showing the boundary clearly marked in red ink. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.2, B.3, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
	✓	

B.2 Location of Associated Waste Water Treatment Plant(s)

Give the location of the waste water treatment plant associated with the waste water works, if such a plant or plants exists.

SW01 - Septic Tank No. 1

Name*:	Billy Horgan, A/S.E.E.
Address:	Cork County Council
	Goleen
	Co. Cork
Grid ref (6E, 6N)	081371E, 028217N
Level of Treatment	Primary

*This should be the name of the person responsible for the supervision of the waste water treatment plant.

SW02 - Septic Tank No. 2

Name*:	Billy Horgan, A/S.E.E.
Address:	Cork County Council
	Spanish Cove
	Goleen
	Co. Cork
Grid ref (6E, 6N)	081581E, 027853N
Level of Treatment	Primary

*This should be the name of the person responsible for the supervision of the waste water treatment plant.

Attachment B.2 should contain appropriately scaled drawings / maps (≤A3) of the site boundary and overall site plan, including labelled discharge, monitoring and sampling points. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.1, B.3, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
	✓	

B.3 Location of Primary Discharge Point

Give the location of the primary discharge point, as defined in the Waste Water Discharge (Authorisation) Regulation, associated with the waste water works.

Discharge to	Sea
Type of Discharge	Open C.I. Pipe to the ocean.
Unique Point Code	SW01 GOLE
Location	Goleen
Grid ref (6E, 6N)	081478E, 028172N

Attachment B.3 should contain appropriately scaled drawings / maps (≤A3) of the discharge point, including labelled monitoring and sampling points associated with the discharge point. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing the drawings and tabular data requested in sections B.1, B.2, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
	✓	

B.4 Location of Secondary Discharge Point(s)

Give the location of **all** secondary discharge point(s)* associated with the waste water works. Please refer to Guidance Note for information on Secondary discharge points.

Discharge to	Coastal Waters
Type of Discharge	Open C.I. Pipe to the ocean.
Unique Point Code	SW02 GOLE
Location	Goleen
Grid ref (6E, 6N)	081679E, 027834N

***Where a septic tank is in existence simultaneous to a package plant within an agglomeration, discharges from the septic tank shall be considered as a secondary discharge.

Attachment B.4 should contain appropriately scaled drawings / maps (≤A3) of the discharge point(s), including labelled monitoring and sampling points associated with the discharge point(s). These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No

	✓	

B.5 Location of Storm Water Overflow Point(s)

Give the location of **all** storm water overflow point(s) associated with the waste water works.

Type of Discharge	Combined Sewer Overflow (CSO) – 225mm Cast Iron Pipe
Unique Point Code	SW03
Location	Goleen
Grid ref (6E, 6N)	081305E, 028304N

Attachment B.5 should contain appropriately scaled drawings / maps (≤A3) of storm water overflow point(s) associated with the waste water works, including labelled monitoring and sampling points associated with the discharge point(s). These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, C.1, D.2, E.3 and F.2.

Attachment included	**Yes**	**No**
	✓	

B.6 Planning Authority

Give the name of the planning authority, or authorities, in whose functional area the discharge or discharges take place or are proposed to take place.

Name:	Cork County Council
Address:	Planning Department
	Norton House
	Skibbereen
	Co. Cork
Tel:	028-40340
Fax:	028-21660
e-mail:	

Planning Permission relating to the waste water works which is the subject of this application:- (tick as appropriate)

has been obtained		***is being processed***	
is not yet applied for		***is not required****	✓

* pre Part 8 Planning legislation.

Local Authority Planning File Reference Nº:	Not Applicable

Attachment B.6 should contain ***the most recent*** planning permission, including a copy of ***all*** conditions, and where an EIS was required, copies of any such EIS and any certification associated with the EIS, should also be enclosed. Where planning permission is not required for the development, provide reasons, relevant correspondence, *etc.*

Attachment included	**Yes**	**No**
		✓

B.7 Other Authorities

B.7 (i) Shannon Free Airport Development Company (SFADCo.) area

The applicant should tick the appropriate box below to identify whether the discharge or discharges are located within the Shannon Free Airport Development Company (SFADCo.) area.

Attachment B.7(i) should contain details of any or all discharges located within the SFADCo. area.

Within the SFADCo Area	**Yes**	**No**
		✓

B.7 (ii) Health Services Executive Region

The applicant should indicate the **Health Services Executive Region** where the discharge or discharges are or will be located.

Name:	Health Service Executive
Address:	Area Headquarters
	Hospital Grounds
	Skibbereen
Tel:	028-40400
Fax:	028-21006
e-mail:	info@hse.ie

B. 8(i) Population Equivalent of Agglomeration

TABLE B.8.1 POPULATION EQUIVALENT OF AGGLOMERATION

The population equivalent (p.e.) of the agglomeration to be, or being, served by the waste water works should be provided and the period in which the population equivalent data was compiled should be indicated.

Existing

Population Equivalent	**407**
Data Compiled (Year)	**2007**
Method	**House Count**

Proposed

Population Equivalent	**490**
Data Compiled (Year)	**2009**
Method	**House Count, Planning + Future Zoning**

For the purposes of this application the relevant PE chosen for the licence period is 490 being the peak PE estimated at end of that period.

B.8 (ii) Pending Development

Where planning permission has been granted for development(s), but development has not been commenced or completed to date, within the boundary of the agglomeration and this development is being, or is to be, served by the waste water works provide the following information;

- information on the calculated population equivalent (p.e.) to be contributed to the waste water works as a result of those planning permissions granted,
- the percentage of the projected p.e. to be contributed by the non-domestic activities, and
- the ability of the waste water works to accommodate this extra hydraulic and organic loading without posing an environmental risk to the receiving waters.

On 19/01/09 Planning permission was granted for the construction of 17 no. houses in the townland of Calloros Eighter. To date this development has not started construction. If and when constructed the proposed foul sewer system is to discharge under gravity to an underground pump sump, located within the site boundary, with the effluent conveyed via a pumped riser main to the temporary waste water treatment facility located within land under the clients ownership. The treated effluent will then be discharged to the existing local authority foul sewer.

B.8 (iii) FEES

State the relevant Class of waste water discharge as per Regulation 5, and the appropriate fee as per Columns 2 or 3 of the Third Schedule of the Waste Water Discharges (Authorisation) Regulations 2007, S.I. No. 684 of 2007.

Class of waste water discharge	Fee (in €)
Agglomeration <500 pe	3,000

Appropriate Fee Included	Yes	No
		✓*

***See covering letter attached to entire certification applications from Cork County Council**

B.9 Capital Investment Programme

State whether a programme of works has been prioritised for the development of infrastructure to appropriately collect, convey, treat and discharge waste water from the relevant agglomeration. If a programme of works has been prioritised provide details on funding (local or national small schemes programme) allocated to the capital project. Provide details on the extent and type of work to be undertaken and the likely timeframes for this work to be completed.

We will be seeking funding during the licence period to increase the capacity of the septic tank to cater for the summer peak.

Attachment B.9 should contain the most recent development programme, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
		✓

B.10 Significant Correspondence

Provide a summary of any correspondence resulting from a Section 63 notice issued by the Agency in relation to the waste water works under the Environmental Protection Agency Acts, 1992 and 2003, as amended by Section 13 of Protection of the Environment Act, 2003.

No section 63 notice has been issued in relation to the waste-water works.

Attachment B.10 should contain a summary of any relevant correspondence issued in relation to a Section 63 notice.

Attachment included	Yes	No
		✓

B.11 Foreshore Act Licences.

Provide a copy of the most recent Foreshore Act licence issued in relation to discharges from the waste water works issued under the Foreshore Act 1933.

Cork County Council received a licence, File Ref. MS51/8/384 dated 07/09/1966, for the laying, maintaining and using two sewage outfall pipes.

Attachment B.11 should contain the most recent licence issued under the Foreshore Act 1933, including a copy of ***all*** conditions attached to the licence and any monitoring returns for the previous 12-month period, if applicable.

Attachment included	Yes	No
	✓	

SECTION C: INFRASTRUCTURE & OPERATION

Advice on completing this section is provided in the accompanying Guidance Note.

C.1 Operational Information Requirements

Provide a description of the plant, process and design capacity for the areas of the waste water works where discharges occur, to include a copy of such plans, drawings or maps (site plans and location maps, process flow diagrams) and such other particulars, reports and supporting documentation as are necessary to describe all aspects of the area of the waste water works discharging to the aquatic environment. Maps and drawings must be no larger than A3 size.

C.1.1 Storm Water Overflows

For each storm water overflow within the waste water works the following information shall be submitted:

- An assessment to determine compliance with the criteria for storm water overflows, as set out in the DoEHLG '*Procedures and Criteria in Relation to Storm Water Overflows*', 1995 and any other guidance as may be specified by the Agency, and
- Identify whether any of the storm water overflows are to be decommissioned, and identify a date by which these overflows will cease, if applicable.

C.1.2 Pumping Stations

For each pump station operating within the waste water works, provide details of the following:

- Number of duty and standby pumps at each pump station;
- The measures taken in the event of power failure;
- Details of storage capacity at each pump station;
- Frequency and duration of activation of emergency overflow to receiving waters. Clarify the location where such discharges enter the receiving waters.

Description of the existing plant process and design capacity

Goleen sewerage scheme was constructed in 1970 and consists of two independent collection systems (Northern and Southern) draining to two septic tanks with outfalls to Ballydivlin Bay.

The Northern Collection System serves the northern side of the village, from Goleen school northwards. The majority of properties in Goleen are located in this Northern area of the village, including most of the commercial properties, and about 70 residential properties.

The Southern Collection system serves the southern side of the village, from Cape View House, running northwards, to the junction with the R591 Crosshaven road. Approximately 30 residential properties are served by this collection system.

There are two septic tanks serving the agglomeration. The first tank (Septic Tank No.1) is located west of the pier, on the south side of the estuary. The northern collection system, as described above, discharges into this septic tank. The volume of the tank is 41m^3 with a design capacity of (41,000-2000)180 = 217PE

Septic Tank No.2 serves the southern collection system and is located 0.75km from the village on the eastern side of the R591 Crookhaven Road. The volume of this tank is 19m^3 with a design capacity of (19,000-2000)180 = 94PE

The septic tanks provides primary settlement only, which according to the National Urban Waste Water Study (NUWWS) reduces the BOD load by approximately 30% and the suspended solids load by approximately 50%.

Control system description

There is currently no control system in place.

Stormwater Overflows

A Combined Sewer Overflow (CSO) is located on the northern network and discharges via a 225mm cast iron pipe to the estuary downstream of the bridge.

Type of Discharge	Unique Point Code	Receiving Water Body Type	Receiving Water Body Name	Grid Reference
Outfall Pipe	SW03 GOLE	Transitional	Ballydivlin Bay	E:081304 N:028305

Frequency & duration of activation of storm overflow to receiving waters

A flow and load survey was undertaken by ENVA Ltd. and results obtained were compared to ascertain the frequency of overflow activation. Results indicated that whilst the capacity of the collection system is generally sufficient to contain the Dry Weather Flow, any increase in flow due to rainfall causes the system to overflow.

Location of discharge entering the receiving waters

The discharges from the septic tanks enter coastal waters via opened ended Cast Iron pipes.
The location of which is shown on Drawing No GOLE B3-01.

Table C.1.1: Details of Existing Discharging Outfalls

Discharge	Reference	Location	Design Criteria	Construction Details
Primary	SW01 GOLE	081478E 028172N	Discharge Pipe	225mm Cast Iron Pipe
Secondary	SW02 GOLE	081679E 027834N	Discharge Pipe	225mm Cast Iron Pipe

Pumping Stations

There are no pumping stations in the existing sewerage scheme.

Attachment C.1 should contain supporting documentation with regard to the plant and process capacity, systems, storm water overflows, emergency overflows, etc., including flow diagrams of each with any relevant additional information. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, D.2, E.3 and F.2.

Attachment included	Yes	No
		✓

SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

Advice on completing this section is provided in the accompanying Guidance Note.

Give particulars of the source, location, nature, composition, quantity, level and rate of discharges arising from the agglomeration and, where relevant, the period or periods during which such discharges are made or are to be made.

Details of all discharges of waste water from the agglomeration should be submitted via the following web based link: http://78.137.160.73/epa_wwd_licensing/. *The applicant should address in particular all discharge points where the substances outlined in Tables 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions' are emitted*

Where it is considered that any of the substances listed in Annex X of the Water Framework Directive (2000/60/EC) or any of the Relevant Pollutants listed in Annex VIII of the Water Framework Directive (2000/60/EC) are being discharged from the waste water works or are seen to be present in the receiving water environment downstream of a discharge from the works (as a result of any monitoring programme, e.g., under the Water Framework Directive Programme of Measures) the applicant shall screen the discharge for the relevant substance.

D.1(i) Discharges to Surface Waters

Details of all discharges of waste water from the agglomeration should be supplied via the following web based link: http://78.137.160.73/epa_wwd_licensing/. Tables 'Discharge Point Details', 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions', should be completed for the primary discharge point from the agglomeration and for **each** secondary discharge point, where relevant. Table 'Discharge Point Details' should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

Where monitoring information is available for the influent to the waste water treatment plant this data should also be provided in response to Section D.1(i).

Supporting information should form **Attachment D.1(i)**

Attachment included	Yes	No
	✓	

D.1(ii) Discharges to Groundwater

Details of all discharges of waste water from the agglomeration should be supplied via the following web based link: **http://78.137.160.73/epa_wwd_licensing/**. Tables 'Discharge Point Details', 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions', should be completed for the primary discharge point from the agglomeration and for **each** secondary discharge point, where relevant. Table 'Discharge Point Details' should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

Where monitoring information is available for the influent to the waste water treatment plant this data should also be provided in response to Section D.1(ii).

Supporting information should form **Attachment D.1(ii)**

Attachment included	Yes	No
		✓

D.1 (iii) Private Waste Water Treatment Plants

Provide information on all independently owned/operated private waste water treatment plants operating within the agglomeration. Submit a copy of the Section 4 discharge licence issued under the Water Pollution Acts 1977 to 1990, as amended for each discharge.

D.2 Tabular Data on Discharge Points

Applicants should submit the following information for each discharge point:

Table D.2:

PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING
Point Code Provide label ID's	Point Type (e.g., Primary/ Secondary/ Storm Water Overflow)	Local Authority Name (e.g., Donegal County Council)	Receiving Water Body Type (e.g., River, Lake, Groundwater, Transitional, Coastal)	Receiving Water Body Name (e.g., River Suir)	Protected Area Type (e.g., SAC, candidate SAC, NHA, SPA etc.)	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference
SW01 GOLE	Primary	Cork County Council	Transitional	Ballydevlin Estuary	SAC, pNHA	081478E	028172N
SW02 GOLE	Secondary	Cork County Council	Coastal	Ballydevlin Bay	SAC, pNHA	081679E	027834N
SW03 GOLE	Storm water Overflow	Cork County Council	Transitional	Ballydevlin Estuary	SAC, pNHA	081304E	028305N

An individual record (i.e. row) is required for each discharge point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at www.epa.ie. This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, E.3 and F.2.

SECTION E: MONITORING

Advice on completing this section is provided in the accompanying Guidance Note.

E.1 Waste Water Discharge Frequency and Quantities – Existing & Proposed

Provide an estimation of the quantity of waste water likely to be emitted in relation to all primary and secondary discharge points applied for. This information should be included in Table 'Discharge Point Details' via the following web based link: **http://78.137.160.73/epa_wwd_licensing/**.

Provide an estimation of the quantity of waste water likely to be emitted in relation to all storm water overflows within the agglomeration applied for. This information should be included in Table 'Discharge Point Details' via the following web based link: **http://78.137.160.73/epa_wwd_licensing/**.

Indicate if composite sampling or continuous flow monitoring is in place on the primary or any other discharge points. Detail any plans and timescales for the provision of composite sampling and continuous flow monitoring.

E.2. Monitoring and Sampling Points

Programmes for environmental monitoring should be submitted as part of the application. These programmes should be provided as Attachment E.2.

Reference should be made to, provision of sampling points and safe means of access, sampling methods, analytical and quality control procedures, including equipment calibration, equipment maintenance and data recording/reporting procedures to be carried out in order to ensure accurate and reliable monitoring.

In determining the sampling programme to be carried out, the variability of the discharge and its effect on the receiving environment should be considered.

Details of any accreditation or certification of analysis should be included. **Attachment E.2** should contain any supporting information.

Attachment included	Yes	No
	✓	

E.3. Tabular data on Monitoring and Sampling Points

Applicants should submit the following information for each monitoring and sampling point:

PT_CD	PT_TYPE	MON_TYPE	EASTING	NORTHING	VERIFIED
SW-01	Primary Discharge	S	081466	028167	N
aSW-1	Ambient	S	081525	028182	N
SW-02	Secondary Discharge	S	081679	027834	N
aSW-2	Ambient	S	081696	027839	N

An individual record (i.e., row) is required for each monitoring and sampling point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at www.epa.ie. This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, D.2 and F.2.

E.4 Sampling Data

Regulation 24(i) of the Waste Water Discharge (Authorisation) Regulations 2007 requires all applicants in the case of an existing discharge to specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application.

Regulation 24(m) requires applicants to give details of compliance with any applicable monitoring requirements and treatment standards.

Attachment E.4 should contain any supporting information.

Attachment included	**Yes**	**No**
	✓	

SECTION F: EXISTING ENVIRONMENT & IMPACT OF THE DISCHARGE(S)

Advice on completing this section is provided in the accompanying Guidance Note.

Clear and concise information is required to enable the Agency to assess the existing receiving environment. This section requires the provision of information on the ambient environmental conditions within the receiving water(s) upstream and downstream of any discharge(s) and/or the ambient environmental conditions of the groundwater upgradient and downgradient of any discharges.

Where development is proposed to be carried out, being development which is of a class for the time being specified under Article 24 (First Schedule) of the Environmental Impact Assessment Regulations, the information on the state of the existing environment should be addressed in the EIS. **In such cases, it will suffice for the purposes of this section to provide adequate cross-references to the relevant sections in the EIS.**

F.1. Impact on Receiving Surface water or Groundwater

- Details of monitoring of the receiving surface water should be supplied via the following web based link: **http://78.137.160.73/epa_wwd_licensing/.** Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details'. Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.

- Details of monitoring of the receiving ground water should be supplied via the following web based link: **http://78.137.160.73/epa_wwd_licensing/.** Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed for the primary discharge point. Ground water monitoring locations upgradient and down gradient of the discharge point shall be screened for those substances listed in Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details'. Monitoring of ground water shall be carried out at not less than two points, one upgradient from the discharge location and one downgradient.

- For discharges from secondary discharge points Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed.

See table F1 as attachment.

- Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Submit a copy of the most recent water quality management plan or catchment management plan in place for the receiving water body. Give details of any designation under any Council Directive or Regulations that apply in relation to the receiving surface or groundwater.

  Goleen lies in a location within the Barleycove to Ballyrisode Point candidate Special Area of Conservation.
  The South Western River Basin District status data is "Unassigned" with an objective to "Restore" for Roaring Water Bay. On a risk assessment basis the SWRBD classify Roaring Water/Ballydevlin Bay as "not at significant risk".

- Provide a statement as to whether or not emissions of main polluting substances (as defined in the *Dangerous Substances Regulations S.I. No. 12 of 2001*) to water are likely to impair the environment.

  The Dangerous Substances Regulations define the main polluting pesticides, solvents and metals that have significant effects on the environment. As the load to the WWTP is mainly domestic and tourism with little industrial contribution it can be assumed that the presence of these substances is negligible. The main parameters, which impact the receiving environment, are limited to BOD, suspended solids and bacteria (total and faecal Streptococci).

- In circumstances where drinking water abstraction points exist downstream/down gradient of any discharge describe measures to be undertaken to ensure that discharges from the waste water works will not have a significant effect on faecal coliform, salmonella and protozoan pathogen numbers, e.g., Cryptosporidium and Giardia, in the receiving water environment.

  No water abstraction points exists downstream of any of the discharge locations (primary or secondary).

- Indicate whether or not emissions from the agglomeration or any plant, methods, processes, operating procedures or other factors which affect such emissions are likely to have a significant effect on –

  (a) a site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive 92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive) —

  (i) notified for the purposes of Regulation 4 of the Natural Habitats Regulations, subject to any amendments made to it by virtue of Regulation 5 of those Regulations,

  (ii) details of which have been transmitted to the Commission in accordance with Regulation 5(4) of the Natural Habitats Regulations, or

  (iii) added by virtue of Regulation 6 of the Natural Habitats Regulations to the list transmitted to the Commission in accordance with Regulation 5(4) of those Regulations,

(b) a site adopted by the European Commission as a site of Community importance for the purposes of Article 4(2) of Council Directive 92/43/EEC[1] in accordance with the procedures laid down in Article 21 of that Directive,

(c) a special area of conservation within the meaning of the Natural Habitats Regulations, or

(d) an area classified pursuant to Article 4(1) or 4(2) of Council Directive 79/409/EEC[2];

[1]Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ No. L 206, 22.07.1992)

[2]Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds (OJ No. L 103, 25.4.1979)

Goleen lies in a location within the Barleycove to Ballyrisode Point candidate Special Area of Conservation.

o This section should also contain details of any modelling of discharges from the agglomeration. Any other relevant information on the receiving environment should be submitted as **Attachment F.1.**

Marine studies were undertaken by Irish Hydrodata in May 2007. The results of the studies are included in Attachment F.1 of this report.

Attachment included	Yes	No
	✓	

F.2 Tabular Data on Drinking Water Abstraction Point(s)

Applicants should submit the following information for each downstream or downgradient drinking water abstraction point. The zone of contribution for the abstraction point should be delineated and any potential risks from the waste water discharge to the water quality at that abstraction point identified.

ABS_CD	AGG_SERVED	ABS_VOL	PT_CD	DIS_DS	EASTING	NORTHING	VERIFIED
Abstraction Code	Agglomeration served	Abstraction Volume in m^3/day	Point Code Provide label ID's	Distance Downstream in meters from Emission Point to Abstraction Point	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used

Note: Attach any risk assessment that may have been carried out in relation to the abstraction point(s) listed.

There are no drinking water abstraction points downstream of the discharges from the Goleen agglomeration.

An individual record (i.e. row) is required for each abstraction point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at www.epa.ie. This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, D.2 and D.3.

Attachment F.2 should contain any supporting information.

SECTION G: PROGRAMMES OF IMPROVEMENTS

Advice on completing this section is provided in the accompanying Guidance Note.

G.1 Compliance with Council Directives

Provide details on a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the;

- Dangerous Substances Directive 2006/11/EC,
- Water Framework Directive 2000/60/EC,
- Birds Directive 79/409/EEC,
- Groundwater Directives 80/68/EEC & 2006/118/EC,
- Drinking Water Directives 80/778/EEC,
- Urban Waste Water Treatment Directive 91/271/EEC,
- Habitats Directive 92/43/EEC,
- Environmental Liabilities Directive 2004/35/EC,
- Bathing Water Directive 76/160/EEC, and
- Shellfish Waters Directive (2006/113/EC).

Dangerous Substances Directive 2006/11/EC

Council Directive 2006/11/EEC recognises the need for action to be taken by member states to protect the aquatic environment from pollution, in particular that caused by certain persistent, toxic and bioaccumulable substances. The WwTP at Goleen, treats wastewater from primarily domestic sources and the industrial contribution can be considered as negligible. For this reason, we can assume that any dangerous substances mentioned in the Dangerous Substances Regulations will not be present in the discharge.

Water Framework Directive 2000/60/EC

The EU Water Framework Directive (WFD) entered into force in December 2000 and serves as a major impetus for improved water management. The objectives of the Water Framework Directive (WFD) are to protect all high status waters, prevent further deterioration of all waters and to restore degraded surface and ground waters to good status by 2015. The Directive requires the co-ordination of measures for water management in relation to all waters - inland surface waters, estuarine and coastal waters and groundwater.

The quality of estuarine and coastal waters is usually monitored by a number of government and regulatory agencies, including EPA, Coastal Local Authorities, the Marine Institute's Fisheries Research Centre (FRC), various arms of the Department of the Marine and Natural Resources and the Radiological Protection Institute of Ireland.

The South Western River Basin District status data is "Unassigned" with an objective to "Restore" for Roaring Water Bay. On a risk assessment basis the SWRBD classify Roaring Water/Ballydevlin Bay as "not at significant risk".

Groundwater Directives 80/68/EEC & 2006/118/EC

Not Applicable.

Drinking Water Directives 80/778/EEC

This Directive concerns standards for water intending for human consumption. As there is no drinking water abstraction point in the vicinity of any of the discharge points, this directive is not applicable.

Urban Waste Water Treatment Directive 91/271/EEC

As stated in the S.I. No. 254 of 2001, Urban Waste Water Treatment Regulation, 2001:

" A sanitary authority shall ensure by 31 December 2005 that urban waste water entering a collecting system shall before discharge be subject to appropriate treatment in the following cases:
(a) in respect of discharges to freshwater and estuaries from agglomerations with a population equivalent of less than 2,000;
(b) in respect of discharges to coastal waters from agglomerations with a population equivalent of less than 10,000."

The septic tank at Goleen is appropriate treatment as the discharge is to coastal waters with consequent high dilutions.

Habitats Directive 92/43/EEC

Goleen is situated on the coast and lies within the Barlecove to Ballyrisode Special Area of Conservation and proposed Natural Heritage Area.

Environmental Liabilities Directive 2004/35/EC

The Environmental Liabilities Directive is about preventing and remedying environmental damage. It aims to hold operators whose activities have caused environmental damage financially liable for remedying this damage.

At present all septic tanks under the control of Cork County Council are monitored and maintained by full time Cork County Council personnel and are desludged as required, thus reducing the possibility of environmental damage.

Bathing Water Directive 76/160/EEC

In Ireland the legislation governing the quality of bathing waters is set out in the Quality of Bathing Waters Regulations, 1992 (S.I. 155 of 1992) and amendments which transpose the EU Directive 76/160/EC concerning the quality of bathing water.

The Directive, which came into force over thirty years ago, is intended to protect public health and the environment at locations where bathing is not prohibited and is traditionally practised by a large number of bathers, by enforcing the achievement of a number of standards, chemical, physical and microbiological.

The nearest designated bathing area to Goleen is at Barleycove, approximately 6 km southwest of Goleen. The hydrographic modelling undertaken of treated effluent dispersion from the proposed outfall in Ballydivlin Bay demonstrates that bathing water quality targets shall be met by the model boundaries at Sheemon Point, 2 km south of Goleen, and Amsterdam Reef, 3 km east of Goleen.

Barleycove is located further southwest of Sheemon Point, and thus bathing water quality targets shall be met for this designated bathing area.

At Goleen pier, the western model boundary, bathing water quality targets were shown to be met under all conditions except for the Spring Tide and no wind scenario, when marginal exceedances were shown to occur for total and faecal coliforms.

The exceedances of the bathing water quality targets for total and faecal coliforms at Goleen Pier occurred for only 1 hour duration in the model. The probability of these exceedances occurring at any given time at this location is 1 in 100,000 (i.e. Probability = probability of spring tide [=1/14] x probability of no wind [=0.5% Source: Cork Airport Wind Rose] x probability of exceedance duration [=1/24]).
As Goleen Pier is not a designated bathing area, we do not consider this to be a serious breach.

Shellfish Waters Directive (2006/113/EC)

The nearest Shellfish Waters listed in the Second Schedule of the Quality of Shellfish Waters Regulations, 1994 (S.I. No. 200 of 1994), is Roaring Water Bay. Licensed shellfish beds are also in operation in Crookhaven Harbour, approximately 2km to the south of Goleen, and at Castlepoint, 5km east of Goleen.

Quality of Shellfish Waters Standards	
Parameter	Numerical Limit Values for Shellfish Waters
pH	≥ 7 and ≤ 9
Temperature	No more than 3°C increase in temperature caused by effluent
Colouration	≤ 10 mg Pt/l colour deviation after filtration
Suspended solids	≤ 20% increase in suspended solids (mg/l) caused by effluent
Salinity	≤ 10% increase caused by effluent
Dissolved Oxygen	70% saturation
Petroleum Hydrocarbons	No visible sheen/film or deposit on shellfish. No quantity harmful to shellfish.
Organohalogenated Substances	No quantity harmful to shellfish or larvae. No quantity to affect quality of shellfish
Metals: Silver, Arsenic, Cadmium, Chromium, Copper, Nickel, Mercury, Lead, Zinc	No quantity harmful to shellfish or larvae. No quantity to affect quality of shellfish. Synergistic effects to be accounted for.
Faecal Coliforms	< 300 faecal coliforms per 100 ml in shellfish flesh or intervalvular fluid.
Substances affecting taste of shellfish	No concentration such as to impair taste

Table G.1.1 – Shellfish Waters Standards

The Department of Communications, Marine and Natural Resources have confirmed that these are scallop beds, and there is no farming of oysters or mussels in the area surrounding Goleen. Scallops are not eaten raw, and are therefore not as seriously threatened by any potential sewage contamination as oysters.

The hydrographic modelling results summarised in **Table G.1.2** demonstrate that the maximum concentration of Faecal Coliforms at Sheemon Point, at the entrance to Crookhaven Harbour shall be 62.22 faecal coliforms/100ml, and at Amsterdam Reef, located between Goleen and Roaring Water Bay, shall be 9.57 faecal

coliforms/100ml, thus demonstrating compliance with the Quality of Shellfish Waters Regulations.

Maximum Modelled Results for Total and Faecal Coliforms at Model Boundaries						
	Tide and Wind Conditions					
Location	Neap Tide No Wind	Neap Tide SE Wind	Neap Tide N Wind	Spring Tide No Wind	Spring Tide SE Wind	Spring Tide N Wind
	Faecal Coliforrms (Number/100 ml)					
Goleen Pier	1,206	40	150	**2,012**	112	208
Sheemon Point	0	4	60	0	16	62
Amsterdam Reef	0	10	0	0	0	0
	Total Coliforrms (Number/100ml)					
Goleen Pier	6,028	199	751	**10,061**	561	1,038
Sheemon Point	0	18	301	0	79	311
Amsterdam Reef	0	48	0	0	0	0

Table G.1.2 - Maximum Modelled Concentrations of Faecal and Total Coliforms

Note: Numbers in bold signify an exceedance of bathing water quality targets (N.B. Goleen Pier is **not** a designated bathing area)

Attachment G.1 should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
		✓

G.2 Compliance with the European Communities Environmental Objectives (Surface Waters) Regulations 2009

Provide details on a programme of improvements, including any water quality management plans or catchment management plans in place, to ensure that improvements of water quality required under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 are being achieved. Provide details of any specific measures adopted for waste water works specified in Phosphorus Measures Implementation reports and the progress to date of those measures. Provide details highlighting any waste water works that have been previously identified as the principal sources of pollution under the Phosphorous Regulations (S.I. No. 258 of 1998).

Not Applicable for Discharges into the sea.

Attachment G.2 should contain the most recent programme of improvements and any associated documentation requested under Section G.3 of the application.

Attachment included	Yes	No
		✓

G.3 Impact Mitigation

Provide details on a programme of improvements to ensure that discharges from the agglomeration will not result in significant environmental pollution.

We will be seeking funding during the licence period to increase the capacity of the septic tank to cater for the summer peak.

Attachment G.3 should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
		✓

G.4 Storm Water Overflows

Provide details on a programme of improvements to ensure that discharges other than the primary and secondary discharges comply with the definition of 'storm water overflow' as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007.

No programme of improvements is planned at present.

Attachment G.4 should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
		✓

SECTION H: DECLARATION

Declaration

I hereby make application for a waste water discharge Certificate of Authorisation/revised Certificate of Authorisation, pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

I certify that the information given in this application is truthful, accurate and complete.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website.

This consent relates to this application itself and to any further information or submission, whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

Signed by : _____ **Date :** 11-12-09
(on behalf of the organisation)

Print signature name: Noirin Murrell

Position in organisation: Director of Service

SECTION I: JOINT DECLARATION

Joint Declaration [Note1]

I hereby make application for a waste water discharge Certificate of Authorisation /revised Certificate of Authorisation, pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

I certify that the information given in this application is truthful, accurate and complete.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website.

This consent relates to this application itself and to any further information or submission whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

Lead Authority

Signed by :_____ **Date :**_____
(on behalf of the organisation)

Print signature name: _____

Position in organisation:_____

Co-Applicants

Signed by :_____ **Date :**_____
(on behalf of the organisation)

Print signature name: _____

Position in organisation:_____

Signed by :_____ **Date :**_____
(on behalf of the organisation)

Print signature name: _____

Position in organisation:_____

Note 1: In the case of an application being lodged on behalf of more than a single Water Services Authority the following declaration must be signed by all applicants.

TABLES / ATTACHMENTS

Section A - Non Technical Summary

Attachment A1 – GOLE A1-01 – Site Location Map of Agglomeration

Section B - General

Attachment B1 – GOLE B1-01 – Goleen Agglomeration Boundary Map

Attachment B2 – GOLE B2-01 – Site Location of Existing Waste Water Treatment Plant

Attachment B3 – GOLE B3-01 – Existing Primary and Secondary Discharge Points

Attachment B5 – GOLE B5-01 – Storm Water Overflow Location

Attachment B11 – Foreshore Licence

Section E – Monitoring

Attachment E2 - Monitoring Programme

Attachment E3 - Tabular Data on Monitoring and Sampling Points

Attachment E4 - Sampling Data

Section F – EXISTING ENVIRONMENT & IMPACT OF THE DISCHARGE(S)

Attachment F1 – Ecology Report

Attachment F1 (a) – Marine Report

Tables

Agglomeration Details

Tables D.1 – Emissions to Surface/Ground Waters

Table E.1 - Wastewater Frequency and Quantity of Discharge

Table F.1 - Surface/Ground Water Monitoring

Annex II

Checklist for Regulation 16/17 Compliance

Attachment A.1

Attachment A1

Map:

- GOLE A1.01 - Site Location Map

NOTES

1. Do not scale, use figured dimensions only. If in doubt, ask.
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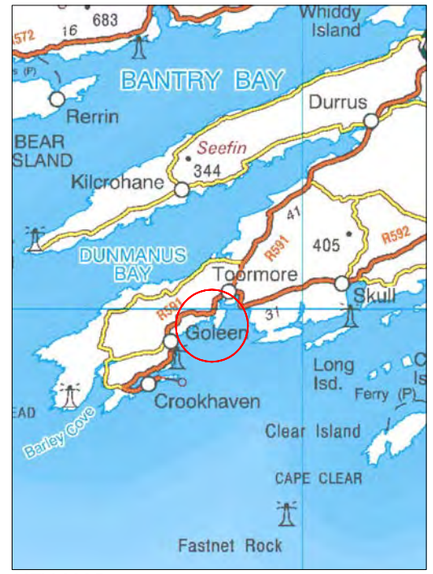


KEY MAP Not To Scale

No.	Date	Drwn	Chkd	Revision Description

Cork County Council
Western Division.

N.O'MAHONY,B.E.,
SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
WASTE WATER DISCHARGE
CERTIFICATE APPLICATION
GOLEEN AGGLOMERATION

Drawing Title:
ATTACHMENT A.1
SITE LOCATION MAP

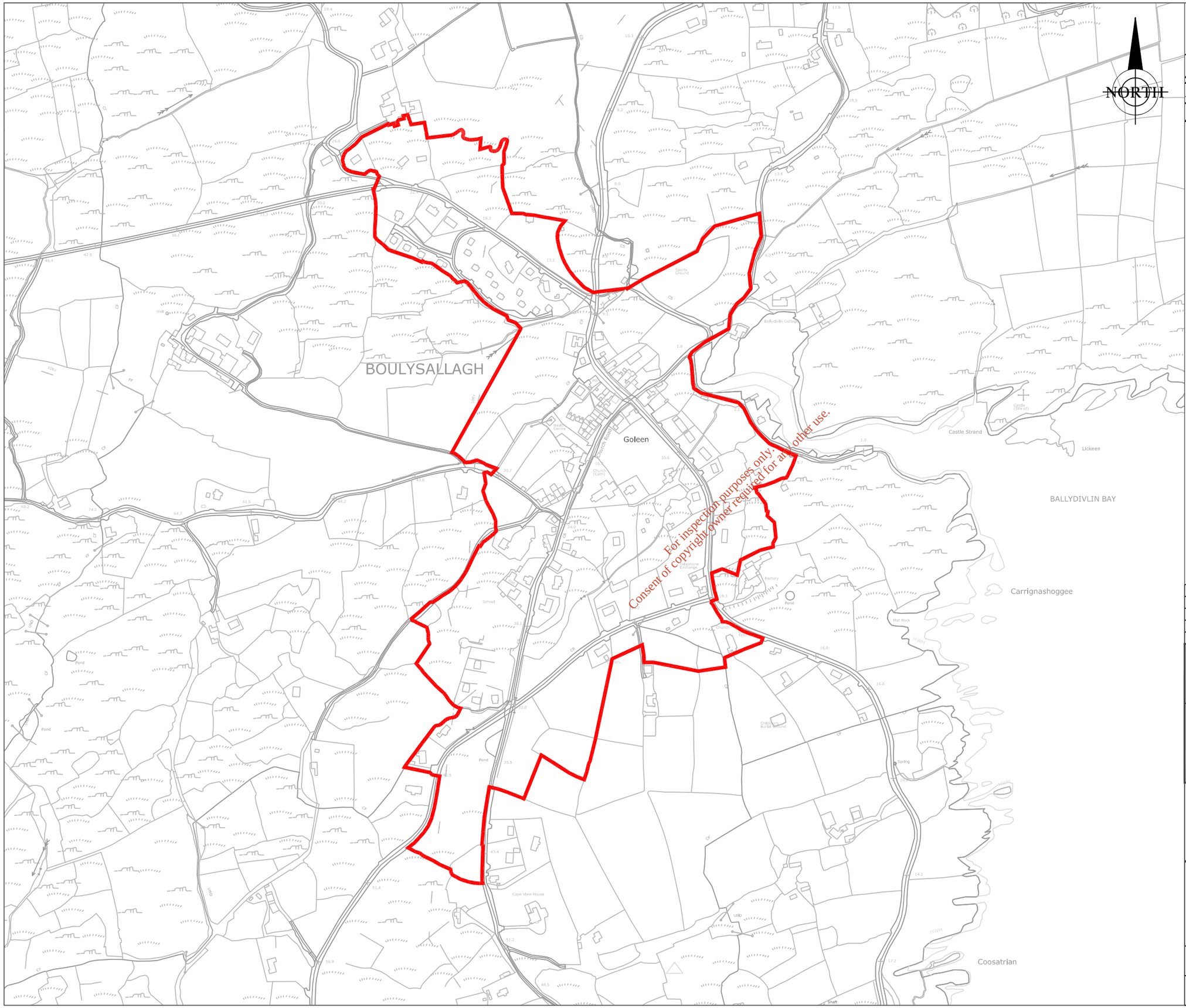
Prepared By:	Checked By:	Date:
A.O'BRIEN	D.GROARKE	DEC.2009
Drawing number: GOLE-A1-01	**Scales:** NTS	**Rev:** -

Attachment B.1

Attachment B1

Map:

- GOLE B1.01 – Goleen Agglomeration Boundary Map



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LEGEND

AGGLOMERATION BOUNDARY

No.	Date	Drwn	Chkd	Revision Description

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SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:

WASTE WATER DISCHARGE CERTIFICATE APPLICATION GOLEEN AGGLOMERATION

Drawing Title:

ATTACHMENT B.1
AGGLOMERATION BOUNDARY

Prepared By:	Checked By:	Date:
A.O'BRIEN	D.GROARKE	JUN.2009
Drawing number: GOLE_B1_01	Scales: 1:5000	Rev: -

Attachment B.2

Attachment B2

Map :

- **GOLE B2.01 -** Site Location Map of Existing Wastewater Treatment Plant

Goleen

Church Road

Septic Tank No. 1

Existing Outfall No. 1

Septic Tank No. 2

Existing Outfall No. 2

Castle Strand

Castle (Site of)

Carrignashog

Flat Rock

Telephone Exchange

Rectory

Pond

Church

Grave Yard

Children's Burial Ground

Church (Cath)

GS Stn.

HWM

CF

PO

TK

2.1

1.0

5.7

10.6

16.8

15.6

19.3

24.2

16.0

16.6

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SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:

WASTE WATER DISCHARGE CERTIFICATE APPLICATION GOLEEN AGGLOMERATION

Drawing Title:

ATTACHMENT B.2
EXISTING WWTP

Prepared By:	Checked By:	Date:
A.O'BRIEN	D.GROARKE	JUN.2009

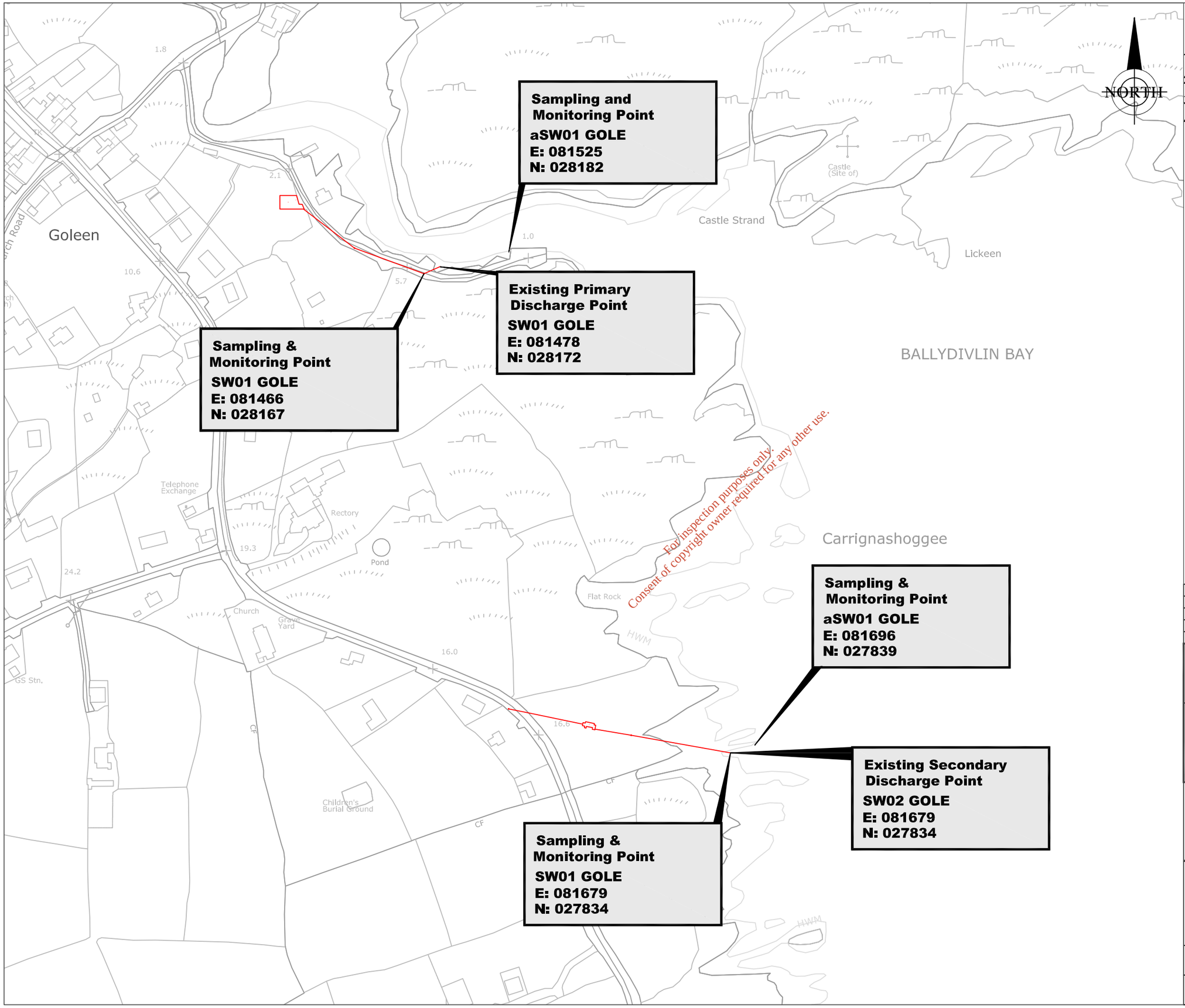
Drawing number:	Scales:	Rev:
GOLE_B2_01	1:2000	-

Attachment B.3

Attachment B3

Map :

- **GOLE B3.01** – Existing & Proposed Primary Discharge Point



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M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:

WASTE WATER DISCHARGE CERTIFICATE APPLICATION GOLEEN AGGLOMERATION

Drawing Title:

ATTACHMENT B.3
EXISTING PRIMARY & DECONDARY DISCHARGES

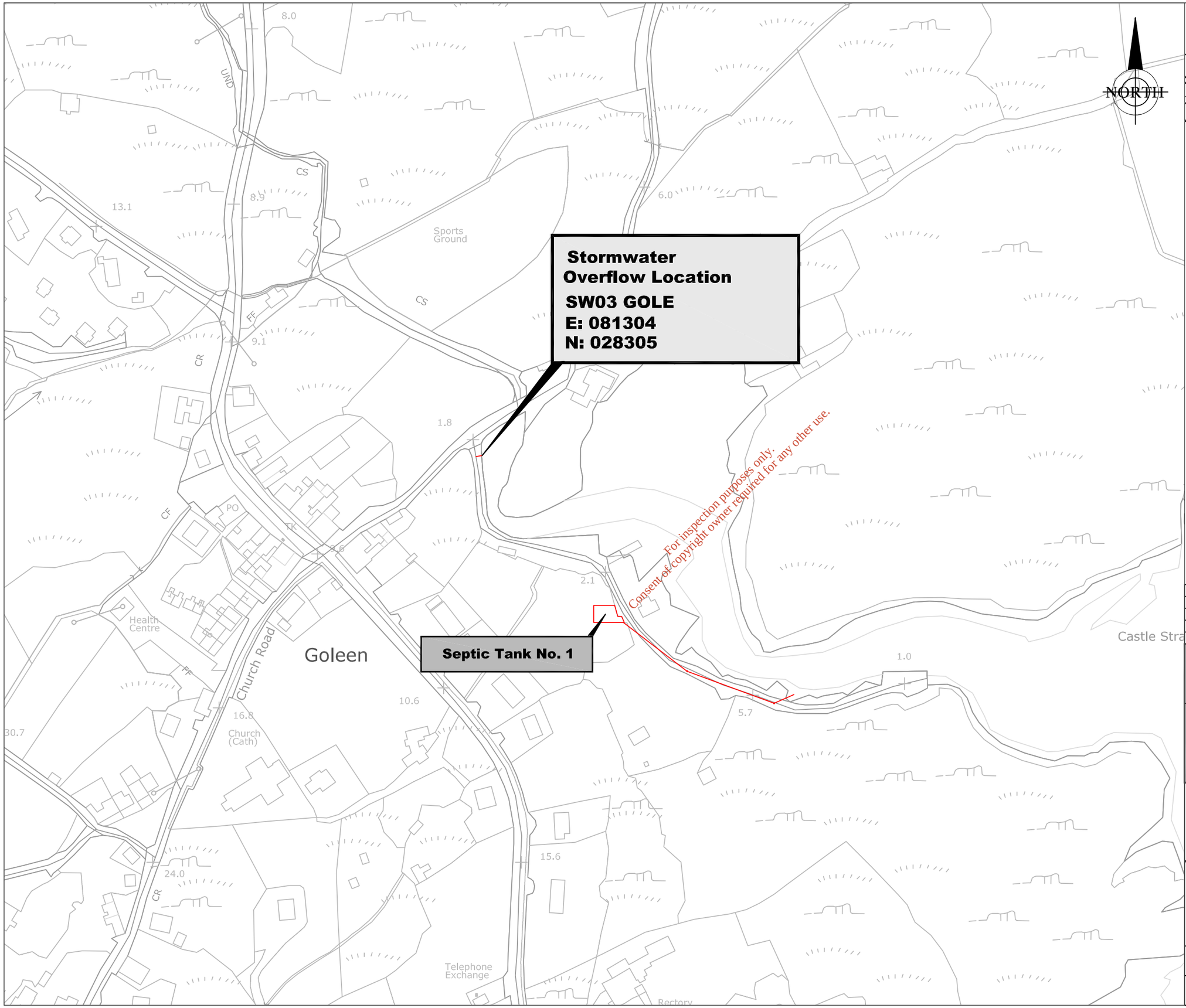
Prepared By:	Checked By:	Date:
A.O'BRIEN	D.GROARKE	JUN.2009
Drawing number: GOLE_B3_01	**Scales:** 1:2000	**Rev:** -

Attachment B.5

Attachment B5

Map :

- **GOLE B5.01** – Stormwater Overflow Locations



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SENR.ENGR. (WATER SERVICES),
COURTHOUSE, SKIBBEREEN.

