

## Eve O'Sullivan

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**Subject:** FW: Response Carlingford Historical landfill letter  
**Attachments:** Tier 1 Report Carlingford v2.pdf

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**From:** Pamela Dagg [mailto:pamela.dagg@louthcoco.ie]  
**Sent:** Tuesday 12 February 2019 13:11  
**To:** Magnus Amajirionwu <M.Amajirionwu@epa.ie>  
**Subject:** FW: Response Carlingford Historical landfill letter

Magnus

Due to the lack of flowing water in the stream at Carlingford, we are still unable to obtain samples from same. I note in your letter that you require a response within 4 weeks for all matters. This timeframe is very short and we are requesting an extension to same for item 8.

I can respond to some matters in this email but matter number 8 requires additional monitoring data to ascertain whether an AA is required or not.

Item 1- Louth County Council is the current owner. However if the transfer of assets to Irish Water via ministerial consents proceeds the Fenced site of the Waste Water Treatment plants will become Irish Waters.  
Item 2- Current use and proposed use is that approximately half the lands is used as waste water treatment plant and the rest is a closed historical landfill with no current or proposed use.  
Item 3- There is no application form as the application was done online through the online EPA system.  
Item 4- Tier 1 Report is attached to this email, previously submitted as part of online application form.  
Item 5- Map included in Tier 1 report (Figure 2).  
Item 6- There is no mention of 50 million cubic metres in the reports submitted. The estimated tonnage is 29,400 cubic metres.  
Item 7- Remediation measures already proposed in the Tier 2 and Tier 3 report which is gas trenches.  
Item 8- additional time is required to respond to same.

*Kind regards*  
*Pamela*  
*Direct Line 042 9392926, local: 1890202303*

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**From:** Magnus Amajirionwu [mailto:M.Amajirionwu@epa.ie]  
**Sent:** 24 September 2018 09:02  
**To:** Pamela Dagg  
**Subject:** FW: Site Visit

Pamela,

Apologies, it's the 26<sup>th</sup> please.

Thanks and kind regards

Magnus



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**From:** Magnus Amajirionwu  
**Sent:** 24 September 2018 09:00  
**To:** 'Pamela Dagg'  
**Subject:** RE: Site Visit

Pamela,

I can confirm the 27<sup>th</sup> and I would bring my own PPE. See you then.

Thanks and kind regards

Magnus



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**From:** Pamela Dagg [mailto:pamela.dagg@louthcoco.ie]  
**Sent:** 21 September 2018 16:57  
**To:** Magnus Amajirionwu  
**Subject:** RE: Site Visit

Magnus

You will be required to bring your own PPE for the site inspection, hard hat, high viz and safety footwear

*Kind regards*

*Pamela*

*Direct Line 042 9392926, local: 1890202303*

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**From:** Magnus Amajirionwu [mailto:M.Amajirionwu@epa.ie]  
**Sent:** 21 September 2018 15:18

**To:** Pamela Dagg  
**Subject:** Site Visit

Dear Pamela,

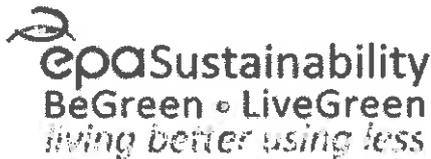
I am trying to schedule in a site visit to Carlingford next week, 26<sup>th</sup> about at 11.30 am. Let me know if this suits.

Thanks and kind regards  
Magnus

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Dr. Magnus U. Amajirionwu  
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Johnstown Castle, Wexford, Ireland