M. MURRELL.,
DIRECTOR OF SERVICES
WEST CORK

Job Title:

WASTE WATER DISCHARGE CERTIFICATE APPLICATION GOLEEN AGGLOMERATION

Drawing Title:

ATTACHMENT B.5 STORMWATER OVERFLOW LOCATION

Prepared By:	Checked By:	Date:
A.O'BRIEN	D.GROARKE	JUN.2009

Drawing number:	Scales:	Rev:
GOLE_B5_01	1:2000	-

Attachment B.11

Attachment B11

- Foreshore Licence – Specific Conditions

…D THE 7th DAY OF September 1966

345

THE MINISTER FOR TRANSPORT AND POWER

-with-

CORK COUNTY COUNCIL

LICENCE

BASIL DOYLE,
FINANCE SOLICITOR,
51, ST. STEPHEN'S GREEN, E.,
DUBLIN, 2.

[illegible]

Enrolled in the Central Office of the High Court
the 22nd day of September 1966
R.J. Call
REGISTRAR

10/6
270/1

AGREEMENT) Made the seventh day of September One thousand Nine hundred and Sixty-six BETWEEN THE MINISTER FOR TRANSPORT AND POWER (hereinafter called "the Minister") of the One Part and CORK COUNTY COUNCIL (hereinafter called "the Licensees" which expression shall include their successors where the context so admits or requires) of the Other Part WHEREAS the Licensees have applied to the Minister to grant them permission to use and occupy those parts of the foreshore at Goleen County Cork hereinafter described for the purpose of laying maintaining and using two sewage outfall pipes in connection with Goleen Sewerage Scheme AND WHEREAS the Minister has agreed to grant such permission subject as herein NOW THEREFORE THIS AGREEMENT WITNESSETH that the Minister in exercise of the powers vested in him by the Foreshore Act, 1933 hereby grants to the Licensees licence to use and occupy those parts of the foreshore at Goleen County Cork as more particularly delineated and shown in red colour on the maps annexed hereto for the purpose aforesaid AND IT IS HEREBY AGREED by and between the Minister and the Licensees as follows that is to say:- -

1. This Licence shall remain in force for the term of Ninety-nine years from the twentieth day of July One thousand nine hundred and Sixty-five.

2. The Licensees shall at all times during the continuance of this Licence keep the said sewage outfall pipes in a good and proper state of repair and in proper condition to the satisfaction of the Minister and so as to ensure that they will not be injurious to navigation the adjacent lands or the public interest.

3. The Licensees shall cause the said pipes to be marked by a sign to the satisfaction of the Minister to indicate the presence of the same at all stages of the tide.

4. The Licensees shall indemnify and keep indemnified the Minister and the State against all actions loss claims damages costs expenses and demands arising in any manner whatsoever in connection with the laying use and maintenance of the said sewage outfall pipes or in the exercise of the permission hereby granted.

5. In the case of the breach non-performance or non-observance by the Licensees of any of the covenants and conditions contained herein the Minister shall have power forthwith to terminate this Licence.

6. Any Notice to be given to the Licensees in pursuance of this Licence may be transmitted through the Post Office addressed to the Licensees.

7. This Licence shall be enrolled by the Minister at the Licensees' expense in the Central Office of the High Court

IN WITNESS WHEREOF the Minister and the Licensees have caused their respective Seals to be hereunto affixed the day and year first herein written

PRESENT /

PRESENT when the Seal of Office of the Minister for Transport and Power was affixed and was authenticated by the signature of:-

D. Ó RIORDÁIN

A person authorised under Section 15(1) of the Ministers and Secretaries Act, 1924, to authenticate the Seal of the said Minister

Signature: N. Fitzgerald

Asst Transport and Power

Address: Kildare Street, Dublin

Occupation: Civil Servant

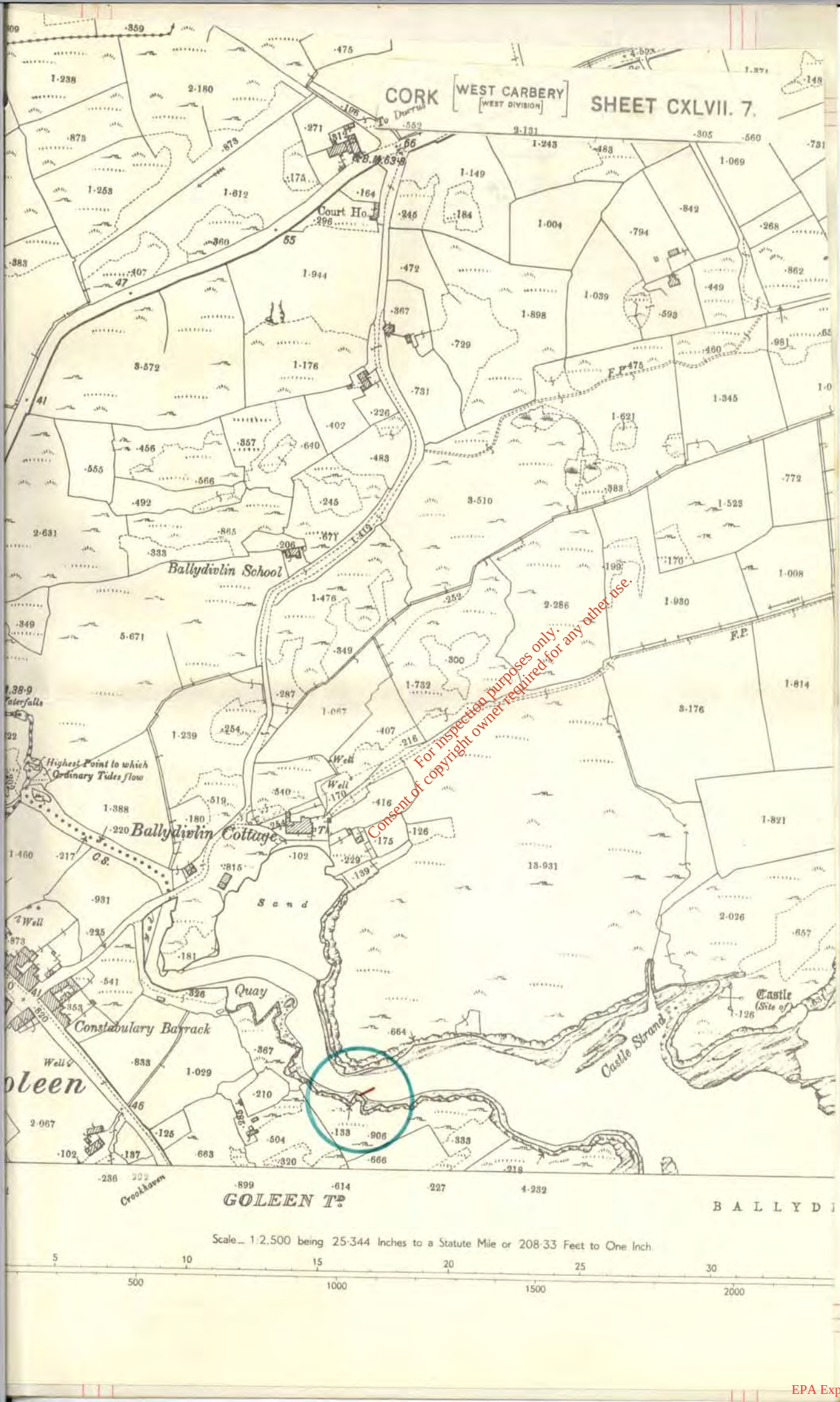
PRESENT when the Corporate Seal of the Licensees was affixed hereto:-

General Manager

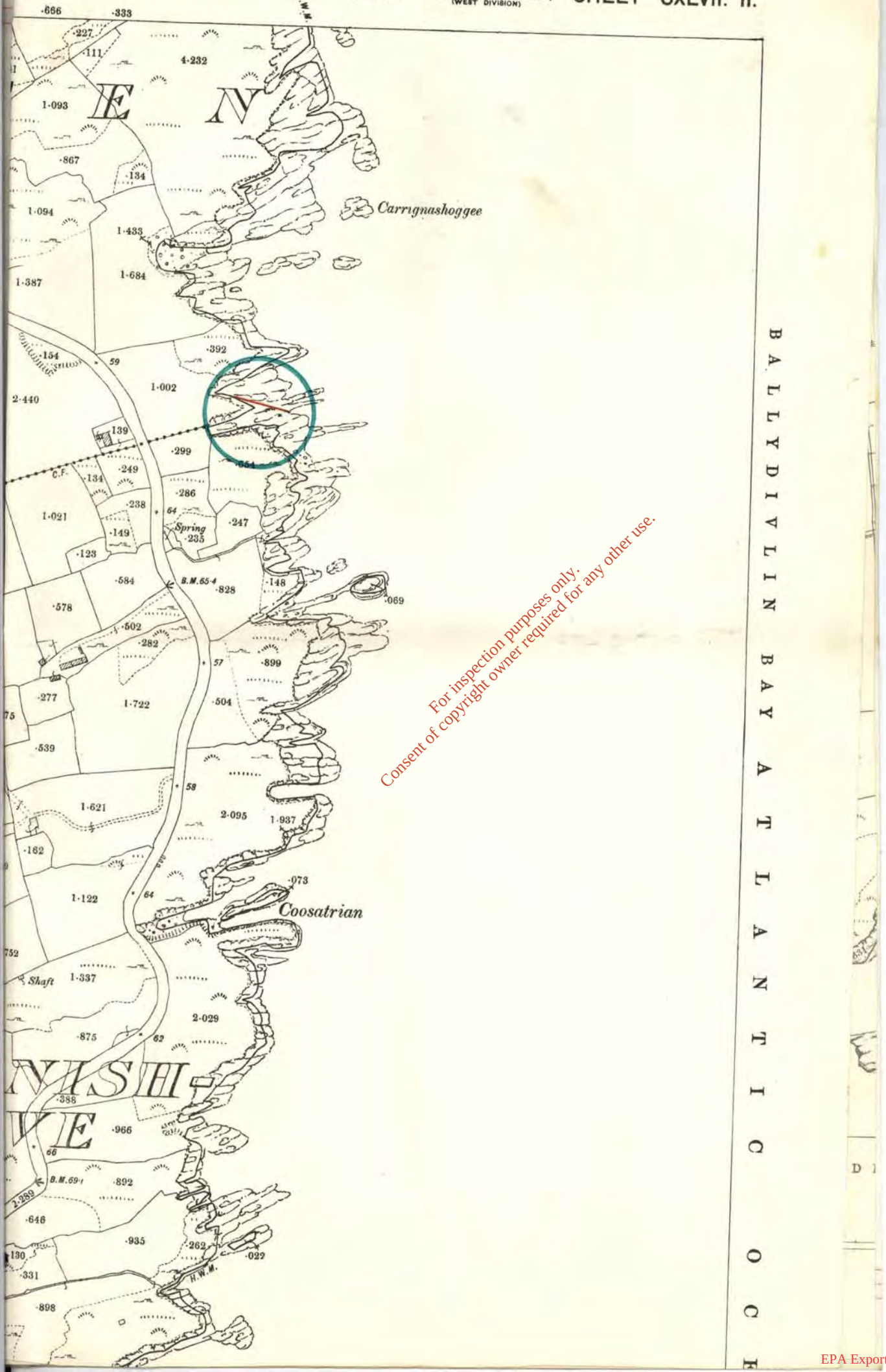
CHAIRMAN OR NOMINATED MEMBER

Enrolled in the Central Office of the
High Court
the 22 day of September 1966

E.T. Ball
Registrar



CORK (WEST CARBERY.) (WEST DIVISION) SHEET CXLVII. II.



DATED THE 7th DAY OF September 1966

345

THE MINISTER FOR TRANSPORT AND POWER

-with-

CORK COUNTY COUNCIL

LICENCE

BASIL DOYLE,
FINANCE SOLICITOR,
51, ST. STEPHEN'S GREEN, E.,
DUBLIN, 2.

Confd McK ance.

Attachment E.2

Attachment E.2

- Sampling Data

Attachment E.2 – Goleen Waste Water Discharge Certificate Application – Monitoring and Sampling Points

Grab samples have been collected recently of the effluent from the primary discharge as well as receiving waters and the results are included in Attachments E.4 and F.1 of this application.

There are no drinking water abstraction points in the vicinity of the WwTP.

The recent sample analysis has been carried out by the Laboratory of Cork County Council which is accredited for a number of analytical tests under the Irish National Accreditation Board (INAB) under the ISO 17025 international standard. It is currently accredited for the following parameters under that standard system:

- pH
- Biochemical Oxygen Demand
- Chemical Oxygen Demand
- Suspended Solids
- Ammonia
- Ortho Phosphate
- Total Phosphate
- Chloride
- Sulphate

It is proposed to sample the influent and effluent from treatment plants where accessible and receiving waters once a year in the future for the following parameters at the Cork County Council Laboratory in Skibbereen:

- pH
- Biochemical Oxygen Demand
- Chemical Oxygen Demand
- Suspended Solids
- Ammonia
- Ortho Phosphate
- Total Nitrogen

Attachment E.4

Attachment E.4

- Sampling Data

Attachment E4 Goleen Discharge Outlet Table E4

Sample Date	13/10/2009							
Sample	Septic tank no. 1		ambient downstream septic tank 1		Septic tank no. 2		ambient downstream septic tank 2	
Sample Code	GT1265		GT1264		GT1266		GT1267	
Flow M^3/Day	not available		not available		not available		not available	
pH	7.3		8.0		7.2		8.0	
Temperature °C	not available		not available		not available		not available	
Cond 20°C	412		40600		325		47100	
SS mg/L	20		12		17		15	
NH_3 mg/L	10.3		0.6		0.5		0.5	
BOD mg/L	25		1		2.4		1	
COD mg/L	34		27		<21		31	
TN mg/L								
Nitrite mg/L								
Nitrate mg/L								
TP mg/L	1.37		<0.05		0.198		<0.05	
O-PO4-P mg/L	1.48		<0.05		0.15		<0.05	
SO4 mg/L	<30		saline interference		<30		saline interference	
Phenols µg/L	<0.10				<0.10			
Atrazine µg/L	<0.01				<0.01			
Dichloromethane	<1				<1			
Simazine µg/L	<0.01				<0.01			
Toluene µg/L	<0.28				<0.28			
Tributyltin µg/L	not required				not required			
Xylenes µg/L	<0.73				<0.73			
Arsenic µg/L	0.5				0.2			
Chromium ug/L	<20		<20		<20		<20	
Copper ug/L	<20		<20		<20		<20	
Cyanide µg/L	<5				<5			
Fluoride µg/L								
Lead ug/L	<20		<20		<20		<20	
Nickel ug/L	<20		<20		<20		<20	
Zinc ug/L	<20		<20		<20		<20	
Boron ug/L	<20		2878		<20		3259	
Cadmium ug/L	<20		<20		<20		<20	
Mercury µg/L	<0.03				<0.03			
Selenium µg/L	3.2				3.3			
Barium ug/L	<20		<20		<20		<20	

Attachment F.1

Attachment F.1

- Assessment of the ecological impacts from the construction of a wastewater treatment system at Goleen, Co. Cork
- Goleen Sewerage Scheme Marine Outfall Survey

Dixon.Brosnan
environmental consultants

Project title	Assessment of the ecological impacts from the construction of a wastewater treatment system at Goleen, Co. Cork
Client	Tobin Consulting Engineers
Client ref.	-
D.B ref.	07 049
Revision	0 issue to client
Date	26th April, 2007
approved by	Carl Dixon B. Sc. (Applied Ecology)
on behalf of Dixon.Brosnan	

Dixon.Brosnan, 7 The Cedars,
Bridewood, Ovens, Co. Cork
Tel/Fax: 086 8511437
Email: carl@dixonbrosnan.com

1. Introduction

Dixon.Brosnan environmental consultants were asked by Tobin Consulting Engineers to assess the possible ecological impacts which could arise from the provision of a new wastewater treatment system at Goleen, Co. Cork. The treatment system will include a wastewater treatment plant, two pumping stations and associated pipework. This report describes and evaluates the habitats with their representative flora and fauna in order to describe and assess the impacts that would result from the proposed development. This report follows the structure and protocols detailed in *Advice notes on current practice in the preparation of Environmental Impact Statements (EPA 2003)* and *Guidelines on the information to be contained in Environmental Impact Statements (EPA 2002)*.

2. Methodology

A site visit was carried out in February 2007. Habitats were classified to level 3 of the classification scheme outlined in *A Guide to Habitats in Ireland (Fossitt 2000)*. These habitats are also outlined on **Figure 3.** In broad terms the habitat map is based on the methodology outlined in the *British JNCC publication (1993) on Phase 1 habitat surveys*. It should be noted that some of the habitats are transitional and where this occurs they are placed in the category they most resemble. The National Parks and Wildlife Service were consulted during this assessment.

3. Receiving Environment

3.1 Surrounding landscape

Most of the new pipeline route will run along minor roads along the outskirts of Goleen village. The landscape consists of mixed hedgerows which are generally quite exposed and a mixture of semi-improved grassland with some heath and gorse on drier rocky outcrops. Part of the area to be affected is within the site boundary of a proposed Natural Heritage Area (pNHA) and Special Area of Conservation (Barleycove to Ballyrisode 1040). The boundaries of the designated area are shown in **Figure 1** and **Figure 2.**

The designated area 1040 is situated on the Mizen Head peninsula in the extreme south-west of County Cork. It straddles a 10 km stretch of coastline from the Barley Cove inlet to Ballyrisode Point at Toormore Bay. The dominant habitat over much of the remainder of the site is coastal heath, which is of high conservation value. This occurs from the maritime shoreline to the highest point of the site (164 m). It is varied in character, ranging from shallow dry soils to wet peaty pockets. The heath is primarily made up of woody species, including Western Gorse (*Ulex gallii*), Bell Heather (*Erica cinerea*) and Ling (*Calluna vulgaris*). Purple Moor-grass (*Molinia caerulea*) is ubiquitous, with other character species such as Tormentil (*Potentilla erecta*), Lousewort (*Pedicularis sylvatica*) and Heath Milkwort (*Polygala serpyllifolia*) also in evidence.

A notable feature of the site is the concentration of rare plants associated with the heath habitat: two legally protected species (Flora (Protection) Order 1999), Hairy Bird's-foot-trefoil (*Lotus subbiflorus*) and Lanceolate Spleenwort (*Asplenium billotii*), and four Red Data Book species, Pale Dog-violet (*Viola lactea*), Green-winged Orchid (*Orchis morio*), Bird's-foot (*Ornithopus perpusillus*) and Spotted Rock-rose (*Tuberaria guttata*), occur in places. Another scarce plant which occurs at the site is the Strawberry Tree (*Arbutus unedo*).

The site is of notable ornithological importance for Chough (Annex I Birds Directive species), with 9 breeding pairs in 1992. In addition to nesting, substantial numbers of Choughs utilise the heath and sandy habitats for feeding and socialising.The site is most important for the sand dunes and related habitats, which occur at Barley Cove. These coastal habitats will not be affected by this development.

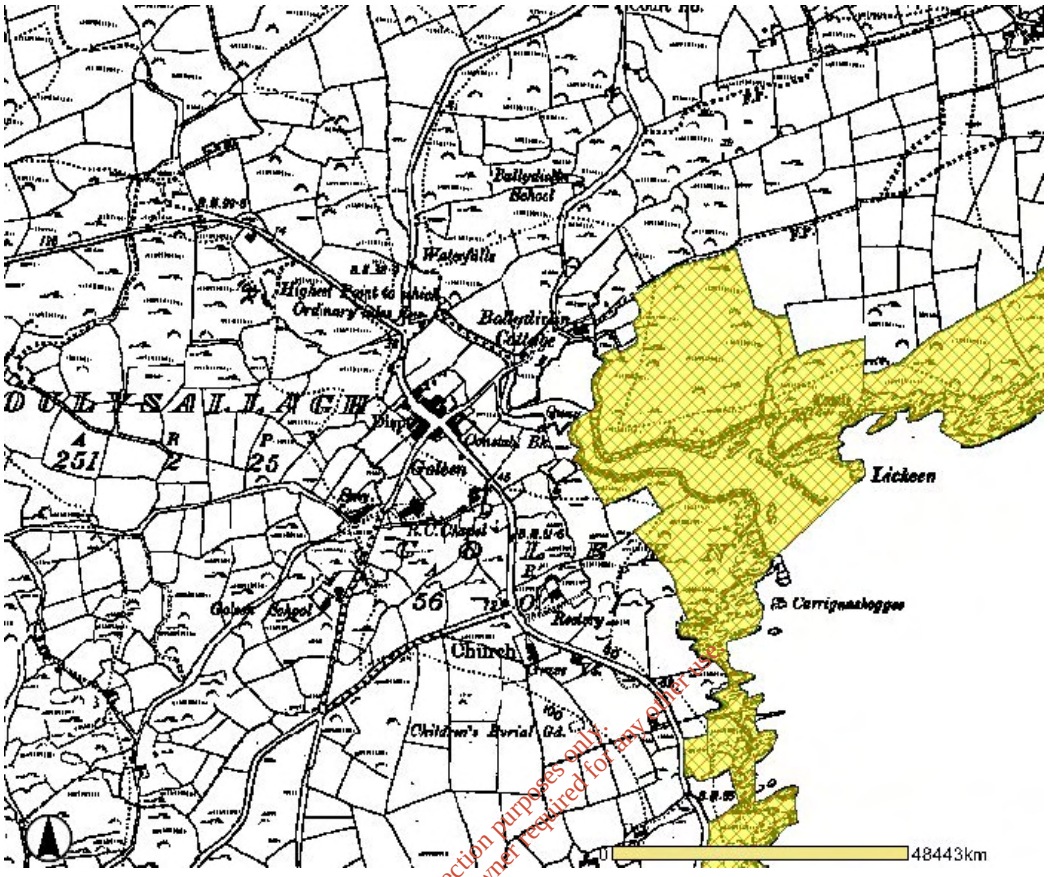


Fig. 2 Special Area of Conservation (Barleycove to Ballyrisode 1040).

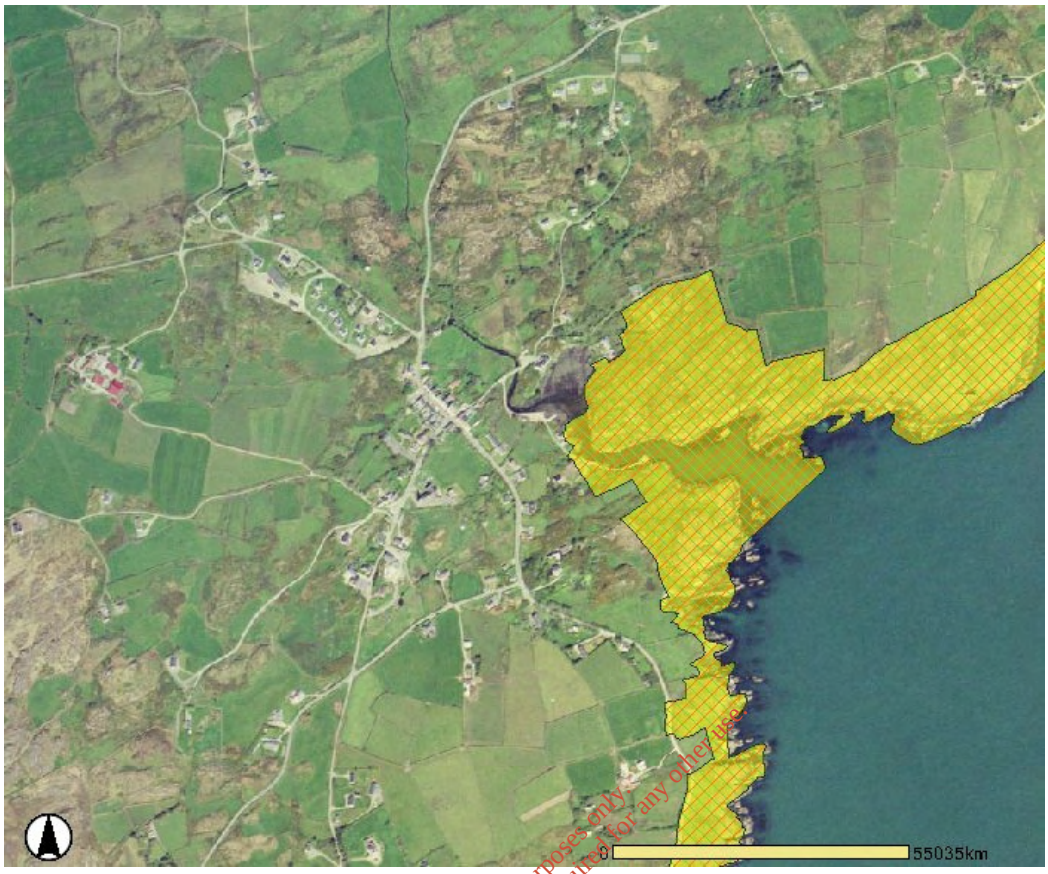


Fig. 3 Special Area of Conservation (Barleycove to Ballyrisode 1040).

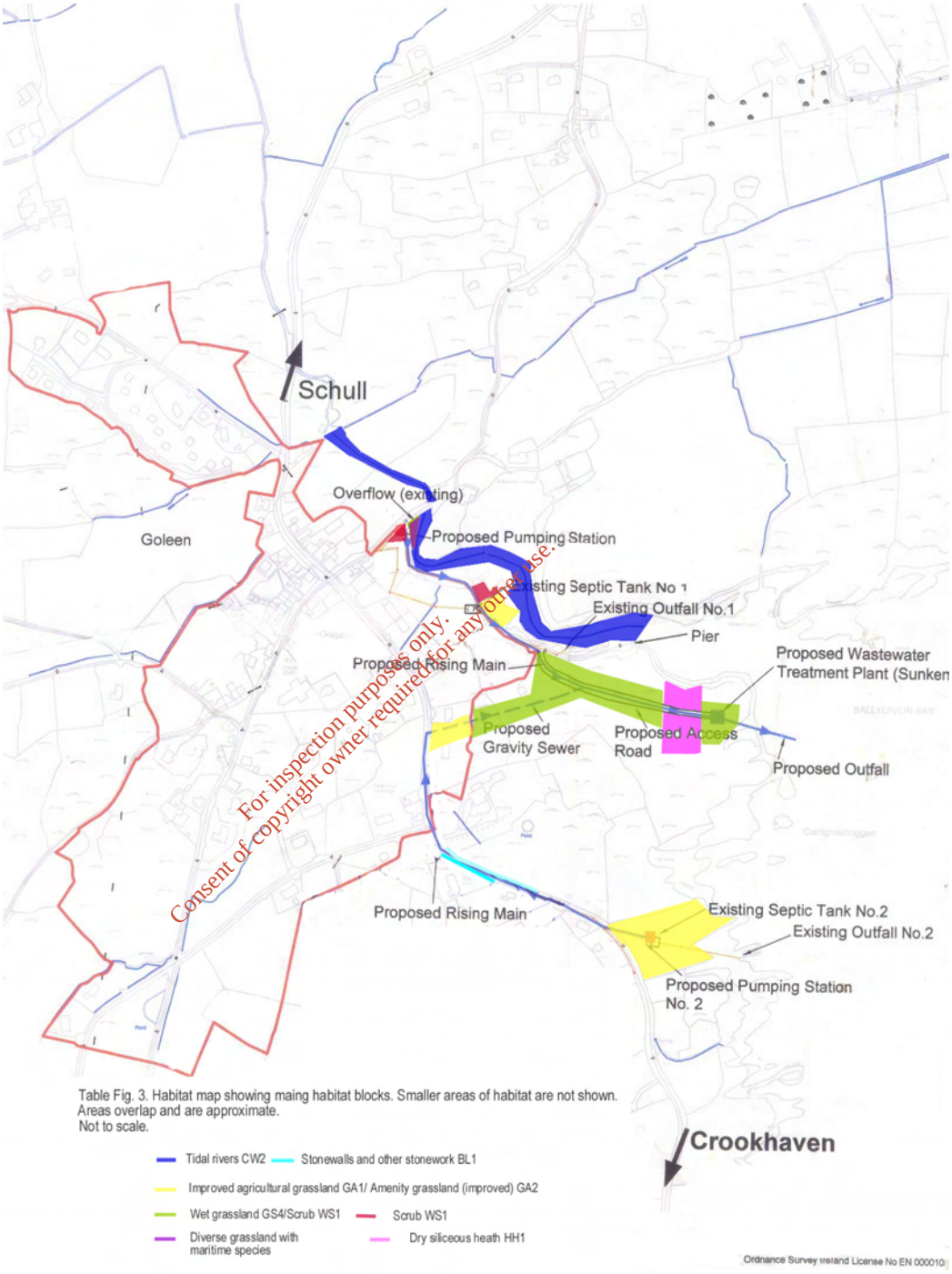


Table Fig. 3. Habitat map showing maing habitat blocks. Smaller areas of habitat are not shown. Areas overlap and are approximate.
Not to scale.

3.2 Habitat types

The habitats listed below are shown on **Figure 3**. The survey area was divided into the following habitat types:

- **Tidal rivers CW2**
- **Eroding Rivers (FW1)**
- **Dry siliceous heath HH1**
- **Hedgerows WL1/ Treelines (WL2)**
- **Stonewalls and other stonework BL1**
- **Scrub WS1**
- **Improved agricultural grassland GA1/ Amenity grassland (improved) GA2/Wet grassland GS4**

3.2.1 Tidal rivers CW2

This category is used for the lower reaches of rivers or streams, and any artificial watercourses, that are tidal and where there are regular fluctuations in salinity and turbidity and in the rate and direction of water flow. Tidal rivers correspond approximately to the annexed habitat, 'estuaries (1130)'. Part of the pipeline route will run along a minor road adjacent to the tidal zone of a small watercourse. The watercourse is small with a mixed stone and cobble substrate. Algal species noted in the tidal section include green algae and *Fucus sp*. The stream is potentially of value for trout and sea-trout and the tidal reaches probably support species such as flounder and eel. The pipeline route is not expected to impact on this habitat.

3.2.2 Eroding Rivers (FW1)

A small stream passes beneath the road and meets the larger stream to the west of the existing slipway. It is small is size and its fisheries value is minimal.

3.2.3 Stonewalls and other stonework BL1

This category incorporates stone walls and most other built stone structures and includes dry stone and old mortar walls. Stone walls occur alongside sections of the roads, including relatively diverse sections close to the church, and there is a retaining wall adjoining a steep drop to the sea in the southern section. The walls support a mixture of typical flora including maidenhair spleenwort, rue, polypody, pennywort and ivy.

3.2.4 Hedgerows WL1/ Treelines (WL2)

Hedges and treeline occur along sections of the roads along which the new rising main will pass. Typical species include fuchsia, bramble, blackthorn and bracken. Understorey species include wild garlic, montbresia and lord and ladies. The main tree species is sycamore with one isolated apple tree also noted. The separation between hedgerows and treelines is indistinct and generally hedges are poorly developed as a consequence of their exposure to sea breezes.

3.2.5 Scrub WS1

There are areas of gorse scrub interspersed with areas of grassland to the west of the proposed treatment plant.

3.2.6 Improved agricultural grassland GA1/ Amenity grassland (improved) GA2/Wet grassland GS4

Grassland along the route consists of a mixture of semi-improved agricultural grassland and wet grassland with one area of amenity grassland. Improved agricultural grassland is dominated by common grass species such as ryegrass and herbaceous species including thistle, plantain and clover. Where drainage is poor wet grassland has developed and in these circumstances rush is the dominant species.

A small, more diverse area of grassland occurs between the road and the tidal section of the stream. It supports a number of typical maritime species including sea beet, scurvy grass and red fescue as well as tussocky grasses such as Yorkshire fog and cocksfoot.

3.3 Birds

The bird species noted, or likely to occur, can be broadly associated with the main habitat type found on the site, namely mixed scrub/heath with semi-improved grassland and low growing hedges. Species noted in the general area include stonechat, snipe, rook, grey rook, wren, robin and blackbird. Grey wagtail was noted along the larger stream and one cormorant was noted approximately 50m offshore at the new proposed discharge point. Chough, which are included in Annex 2 of the Habitats Directive, were not noted; however, they may use the heath and semi-improved grassland habitats.

3.4 Mammals

3.4.1 Bats

No suitable roosting sites for bats were noted. The amount of potential feeding area to be removed is small and no impact is expected to occur.

3.4.2 Other Mammals

Rabbits are present on the site and foxes, hare, hedgehog and stoat could potentially occur. Some rodent species are ubiquitous in the Irish countryside and both brown rat and field mouse are almost certainly present within hedges and scrub. No evidence of otters was noted; however, they are almost certainly present in the area and they will probably utilise both the coast and the stream for feeding.

3.4.3 Other fauna

It is possible that the common frog occurs within the wet grassland and heath. A variety of invertebrate species will be present within the site; however, no specialised survey was considered necessary, as the habitats to be removed are common within the locality.

4. Evaluation of Flora and Fauna Impacts

4.1 Proposed development

The development of an access road, rising main and treatment plant will impact on a mosaic of semi-improved, improved grassland, wet grassland and scrub. It will also remove an area of dry heath. The rising main will generally follow the route of existing roads and provided certain mitigation measures are implemented the impact in these areas should not be significant.

4.2 Impacts on designated areas

As shown in Fig. 2 and 3 the development will affect small areas which are included within the SAC. The areas to be affected include an area of semi-improved grassland with rocky outcrops dominated by gorse and a narrow band of dry heath. Of these two habitats, the dry heath is potentially of most value; however, the area to be affected is of limited size. No uncommon species were noted in this habitat, which is similar to large areas of heathland in this general area. However, the survey was undertaken in early spring and a repeat survey during the summer period is recommended.

5. Habitat value

The relative values of each habitat type are detailed in **Table 1.** It should be noted that the value of a habitat is site specific, and will be partially related to the amount of that habitat in the surrounding landscape.

Table 1 Habitat value

Habitat Type/Species	Comments	Impacts
Tidal rivers CW2	Habitat of high, local value	Provided certain mitigation measures are implemented no impact on this habitat is expected to occur.
Eroding Rivers (FW1)	Small stream of limited local value	The proposed sewer will cross the small stream where it passes under the road. Provided certain mitigation measures are implemented no impact on this habitat is expected to occur.
Dry siliceous heath HH1	This habitat is common in the area and is of moderate, local value	The provision of the road and rising main will result in the removal of a band of this habitat. approximately 30m in width. This habitat is common in the area and the amount of habitat to be removed is a small proportion of the overall amount of similar habitat. Overall the impact will be minor, localised and permanent.
Stonewalls and other stonework BL1	The stone walls vary both in terms of structure and biodiversity. Generally of low to moderate local value	The sewer will generally follow existing roads alongside which the stone walls occur. Except for a small number of crossing points it is not expected that the development will impact on this habitat. Over all the impact will be minor, localised and permanent.
Hedgerows WL1/ Treelines (WL2)	Hedgerows are important refuges in an intensively managed landscape.	The rising main will generally follow existing roads alongside which the hedges occur. Except for a small number of specific points it is not expected that there will be an impact on this habitat. An apple tree at the point where the rising main from pumping station no. 2 crosses the road may need to be removed. Overall the impact will be minor, localised and permanent.
Scrub WS1	Generally dominated by gorse and of low to moderate local	Small areas of gorse scrub will be removed. The impact will be localised, minor and permanent.

	value.	
Improved agricultural grassland GA1/ Amenity grassland (improved) GA2/Wet grassland GS4	Of low local value. The small area of more diverse grassland close to the tidal watercourse is of moderate local value.	Small areas of amenity grassland and improved agricultural/wet grassland will be affected. It is not expected that the small area of diverse grassland close to the tidal watercourse will be affected.

Table 2 Fauna

Habitat Type/Species	Comments	Impacts
Chough	Included on Annex 2 of the Habitats Directive	This species does occur in this general area although it was not noted during surveys. The amount of habitat to be removed is relatively small and with the exception of short-term displacement during construction no impact is expected to occur.
Otter	Included on Annex 2 of the Habitats Directive	This species does occur within the area and is generally common in aquatic habitats in Ireland. There may be some short term displacement during construction however no significant impact is expected to occur.

6. Mitigation Measures

The following mitigation measures are recommended:

Hedgerows within the development area are of local ecological value and should be retained where possible. Similarly, the removal of stone walls should be kept to a minimum and the area of more diverse grassland close to the tidal river should be retained.

The area of heath to be removed should be kept to a minimum. It is recommended that as a precautionary measure this habitat is resurveyed during the May to September period.

Care should be taken to ensure that high levels of suspended solids do not discharge into the tidal watercourse or small stream.

Where feasible, within the scope of the development the landscape plan should specify that appropriate native tree species be used.

7. Residual impacts

To prevent incidental damage by machinery or by the deposition of spoil, it is recommended that habitats earmarked for retention be securely fenced early in the development process. The fencing should be clearly visible to machine operators.

There will be no net loss of habitat although overall the total amount to be removed is small. Although there may be some displacement of fauna during construction no long-term impacts are expected to occur.

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Appendix 1

BARLEYCOVE TO BALLYRISODE POINT (001040)

SITE NAME: BARLEYCOVE TO BALLYRISODE POINT

SITE CODE: 001040

This site is situated on the Mizen Head peninsula in the extreme south-west of County Cork. It straddles a 10 km stretch of coastline from the Barley Cove inlet to Ballyrisode Point at Toormore Bay. The rock type is Old Red Sandstone. This displays a NE-SW folding which is especially visible at Crookhaven and Brow Head.

While rocky heath is the dominant habitat, the site is most important for the sand dunes and related habitats which occur at Barley Cove. A fine gradation of habitat is shown, from the outer sandy beach, through dunes and salt marshes, and then brackish lagoon. Of particular importance is the fixed dune habitat, as this is a priority habitat on Annex I of the EU Habitats Directive, and is one of the few examples in County Cork and south Co. Kerry. This dune system is of moderate size and relatively intact. It grades from an outer ridge of white Ammophila dunes, through fixed dune hills and into an extensive area of dune grassland. A characteristic flora is displayed, with species such as Lady's Bedstraw (Galium verum), Common Birds-foot-trefoil (Lotus corniculatus), Wild Pansy (Viola tricolor subsp. curtisii) and Red Fescue (Festuca rubra). The moss and lichen component is well developed in places and includes Tortula ruraliformis and Peltigera canina. Long-term erosion by the tidal river has reduced the size of the dune system, though sand has been deposited elsewhere in the area.

The dunes merge with a substantial area of salt marsh which displays characters of both Atlantic and Mediterranean salt meadows (both Annex I habitats). Sea Rush (Juncus maritimus) is a dominant species, while other salt marsh species include Common Saltmarsh-grass (Puccinellia maritima), Sea-milkwort (Glaux maritima) and Sea Plantain (Plantago maritima). A fringe of Glasswort (Salicornia spp.) occurs at the lowermost part of the salt marsh and above the tidal river. Lissagriffin Lake, while of artificial origin, displays characteristics of a brackish lagoon, with such species as Sea Club-rush (Scirpus maritimus)

and Tasselweed (Ruppia sp.). Reeds occur along the eastern and northern margins of the lagoon.

Fine sandy beaches, with associated intertidal sand flats, occur at Barley Cove and White Strand. The intertidal flats at White Strand are well sheltered and have a typical invertebrate macrofauna. Molluscs are well represented in the mid shore zone, including the Common Cockle (Cerastoderma edule) and the Thin Tellin (Tellina tenuis). The low shore is characterised by an abundance of polychaetes, especially the Sand Mason (Lanice conchilega). The razorshells Ensis arcuatus and Solen marginatus are also typical low shore species, as is the Sand Gaper (Mya arenaria).

The site has extensive lengths of rocky shoreline, which develop into low cliffs in places. Shingle, another important coastal habitat listed on Annex I, occurs mostly in sheltered coves. At one location, Sea Kale (Crambe maritima), a Red Data Book species, occurs commonly on the shingle.

The dominant habitat over much of the remainder of the site is coastal heath, which is of high conservation value. This occurs from the maritime shoreline to the highest point of the site (164 m). It is varied in character, ranging from shallow dry soils to wet peaty pockets. The heath is primarily made up of woody species, including Western Gorse (Ulex gallii), Bell Heather (Erica cinerea) and Ling (Calluna vulgaris). Purple Moor-grass (Molinia caerulea) is ubiquitous, with other character species such as Tormentil (Potentilla erecta), Lousewort (Pedicularis sylvatica) and Heath Milkwort (Polygala serpyllifolia).

A notable feature of the site is the concentration of rare plants associated with the heath habitat: two legally protected species (Flora (Protection) Order 1999), Hairy Bird's-foot-trefoil (Lotus subbiflorus) and Lanceolate Spleenwort (Asplenium billotii), and four Red Data Book species, Pale Dog-violet (Viola lactea), Green-winged Orchid (Orchis morio), Bird's-foot (Ornithopus perpusillus) and Spotted Rock-rose (Tuberaria guttata), occur in places. Another scarce plant which occurs at the site is the Strawberry Tree (Arbutus unedo).

The site is of notable ornithological importance for Chough (Annex I Birds Directive species), with 9 breeding pairs in 1992. In addition to nesting, substantial numbers of Choughs utilise the heath and sandy habitats for feeding and socialising. Lissagriffin Lake is of some local importance for wintering waterfowl, including Whooper Swans (up to 16 at times) ands Mute Swans (up to 40). Small numbers of seabirds breed on the cliffs, including Fulmar (41 pairs), Lesser Black-backed Gull (9 pairs), Herring Gull (133 pairs), Shag (39

pairs), and Black Guillemot (1-5 pairs) (all counts in 1985).

The main land uses at this site are grazing and tourism related activities. Most of the site is grazed by livestock, though not intensively. Rabbits, however, are frequent at the sand dunes and have caused serious damage. The beach and dunes at Barley Cove are utilised by day-trippers and campers during the summer months and parts of the dune system has been damaged by heavy usage.

This site is of conservation importance for the presence of a number of good examples of coastal habitats. Of particular significance are the areas of dry heath and fixed dune (the latter, a priority habitat listed on Annex I of the EU Habitats Directive). The concentration of rare plants is of especial note, as is the high density of Choughs

Document Ref. No.1026_1/07

GOLEEN SEWERAGE SCHEME

MARINE OUTFALL SURVEY

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21st May 2007

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1.	Introduction	1
2.	Bathymetric Survey	2
3.	Tidal Level Recording	3
4.	Current Metering	7
5.	Drogue Tracking	12
6.	Dye Tracking	15

Annex 1 Drogue Track Plots – Neap - March 29th 2007
Annex 2 Drogue Track Plots – Neap - March 30th 2007
Annex 3 Drogue Track Plots – Spring - April 4th 2007
Annex 4 Dye Patch Plots – Neap - March 29th 2007
Annex 5 Dye Patch Plots – Neap - March 30th 2007
Annex 6 Dye Patch Plots – Spring – April 4th 2007

CD containing:
(a) this report in MS-Word format
(b) bathymetric data in xyz format
(c) tide data in Excel format
(d) current data in Excel format

1. INTRODUCTION

In January 2007 Irish Hydrodata Limited (IHD) were commissioned by Tobin Consulting Engineers (TOBIN), on behalf of Cork County Council, to conduct a marine survey of the waters off Goleen in County Cork (Figure 1.1). The study forms part of a wider investigation into the dispersion of treated wastewaters from the proposed Goleen sewer outfall. The Hydraulic and Maritime Research Centre (HMRC) of University College Cork (UCC) would use the data to calibrate a hydrodynamic/dispersion model of the area as part of their input to the project.

The study methodology was agreed between IHD, HMRC and TOBIN. The various aspects of the study were to include bathymetry, tide level measurements, current metering, dye tracking and drogue tracking. Data and results were to be presented in a format that would facilitate preparation of the HMRC model.

This report documents the study works and includes relevant figures and plots.

All survey position data is to Irish National Grid and vertical control is to OD Malin.

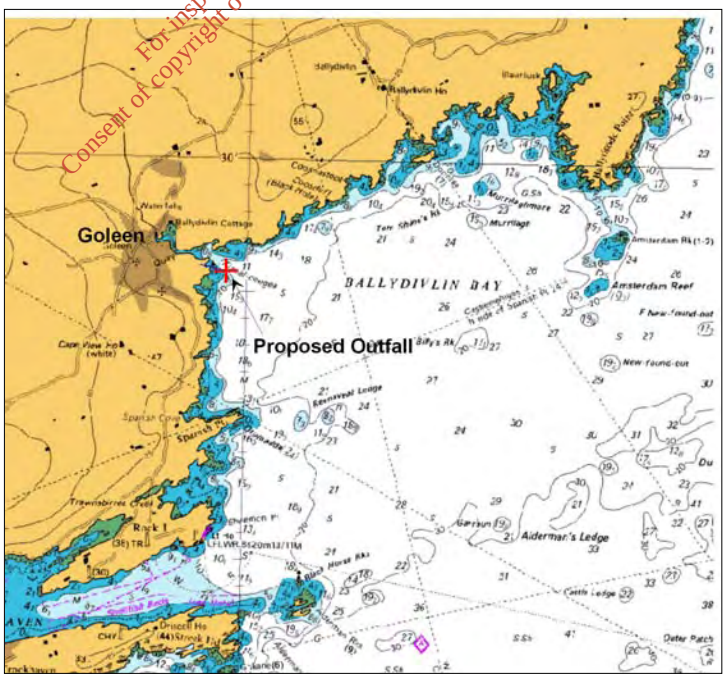


Figure 1.1 – Site Map.

2. BATHYMETRIC SURVEY

A bathymetric survey was conducted over the area shown in Figure 2.1 (depicted by vessel tracklines). The survey was completed from a 7m long shallow draft launch equipped with a Knudsen 320m dual frequency echosounder and a Trimble NT300D positioning system. Data was logged on a computer running HYPACK survey software. Tidal levels were recorded manually at Goleen pier and the bathymetric data subsequently reduced to Malin Head Datum based on a level on Goleen Pier supplied by TOBIN. The data was provided in xyz text format to HMRC as required for their model.

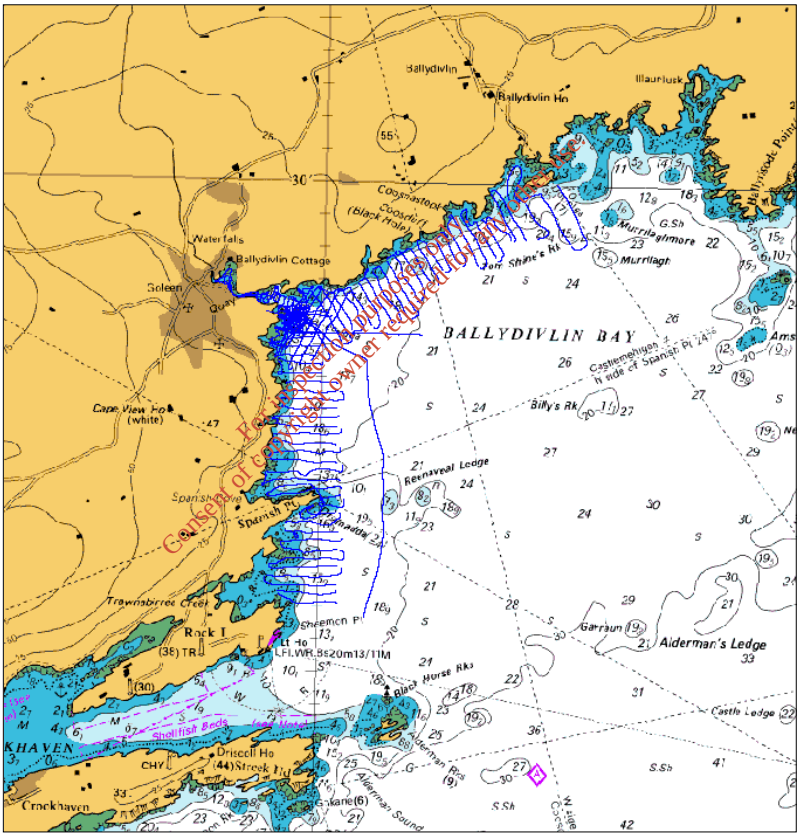


Figure 2.1 – Bathymetric Survey Tracklines.

3. TIDAL LEVEL RECORDING

Deployment Locations

Three digital tide gauges were deployed for this study; one at Goleen pier (TG1), one at a point north of Rock Island, near Crookhaven Bay (TG2) and the other at the eastern side of Toormore Bay (TG3) as shown in Figure 3.1. The location co-ordinates on Irish National Grid are presented in Table 3.1. All gauges were seabed-mounted '*Coastal Leasing'* Minitide units that recorded absolute pressure data (i.e. atmospheric pressure and pressure due to head of water) at 10-minute intervals. Data from the Met Eireann station at Valentia Island, Co. Kerry was used to correct for atmospheric pressure variations during the deployment period which lasted for 8 days from 28th March to 5th April.

LOCATION	EASTING (M)	NORTHING (m)
TG1 - Goleen Pier	81512	28187
TG2 – Rock Island	81409	26531
TG3 – Toormore Bay	86251	29878

Table 3.1 – Tide Gauge Location Co-ordinates (ING)

Reduction of Levels to Malin Head Datum (ODM)

The tide gauge data at Goleen Pier was related to Malin Head datum by comparing it with a series of simultaneous manual observations of water level made at the pier. TOBIN had earlier supplied a level on the pier related to ODM. There were no structures at the other two tide gauge locations at which accurate manual observations of water level (relative to ODM) could be taken. Therefore, the levels at these two locations were reduced to ODM by applying a vertical offset so that the datasets had the same mean water level as that of the tide gauge at Goleen Pier.

The complete time series plots for all three data sets are presented in Figure 3.2. Plots showing the data from March 29th (neap) and April 3rd (spring) are presented on an expanded time-axis in Figure 3.3.

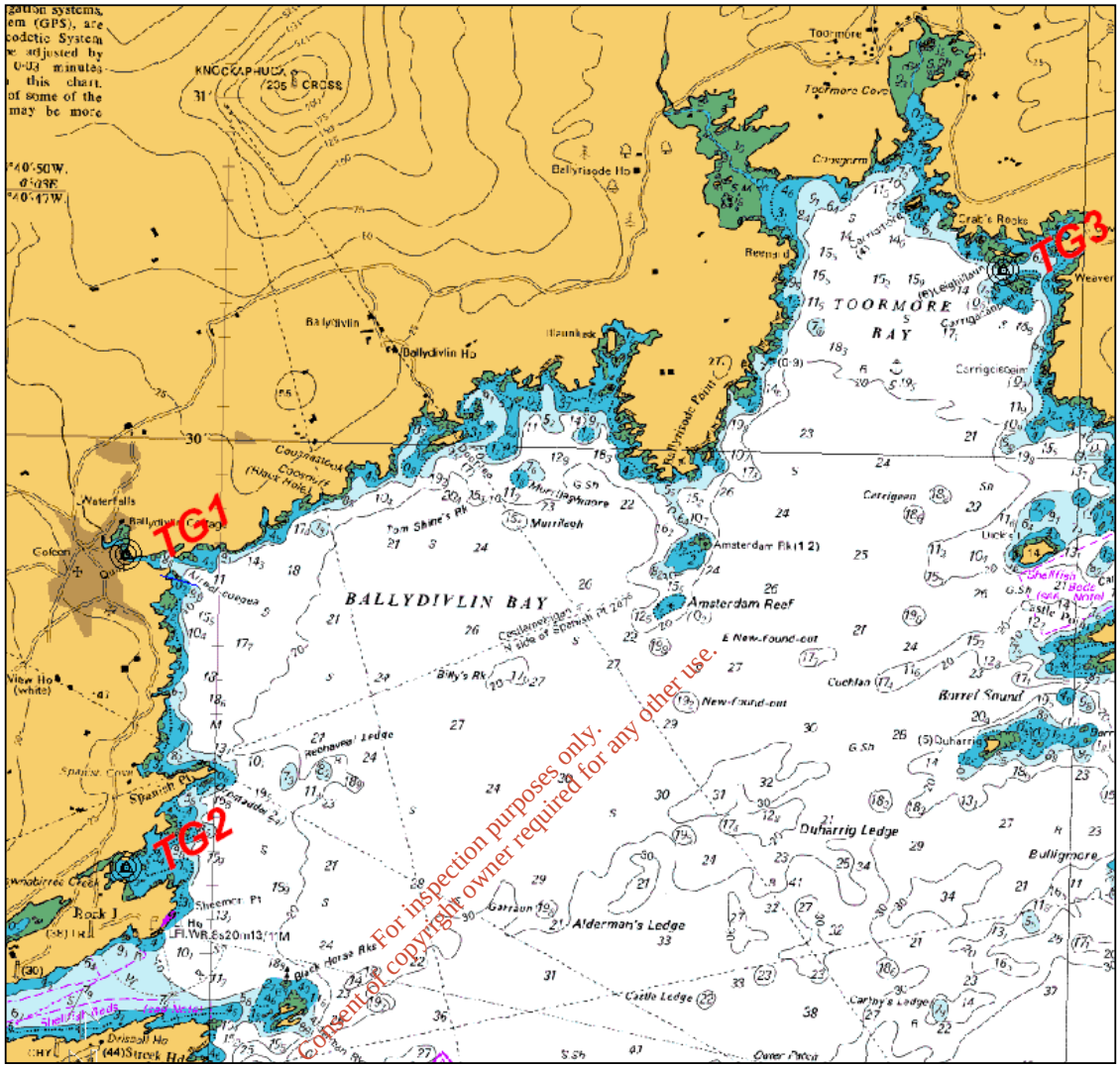


Figure 3.1 – Tide Gauge Locations.

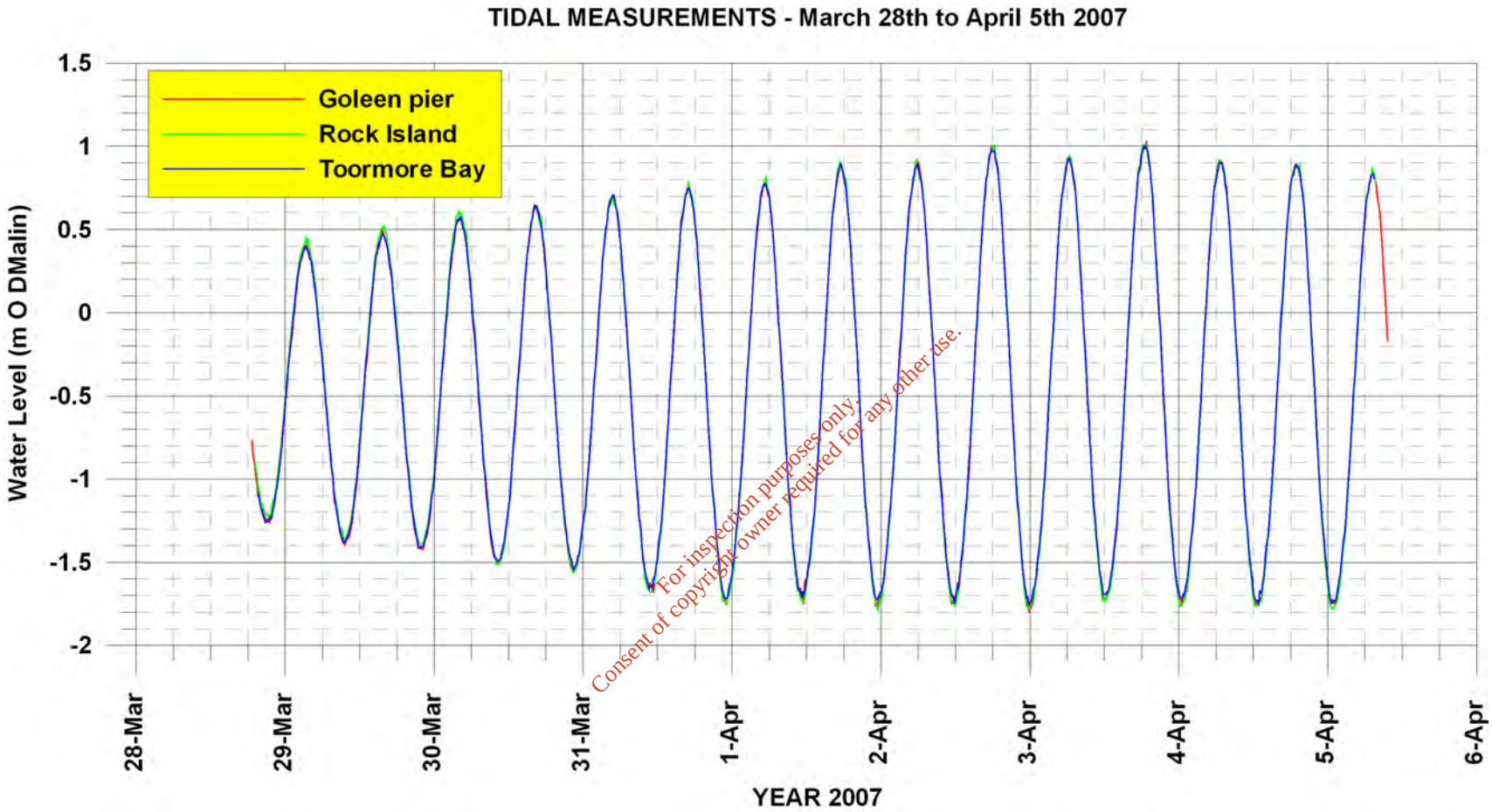


Figure 3.2 – Tide timeseries March 28th to April 5th 2007

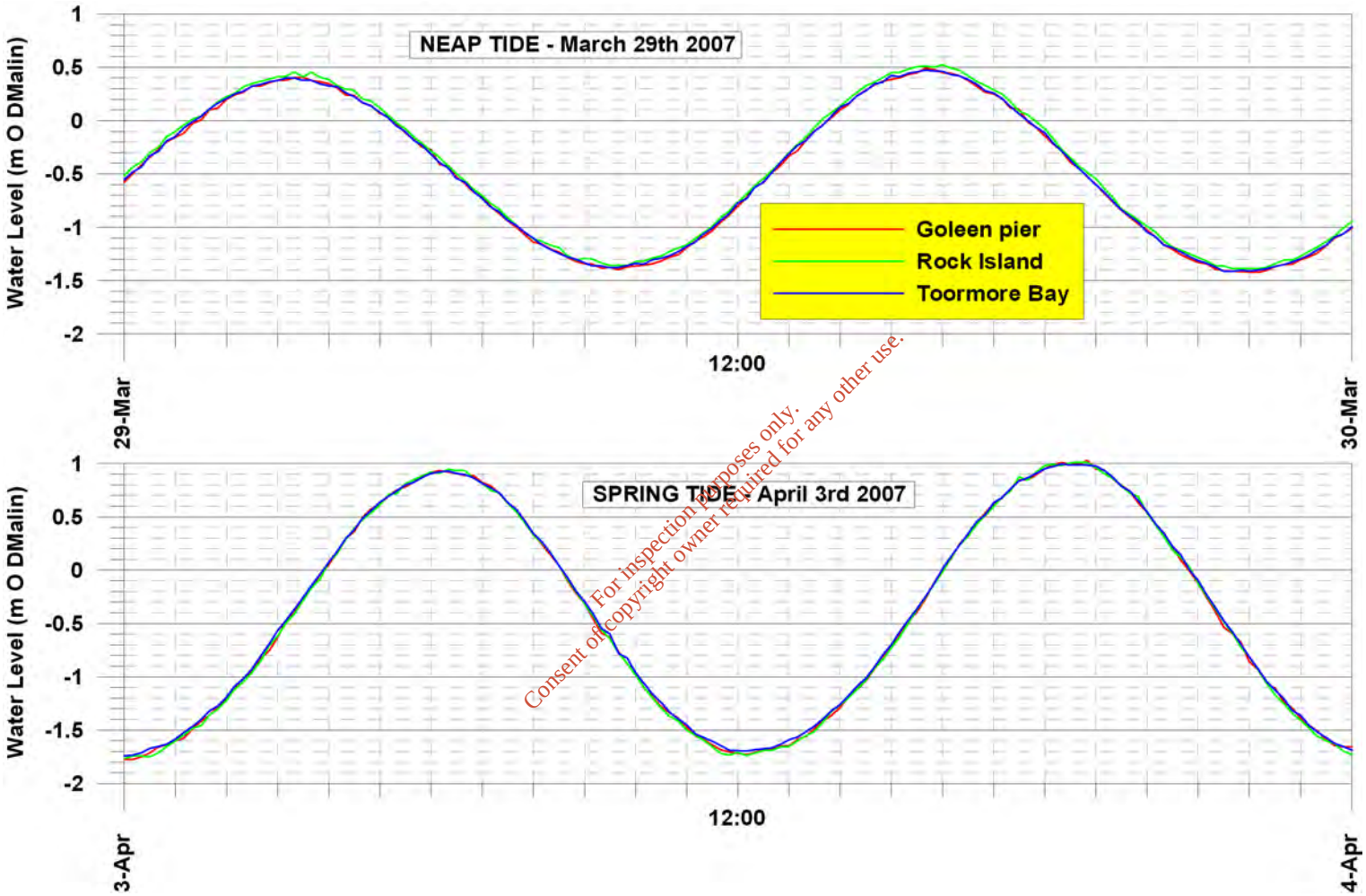


Figure 3.3 – Tide timeseries – Neap and Spring

4. CURRENT METERING

Current metering was conducted at the two locations shown in Figure 4.1 (RCM-Inner and RCM-Outer). The recording current meters (RCM's) were *'InterOcean'* S4 units which recorded speed and direction data at 10-minute intervals. The location co-ordinates are presented in Table 4.1. The meters were deployed on U-moorings with the instrument at mid depth in the water column.

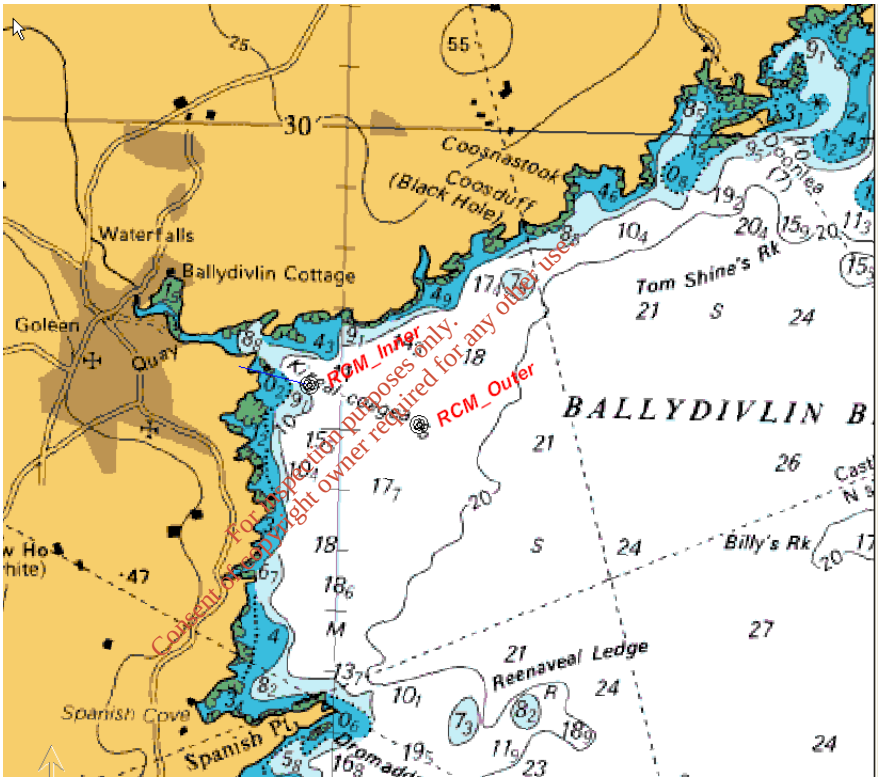


Figure 4.1 – Current Meter Locations.

LOCATION	EASTING (m)	NORTHING (m)	Water Depth Chart Datum (m)	RCM height above seabed (m)
RCM-Inner	81794	28052	11	6
RCM_Outer	82199	27877	17	9

Table 4.1 – Current Meter Location Co-ordinates (ING)

The timeseries plots of current for the complete deployment period are shown along with tidal data from Goleen Pier in Figure 4.2. A neap tide and spring tide are presented in Figures 4.3 and 4.4 respectively, on an expanded time axis.

It is clear from the timeseries plots that the current at the inner location is very weak (approximately 3 cm/sec) and shows little or no variation with the change in tide. The current at the outer location is stronger but is still very weak (maximum approximately 10 to 13 cm/sec).

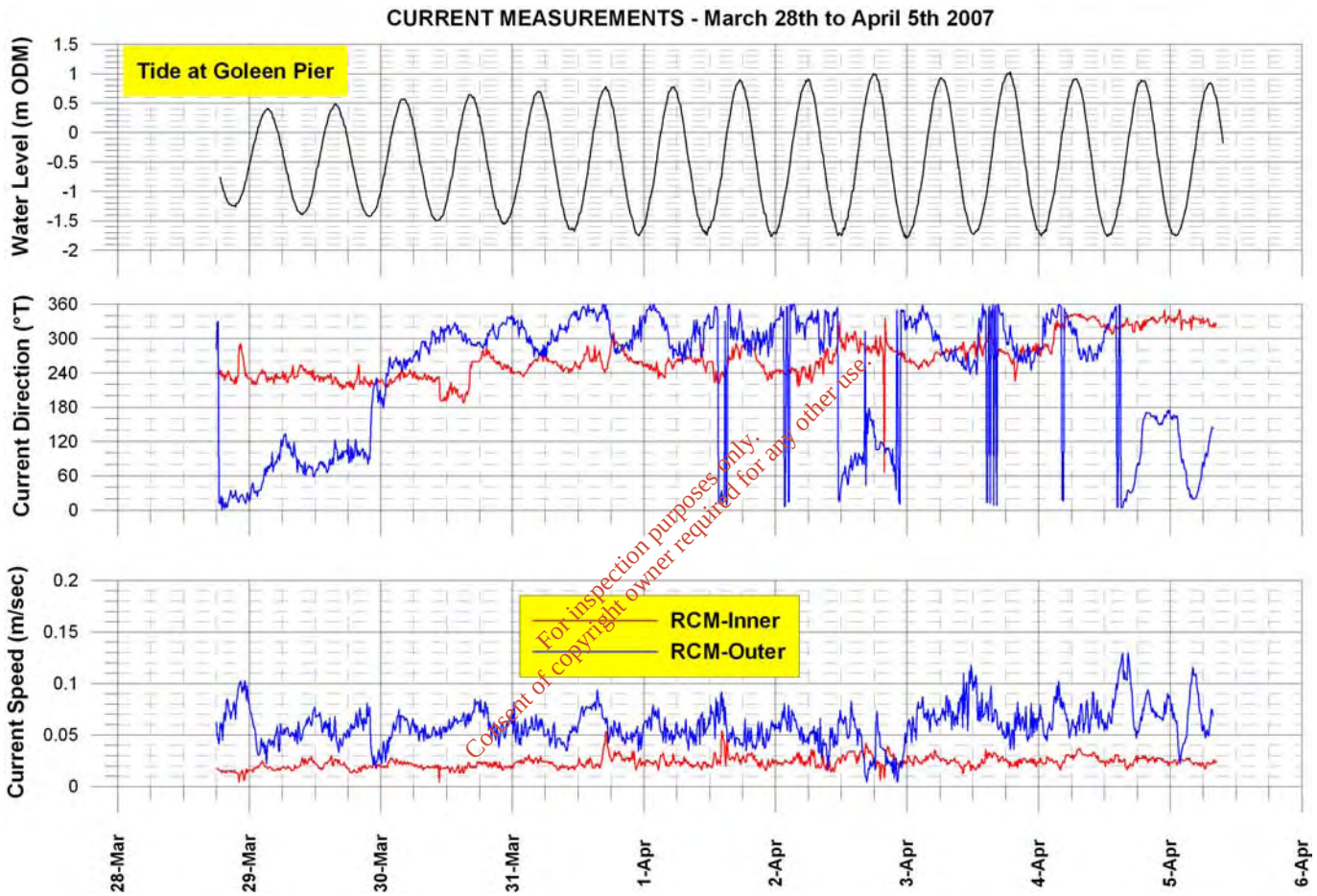


Figure 4.2 – Current Date Timeseries (complete deployment)

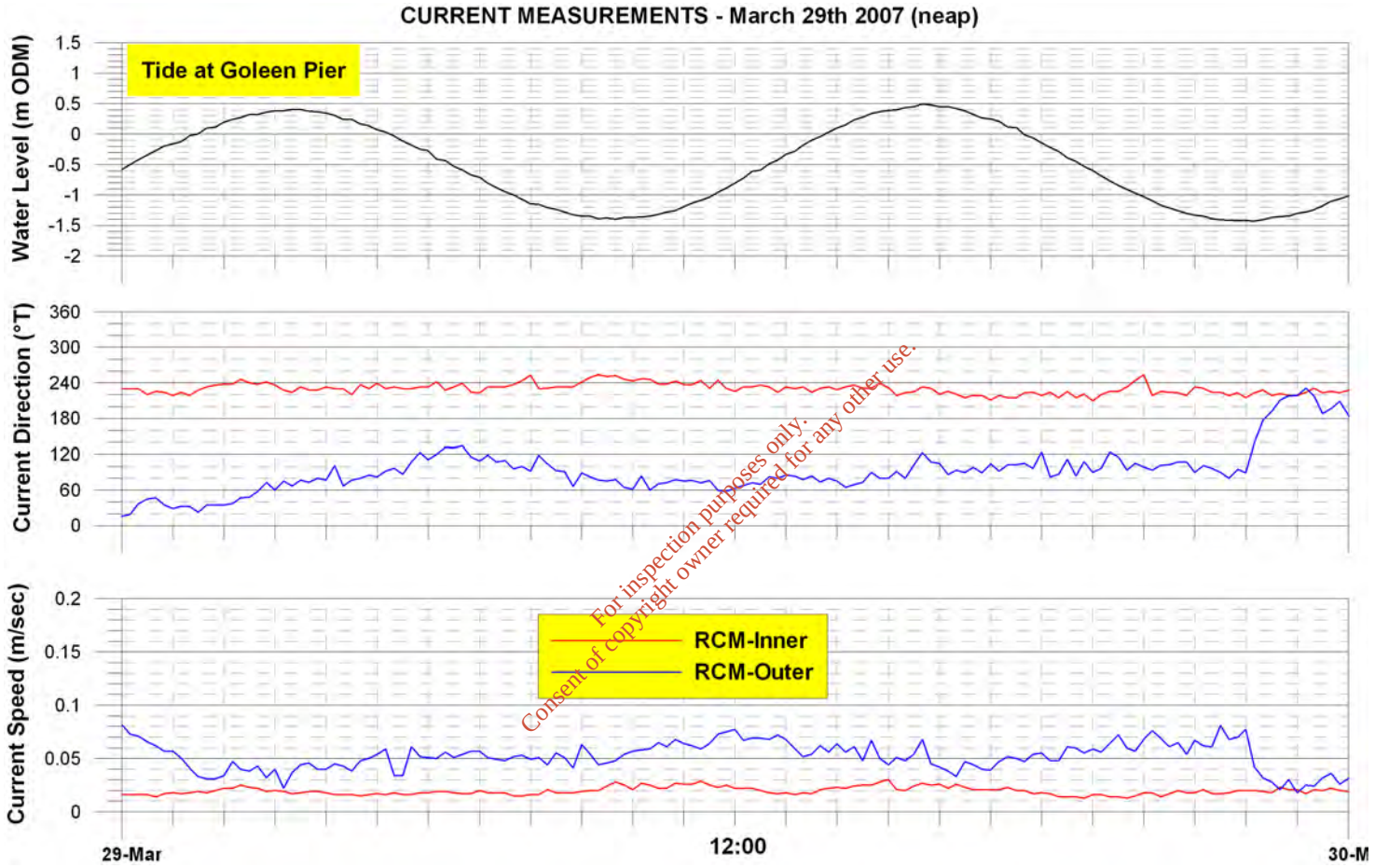


Figure 4.3 – Current Data Timeseries (neap tide)

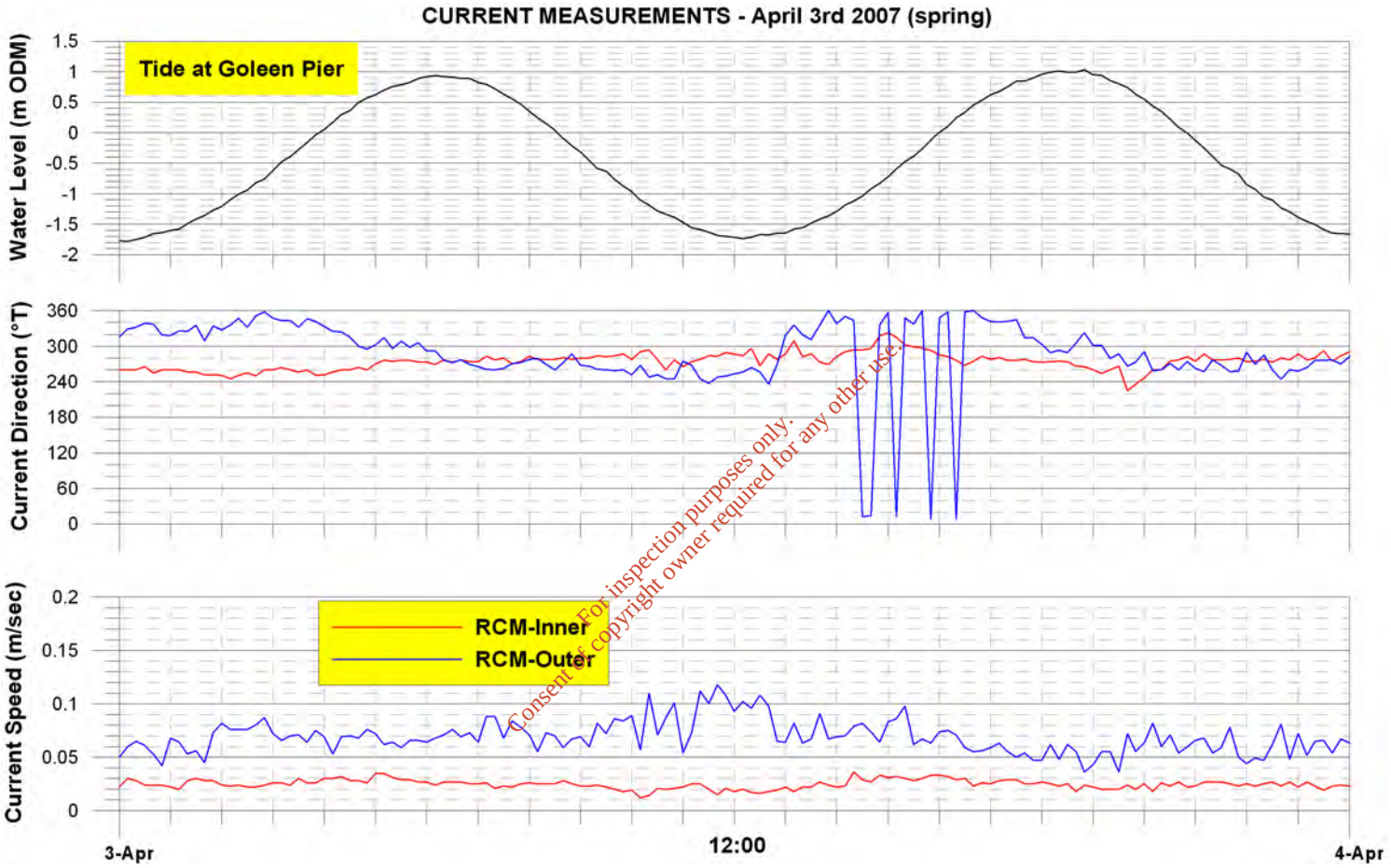


Figure 4.4 – Current Data Timeseries (spring tide)

5. DROGUE TRACKING

The submerged part of the drogue is a cruciform shape and extends from the water surface to a depth of 1m, thereby tracking the movement of the surface water layer. The drogue marker/float is subject to windage which is typically taken to be about 1.5% of the wind speed. Thus the motion of the drogue is a combination of the surface water movement and the wind. Drogues were released from four locations along the proposed outfall route at various stages of the tide. They were tracked by the survey vessel and their positions logged at regular time intervals. Positioning was by Trimble NT300D DGPS.

Neap Tide

Drogue tracking was carried out on a neap tide over a two day period on March 29th and March 30th 2007. Annex 1 contains plots of the drogue trajectories of March 29th while Annex 2 contains the tracks from March 30th. The plots show the start and end time of each drogue track and the times of the intermediate position fixes. The speed of the drogue between each pair of fixes is also displayed.

March 29th - Flood Tide Release

On March 29th at 1026 hrs (approx. LW+1hr), a surface drogue was released at four locations along the proposed route of the outfall on the flooding tide. The drogues were recovered at 1315 hrs (approx. LW+4hrs). The drogues all travelled southwards or south-eastwards. Maximum speeds were of the order of 0.12m/sec. The wind was 6m/sec from the northwest sector.

The drogues were re-released along the outfall route at LW+4hrs and were recovered at 1710hrs (HW+1.5hrs). Again all drogues travelled towards the south. Maximum speeds were of the order of 0.2m/sec.

March 29th - Ebb Tide Release

Drogues were released at HW+2hrs and recovered at HW+5hrs on the ebbing tide. A maximum speed of 0.17m/sec was measured for the drogue released nearest the shore. The other drogues travelled at approximately 0.1m/sec.

March 30th - Ebb Tide Release

The wind was 2-3m/sec from the northeast during the tracks on this day. For the first track, three drogues were released at HW+3.5hrs and were recovered about an hour later. The drogues had travelled in a south-southwesterly direction towards the shore at speeds of less than 0.1m/sec. A single drogue was released at HW+4.5hrs and followed the same pattern. The same trajectory was observed for the single drogue released at HW+5hrs, LW-0.75hrs and LW+1hr.

Spring Tide

Drogue tracking was carried out on a spring tide on April 4th 2007. Again, the drogues tracked the movement of the surface water layer. As for the neap tide, the drogues were released from four locations along the proposed outfall route at various stages of the tide.

Annex 3 contains plots of the drogue trajectories. The plots show the start and end time of each drogue track and the times of the intermediated position fixes. The speed of the drogue between each pair of fixes is also displayed.

April 4th - Ebb Tide Release

Drogues were released at HW+0.5hrs and travelled southwestwards towards the shore under the influence of the 3m/sec northeasterly wind. The drogues were re-released at HW+2.5hrs and again went ashore to the southwest at speeds of about 0.05m/sec.

April 4th - Flood Tide Release

Drogues were released at HW+5hrs and travelled westwards towards Goleen Creek. The wind was now 3m/sec easterly. The drogues were re-released at LW+1hr and

travelled towards the north at speeds of about 0.04m/sec. A single drogue was released at LW+2hrs and travelled firstly towards the north, but later went offshore to the east as the wind became westerly at 4m/sec. The influence of the wind is again demonstrated during the release at LW+4hrs.

6. DYE TRACKING

On each occasion described below, a slug (250ml) of Rhodamine WT tracer dye was released on the water surface at the outfall location. The spreading patch was then tracked as it travelled along. Initially, tracking was visual but as soon as dye concentrations permitted, tracking commenced with a continuous flow-through Cyclops fluorometer fitted to the survey vessel. Data was logged to computer under the control of *HYPACK* software. Positioning was by Trimble NT300D DGPS

Neap Tide

Dye tracking exercises were conducted on a neap tide over a two day period on March 29th and March 30th 2007. Plots showing the progress of the patch on March 29th and March 30th are presented in Annex 4 and Annex 5 respectively at the rear of this document.

March 29th - Flood Tide Release

On March 29th, the first slug was released at 1029 hrs i.e. approximately LW+1hr, on the flooding tide. The patch was tracked until 1202 hrs, or approximately LW+2.75hrs. The patch moved southwards on the flooding tide, influenced by the 6m/sec northwesterly wind. The second slug of dye was released at 1329 hrs, or approximately HW-1.5hrs. This was tracked until 1805 hrs (HW+2.5hrs). Again, the patch moved southwards.

March 30th - Ebb Tide Release

On March 30th, the first slug was released at 0739 hrs (approx. HW+3.5hrs), on the ebbing tide. The patch was tracked until 1144 hrs (approx. LW+0.5hrs). As for the flooding tide, the patch moved southwards. The wind was northeasterly at 2-3m/sec.

Spring Tide

Dye tracking exercises were conducted on a spring tide on April 4th 2007. The same quantities of dye and tracking methods as employed on the neap tide were also employed on this occasion.

April 4th - Ebb Tide Release

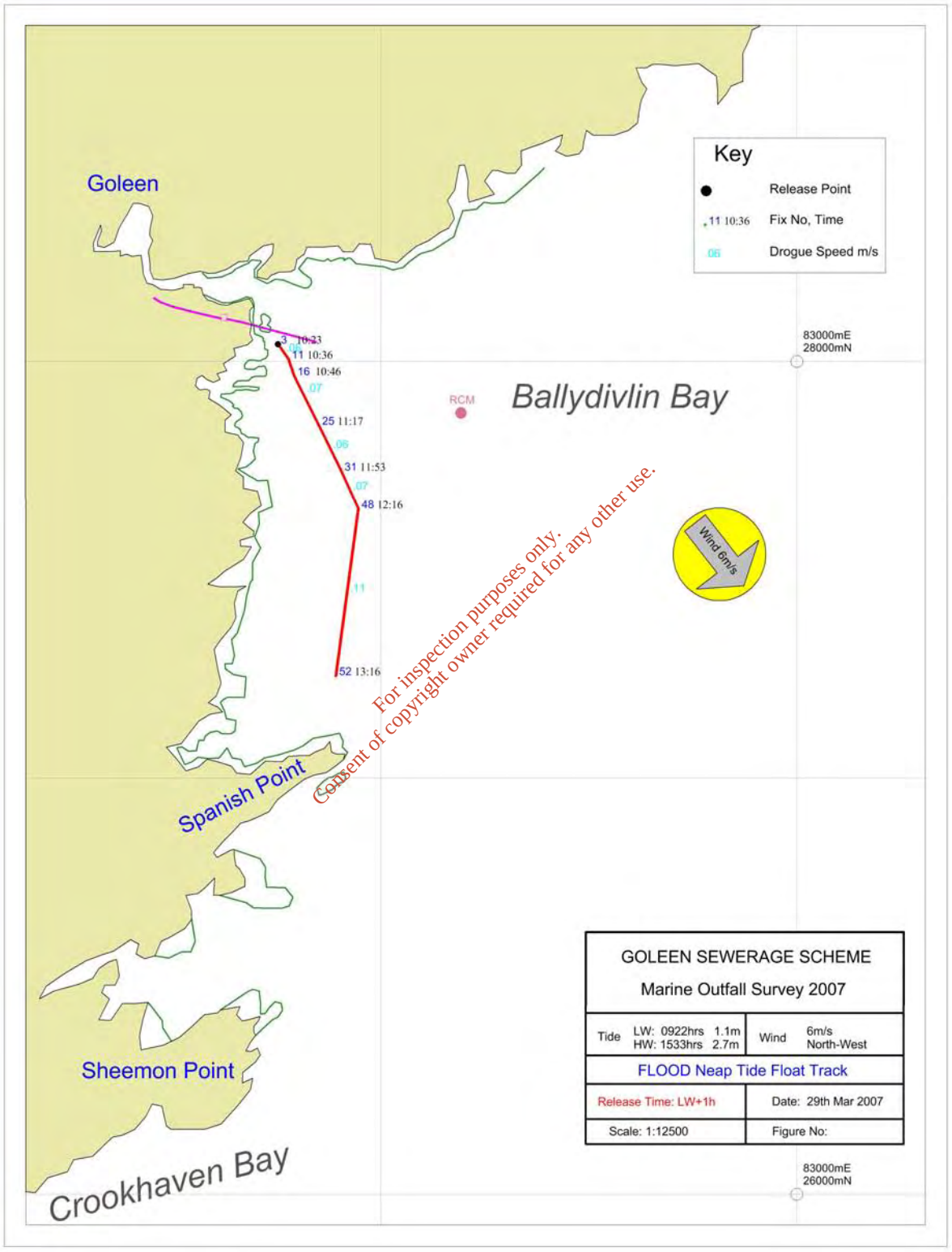
The first slug of dye was released at the outfall location at 0716 hrs, i.e. approximately a half hour after HW, on the ebbing tide. The patch was positioned at regular time intervals until 1735 hrs (approx. LW+5hrs). Plots showing the progress of the patch are presented in Figures R1-1 to R1-9 in Annex 6 of this document. The patch became elongated southwards on the ebb until the turn of the tide. It then began to move back northwards on the flood towards the release location.

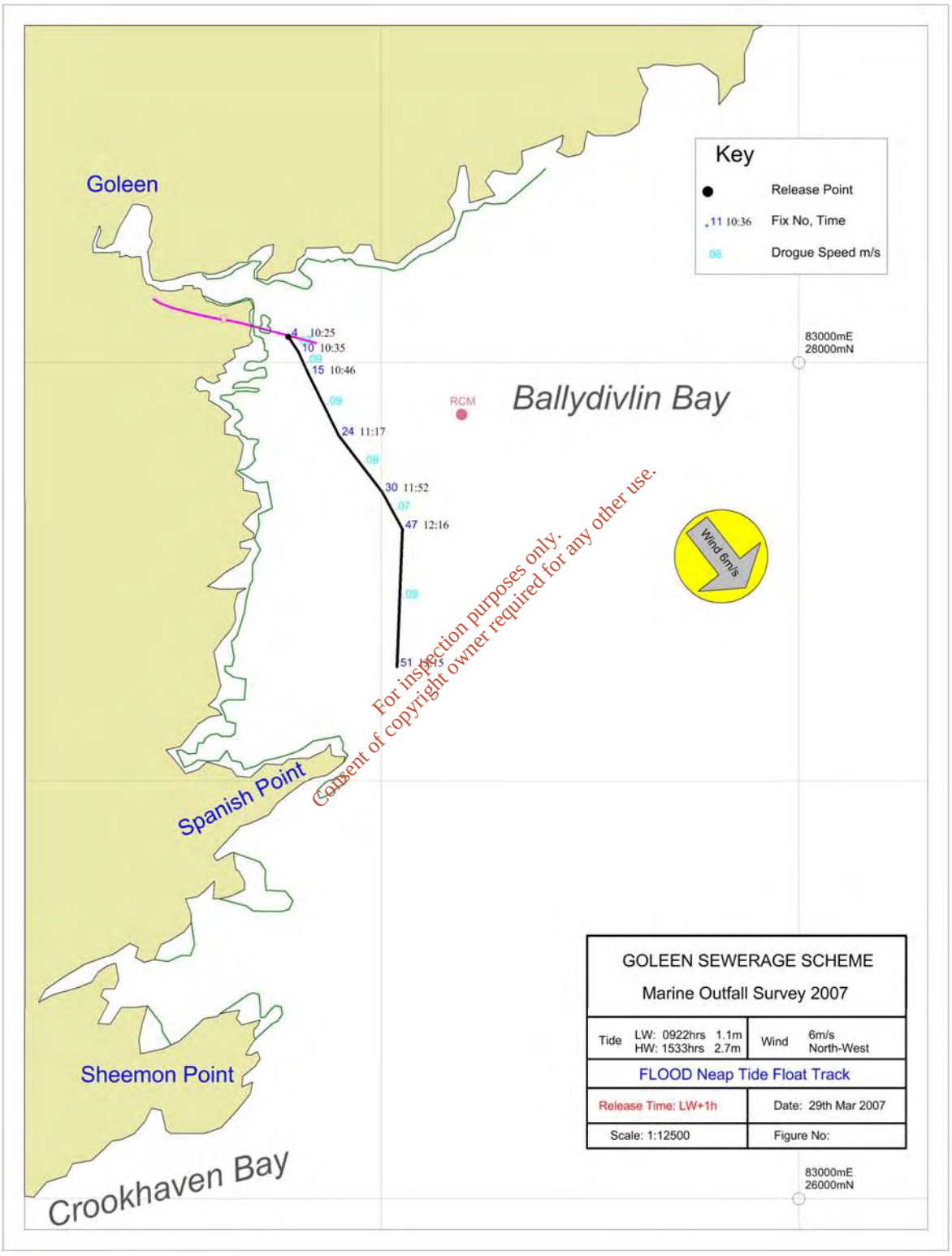
April 4th - Flood Tide Release

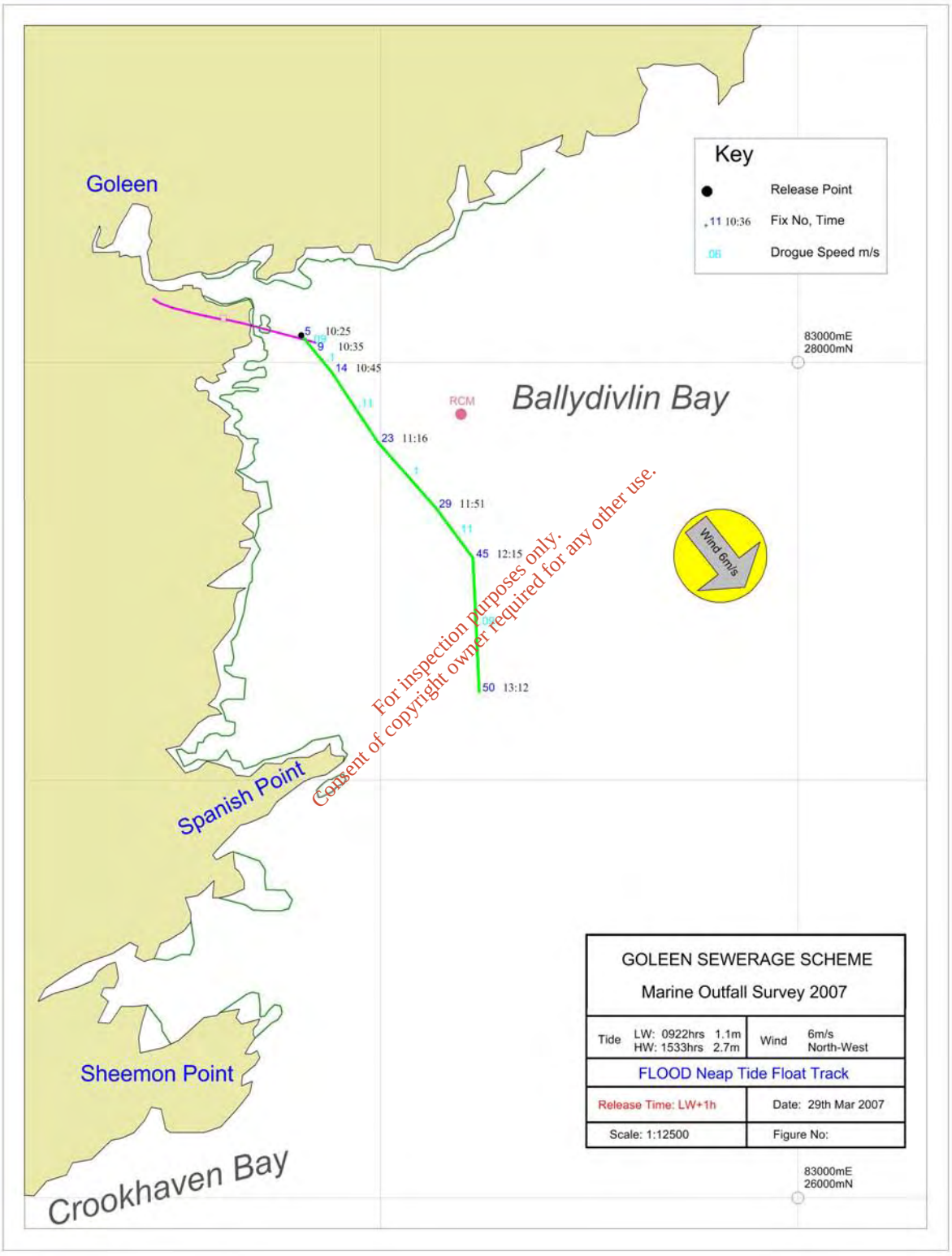
A second slug of dye was released at the outfall location at 1340 hrs, i.e. approximately 1 hour after LW, on the flooding tide. The patch was positioned at regular time intervals until 1951 hrs (approx. HW+1hr). It became elongated in an east-west direction, but remained north of the release location. Concentrations were detected in Goleen Creek. Plots showing the progress of the patch are presented in Figures R2-1 to R2-6 in Annex 6.