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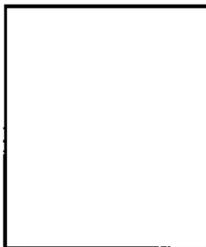
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Le do thoil cuimhnigh ar an imshaol roimh priontáil an ríomhphost seo. Tá an ríomhphost seo (agus aon iatán a ghabhann leis) príobháideach agus rúnda agus d'fhéadfadh go mbeadh eolas inti atá faoi phribhléid dlíthúil. Ní ceadmhach úsáid an ríomhphost seo d'éinne ach don té ar seoladh chuige é. Munar duit an ríomhphost seo nó an té atá freagrach as é a sheoladh, tá cosc ar chóipeáil agus ar sheachadadh an ríomhphost seo agus aon iatán a ghabhann leis chuig éinne nó úsáid a bhaint as a bhfuil ann; ní ceart an ríomhphost seo nó aon iatán a léamh. D'fhéadfadh do mbeadh cosc iomlán dlíthúil ar sceitheadh nó comhfhreagras nó aon úsáid eile gan chead ar a bhfuil sa ríomhphost seo agus d'fhéadadh sé a bheith ina chion coiriúil.

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# **Tier 1 Report**

## **Carlingford Historical Landfill**

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# Tier 1 Report Carlingford Historical Landfill

## 1. Site Summary including walk over survey

Carlingford Town dump is located at the edge of Carlingford town on the LS7062. This was used as a town dump and was closed in 1988. We do not have a date of when the site was open from, only that the site was closed in the end of 1988 when the Whiteriver landfill was opened. The waste was collected once a week in Carlingford by Louth County Council and was deposited on site. There may have been private dumping on the lands as there are no records available for the site. The old method of dump and burn was deployed in this landfill. The total area of the landfill is 1.1ha and there is an adjacent stream with a public water borehole in close proximity to the site. Carlingford Lough SPA is in close proximity to the town dump (see Figure 1 and Appendix 1). There is a housing estate which is still being constructed and has completed houses within 50m of the site (see Figure 2) and agricultural lands to the south and west of the site (see Figures 2-7). To the east of the site, there is a B&B and further East is retirement/nursing home. No waste is visible on the surface of the site as the majority of the site has been landscaped. The area is secure with a chain link fence and gate around the site.

The vulnerability map for the area shows that the Carlingford town dump is in an extreme and high to low area and it is in a locally important aquifer (see appendix 2 and 3). There is potential for groundwater migration on this site. The subsoil for the site is classed as Till derived mainly from Lower Paeleozoic Rocks (TPLSS)<sup>2</sup> and the geology of the area is Dismalan mixed Sandstones, shales and Limestone (DMSSL)<sup>1</sup> see appendix 4). The location of the town dump is now of concern due to the buildings on the waste, and the close proximity of housing, drinking water source, SPA and water courses.

The sewage treatment plant for Carlingford is located within the boundary of the site and some waste was relocated on site during the construction phase of the plant. There are buildings located on the top of the waste with a stream adjacent and a pond downstream of the site. There is a drinking water source upstream of the dump and there is one groundwater borehole on site. There is ongoing monitoring of the groundwater boreholes in relation to drinking water. The source borehole is upstream of the landfill. The total volume of waste on site is estimated at 22000 cubic metres. The risk ranking for the site is high using the EPA code of practice<sup>3</sup> for both gas and surface water pathway receptors.

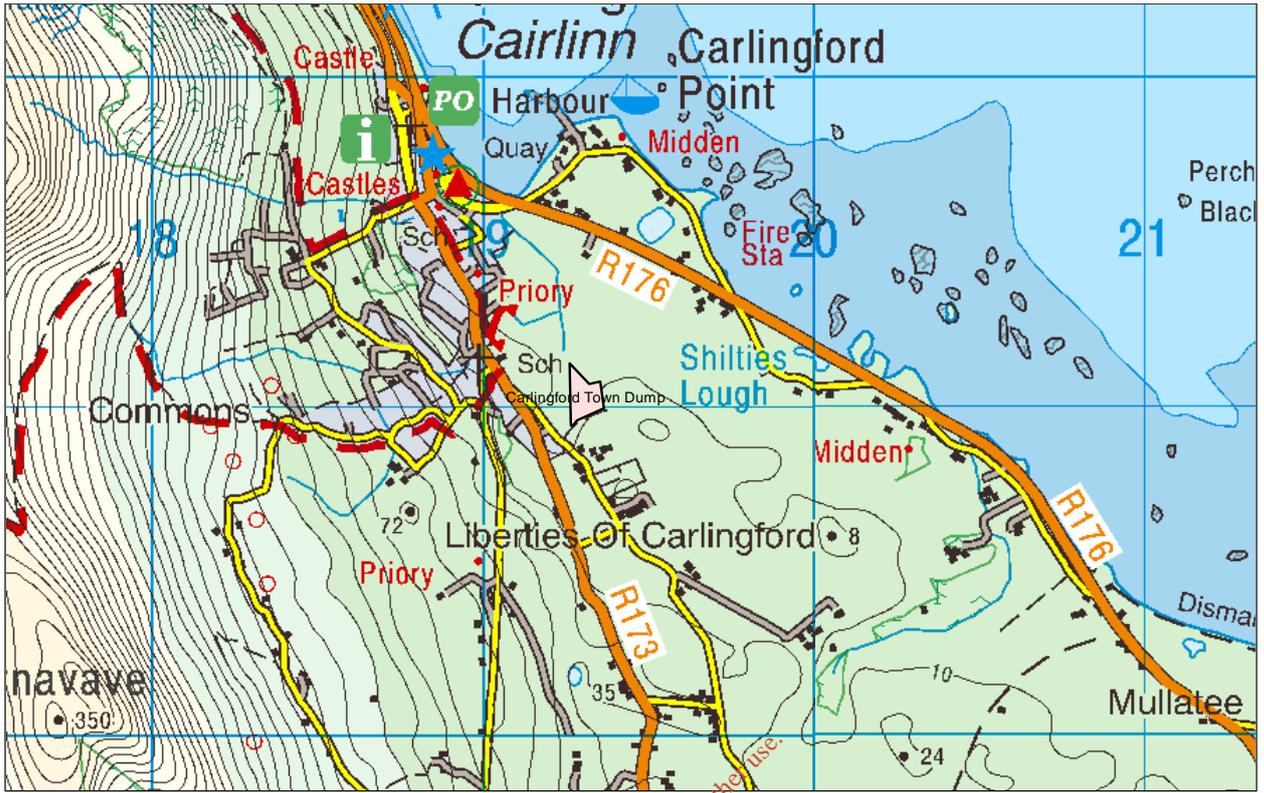


Figure1: Location of Carlingford Historical Landfill



Figure 2 Location and boundary map of Carlingford Historical Landfill (outlined in Red)



Figure 3: Carlingford Sewage Plant and adjacent housing estate



Figure 4: Carlingford Sewage Plant and adjacent housing estate



Figure 5: Downstream pond from Carlingford Sewage Plant and surrounding developments



Figure 6: Carlingford Sewage Plant and adjacent stream



Figure 7: Carlingford Sewage Plant, stream to the front and Carlingford Lough to the rear