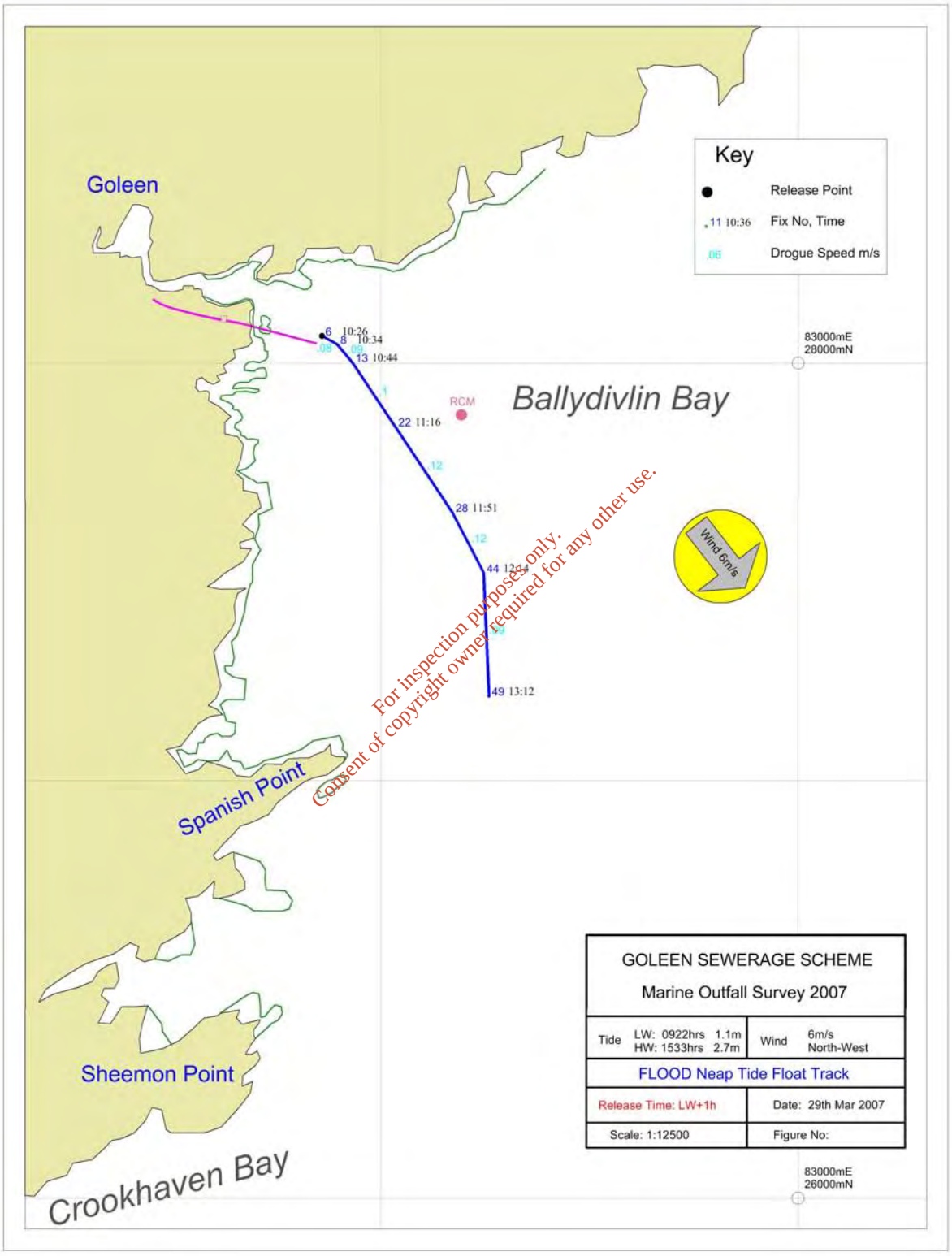
ANNEX 1

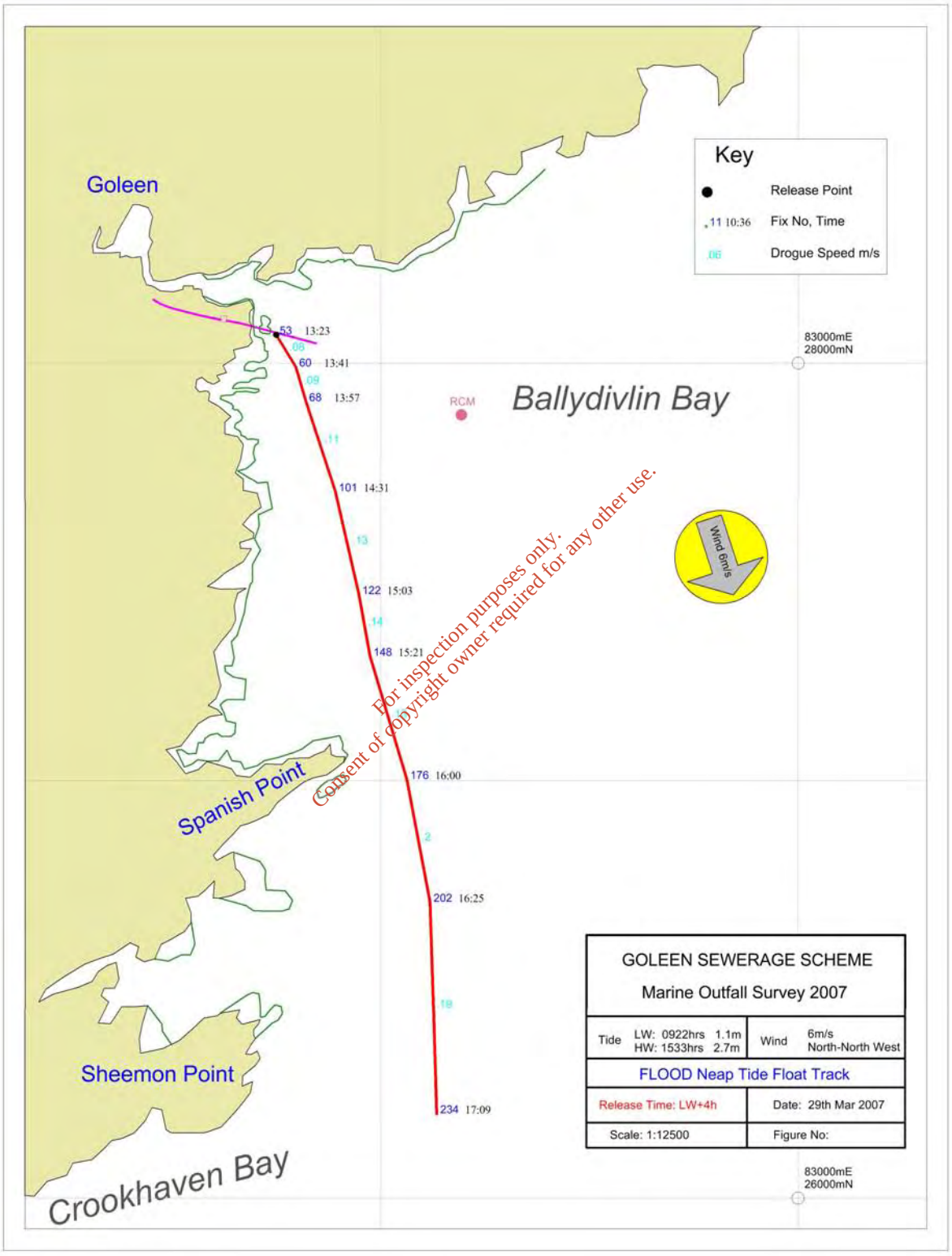
Drogue Tracks– 29th March 2007

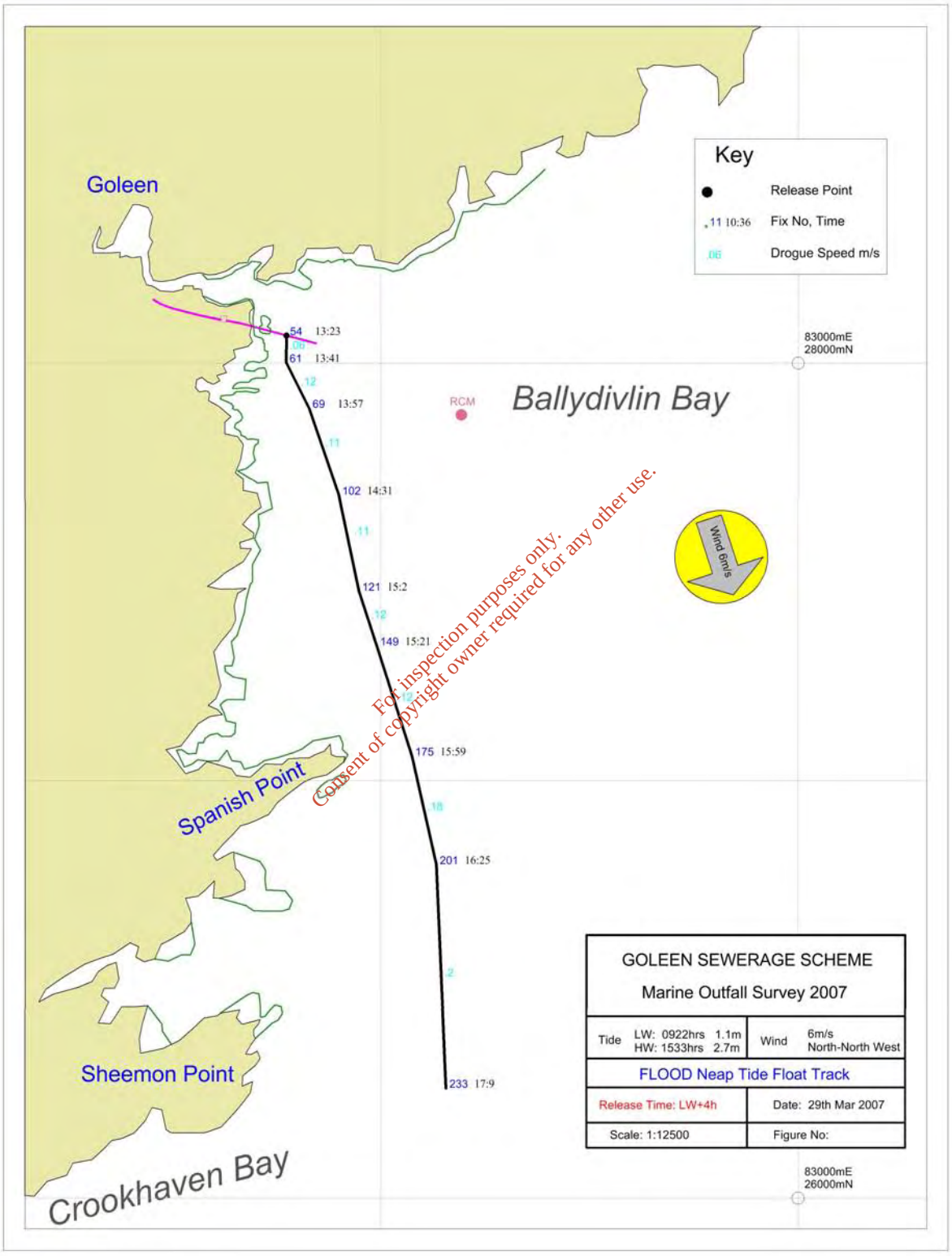


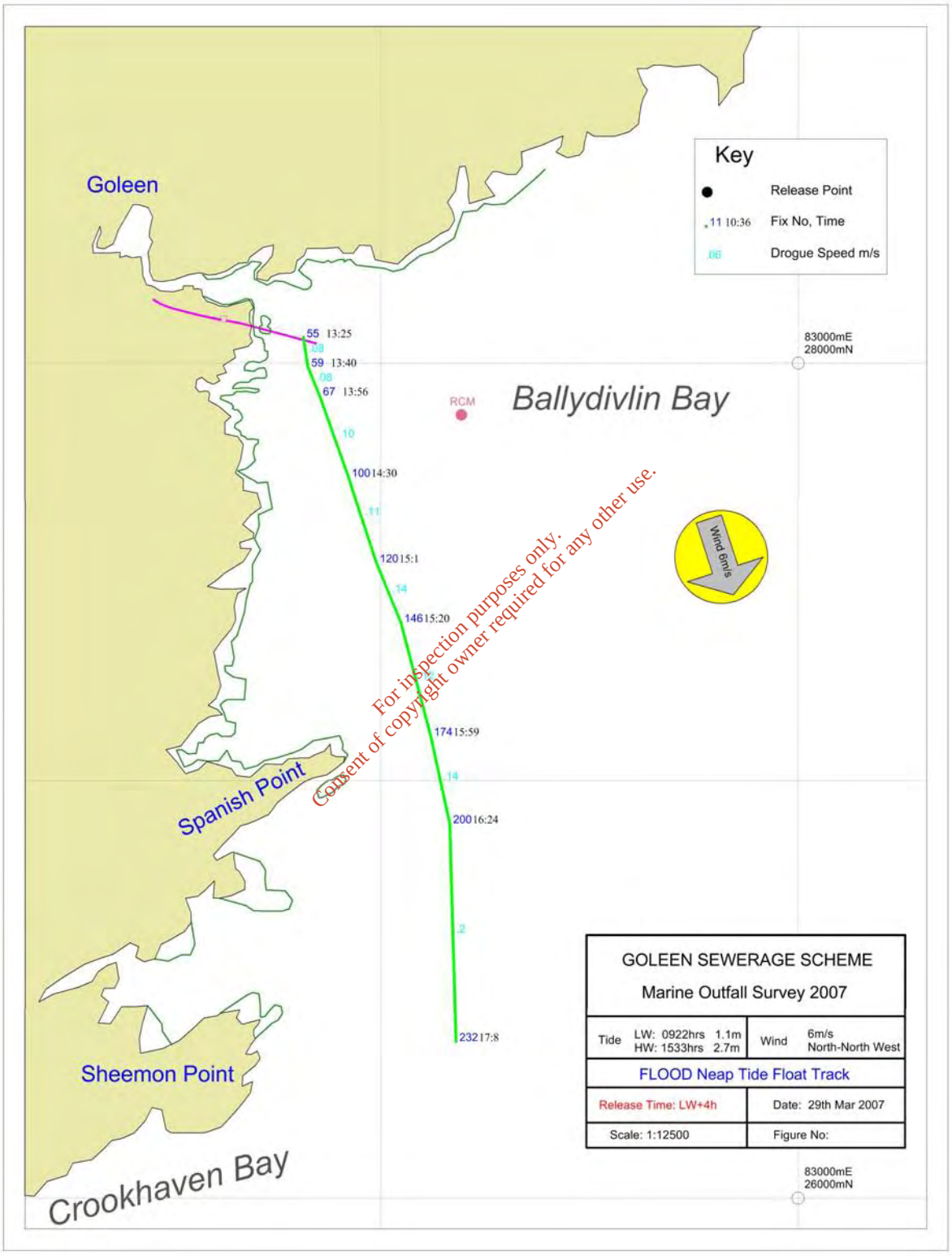


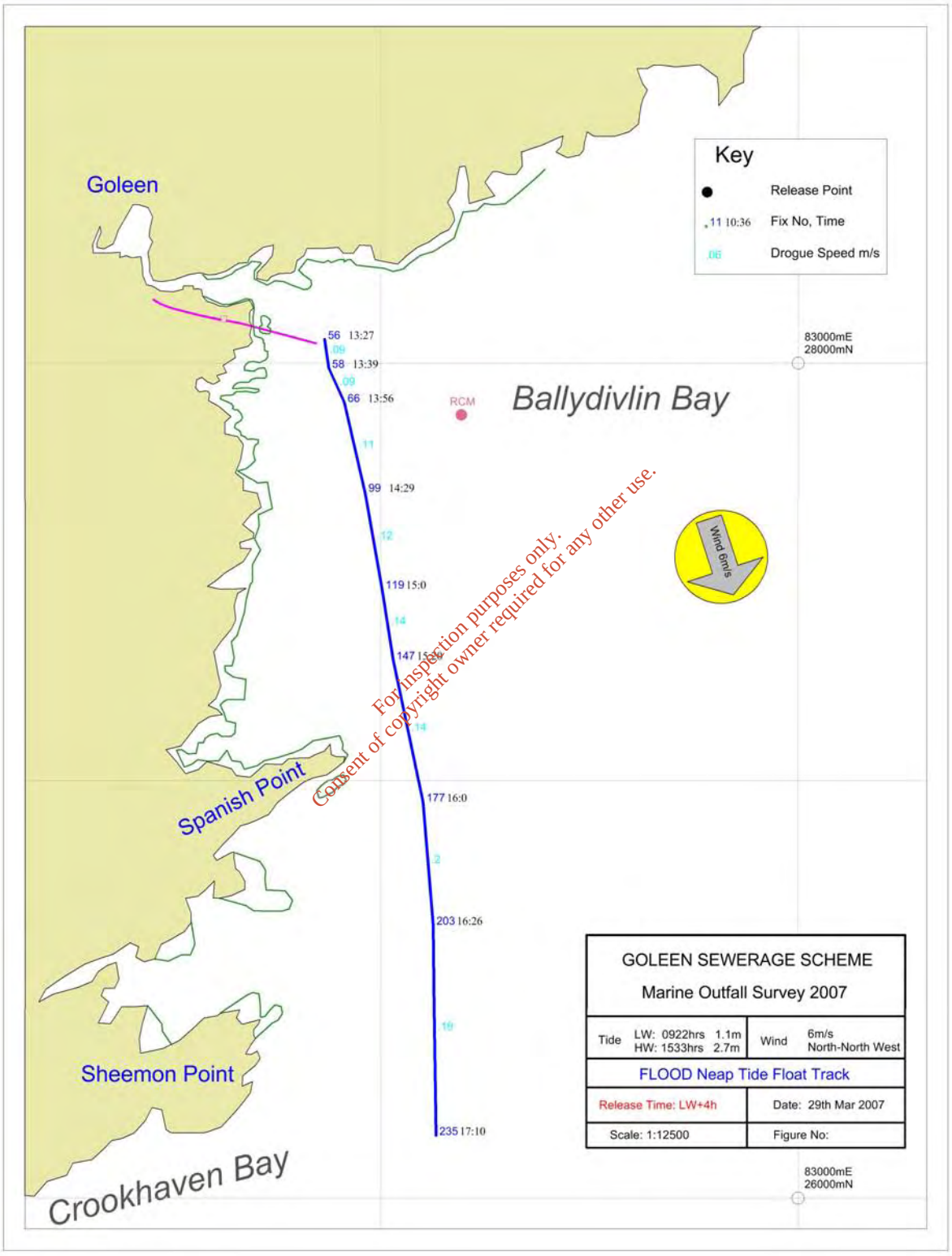


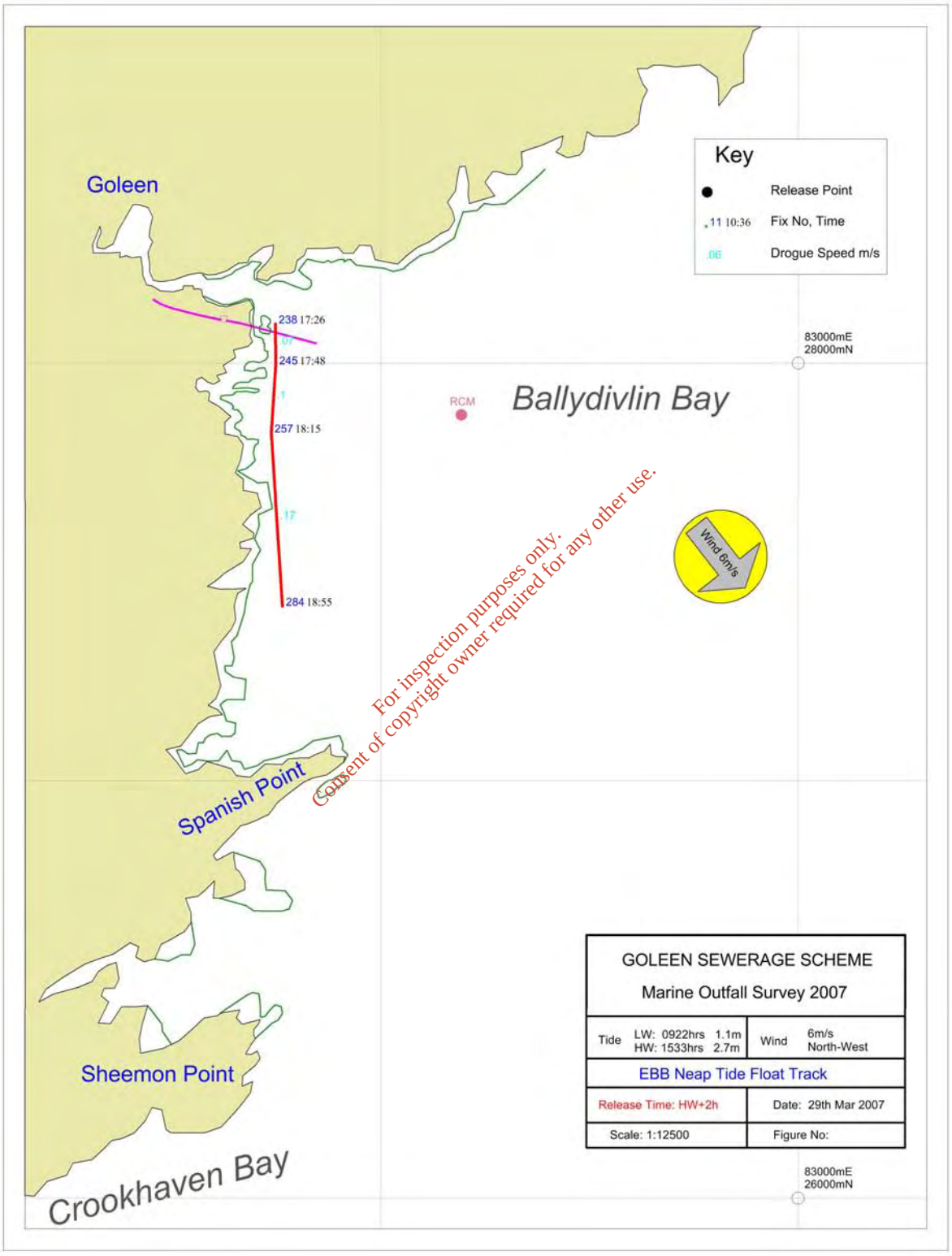


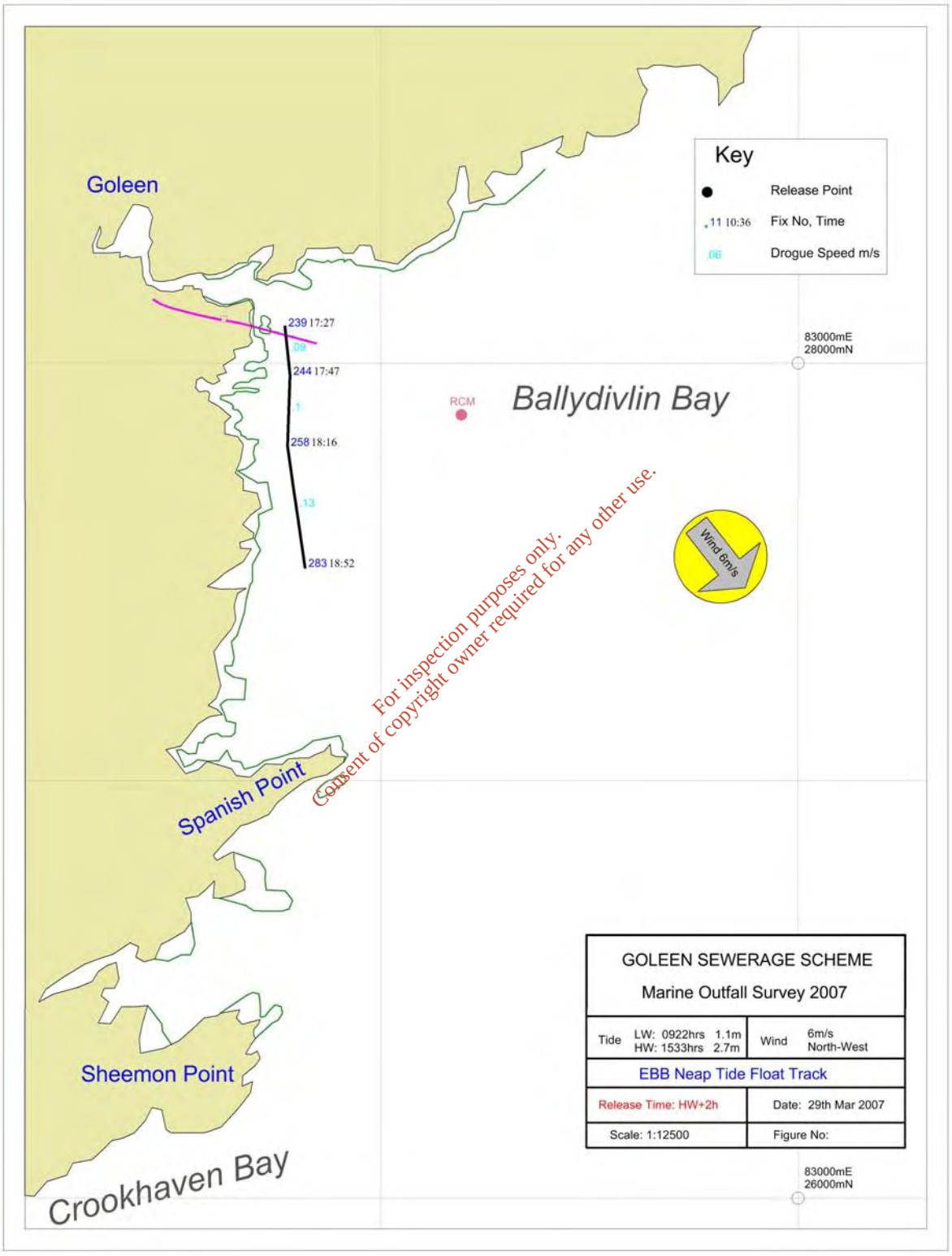


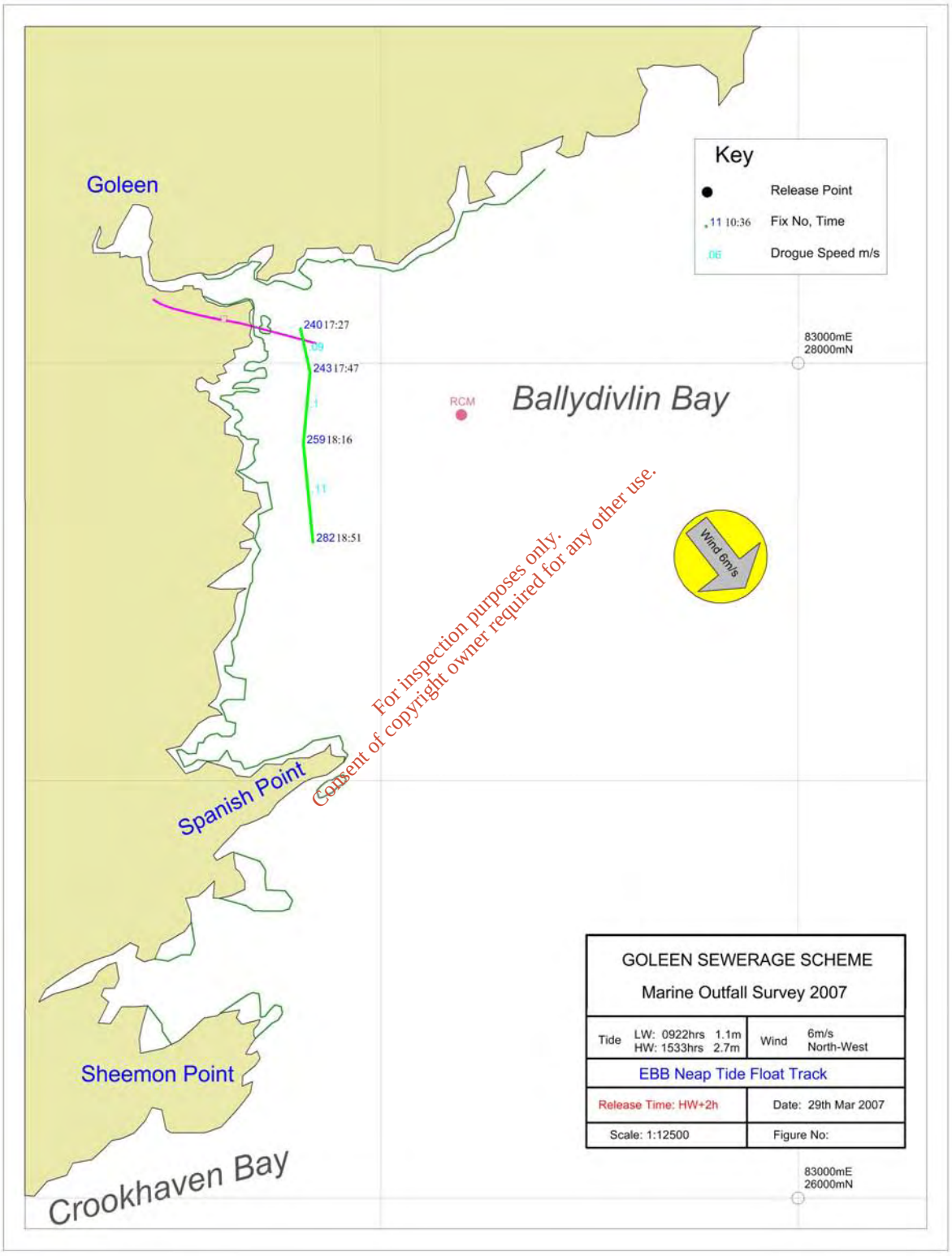


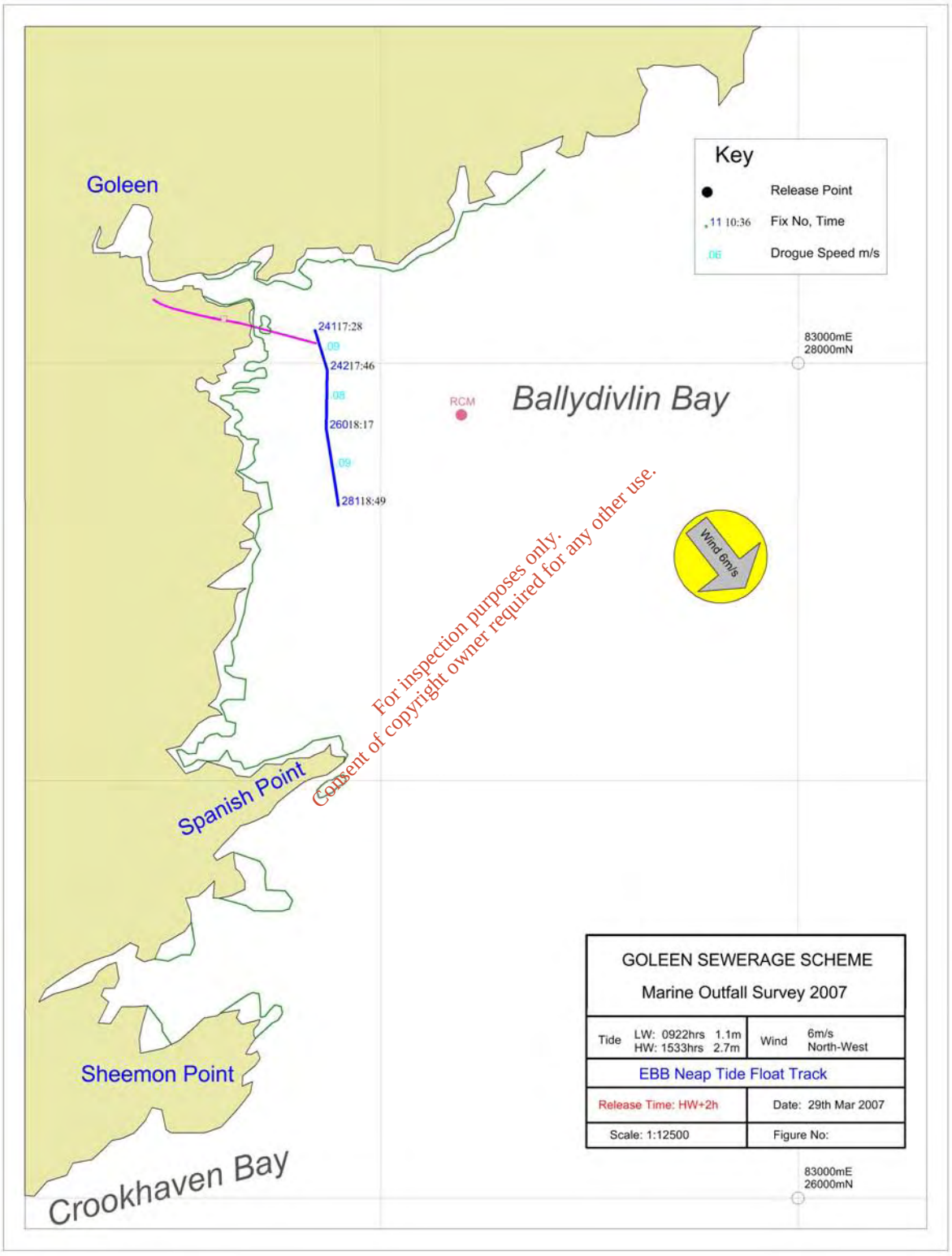






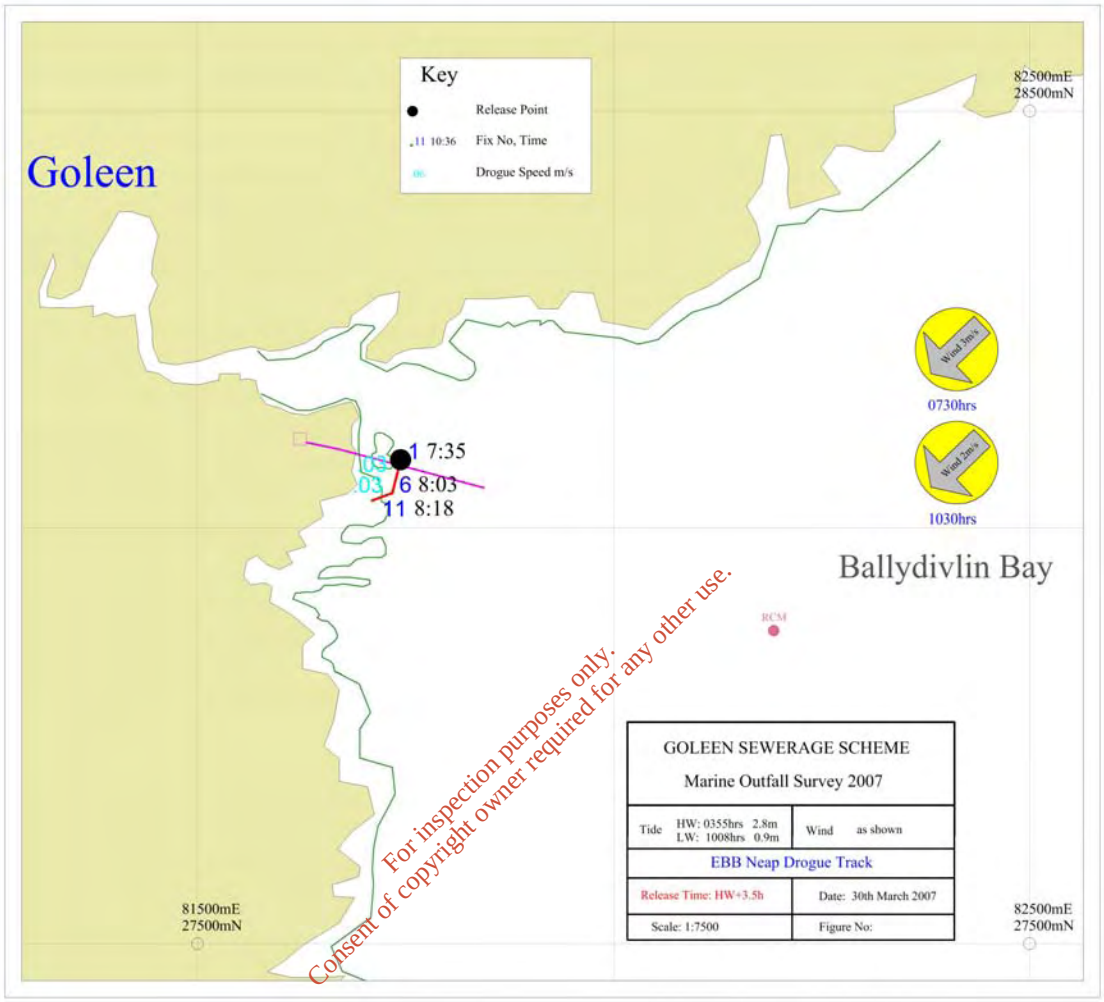


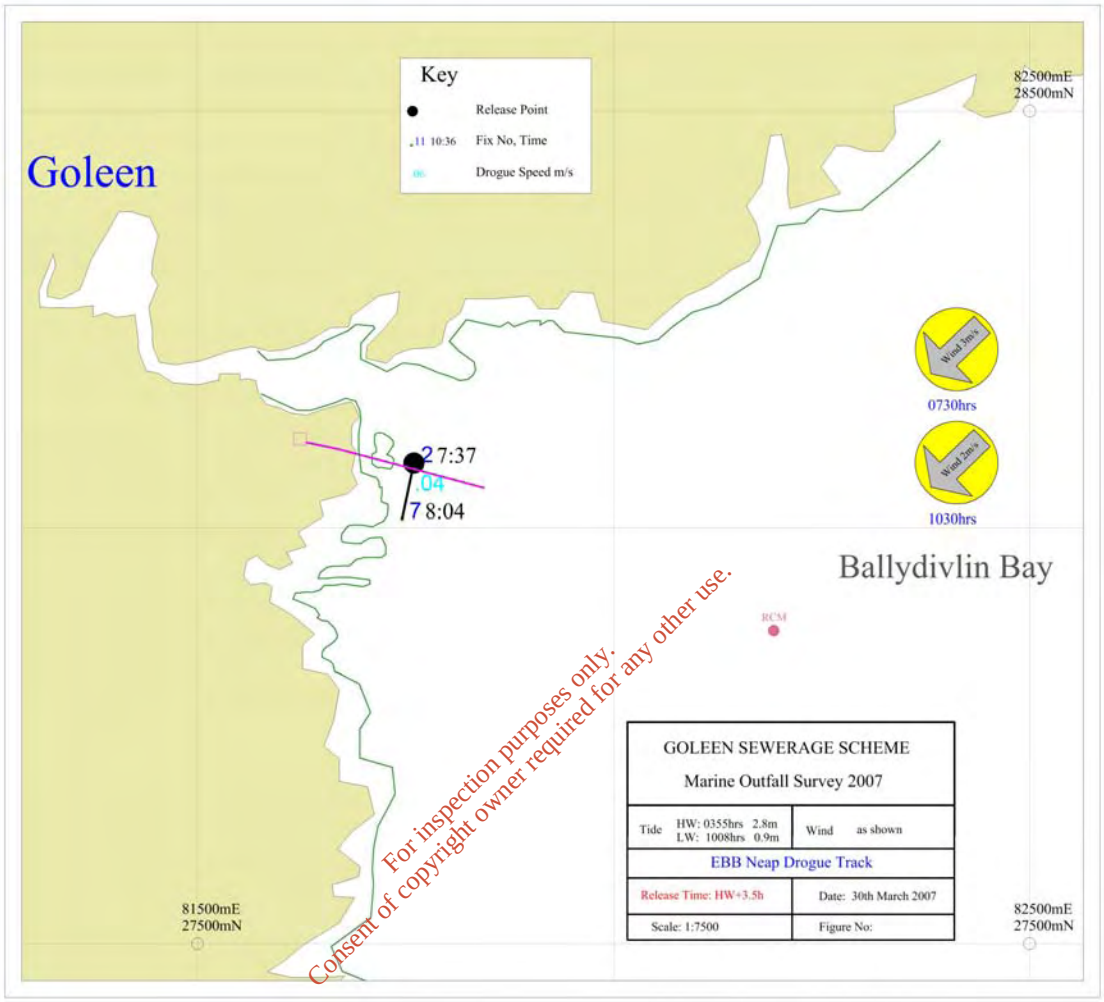


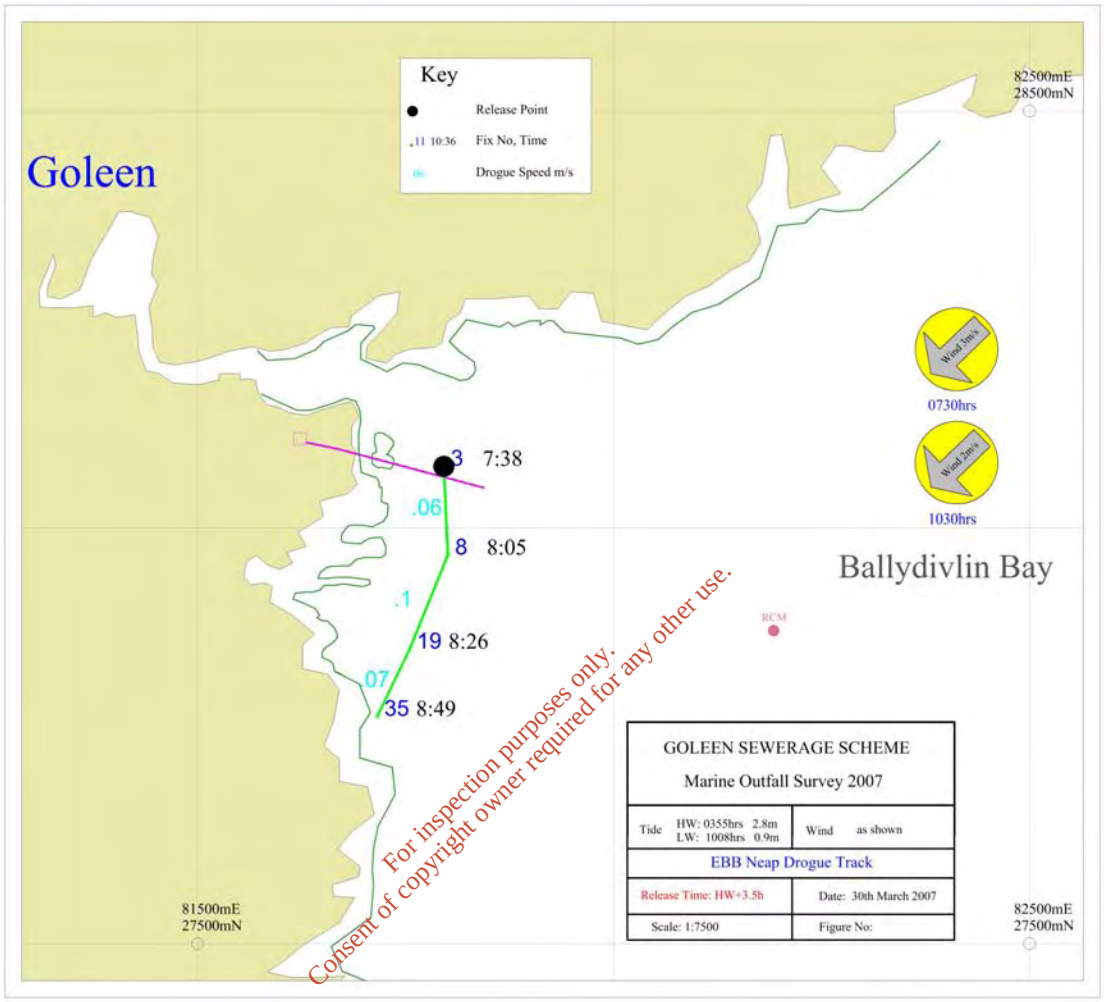


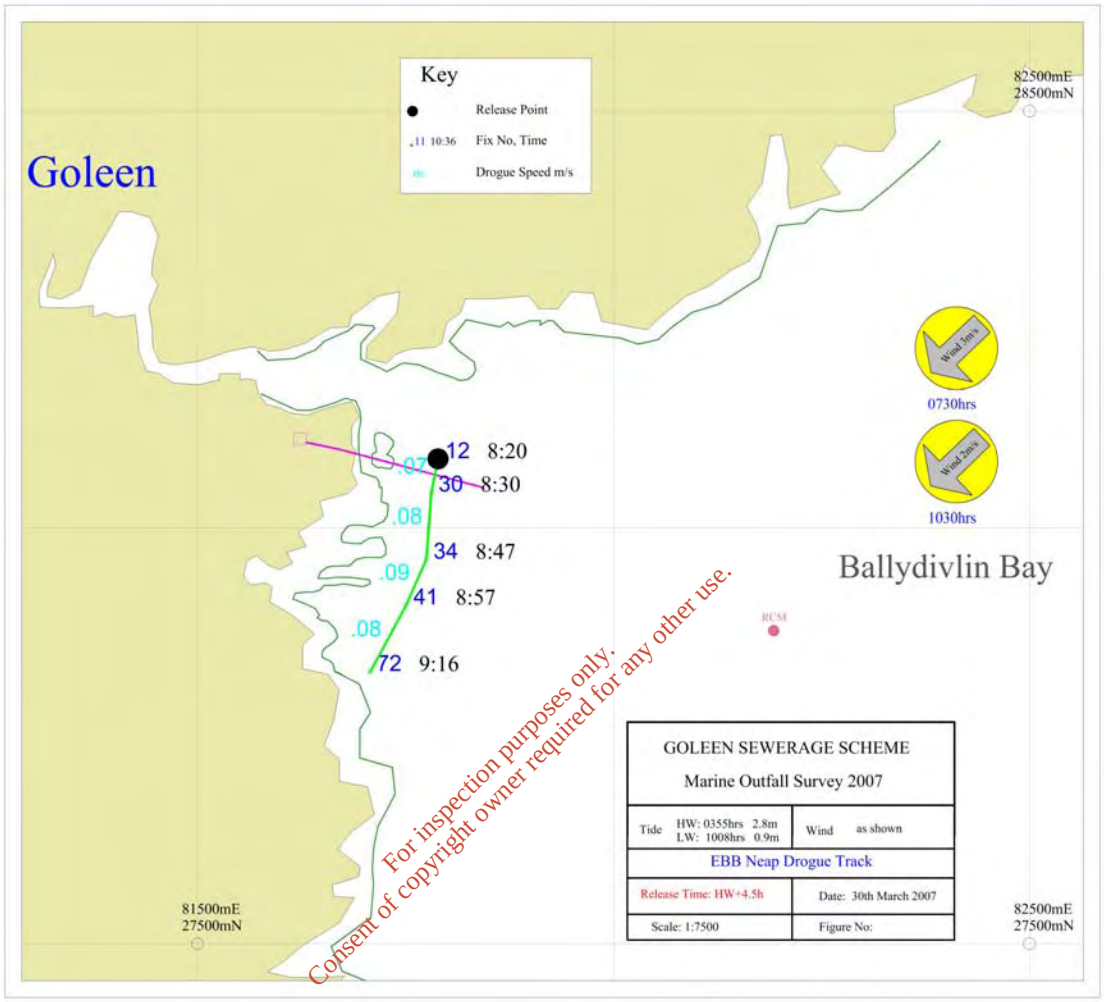
ANNEX 2

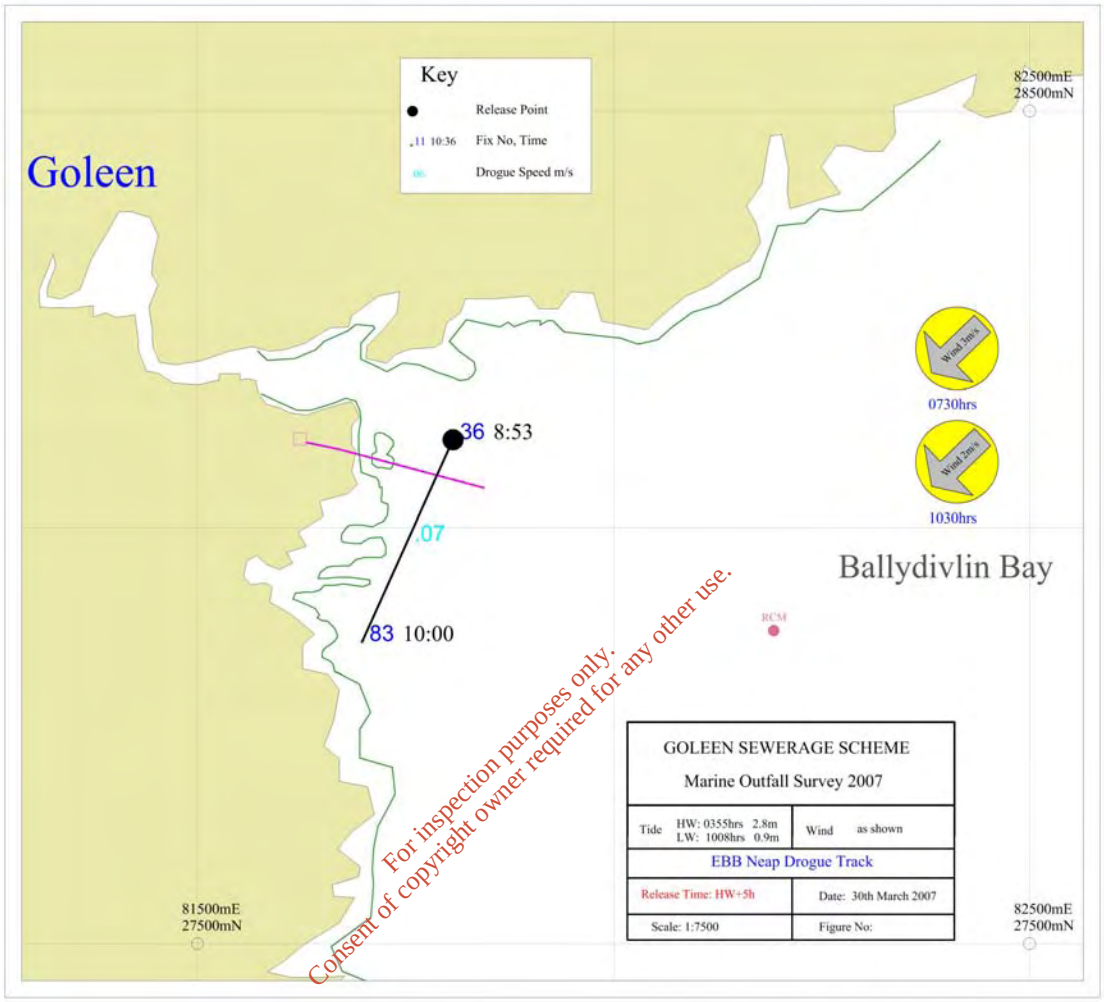
Drogue Tracks– 30th March 2007