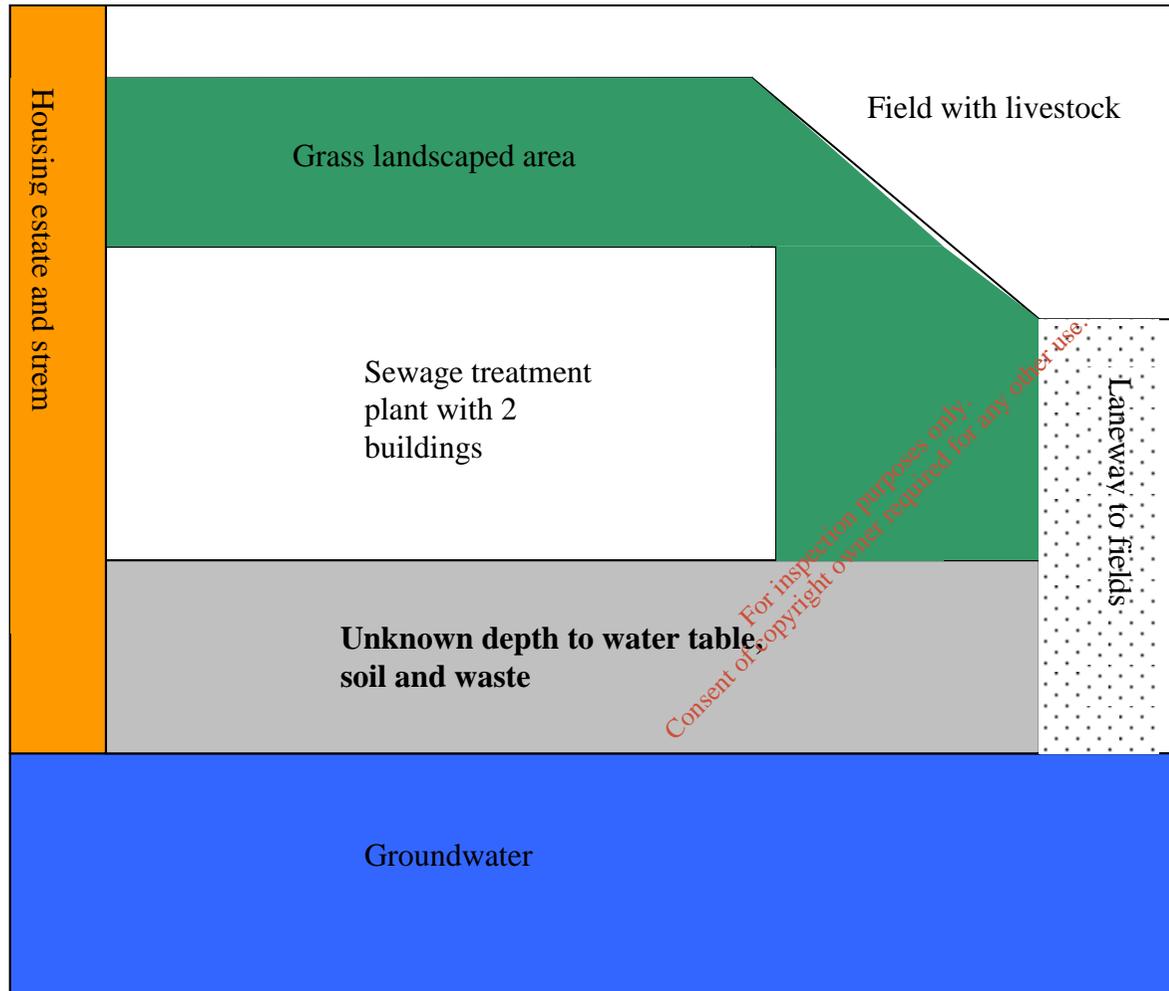
## 2. Risk Screening/Prioritisation

The following scores were obtained when the risk matrix was applied:

Table Number	Score	SPR linkage number	Linkage %	Risk level
1A	7	1	56	B
1B	7	2	19	C
2A	3	3	53	B
2B	3	4	18	C
2C	2	5	32	C
2D	3	6	53	B
2E	5	7	53	B
3A	3	8	70	A
3B	1	9	23	C
3C	3	10	70	A
3D	7	11	70	A
3E	3			
3F	5			

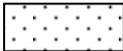
There were 11 Source Pathway Receptor linkages (SPR) found when the code of practice was applied as required under Tier 1 of the risk assessment (see Appendix 1.1). Applying the Ranking scale Carlingford Town Dump is given Class A which is the highest risk due to a 70% value in relation to the **landfill gas linkage networks (SPR10 and 11) and surface water linkage network (SPR 8)**. Groundwater could also be a potential high risk due to the location of a drinking water source in close proximity.