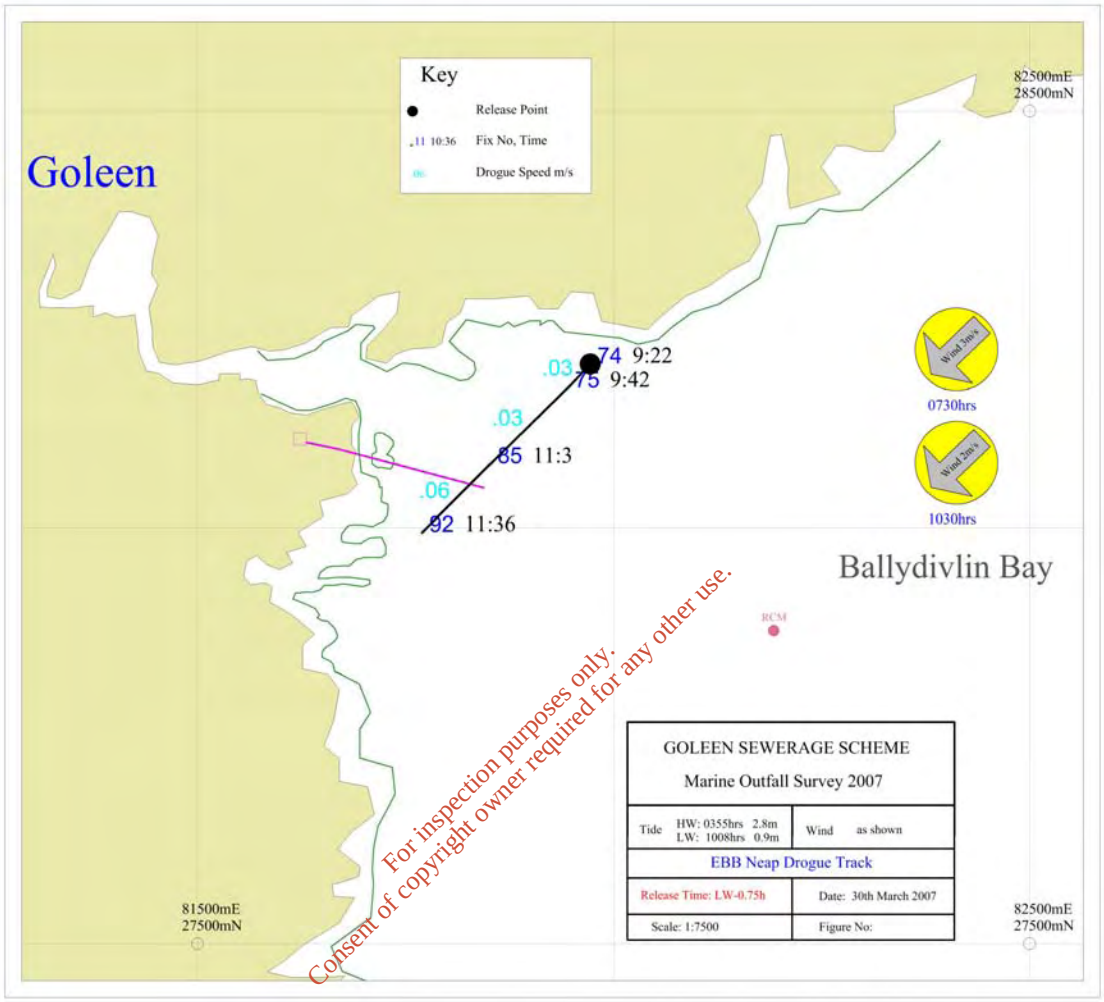


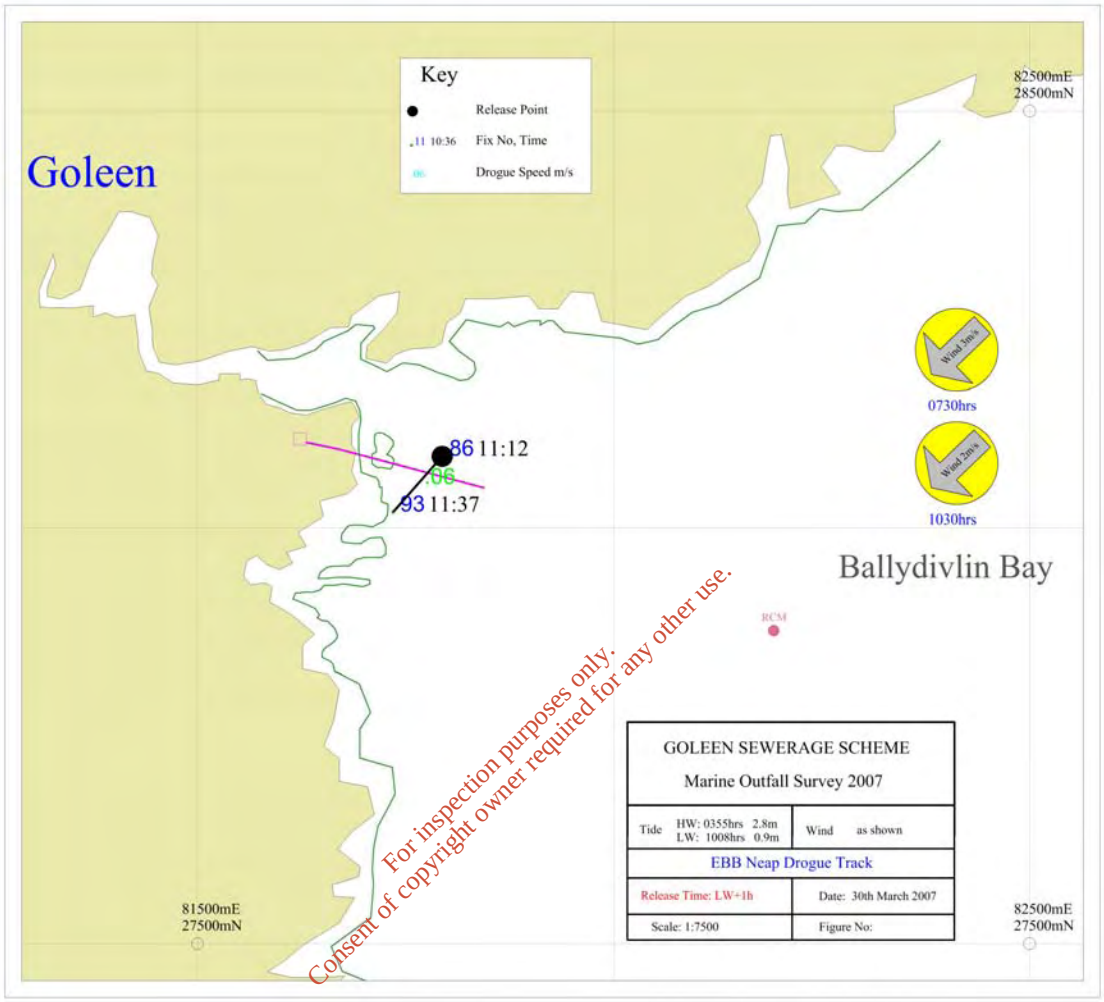






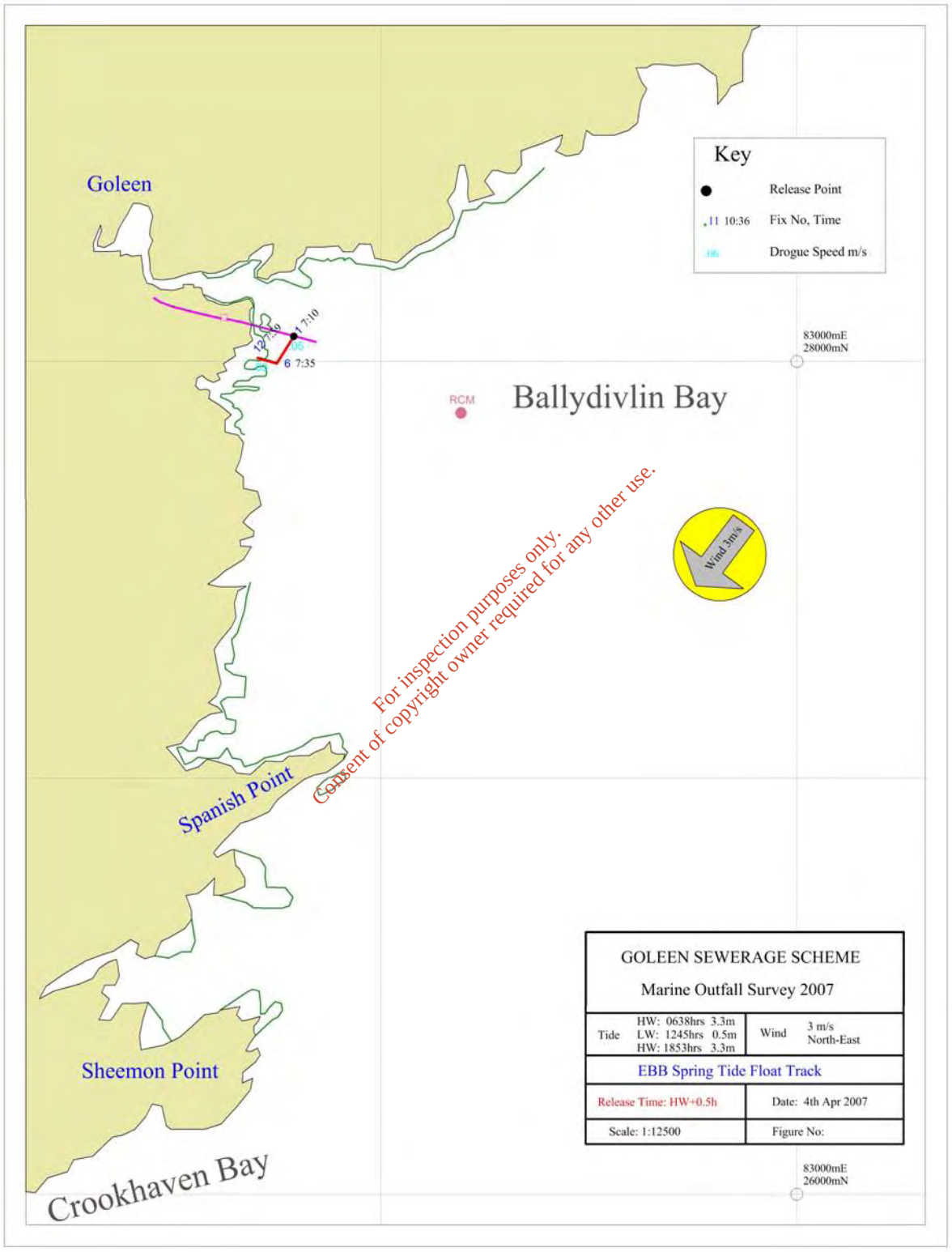


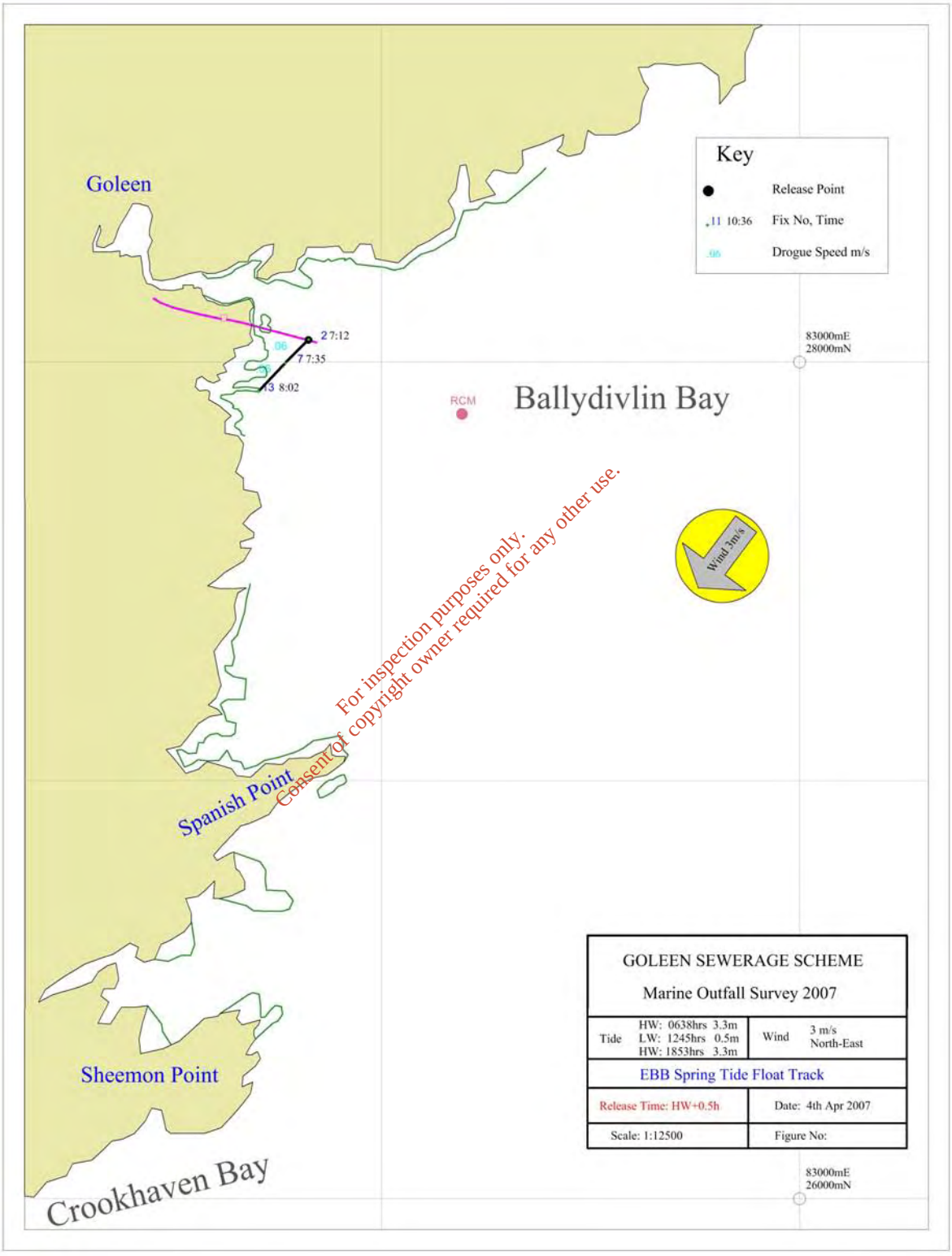


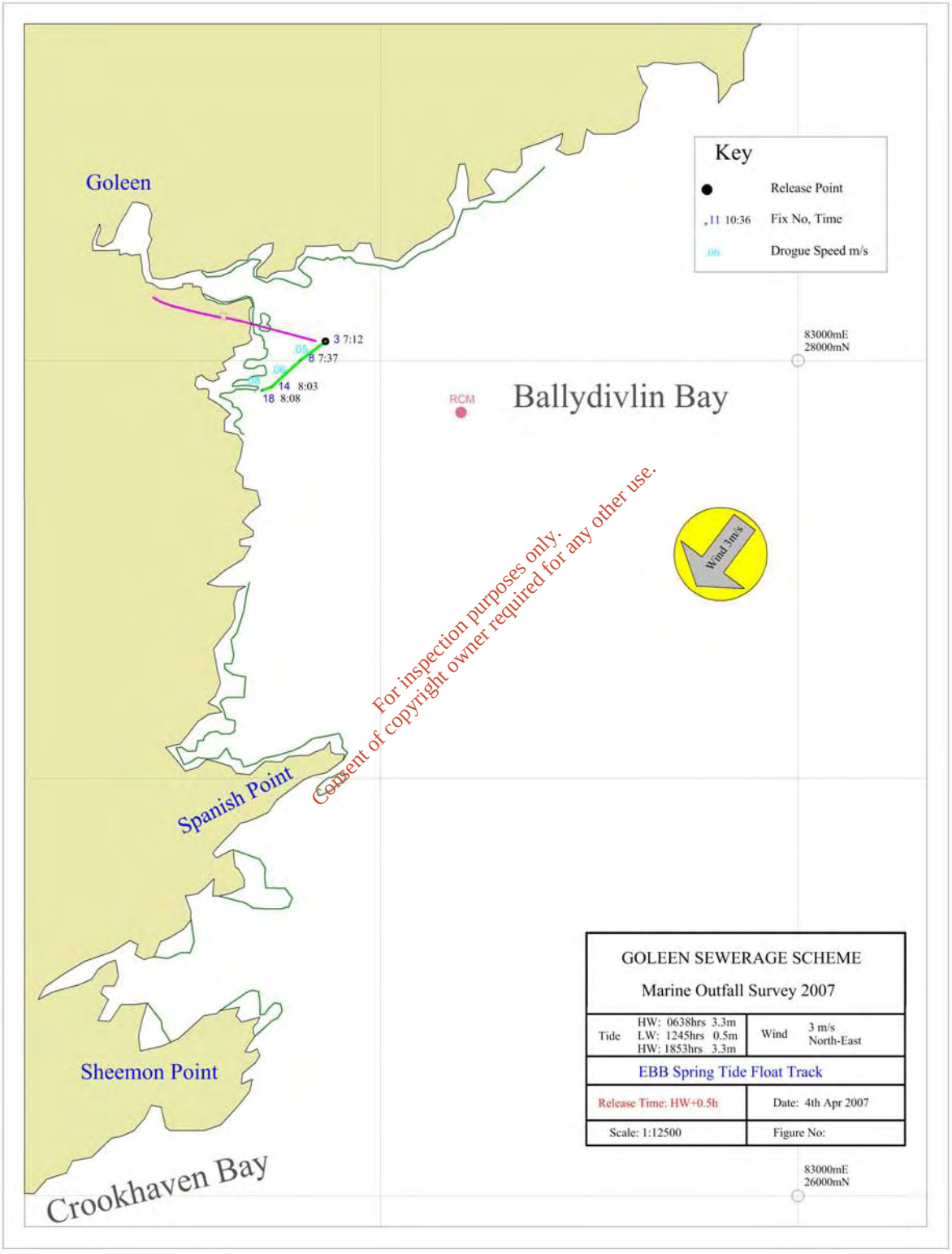


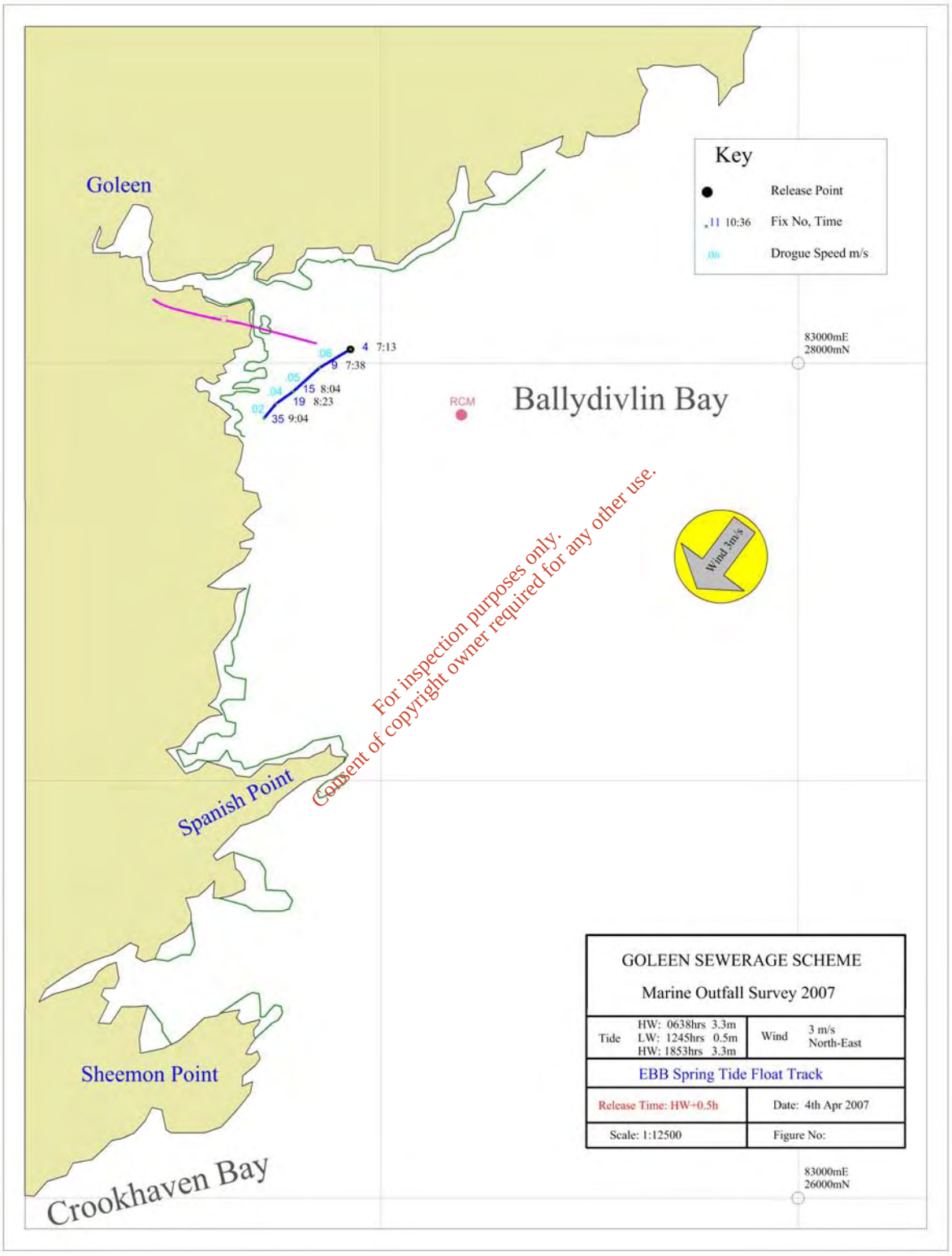
ANNEX 3

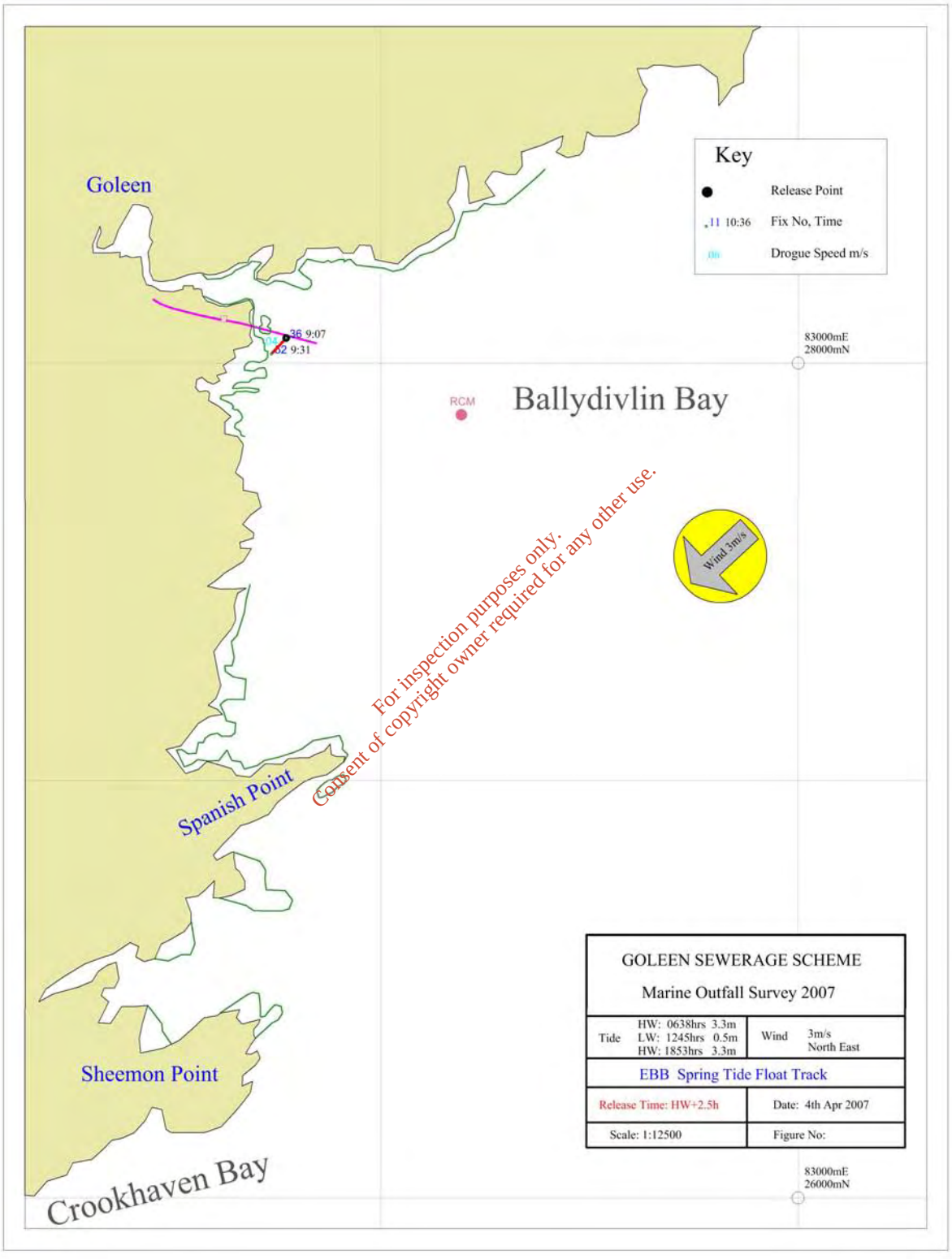
Drogue Tracks– 4th April 2007

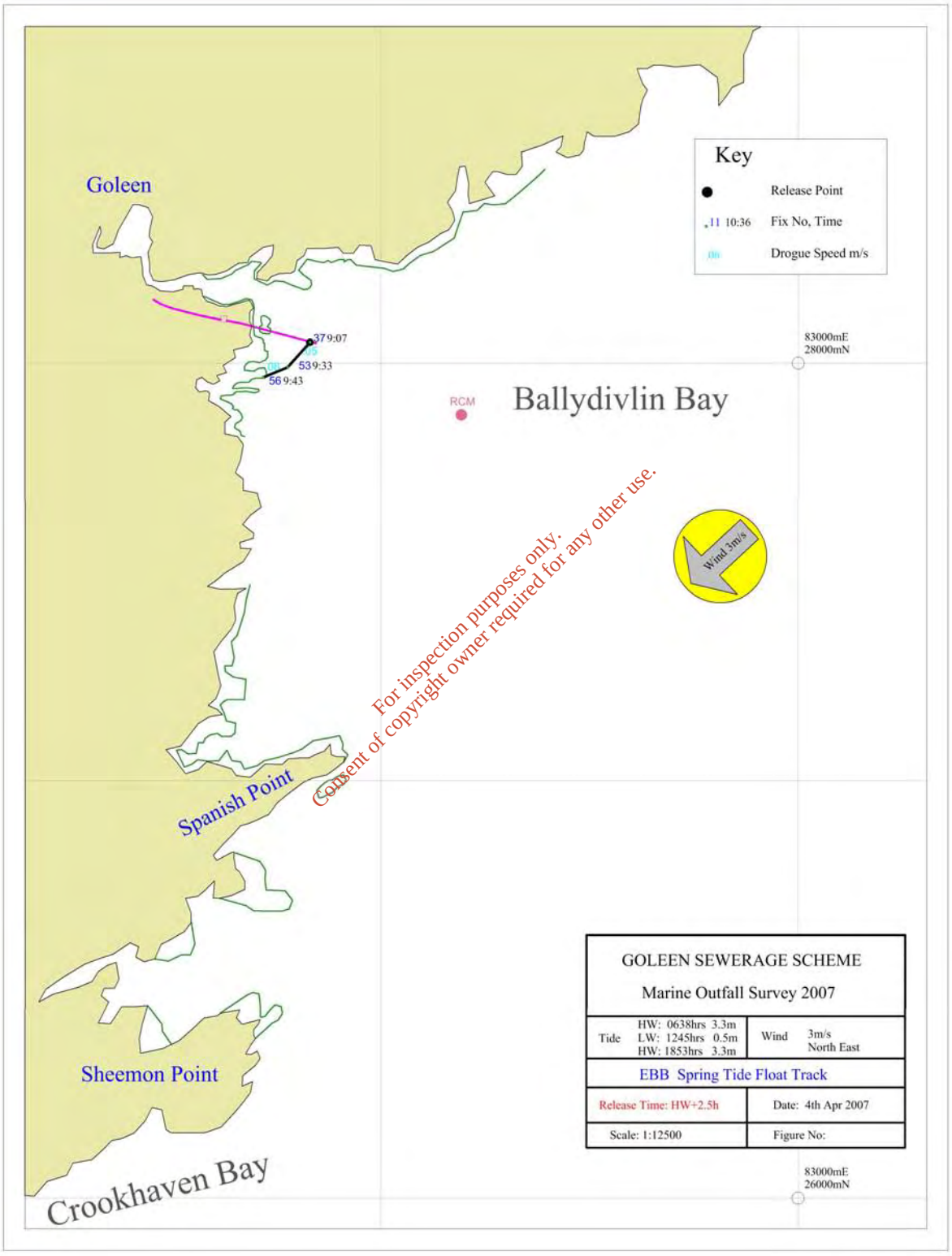


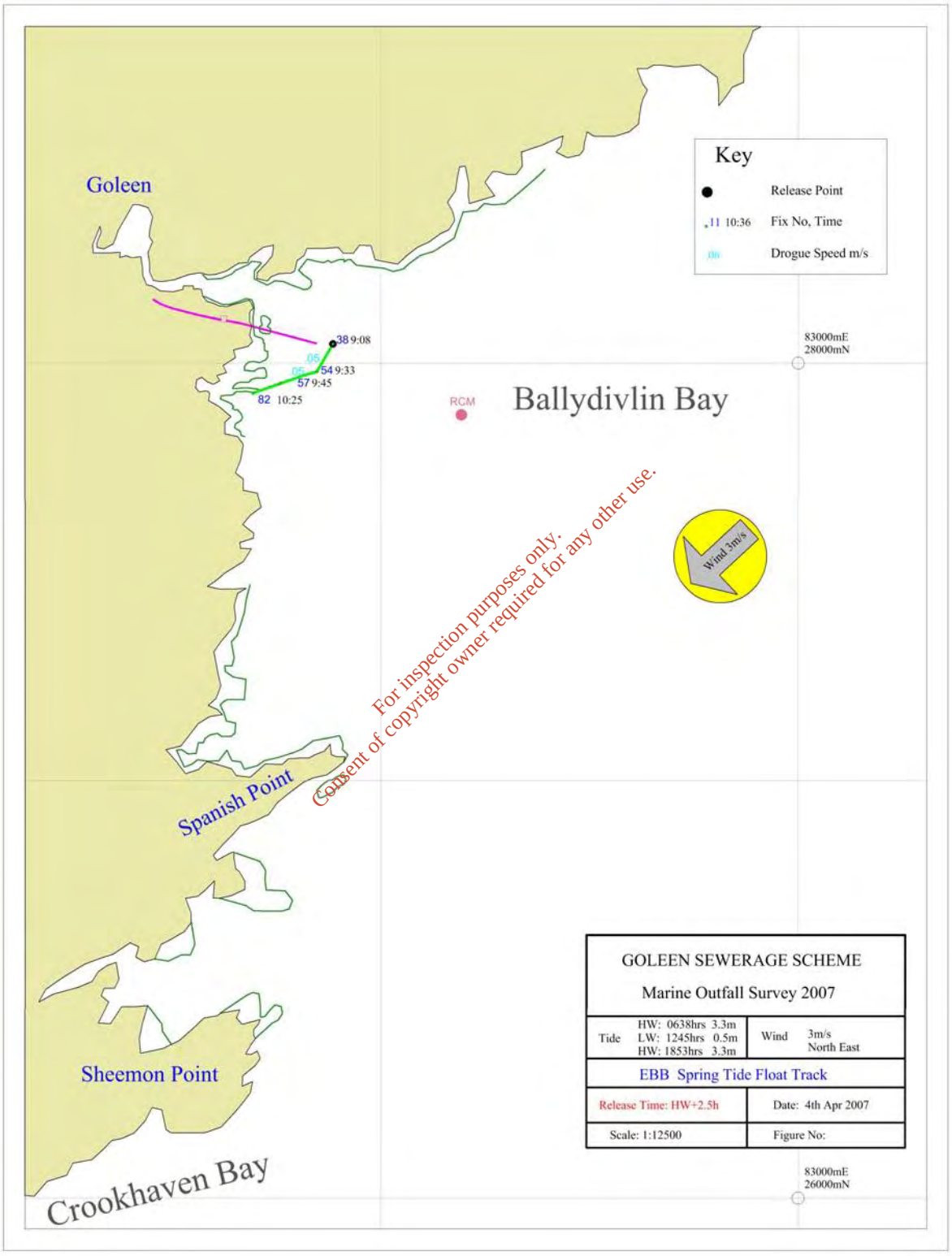


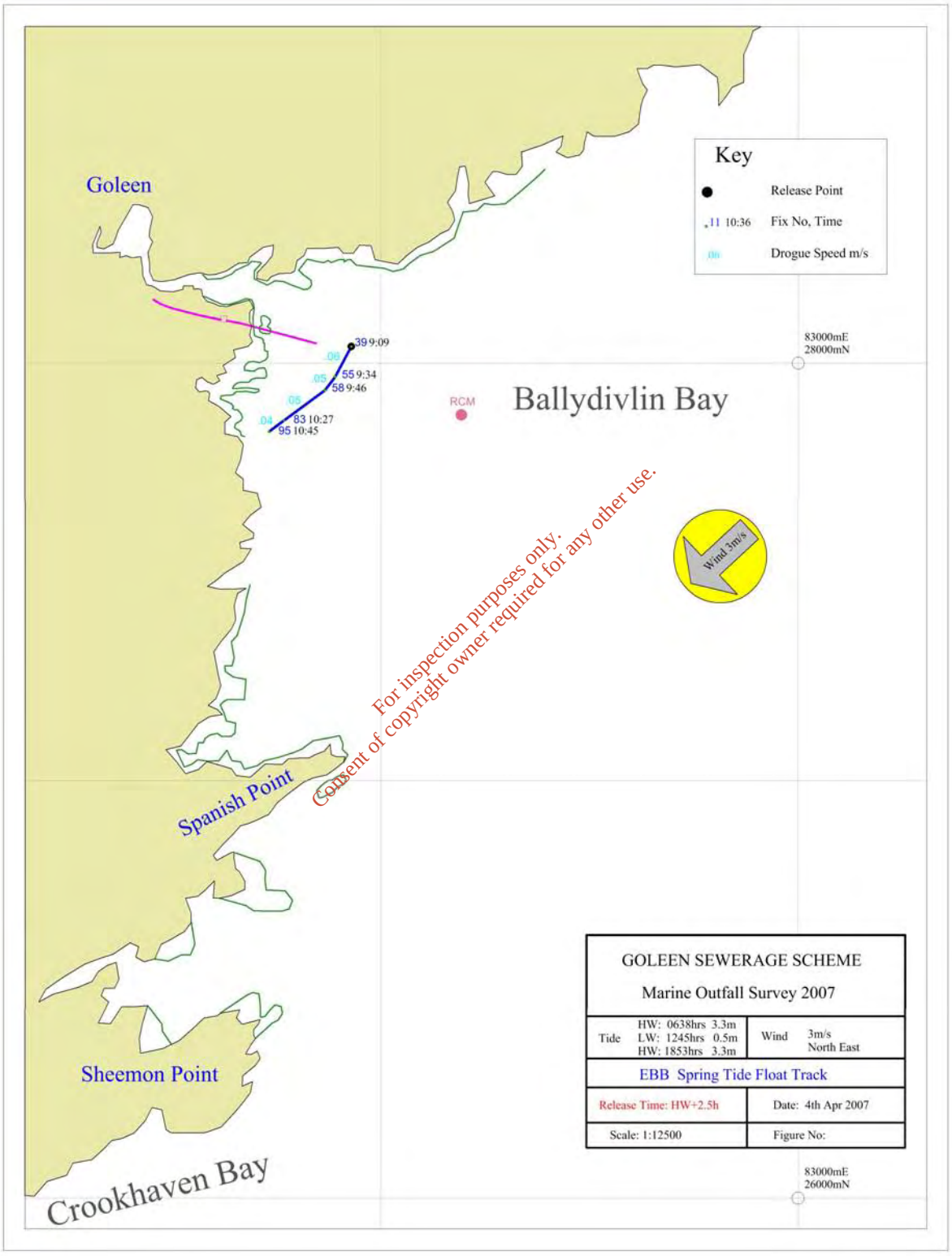


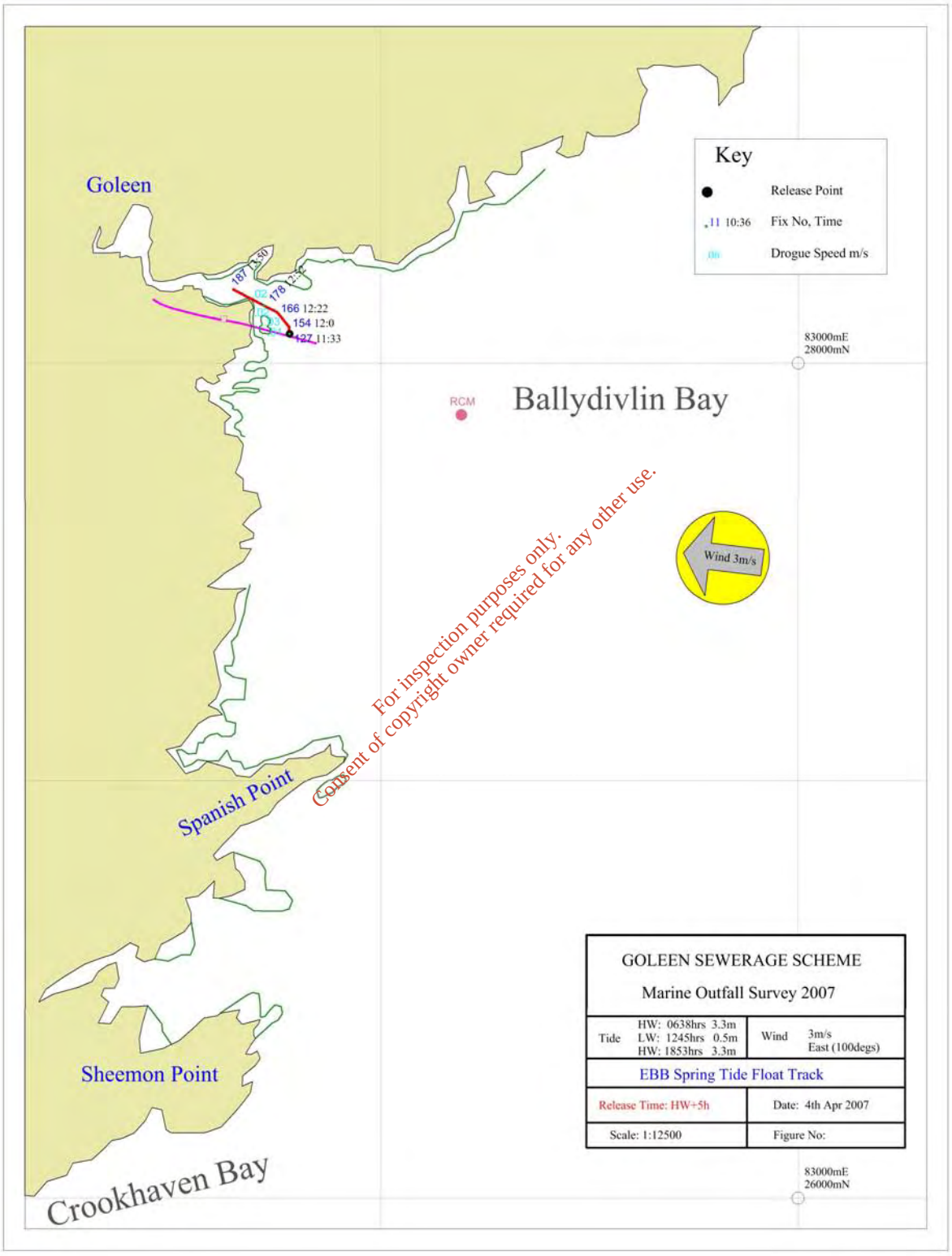


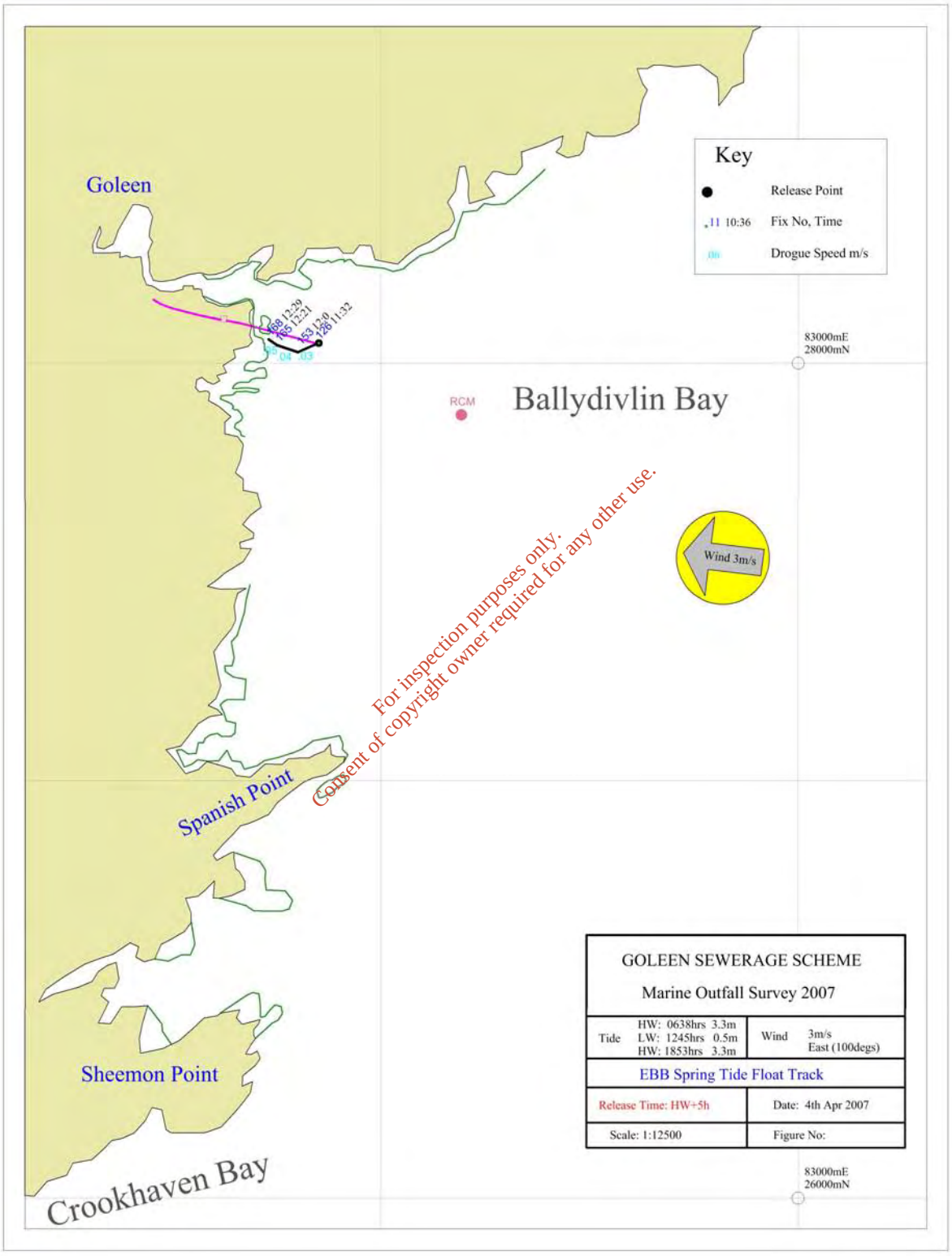


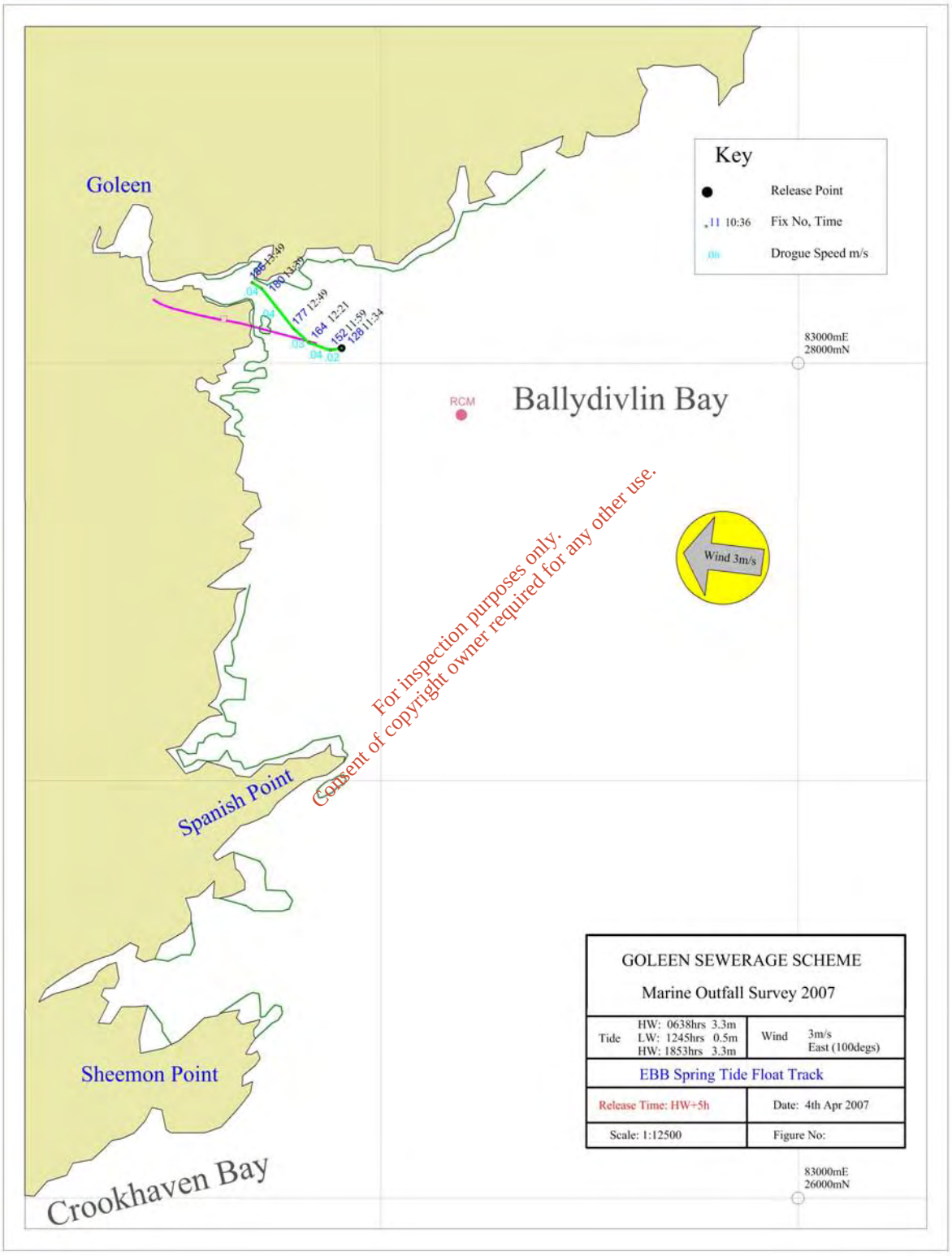


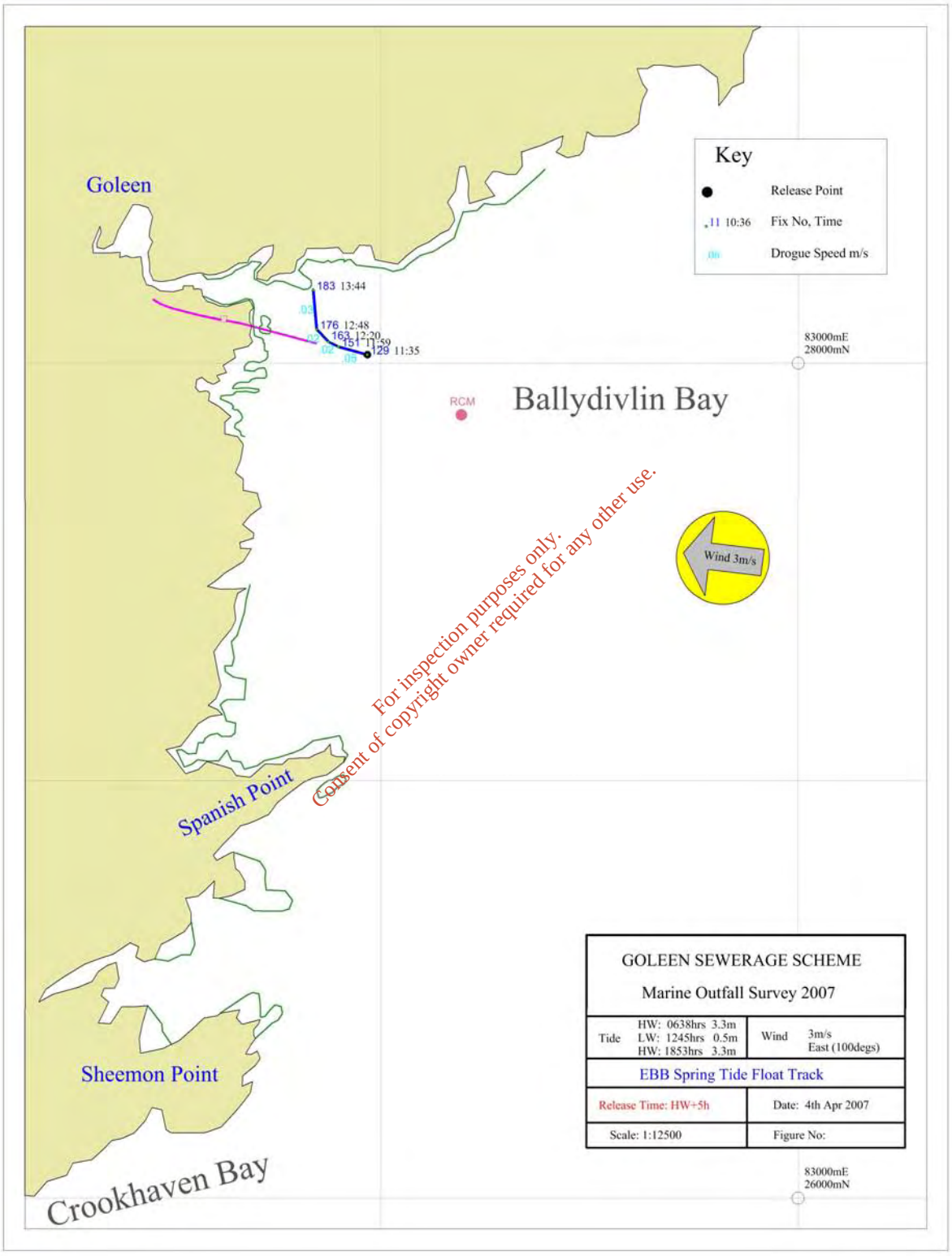


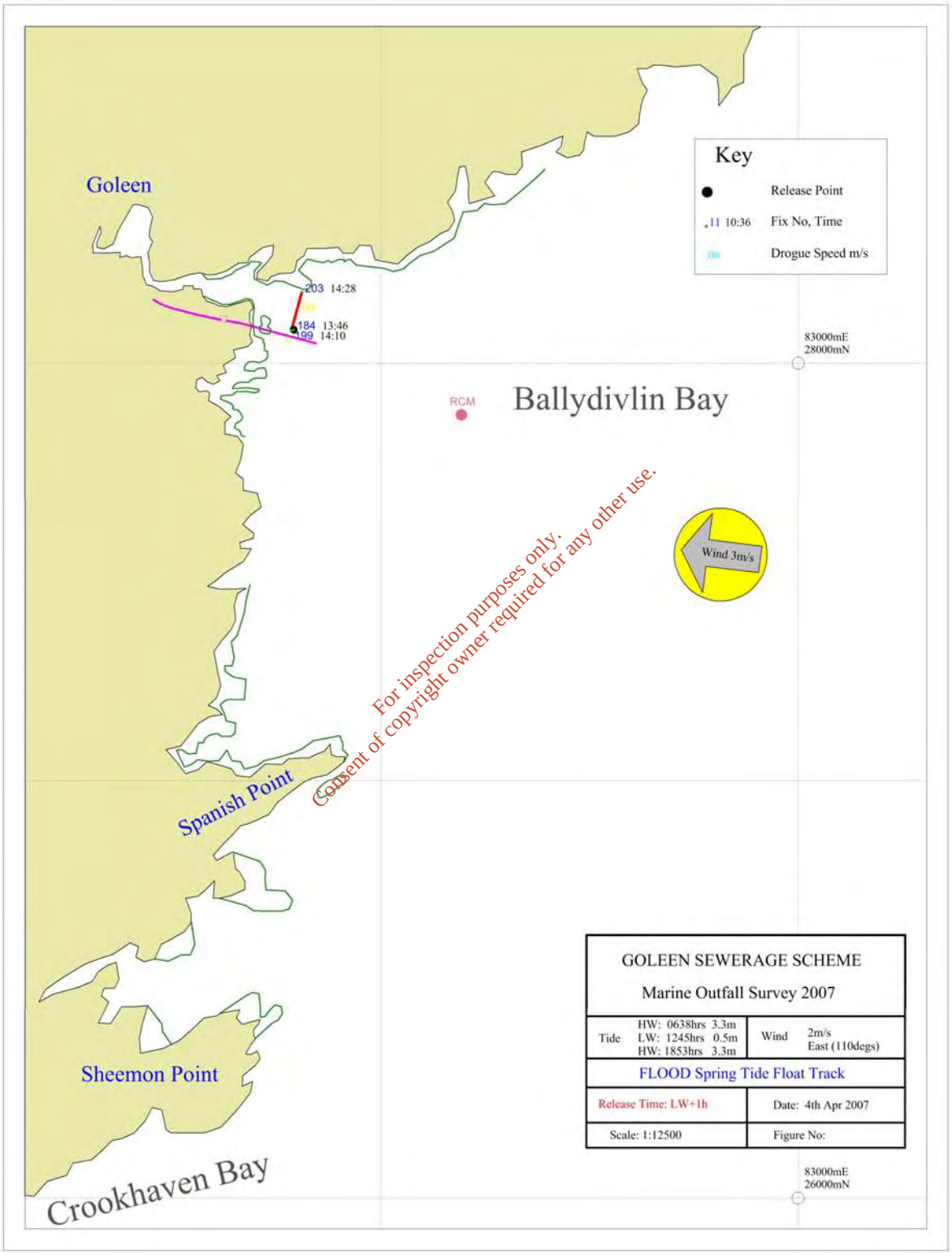


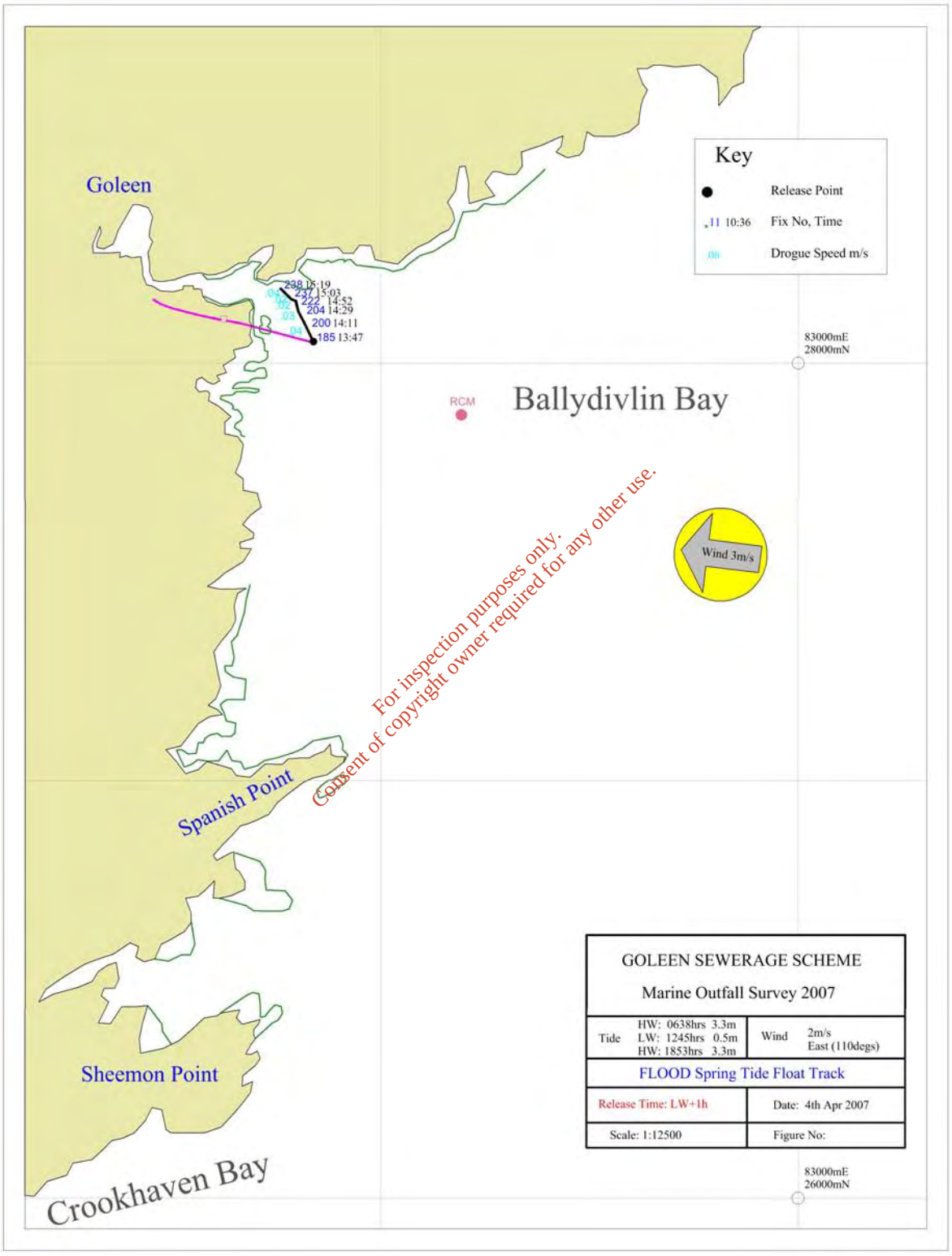


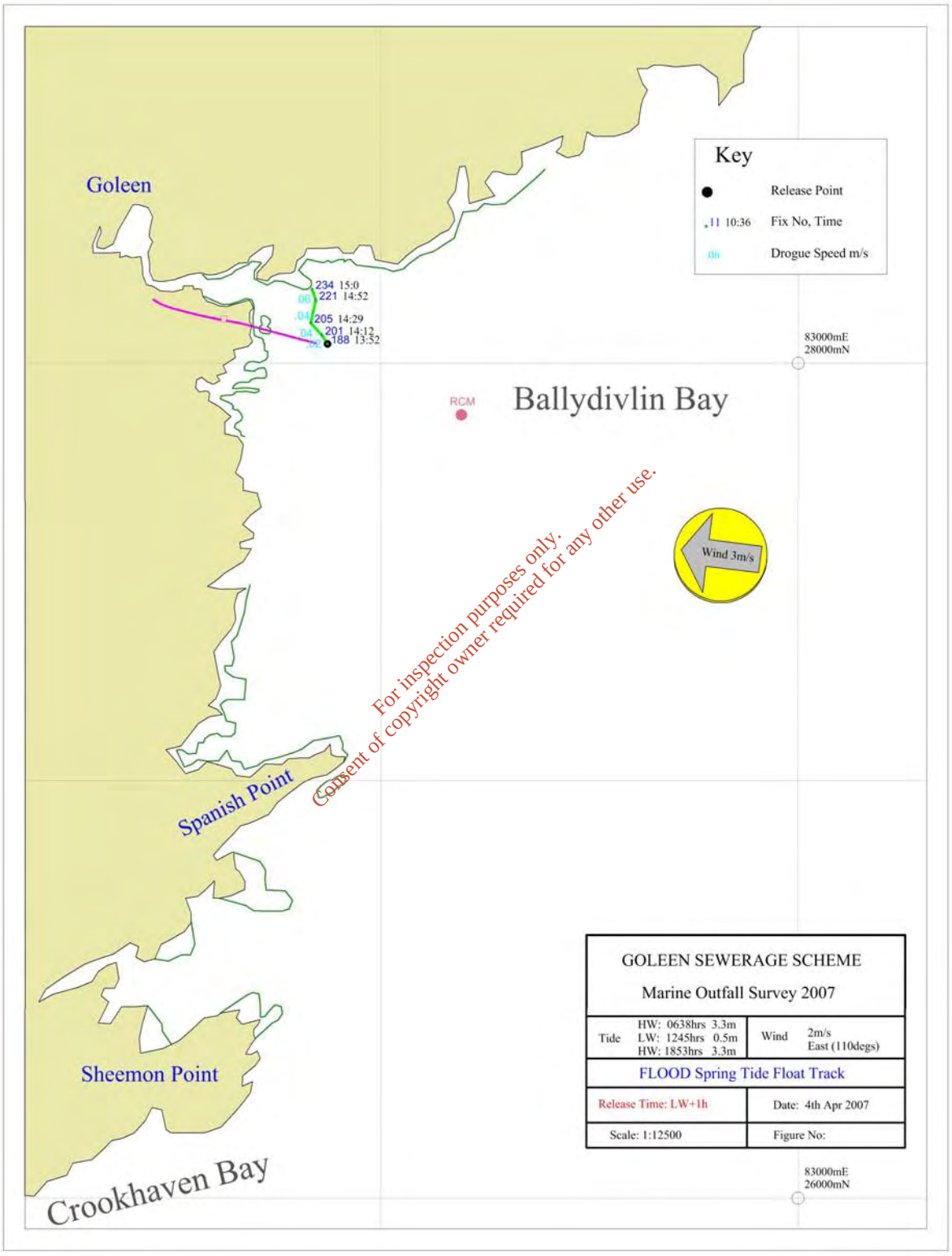


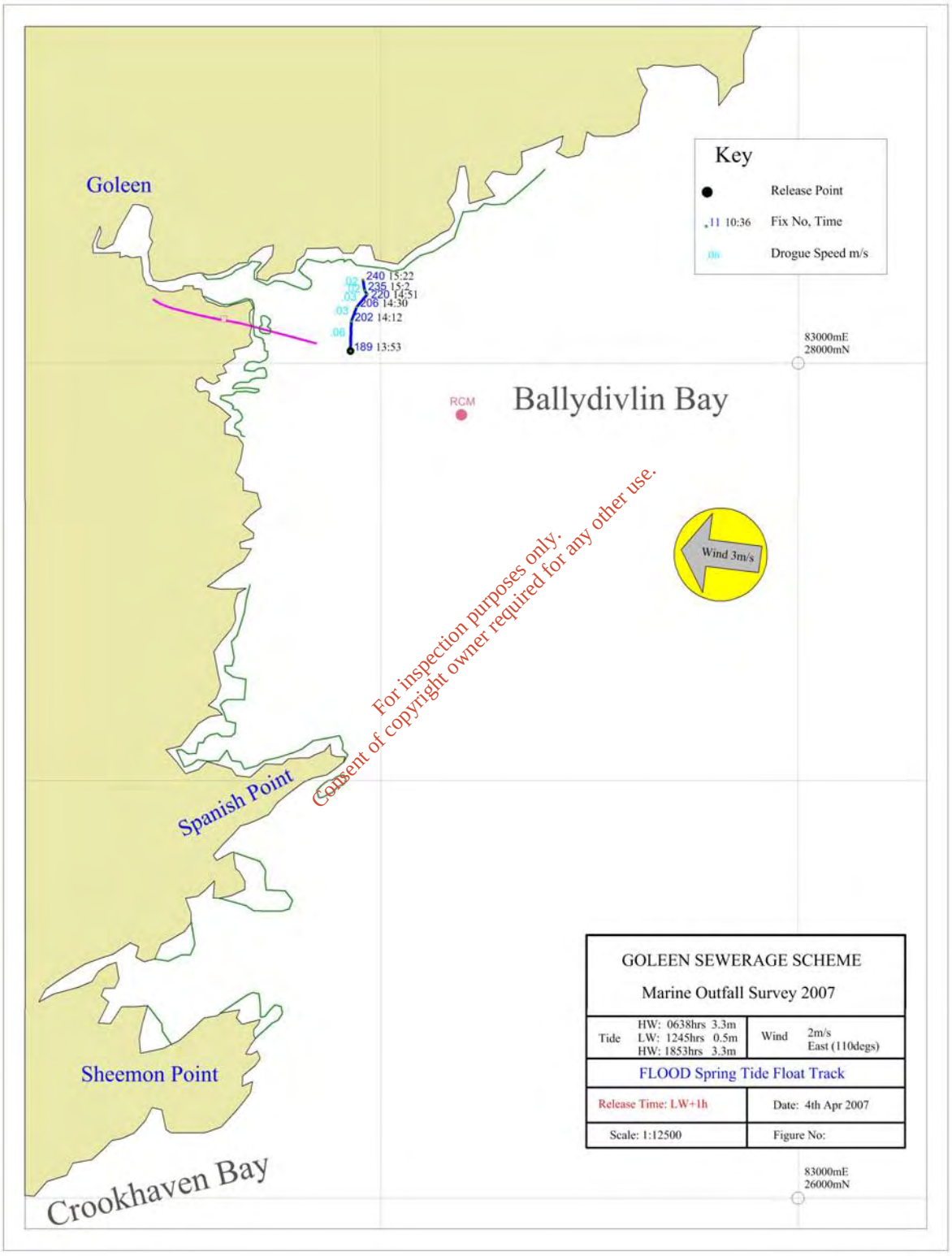


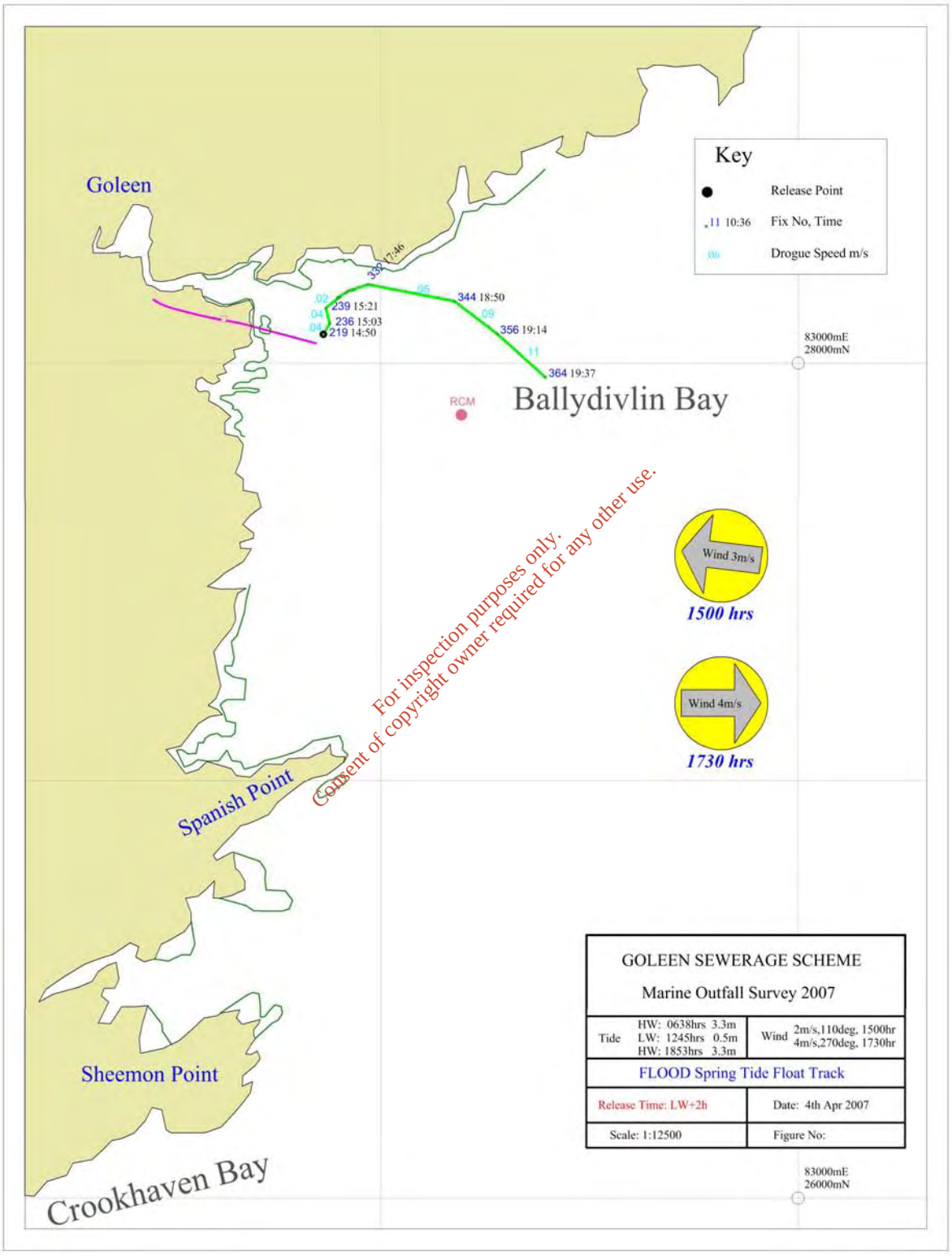


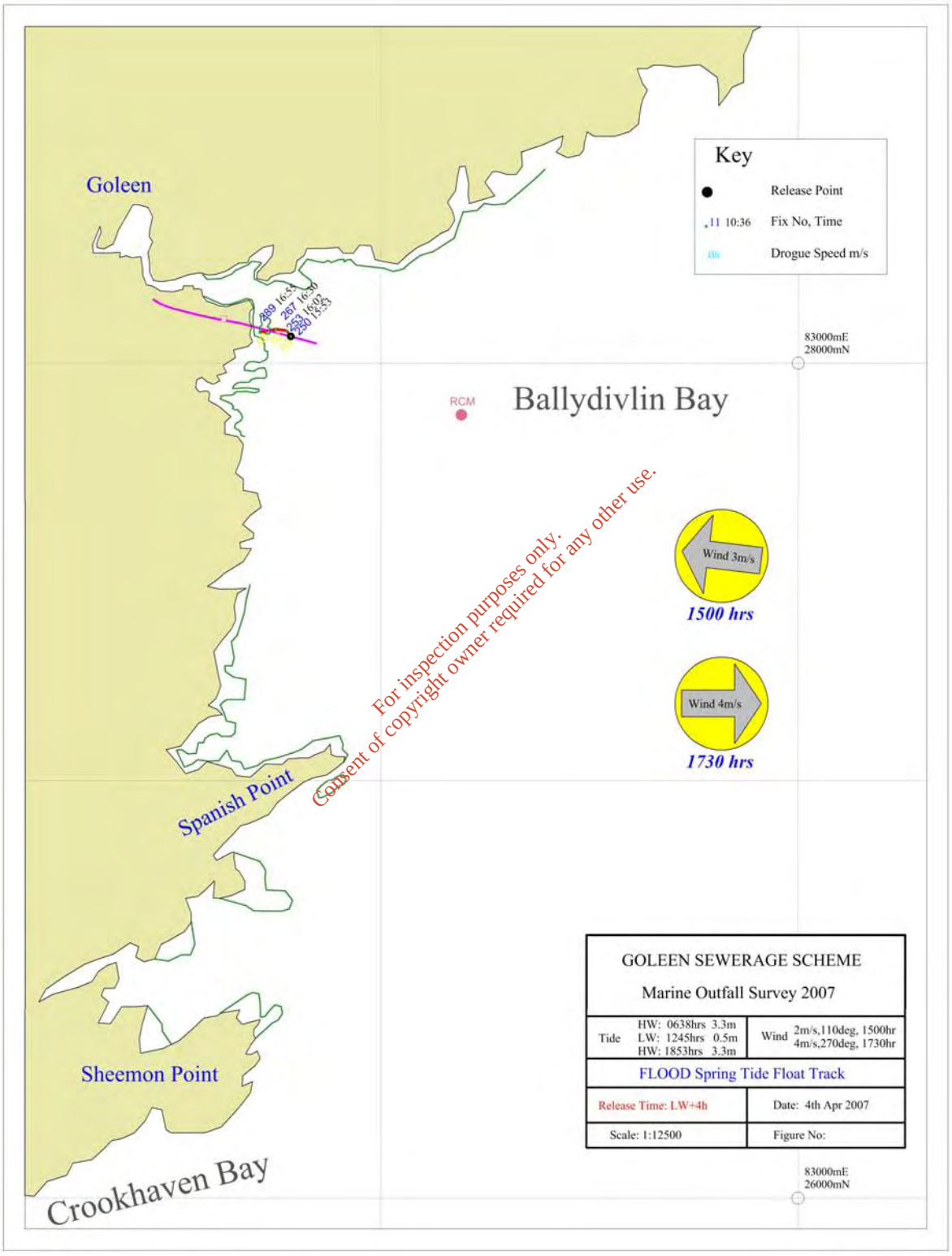


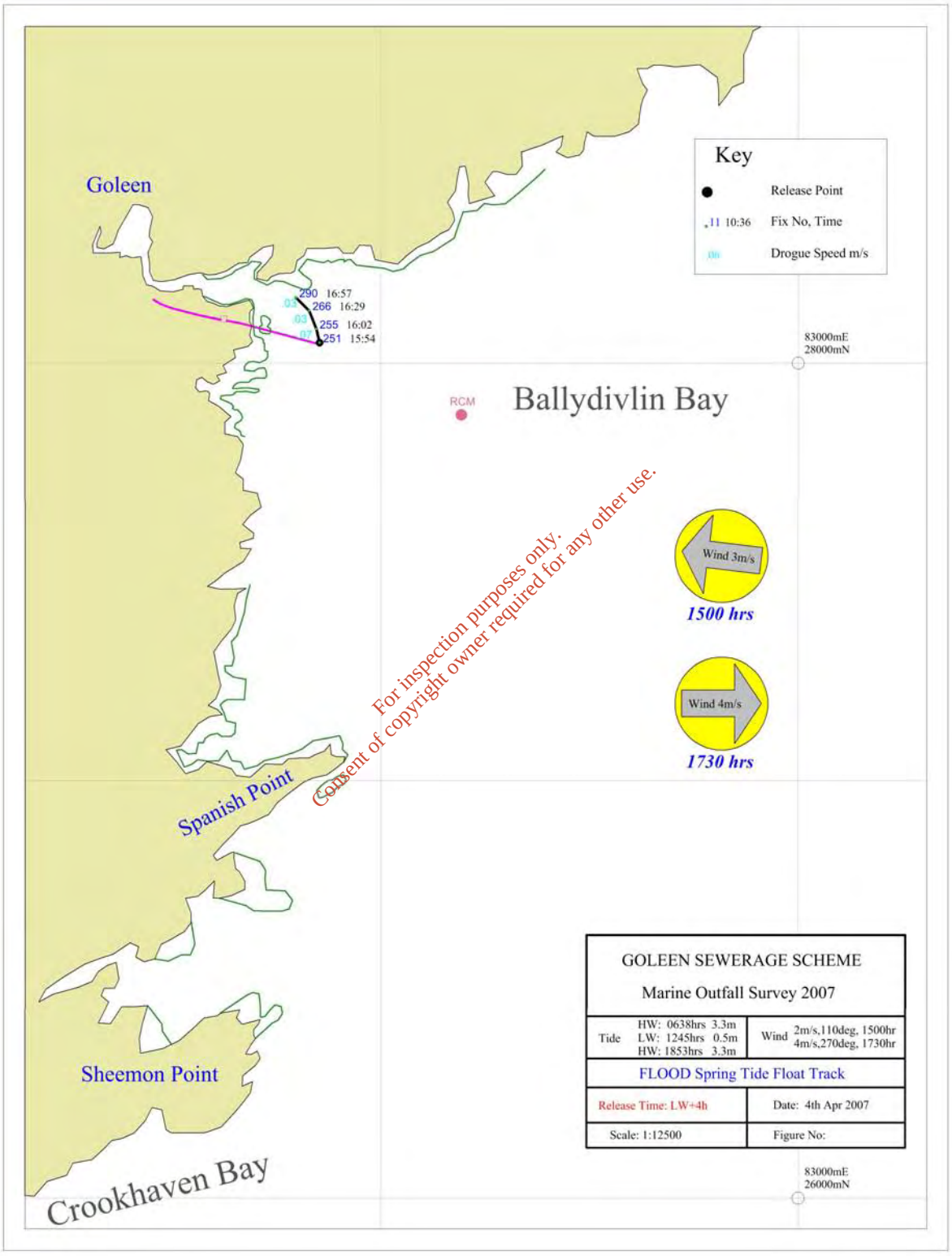


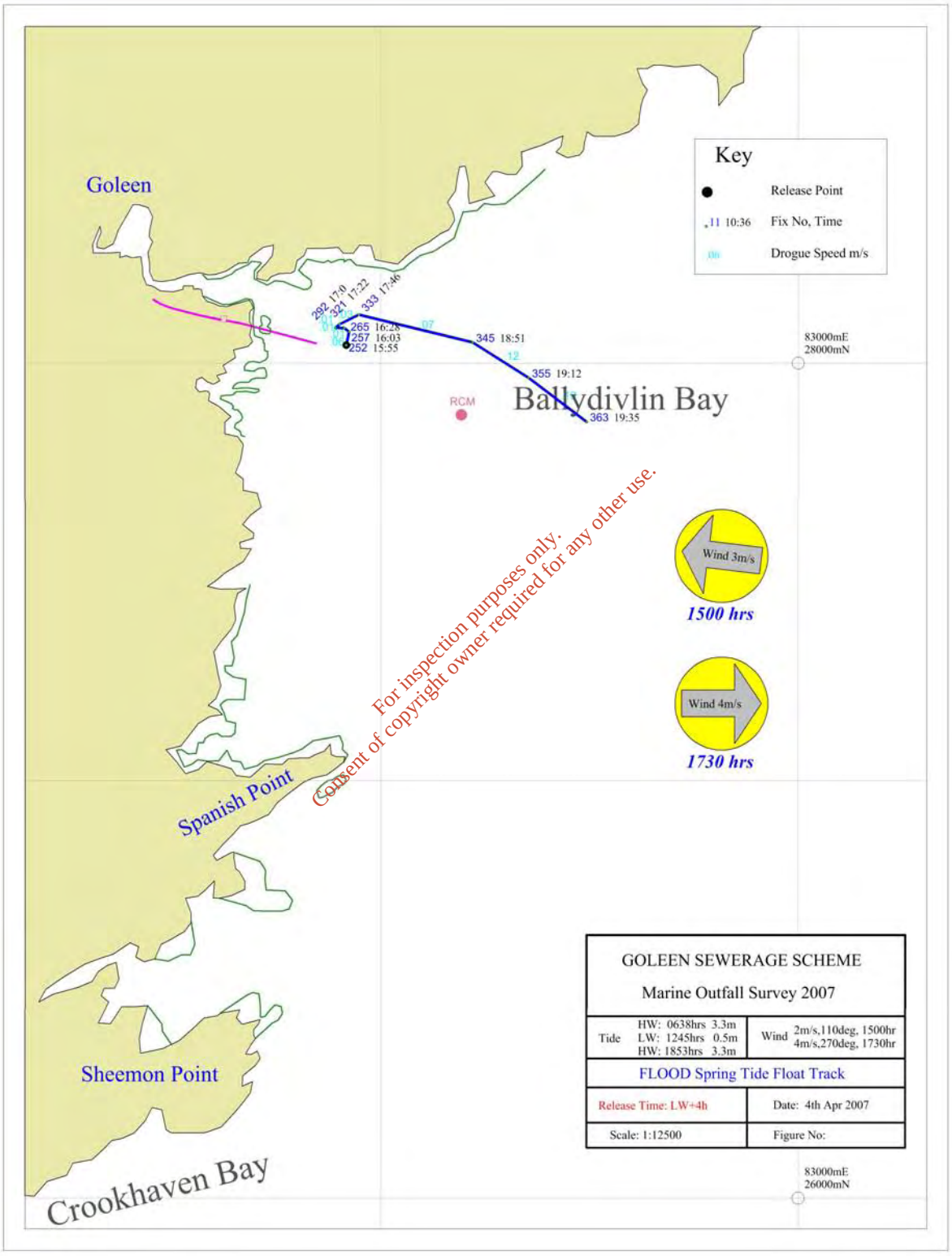


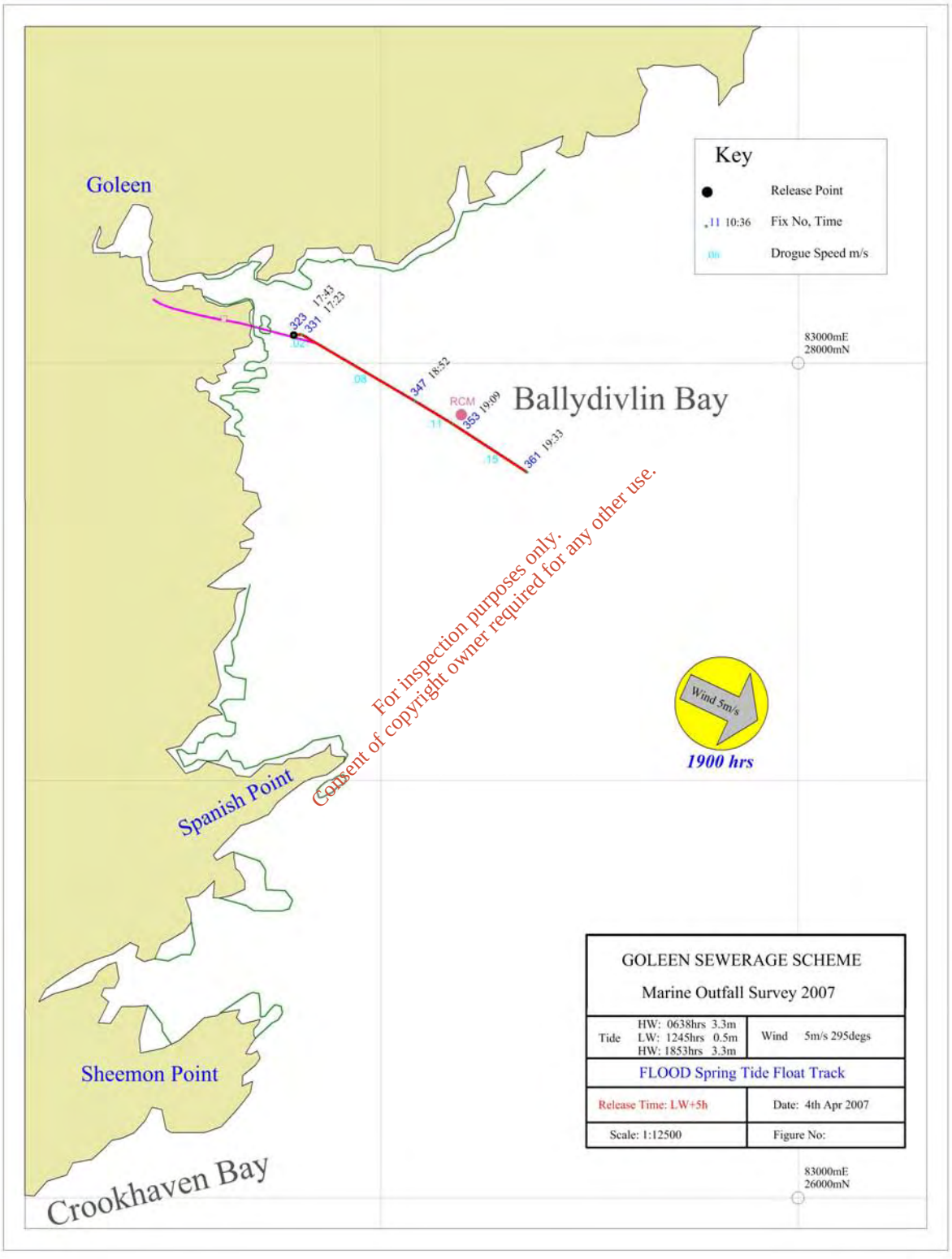


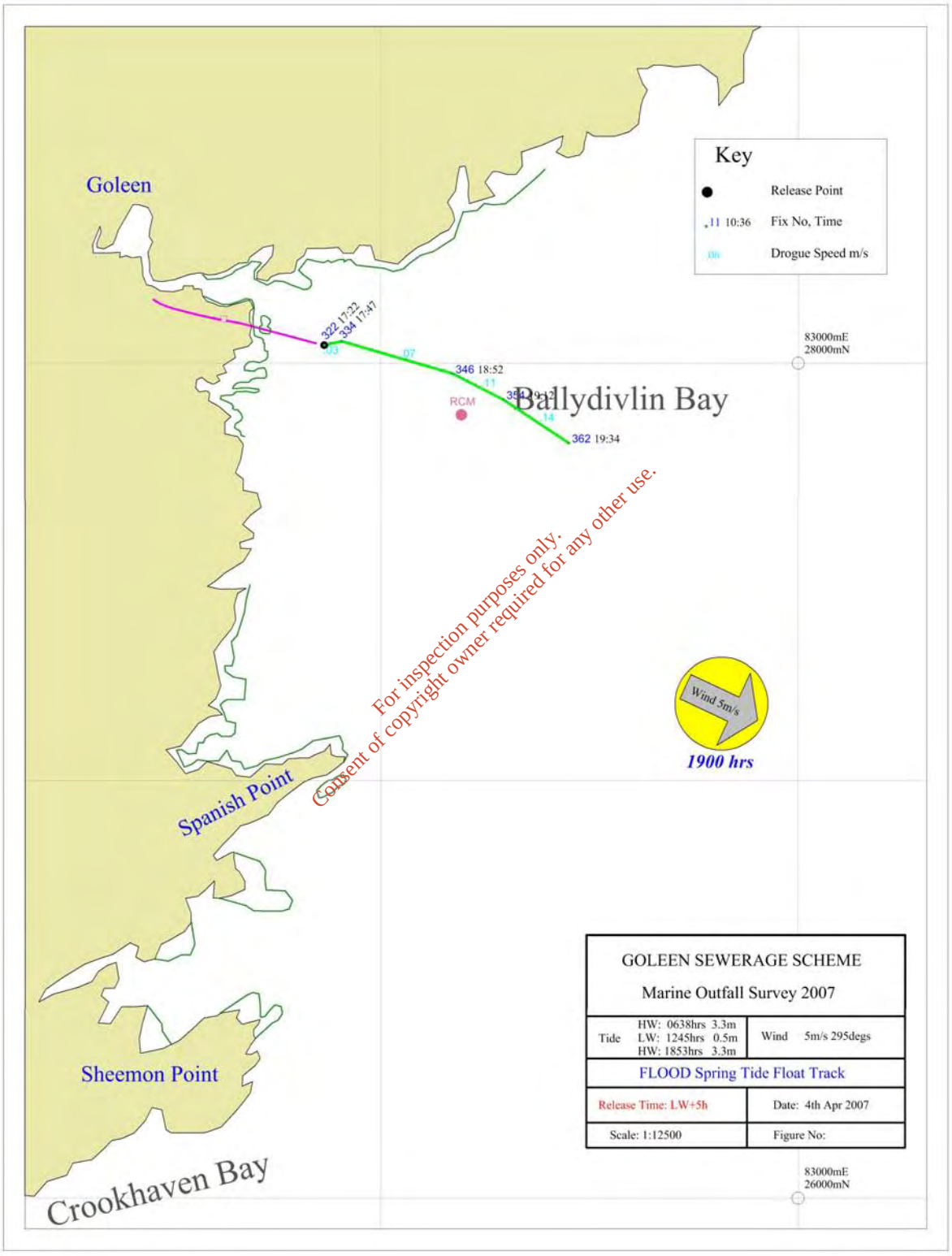






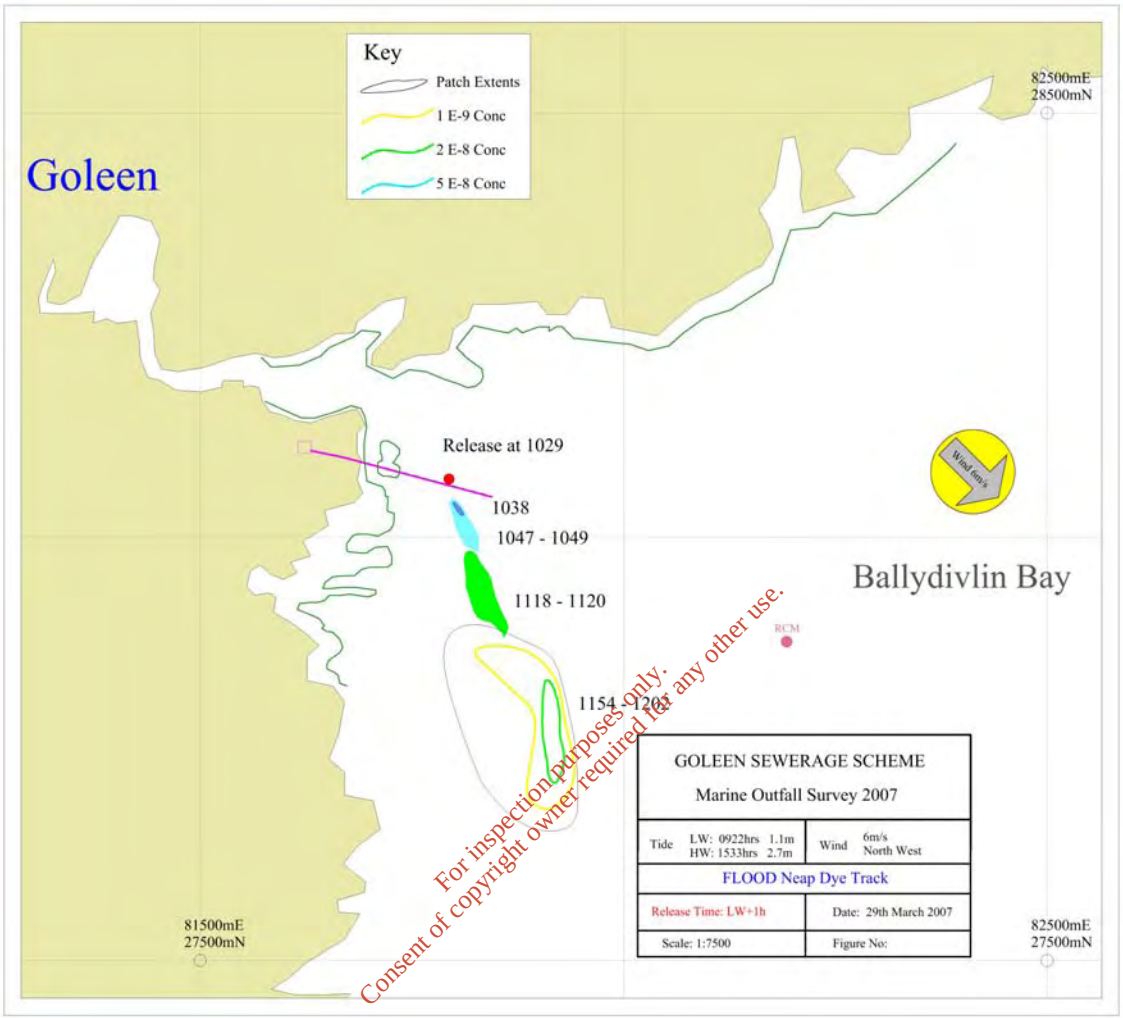




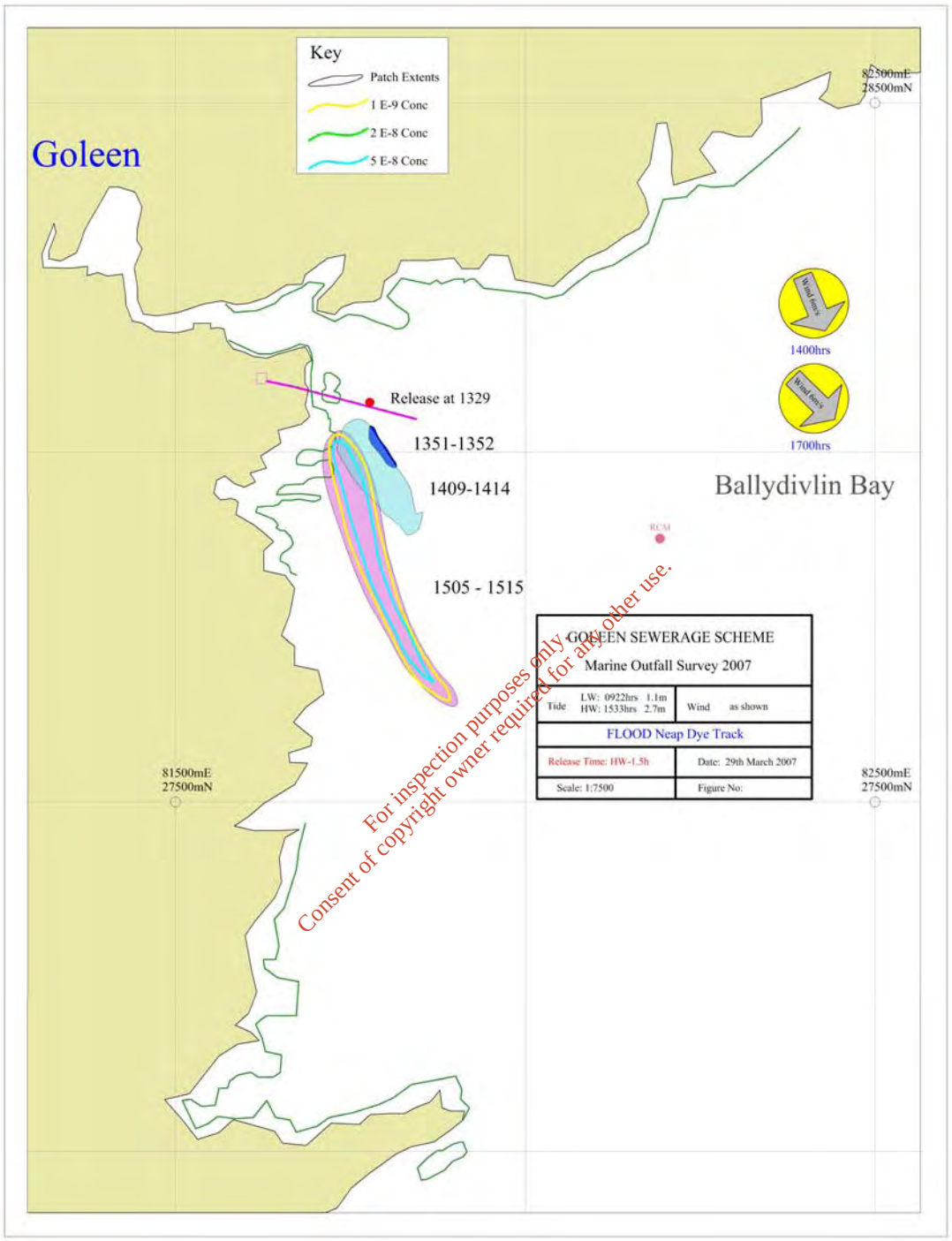


ANNEX 4

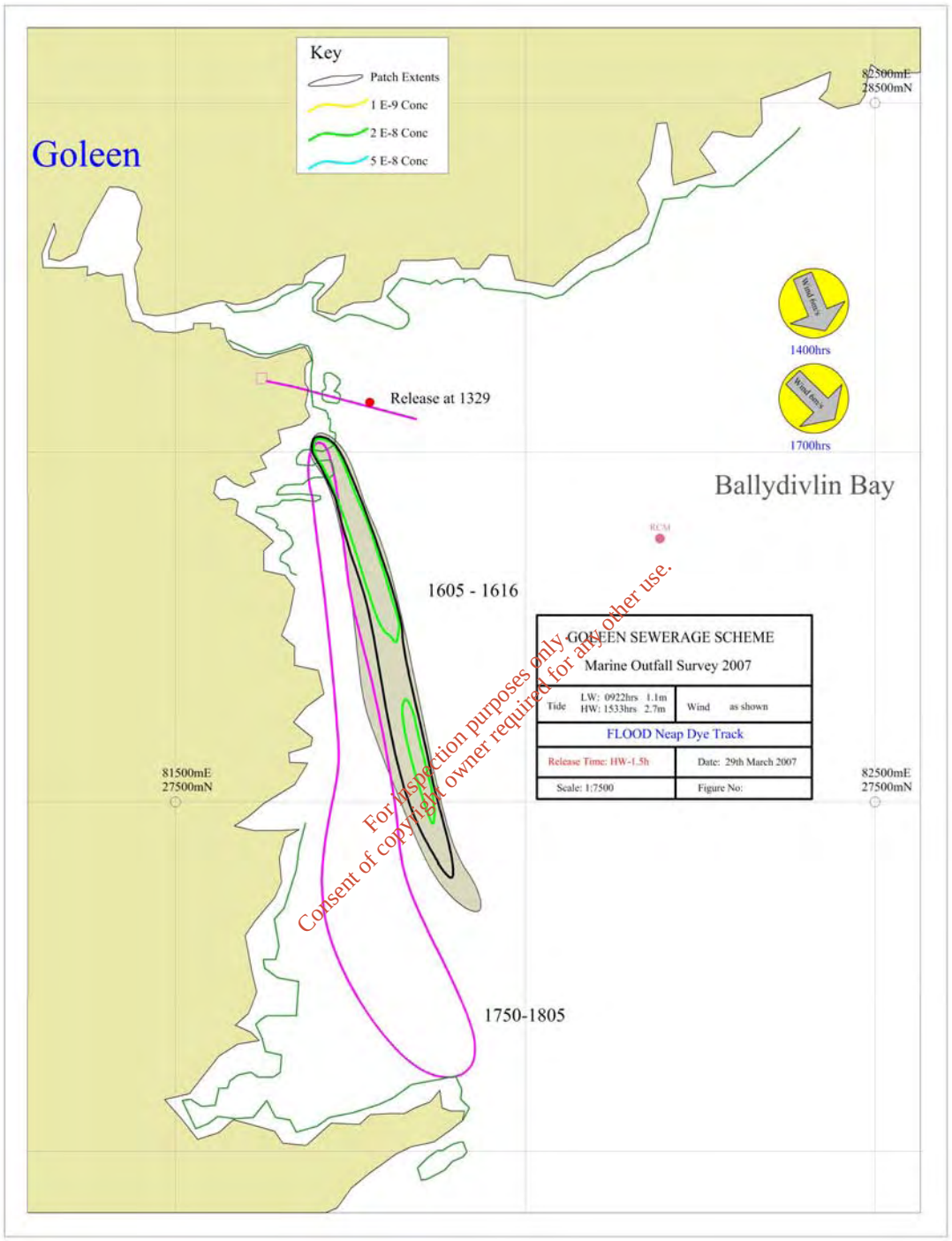
Dye Tracking– March 29th 2007



Release at LW+1, patches shown to LW+2.5



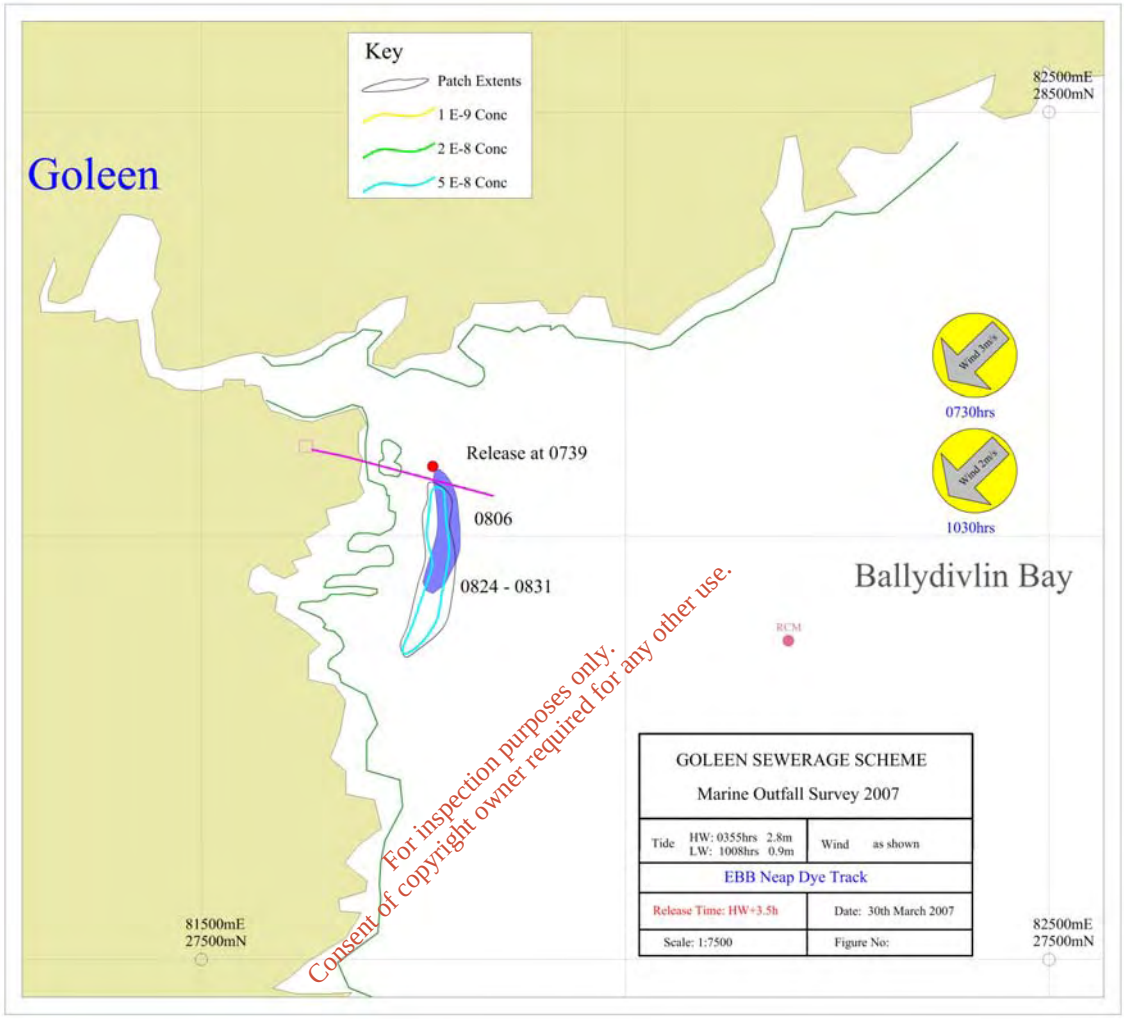
Release at HW-2, patches shown to HW



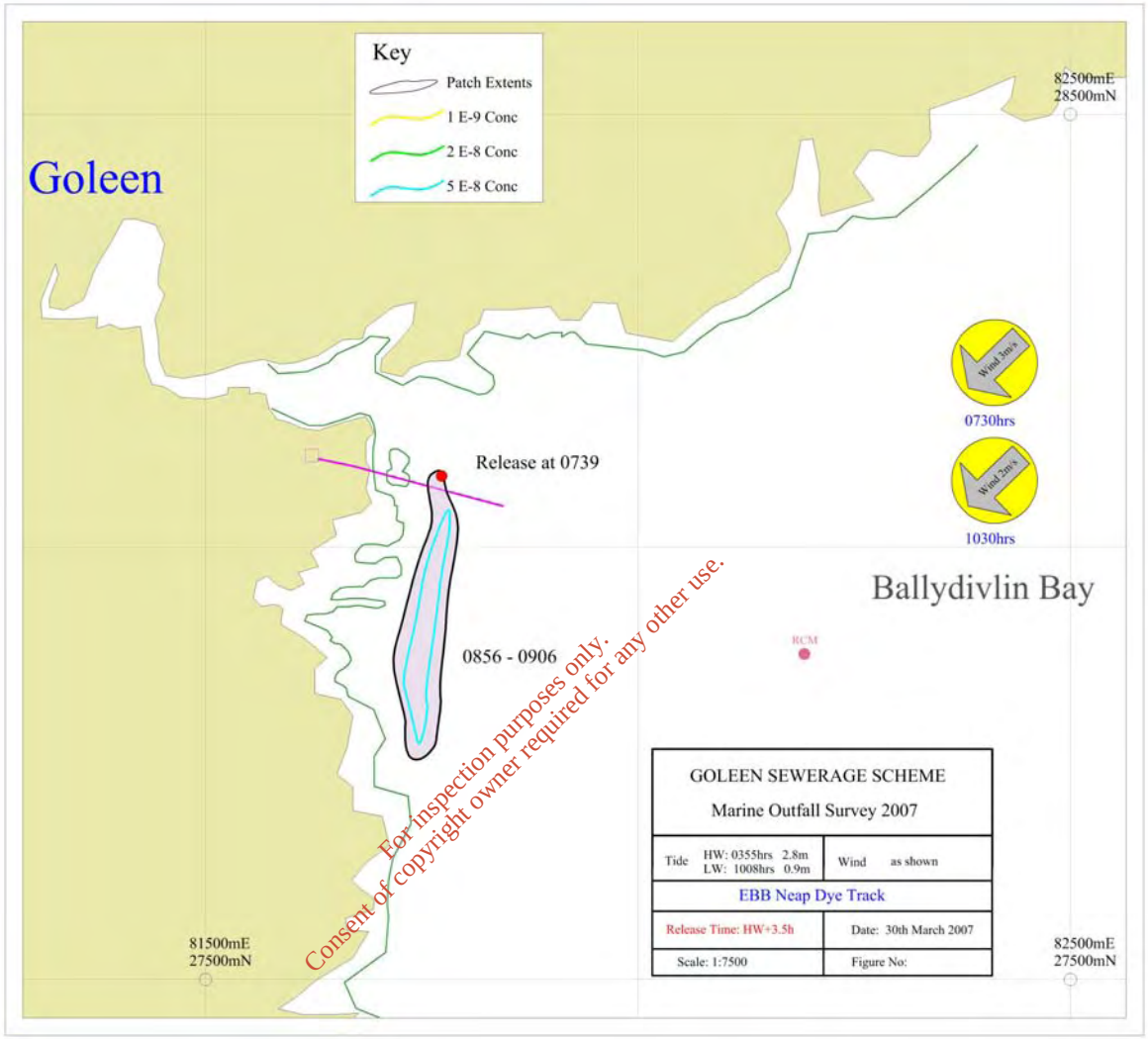
Release at HW-2, patches shown from HW+0.5 to HW+2.5

ANNEX 5

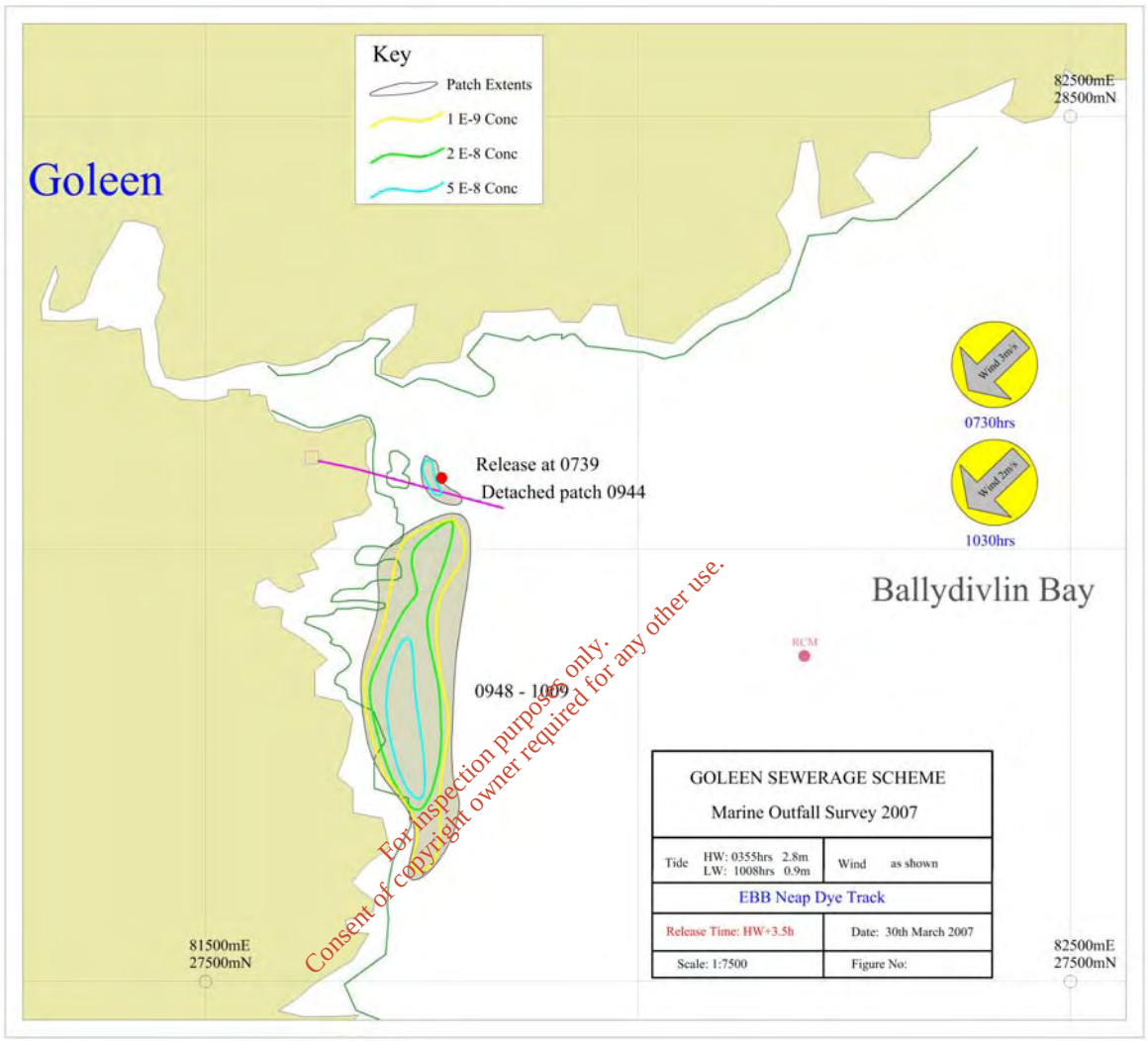
Dye Tracking– March 30th 2007



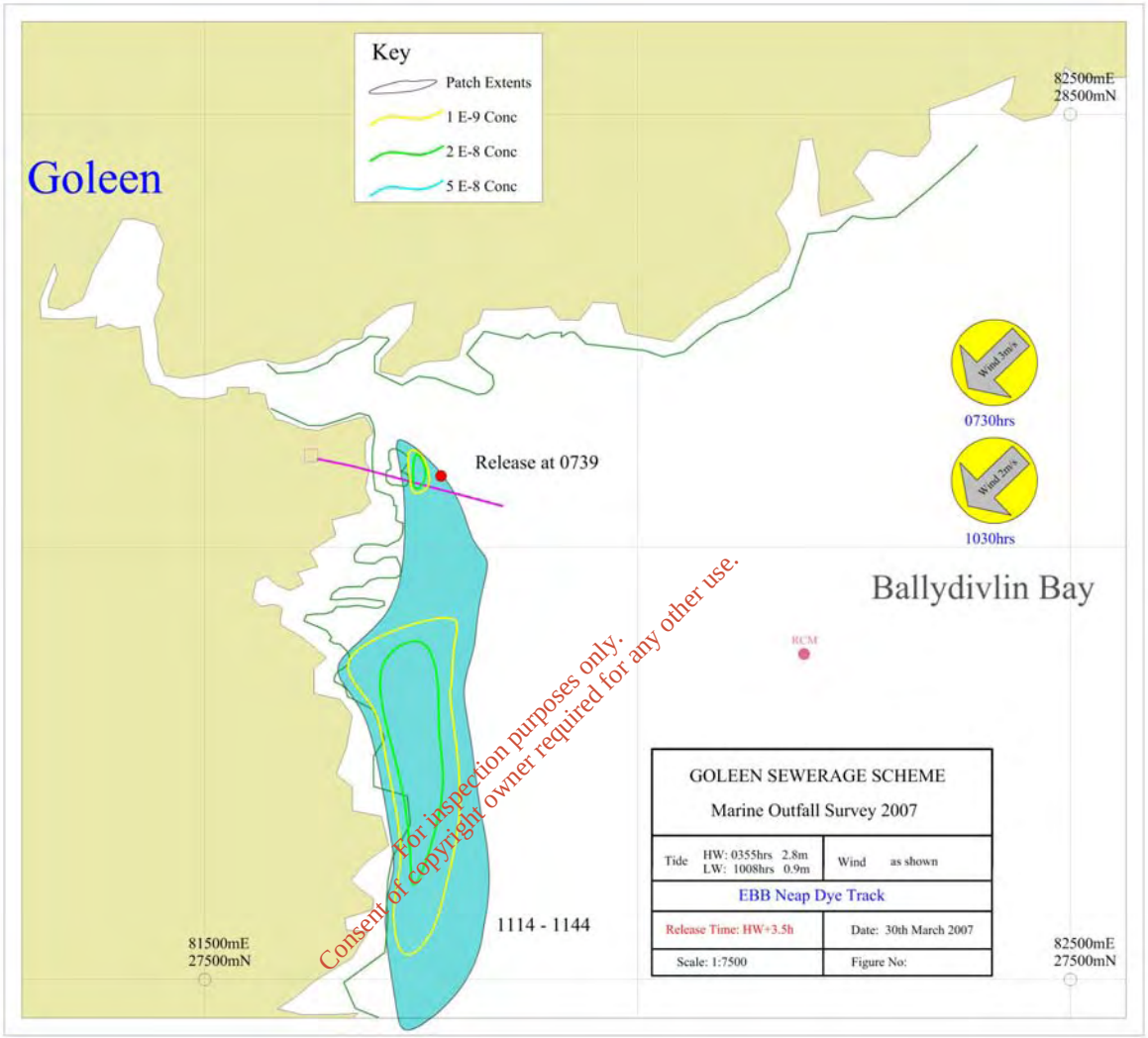
Release at HW+3.75, patches shown at ~HW+4, HW+4.5



Release at HW+3.75, patch shown at ~HW+5



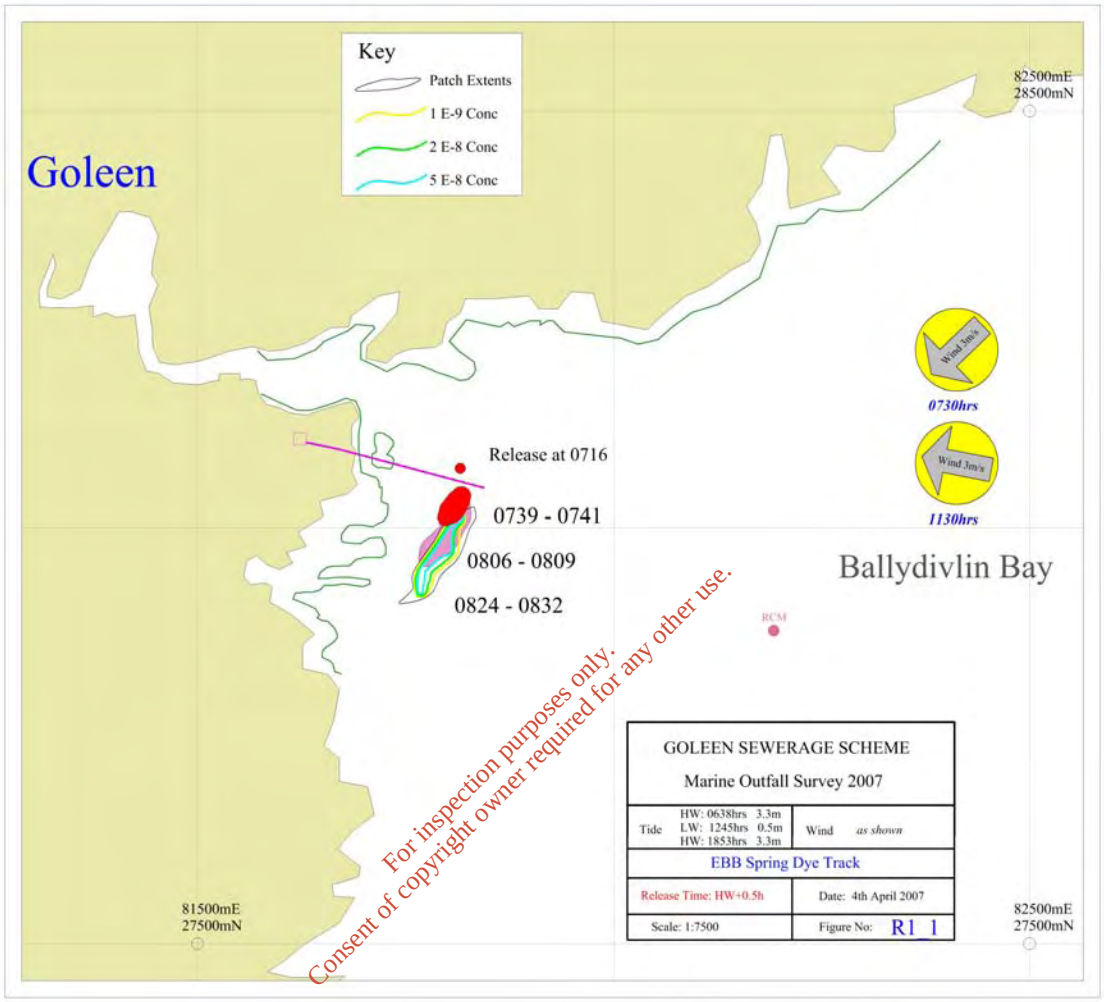
Release at HW+3.75, patch shown at ~LW



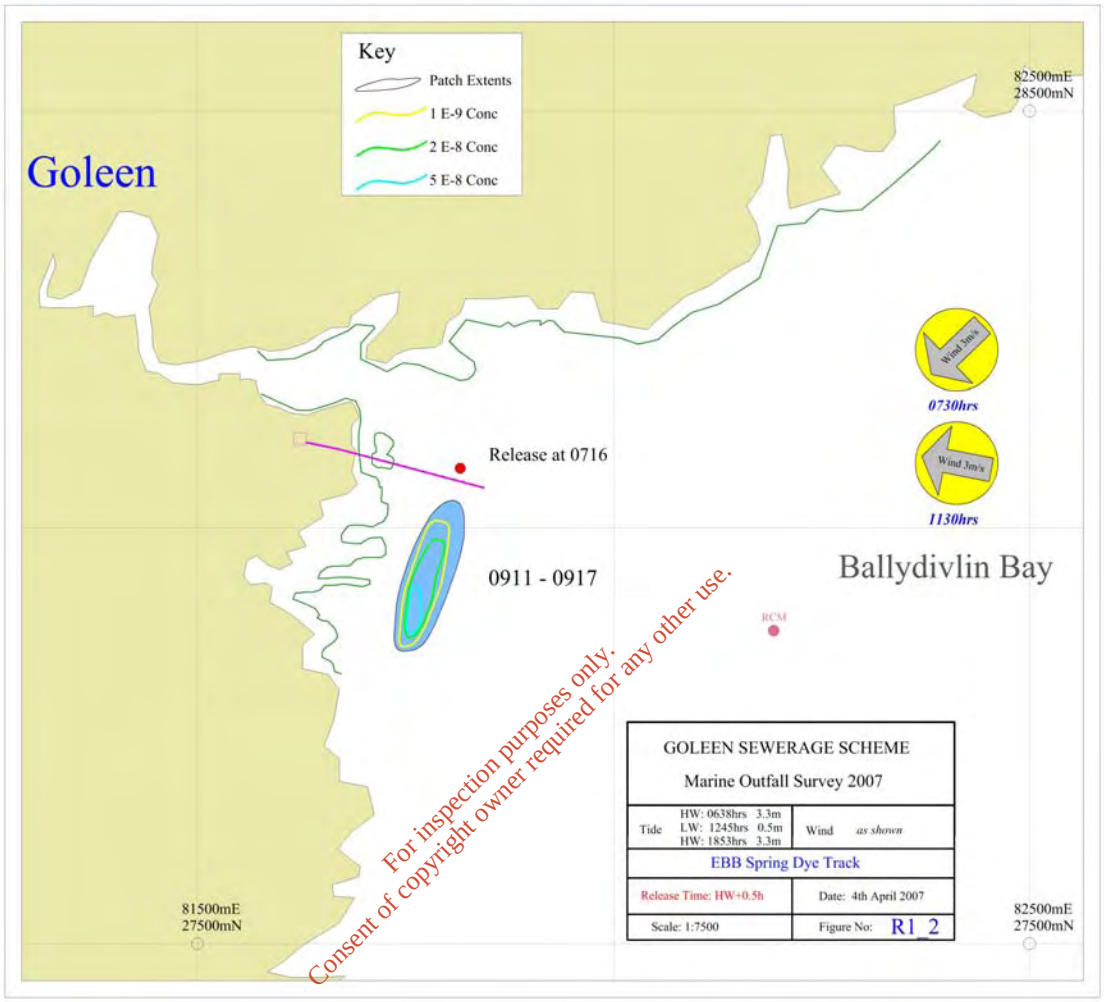
Release at HW+3.75, patch shown at ~LW+1.5

ANNEX 6

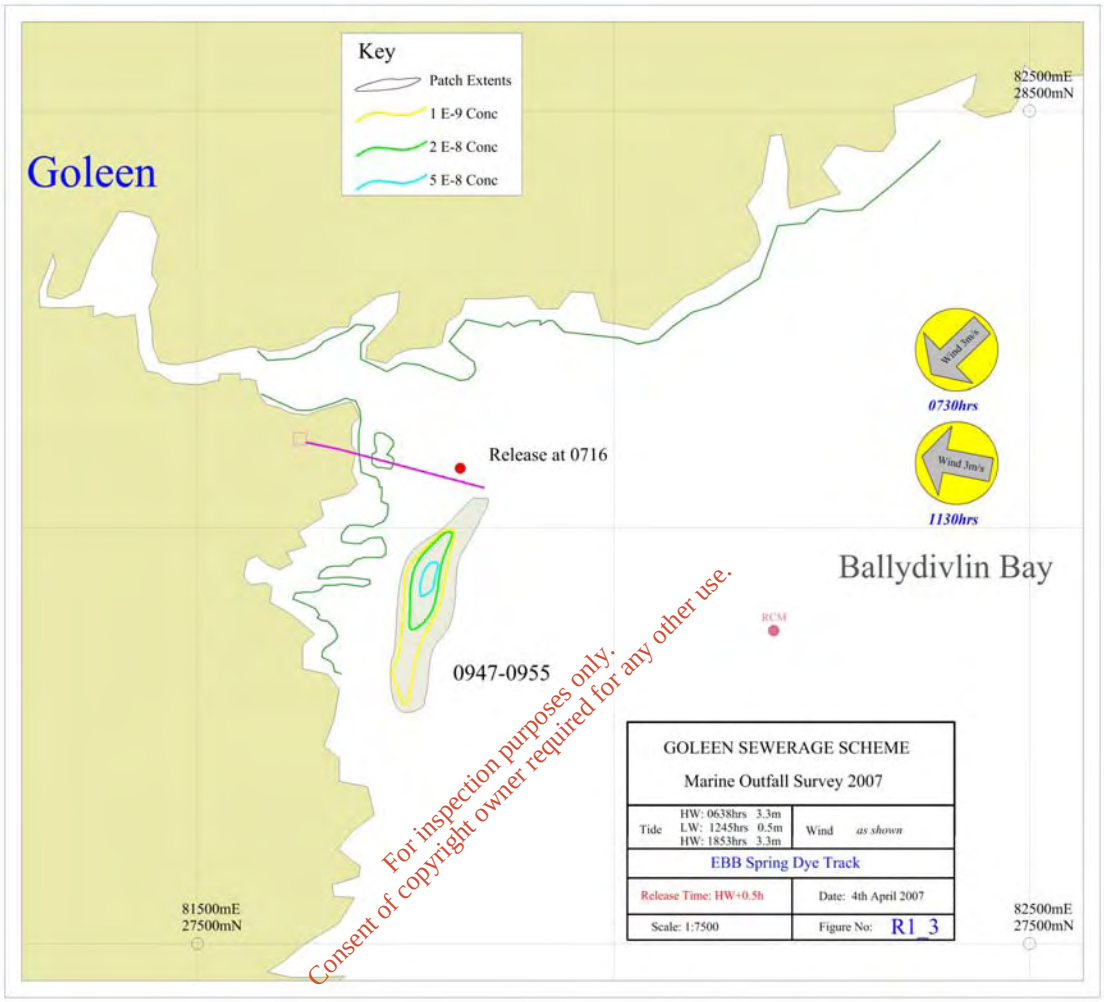
Dye Tracking– April 4th 2007



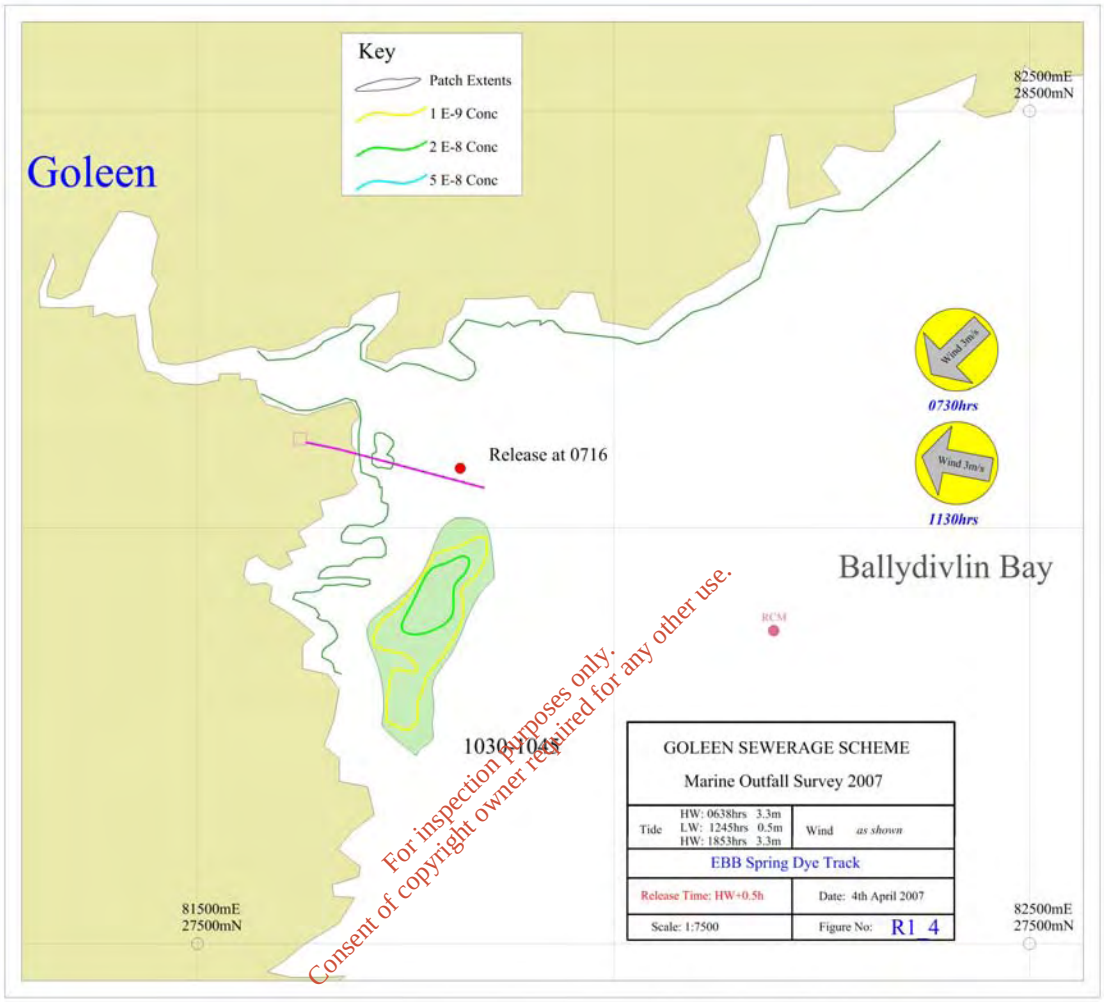
Release at HW+0.5, patches shown to HW+2



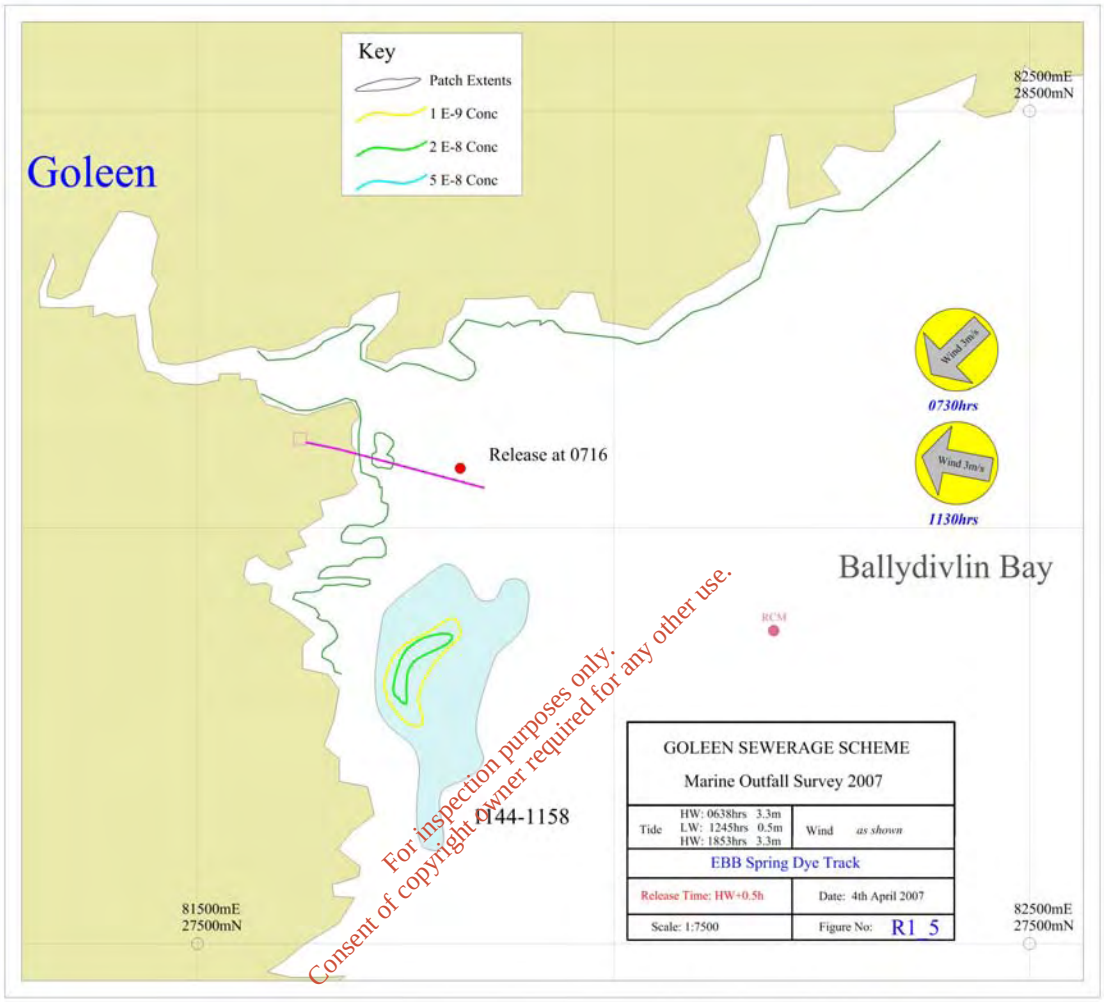
Release at HW+0.5, patch shown ~HW+2.5



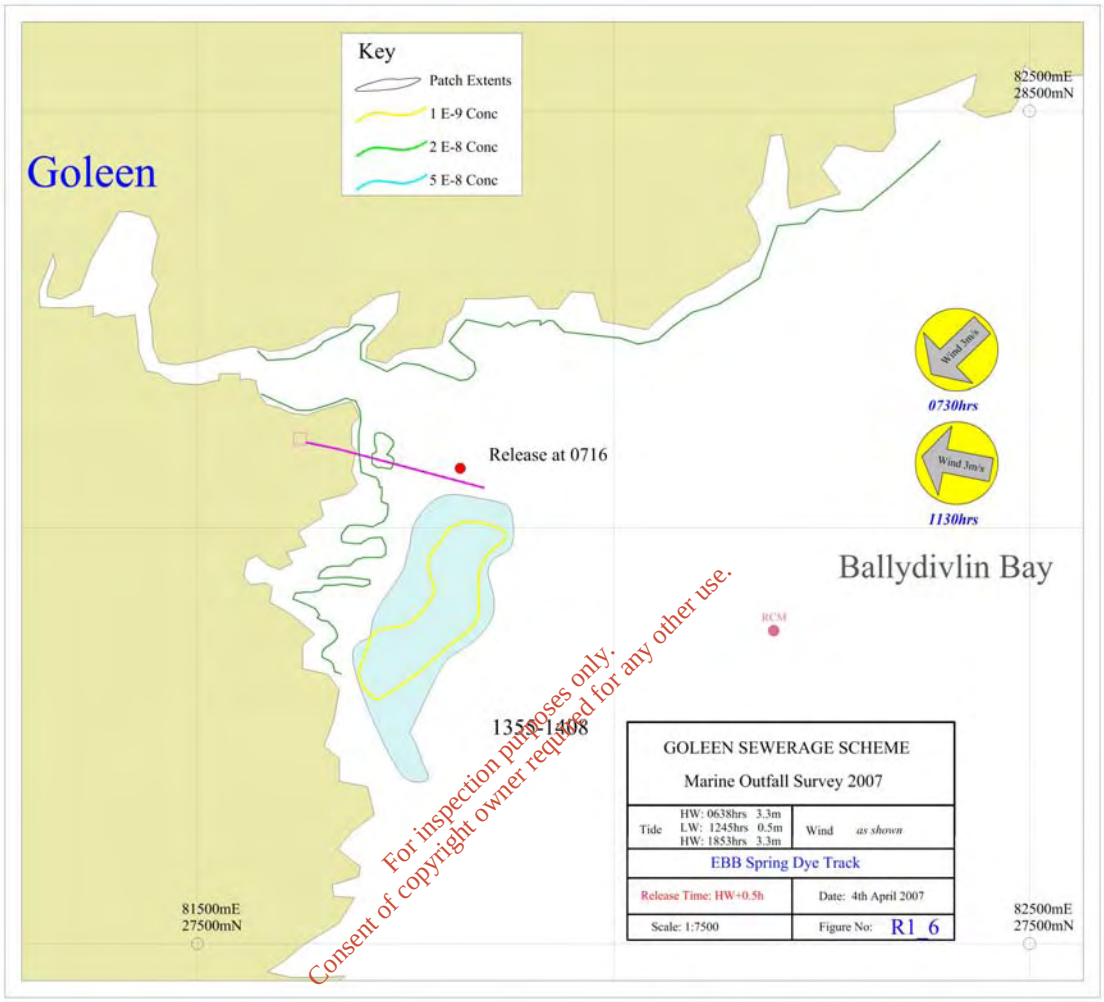
Release at HW+0.5, patch shown ~HW+3



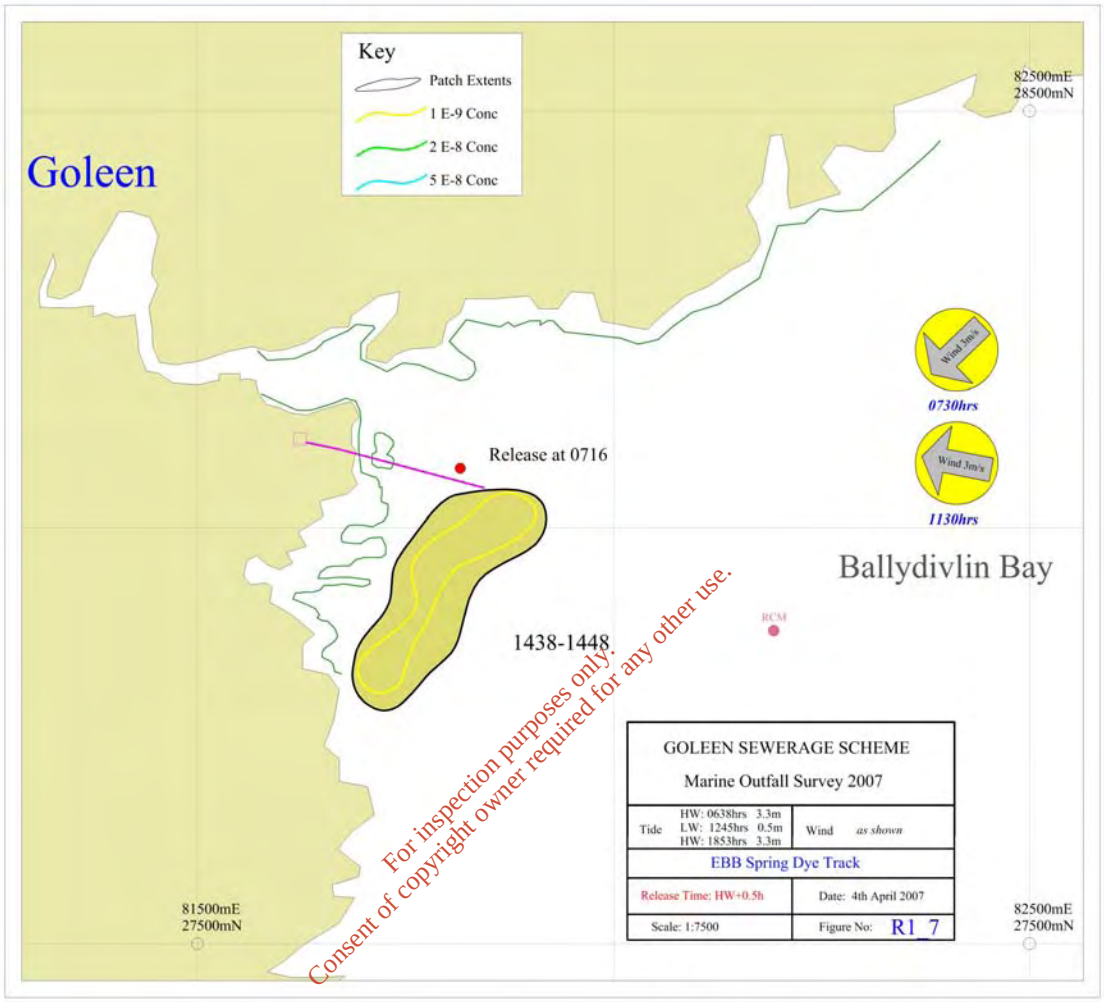
Release at HW+0.5, patch shown ~HW+4



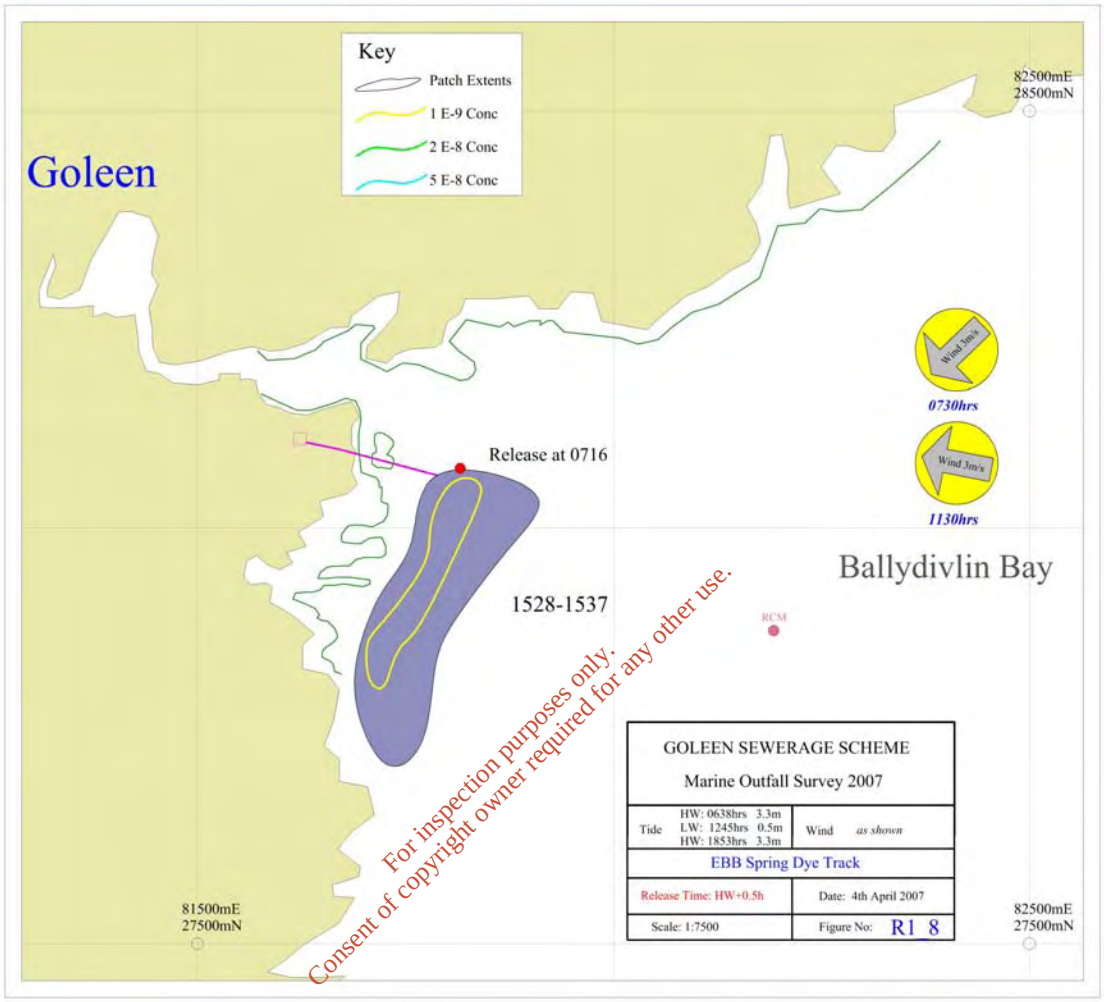
Release at HW+0.5, patch shown ~HW+5



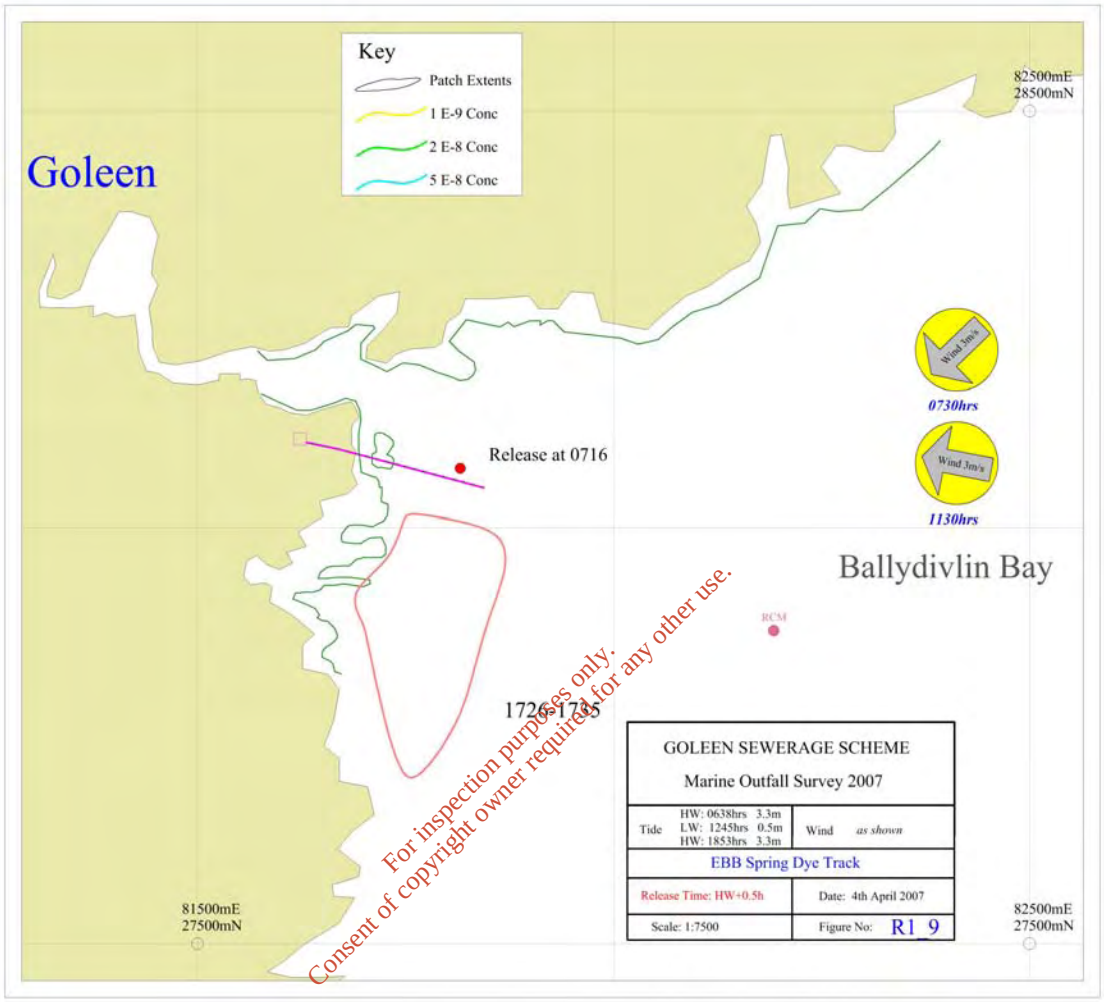
Release at HW+0.5, patch shown ~LW+1



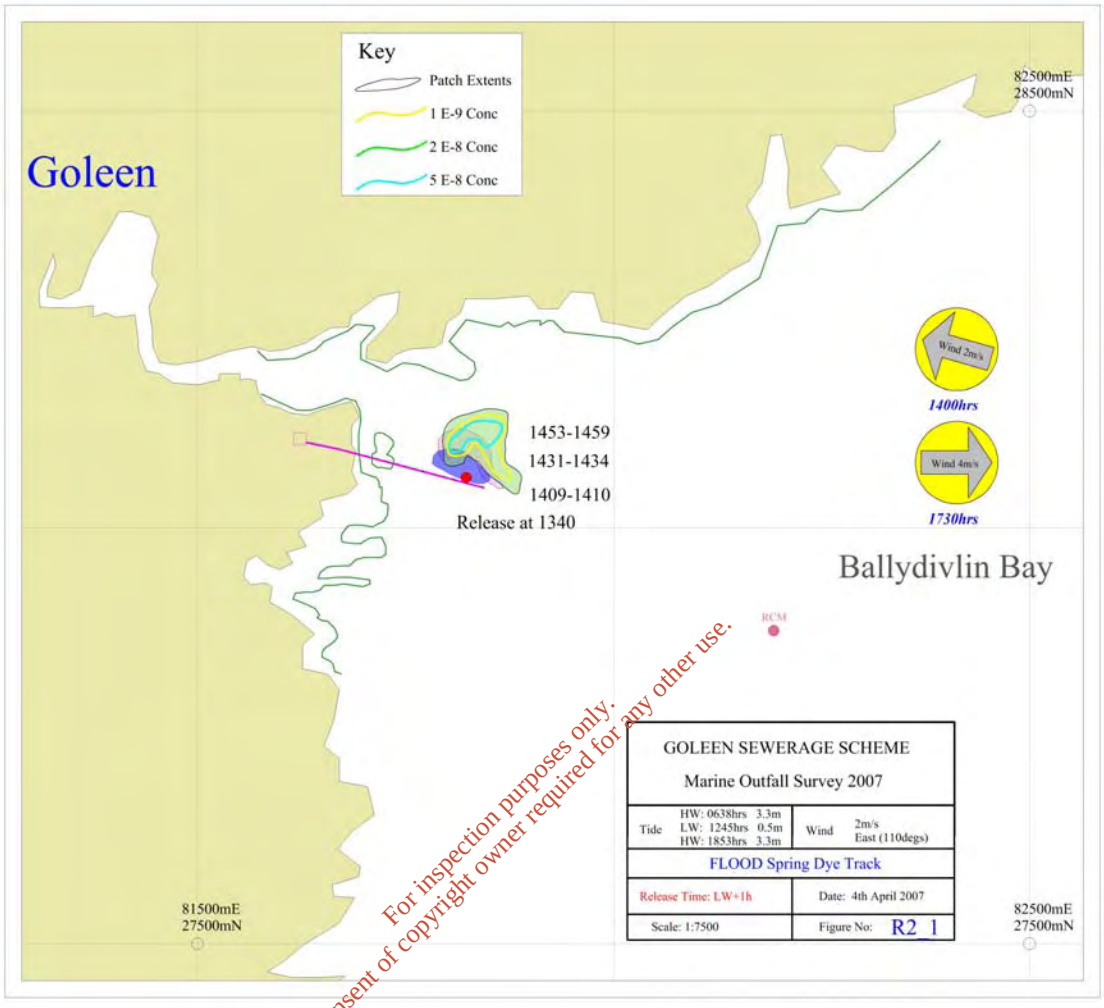
Release at HW+0.5, patch shown ~LW+2



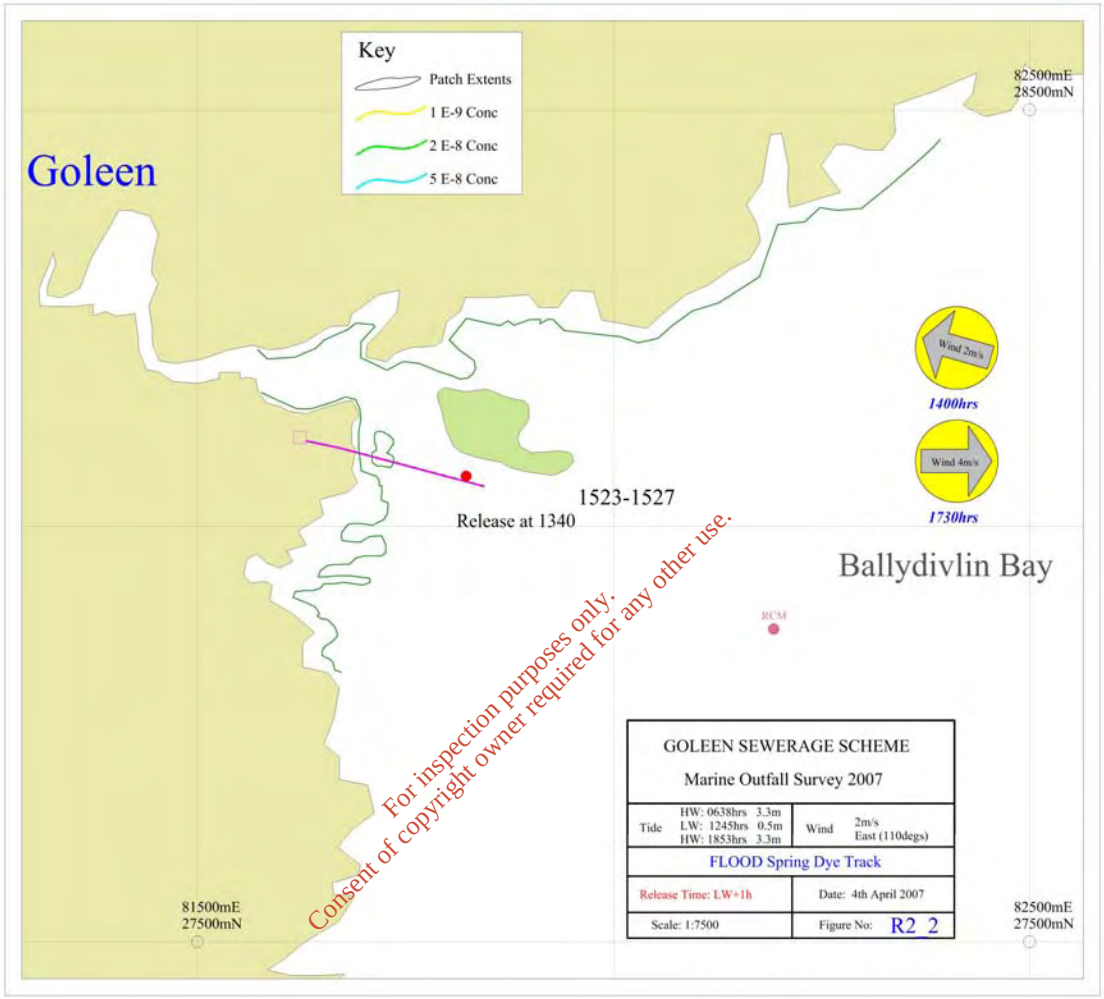
Release at HW+0.5, patch shown ~LW+3



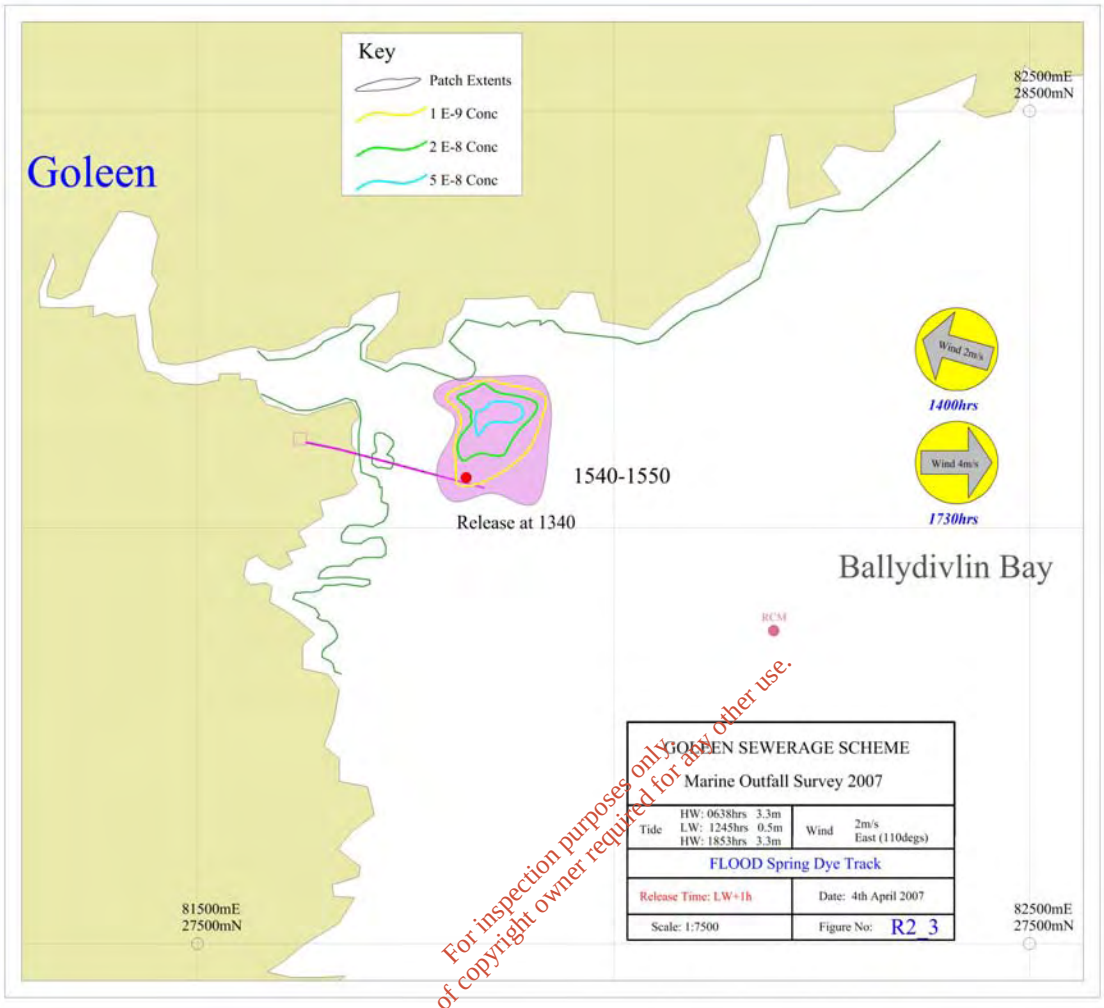
Release at HW+0.5, patch shown ~LW+5



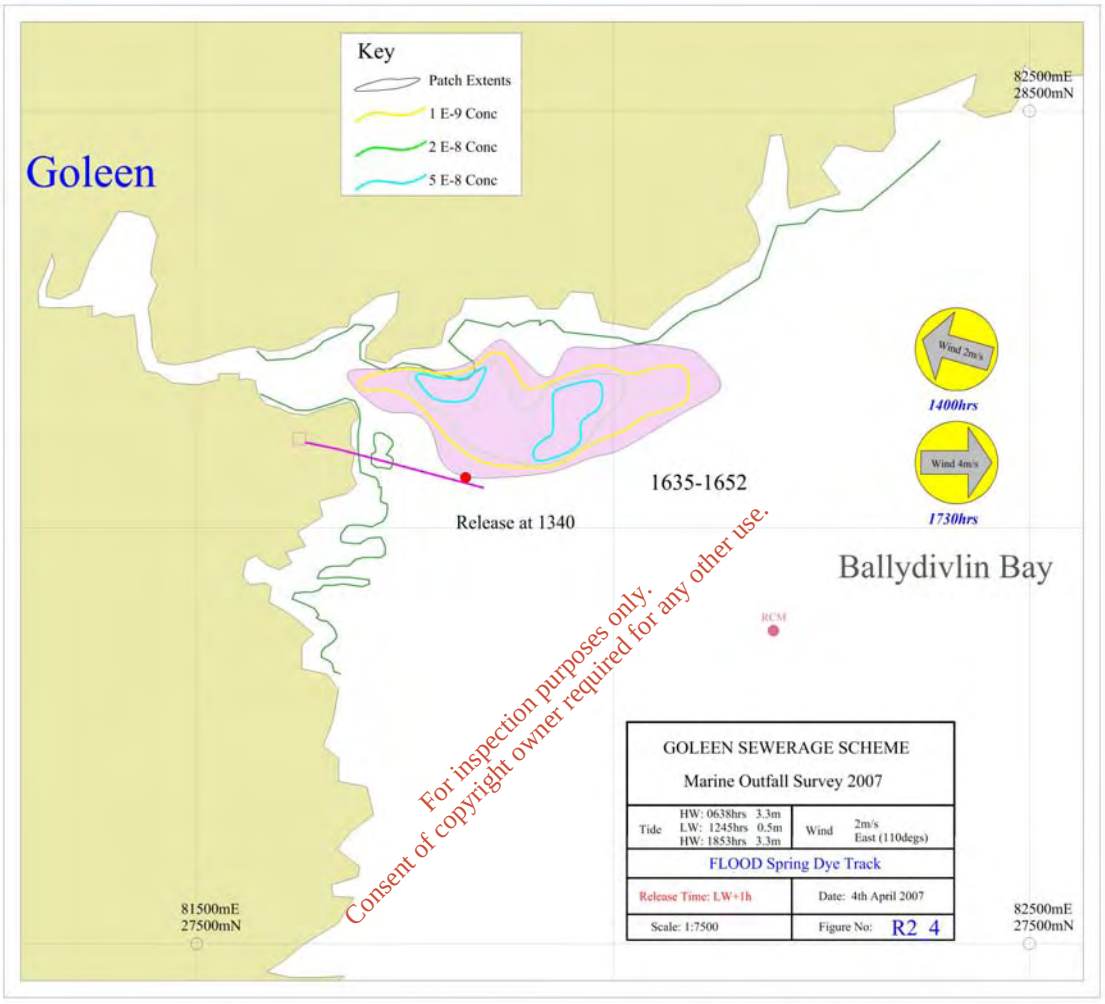
Release at LW+1, patches shown to ~LW+2.25



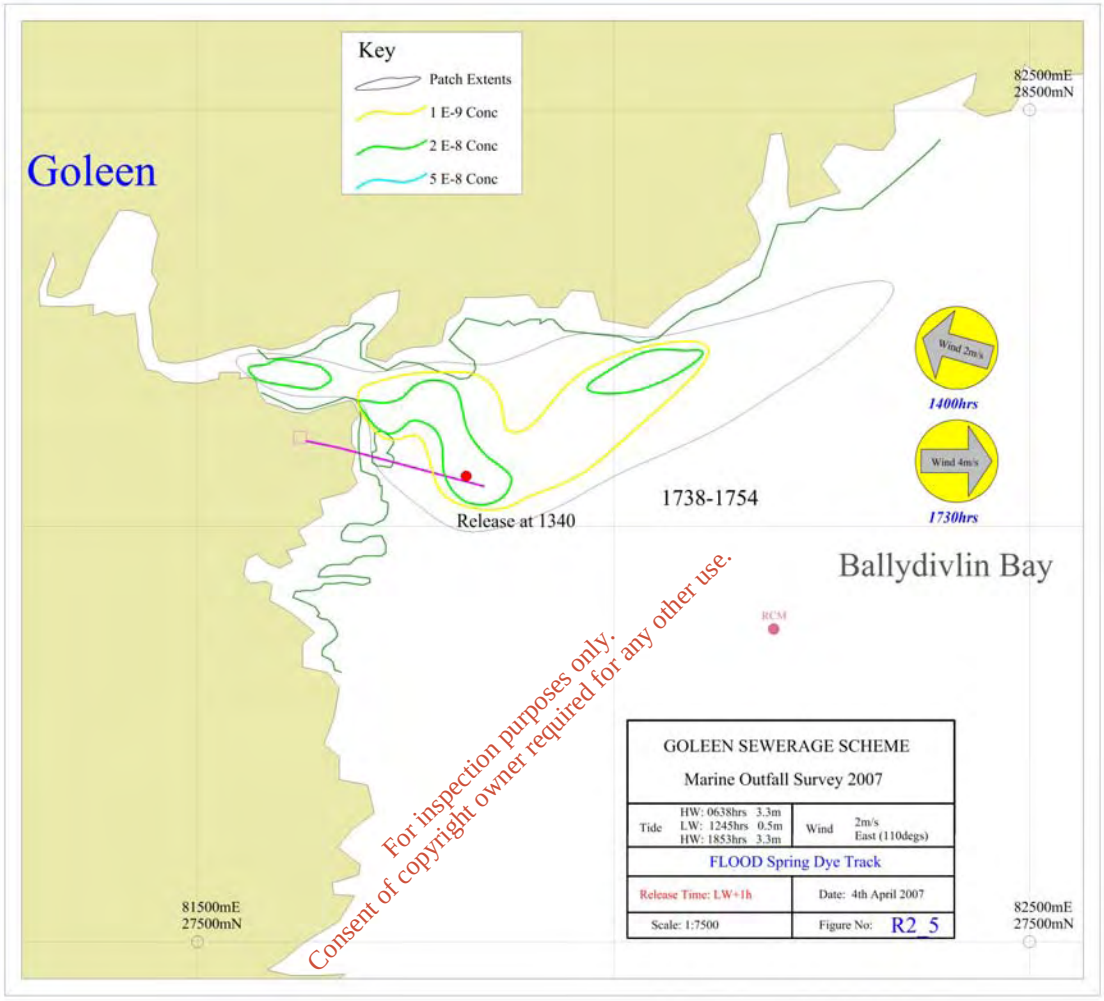
Release at LW+1, patch shown ~LW+2.75



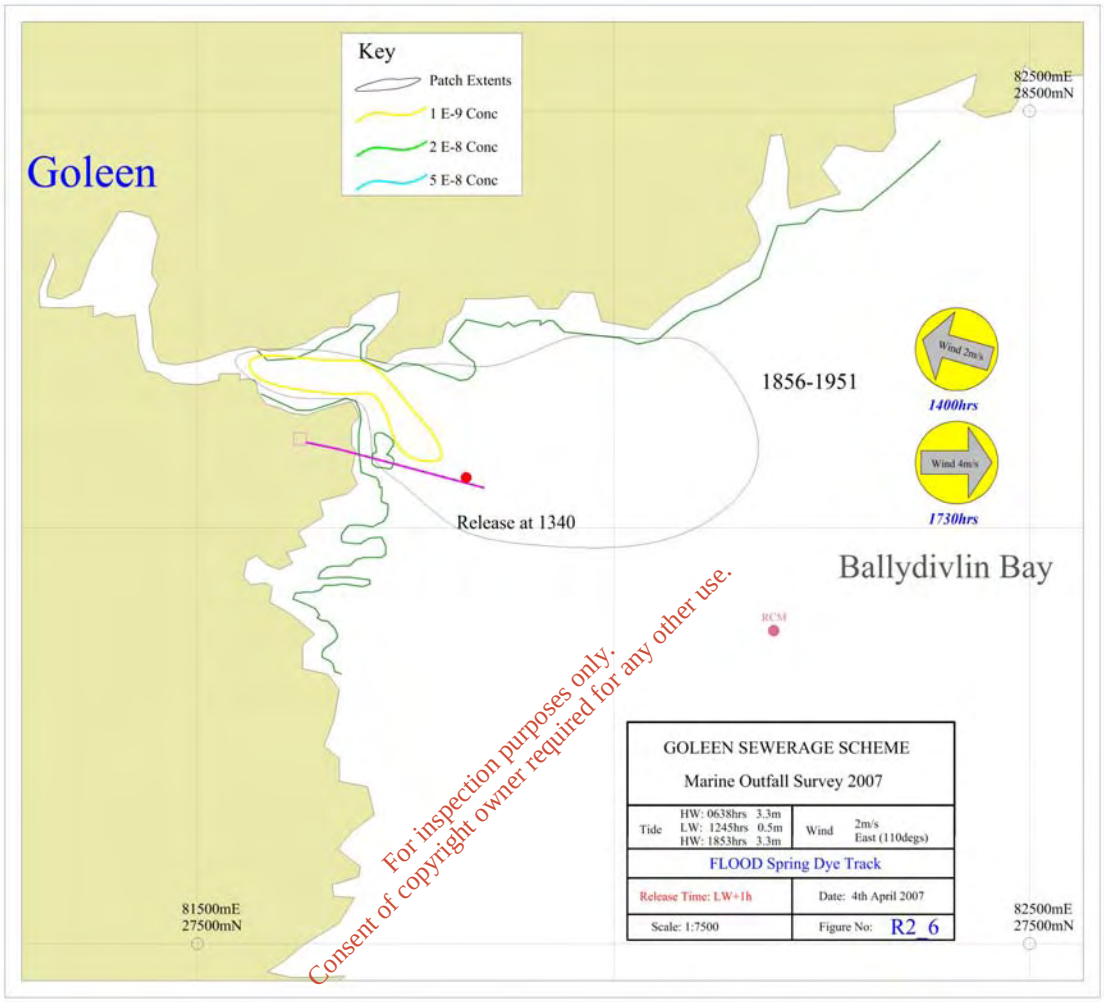
Release at LW+1, patch shown ~LW+3



Release at LW+1, patch shown ~LW+4



Release at LW+1, patch shown ~LW+5



Release at LW+1, patch shown ~HW

Agglomeration details

Leading Local Authority	Cork County Council
Co-Applicants	
Agglomeration	Goleen
Population Equivalent	490
Level of Treatment	Primary
Treatment plant address	Cork County Council Goleen Co. Cork
Grid Ref (12 digits, 6E, 6N)	081581 / 027853
EPA Reference No:	

Contact details

Contact Name:	Niall O Mahony
Contact Address:	Water Services West Cork County Council Courthouse Skibbereen Co. Cork
Contact Number:	028-21299
Contact Fax:	028-21995
Contact Email:	niall.omahony@corkcoco.ie

Table D.1(i)(a): EMISSIONS TO SURFACE/GROUND WATERS (Primary Discharge Point)

Discharge Point Code: SW-1

Local Authority Ref No:	SW01 GOLE	
Source of Emission:	Open Pipe	
Location:	Goleen	
Grid Ref (12 digits, 6E, 6N)	081478 / 028172	
Name of Receiving waters:	Ballydevlin Bay	
Water Body:	Coastal Water Body	
River Basin District	South Western RBD	
Designation of Receiving Waters:	none at discharge location	
Flow Rate in Receiving Waters:	0	$m^3.sec^{-1}$ Dry Weather Flow
	0	$m^3.sec^{-1}$ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	coastal waters	

Emission Details:

(i) Volume emitted			
Normal/day	88 m^3	Maximum/day	264 m^3
Maximum rate/hour	11 m^3	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	0.003 m^3/sec		

Table D.1(i)(b): EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Primary Discharge Point)

Discharge Point Code: SW-1

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
pH	pH	Grab	= 9	
Temperature	°C	Grab	= 0	
Electrical Conductivity (@ 25°C)	µS/cm	Grab	= 0	
Suspended Solids	mg/l	Grab	= 250	22
Ammonia (as N)	mg/l	Grab	= 0	0
Biochemical Oxygen Demand	mg/l	Grab	= 210	18.48
Chemical Oxygen Demand	mg/l	Grab	= 460	40.48
Total Nitrogen (as N)	mg/l	Grab	= 50	4.4
Nitrite (as N)	mg/l	Grab	= 0	0
Nitrate (as N)	mg/l	Grab	= 0	0
Total Phosphorous (as P)	mg/l	Grab	= 12	1.056
OrthoPhosphate (as P)	mg/l	Grab	= 10	0.88
Sulphate (SO_4)	mg/l	Grab	= 0	0
Phenols (Sum)	µg/l	Grab	= 0	0

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Table D.1(i)(c): DANGEROUS SUBSTANCE EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Primary Discharge Point)

Discharge Point Code: SW-1

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
Atrazine	µg/l	Grab	= 0	0
Dichloromethane	µg/l	Grab	= 0	0
Simazine	µg/l	Grab	= 0	0
Toluene	µg/l	Grab	= 0	0
Tributyltin	µg/l	Grab	= 0	0
Xylenes	µg/l	Grab	= 0	0
Arsenic	µg/l	Grab	= 0	0
Chromium	µg/l	Grab	= 0	0
Copper	µg/l	Grab	= 0	0
Cyanide	µg/l	Grab	= 0	0
Flouride	µg/l	Grab	= 0	0
Lead	µg/l	Grab	= 0	0
Nickel	µg/l	Grab	= 0	0
Zinc	µg/l	Grab	= 0	0
Boron	µg/l	Grab	= 0	0
Cadmium	µg/l	Grab	= 0	0
Mercury	µg/l	Grab	= 0	0
Selenium	µg/l	Grab	= 0	0
Barium	µg/l	Grab	= 0	0

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Table D.1(ii)(a): EMISSIONS TO SURFACE/GROUND WATERS (Secondary Discharge Point)

Discharge Point Code: SW-2

Local Authority Ref No:	SW02 GOLE	
Source of Emission:	Open Pipe	
Location:	Spanish Cove	
Grid Ref (12 digits, 6E, 6N)	081581 / 027853	
Name of Receiving waters:	Ballydivlin Bay	
Water Body:	Coastal Water Body	
River Basin District	South Western RBD	
Designation of Receiving Waters:	Coastal	
Flow Rate in Receiving Waters:	0	$m^3.sec^{-1}$ Dry Weather Flow
	0	$m^3.sec^{-1}$ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	Flow rates zero = coastal	

Emission Details:

(i) Volume emitted			
Normal/day	19.8 m^3	Maximum/day	59.4 m^3
Maximum rate/hour	2.475 m^3	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	0.0007 m^3/sec		

Table D.1(ii)(b): EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Secondary Discharge Point)

Discharge Point Code: SW-2

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
pH	pH	Grab	= 9	
Temperature	°C	Grab	= 0	
Electrical Conductivity (@ 25°C)	µS/cm	Grab	= 0	
Suspended Solids	mg/l	Grab	= 250	4.95
Ammonia (as N)	mg/l	Grab	= 0	0
Biochemical Oxygen Demand	mg/l	Grab	= 210	4.16
Chemical Oxygen Demand	mg/l	Grab	= 460	9.11
Total Nitrogen (as N)	mg/l	Grab	= 50	0.99
Nitrite (as N)	mg/l	Grab	= 0	0
Nitrate (as N)	mg/l	Grab	= 0	0
Total Phosphorous (as P)	mg/l	Grab	= 12	0.23
OrthoPhosphate (as P)	mg/l	Grab	= 10	0.198
Sulphate (SO_4)	mg/l	Grab	= 0	0
Phenols (Sum)	µg/l	Grab	= 0	0

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Table D.1(ii)(c): DANGEROUS SUBSTANCE EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Secondary Discharge Point)

Discharge Point Code: SW-2

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
Atrazine	µg/l	Grab	= 0	0
Dichloromethane	µg/l	Grab	= 0	0
Simazine	µg/l	Grab	= 0	0
Toluene	µg/l	Grab	= 0	0
Tributyltin	µg/l	Grab	= 0	0
Xylenes	µg/l	Grab	= 0	0
Arsenic	µg/l	Grab	= 0	0
Chromium	µg/l	Grab	= 0	0
Copper	µg/l	Grab	= 0	0
Cyanide	µg/l	Grab	= 0	0
Flouride	µg/l	Grab	= 0	0
Lead	µg/l	Grab	= 0	0
Nickel	µg/l	Grab	= 0	0
Zinc	µg/l	Grab	= 0	0
Boron	µg/l	Grab	= 0	0
Cadmium	µg/l	Grab	= 0	0
Mercury	µg/l	Grab	= 0	0
Selenium	µg/l	Grab	= 0	0
Barium	µg/l	Grab	= 0	0

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Table D.1(iii)(a): EMISSIONS TO SURFACE/GROUND WATERS (Storm Overflow)

Discharge Point Code: SW-3

Local Authority Ref No:	SW03 GOLE	
Source of Emission:	Storm Water Overflow	
Location:	Goleen	
Grid Ref (12 digits, 6E, 6N)	081304 / 028305	
Name of Receiving waters:	Ballydivlin Bay	
Water Body:	Coastal Water Body	
River Basin District	South Western RBD	
Designation of Receiving Waters:	None	
Flow Rate in Receiving Waters:	0	$m^3.sec^{-1}$ Dry Weather Flow
	0	$m^3.sec^{-1}$ 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	Information not available on stormwater overflows	

Emission Details:

(i) Volume emitted			
Normal/day	0 m^3	Maximum/day	0 m^3
Maximum rate/hour	0 m^3	Period of emission (avg)	0 min/hr 0 hr/day 0 day/yr
Dry Weather Flow	0 m^3/sec		

TABLE E.1(i): WASTE WATER FREQUENCY AND QUANTITY OF DISCHARGE – Primary and Secondary Discharge Points

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m^3/annum)
SW-1	365	32120
SW-2	365	7227

TABLE E.1(ii): WASTE WATER FREQUENCY AND QUANTITY OF DISCHARGE – Storm Water Overflows

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m^3/annum)	Complies with Definition of Storm Water Overflow
SW-3	0	0	No

TABLE F.1(i)(a): SURFACE/GROUND WATER MONITORING

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1a
Grid Ref (12 digits, 6E, 6N)	081525 / 028182

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	13/10/09					
pH		= 8			Grab	2	Electrochemical
Temperature	= 0				Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)		= 40600			Grab	0.5	Electrochemical
Suspended Solids		= 12			Grab	0.5	Gravimetric
Ammonia (as N)		= 0.6			Grab	0.02	Colorimetric
Biochemical Oxygen Demand		= 1			Grab	0.06	Electrochemical
Chemical Oxygen Demand		= 27			Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0				Grab	0.2	Electrochemical
Hardness (as $CaCO_3$)	= 0				Grab	1	Titrimetric
Total Nitrogen (as N)		= 0.36			Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		< 1			Grab	0.1	colorimetric
Nitrate (as N)		< 0.5			Grab	0.5	Colorimetric
Total Phosphorous (as P)		< 0.05			Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)		< 0.05			Grab	0.02	Colorimetric
Sulphate (SO_4)		= 0			Grab	30	Turbidimetric
Phenols (Sum)	= 0				Grab	0.1	GC-MS2

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Additional Comments:	saline interference in ammonia ,flouride, and sulphate test default of 01/01/09 and 0 where results are not available

TABLE F.1(i)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1a
Grid Ref (12 digits, 6E, 6N)	081525 / 028182

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	13/10/09					
Atrazine	= 0				Grab	0.96	HPLC
Dichloromethane	= 0				Grab	1	GC-MS1
Simazine	= 0				Grab	0.01	HPLC
Toluene	= 0				Grab	0.02	GC-MS1
Tributyltin	= 0				Grab	0.02	GC-MS1
Xylenes	= 0				Grab	1	GC-MS1
Arsenic	= 0				Grab	0.96	ICP-MS
Chromium		< 20			Grab	20	ICP-OES
Copper		< 20			Grab	20	ICP-OES
Cyanide	= 0				Grab	5	Colorimetric
Flouride		< 640			Grab	100	ISE
Lead		< 20			Grab	20	ICP-OES
Nickel		< 20			Grab	20	ICP-OES
Zinc		< 20			Grab	20	ICP-OES
Boron		< 2878			Grab	20	ICP-OES
Cadmium		< 20			Grab	20	ICP-OES
Mercury	= 0				Grab	0.2	ICP-MS
Selenium	= 0				Grab	0.74	ICP-MS
Barium		< 20			Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn saline interference in ammonia ,flouride, and sulphate test default of 01/01/09 and 0 where results are not available

TABLE F.1(ii)(a): SURFACE/GROUND WATER MONITORING

Secondary Discharge Point

Discharge Point Code:	SW-2
MONITORING POINT CODE:	aSW-2a
Grid Ref (12 digits, 6E, 6N)	081696 / 027839

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	13/10/09					
pH		= 80			Grab	2	electrochemical
Temperature	= 0				Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)		= 47100			Grab	0.5	electrochemical
Suspended Solids		= 15			Grab	0.5	gravimetric
Ammonia (as N)		= 0.5			Grab	0.02	colorimetric
Biochemical Oxygen Demand		= 1			Grab	0.06	elelectrochemical
Chemical Oxygen Demand		= 31			Grab	8	digestion+colorimetric
Dissolved Oxygen	= 0				Grab	0.2	Electrochemical
Hardness (as $CaCO_3$)	= 0				Grab	1	Titimetric
Total Nitrogen (as N)		= 0.69			Grab	0.5	digestion+colorimetric
Nitrite (as N)		< 0.1			Grab	0.1	colorimetric
Nitrate (as N)		< 0.5			Grab	0.5	colorimetric
Total Phosphorous (as P)		= 0.05			Grab	0.05	digestion+colorimetric
OrthoPhosphate (as P)		= 0.05			Grab	0.05	colorimetric
Sulphate (SO_4)		= 0			Grab	30	Turbimetric
Phenols (Sum)	= 0				Grab	0.1	GC-MS2

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper
For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Additional Comments:	saline interference in ammonia ,flouride, and sulphate test default of 01/01/09 and 0 where results are not available

TABLE F.1(ii)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Secondary Discharge Point

Discharge Point Code:	SW-2
MONITORING POINT CODE:	aSW-2a
Grid Ref (12 digits, 6E, 6N)	081696 / 027839

Parameter	Results (µg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	13/10/09					
Atrazine	= 0				Grab	0.96	HPLC
Dichloromethane	= 0				Grab	1	GC MS1
Simazine	= 0				Grab	0.01	HPLC
Toluene	= 0				Grab	0.02	GC MS1
Tributyltin	= 0				Grab	0.02	GC MS1
Xylenes	= 0				Grab	1	GC MS1
Arsenic	= 0				Grab	0.96	ICP-MS
Chromium		= 20			Grab	20	ICP-OES
Copper		= 20			Grab	20	ICP-OES
Cyanide	= 0				Grab	5	COLORIMETRIC
Flouride		= 708			Grab	100	ISE
Lead		= 20			Grab	20	ICP-OES
Nickel		= 20			Grab	20	ICP-OES
Zinc		= 20			Grab	20	ICP-OES
Boron		= 3259			Grab	20	ICP-OES
Cadmium		= 20			Grab	20	ICP-OES
Mercury	= 0				Grab	0.03	ICP-MS
Selenium	= 0				Grab	0.74	ICP-MS
Barium		= 20			Grab	20	ICP-OES

Additional Comments:	saline interference in ammonia ,flouride, and sulphate test default of 01/01/09 and 0 where results are not available

Annex 2: Check List For Regulation 16 Compliance

Regulation 16 of the waste water discharge (Authorisation) Regulations 2007 (S.I. No. 684 of 2007) sets out the information which must, in all cases, accompany a discharge licence application. In order to ensure that the application fully complies with the legal requirements of regulation 16 of the 2007 Regulations, all applicants should complete the following.

In each case, refer to the attachment number(s), of your application which contains(s) the information requested in the appropiate sub-article.

Regulation 16(1) **In the case of an application for a waste water discharge licence, the application shall -**		**Attachment Number**	**Checked by Applicant**
(a)	give the name, address, telefax number (if any) and telephone number of the applicant (and, if different, of the operator of any treatment plant concerned) and the address to which correspondence relating to the application should be sent and, if the operator is a body corporate, the address of its registered office or principal office,		No
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,		No
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the waste water treatment plant and/or the waste water discharge point or points to which the application relates,		No
(d)	state the population equivalent of the agglomeration to which the application relates,		No
(e)	specify the content and extent of the waste water discharge, the level of treatment provided, if any, and the flow and type of discharge,		No
(f)	give details of the receiving water body, including its protected area status, if any, and details of any sensitive areas or protected areas or both in the vicinity of the discharge point or points likely to be affected by the discharge concerned, and for discharges to ground provide details of groundwater protection schemes in place for the receiving water body and all associated hydrogeological and geological assessments related to the receiving water environment in the vicinity of the discharge.		No
(g)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and, if Regulation 17 does not apply, provide details of the likely environmental consequences of any such discharges,		No
(h)	in the case of an existing waste water treatment plant, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,		No
(i)	describe the existing or proposed measures, including emergency procedures, to prevent unintended waste water discharges and to minimise the impact on the environment of any such discharges,		No
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,		No
(k)	give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit any pollution caused in such discharges,		No
(l)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,		No
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.		No
(n)	Any other information as may be stipulated by the Agency.		No
Regulation 16(3) **Without prejudice to Regulation 16 (1) and (2), an application for a licence shall be accompanied by -**		**Attachment Number**	**Checked by Applicant**
(a)	a copy of the notice of intention to make an application given pursuant to Regulation 9,	Not Applicable	Yes
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13,	Not Applicable	Yes
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -	B	Yes
(c) (i)	the point or points, including storm water overflows, from which a discharge or discharges take place or are to take place, and	B.3, B.4, B.5	Yes
(c) (ii)	the point or points at which monitoring and sampling are undertaken or are to be undertaken,	E.3	Yes
(d)	such fee as is appropriate having regard to the provisions of Regulations 38 and 39.		Yes

Regulation 16(4) An original application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under Regulation 16(3) in hardcopy or in an electronic or other format as specified by the Agency.		Attachment Number	Checked by Applicant
1	An Original Application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under regulation 16(3) in hardcopy or in electronic or other format as specified by the agancy.		Yes
Regulation 16(5) **For the purpose of paragraph (4), all or part of the 2 copies of the said application and associated documents and particulars may, with the agreement of the Agency, be submitted in an electronic or other format specified by the Agency.**		**Attachment Number**	**Checked by Applicant**
1	Signed original.		Yes
2	2 hardcopies of application provided or 2 CD versions of application (PDF files) provided.		Yes
3	1 CD of geo-referenced digital files provided.		Yes
Regulation 17 **Where a treatment plant associated with the relevant waste water works is or has been subject to the European Communities (Environmental Impact Assessment) Regulations 1989 to 2001, in addition to compliance with the requirements of Regulation 16, an application in respect of the relevant discharge shall be accompanied by a copy of an environmental impact statement and approval in accordance with the Act of 2000 in respect of the said development and may be submitted in an electronic or other format specified by the Agency**		**Attachment Number**	**Checked by Applicant**
3	2 CD versions of EIS, as PDF files, provided.	Not applicable	Yes
1	EIA provided if applicable	Not applicable	Yes
2	2 hardcopies of EIS provided if applicable.	Not applicable	Yes
Regulation 24 **In the case of an application for a waste water discharge certificate of authorisation, the application shall –**		**Attachment Number**	**Checked by Applicant**
(a)	give the name, address, telefax number (if any) and telephone number of the applicant and the address to which correspondence relating to the application should be sent and, if the operator of the waste water works is a body corporate, the address of its registered office or principal office	B.1	Yes
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,	Not applicable	Yes
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the discharge point or points to which the application relates,	B.2	Yes
(d)	state the population equivalent of the agglomeration to which the application relates,	B8	Yes
(e)	in the case of an application for the review of a certificate, specify the reference number given to the relevant certificate in the register,	C, D	Yes
(f)	specify the content and extent of the waste water discharge, the level of treatment provided and the flow and type of discharge,	F.1	Yes
(g)	give details of the receiving water body, its protected area status, if any, and details of any sensitive areas or protected areas, or both, in the vicinity of the discharge point or points or likely to be affected by the discharge concerned,	E.2, E.3	Yes
(h)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and of the likely environmental consequences of any such discharges,	E.4	Yes
(i)	in the case of an existing discharge, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,	G.3	Yes
(j)	describe the existing or proposed measures, including emergency procedures, to prevent unauthorised or unexpected waste water discharges and to minimise the impact on the environment of any such discharges,	F.2	Yes
(k)	give particulars of the location of the nearest downstream drinking water abstraction point or points to the discharge point or points associated with the waste water works,	F.1	Yes
(l)	give details of any designation under any Council Directive or Regulations that apply in relation to the receiving waters,	E.1, E.4	Yes
(m)	give details of compliance with any applicable monitoring requirements and treatment standards,	G.1	Yes
(n)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work,	Not applicable	Yes
(o)	give any other information as may be stipulated by the Agency, and	Not applicable	Yes
(p)	be accompanied by such fee as is appropriate having regard to the provisions of Regulations 38 and 39.		Yes