#### 4. Conceptual Site Model



#### Conceptual Site Model

Landfill: Carlingford  
Site Ref: S22-02452  
Louth County Council

Grass	
Groundwater	
Waste and soil	
Laneway to Field	
Housing estate and stream	

## 5. References

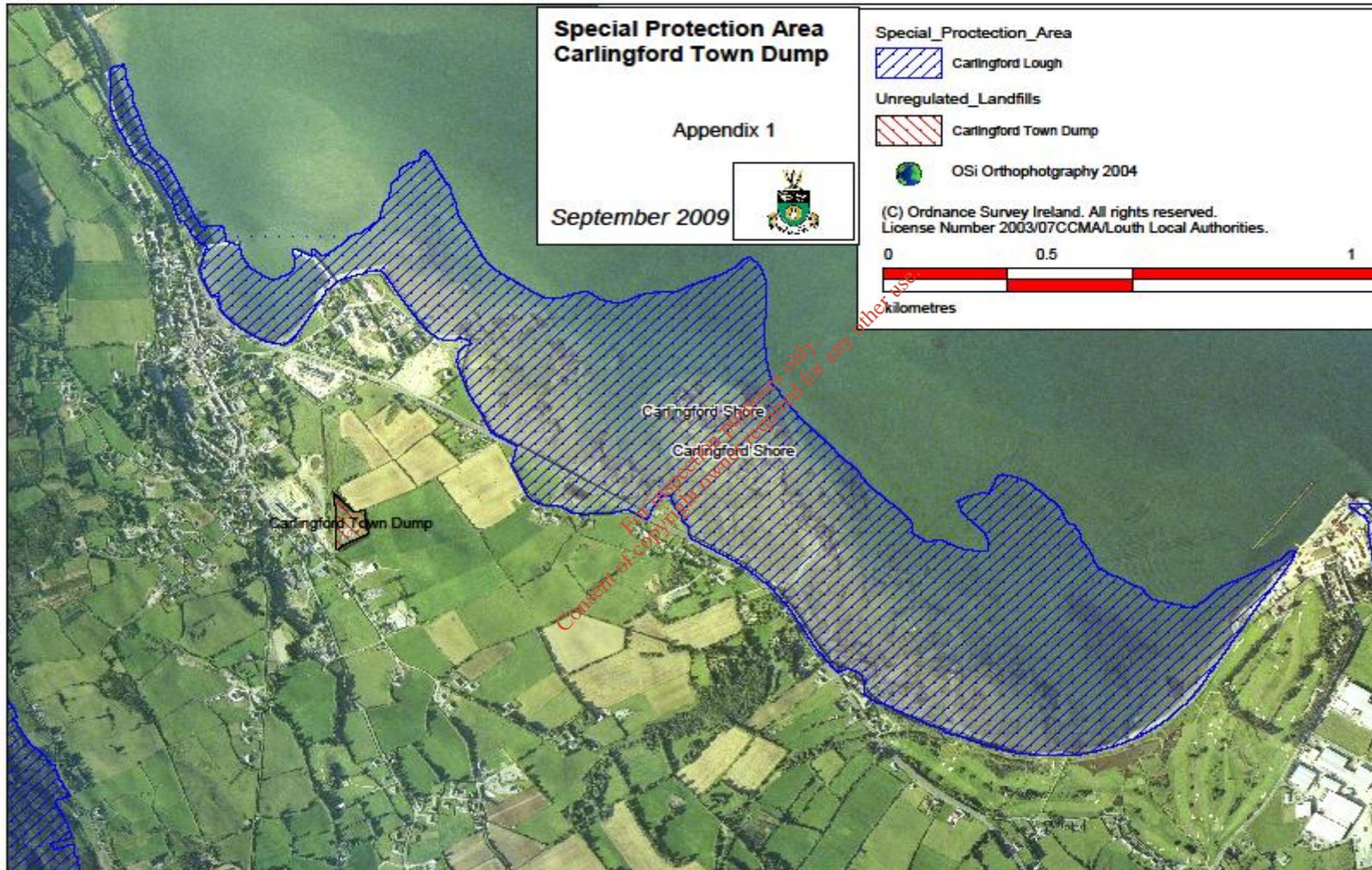
1. [www.gsi.ie](http://www.gsi.ie)
2. [www.epa.ie](http://www.epa.ie)
3. EPA Code of Practice for unregulated sites 2007

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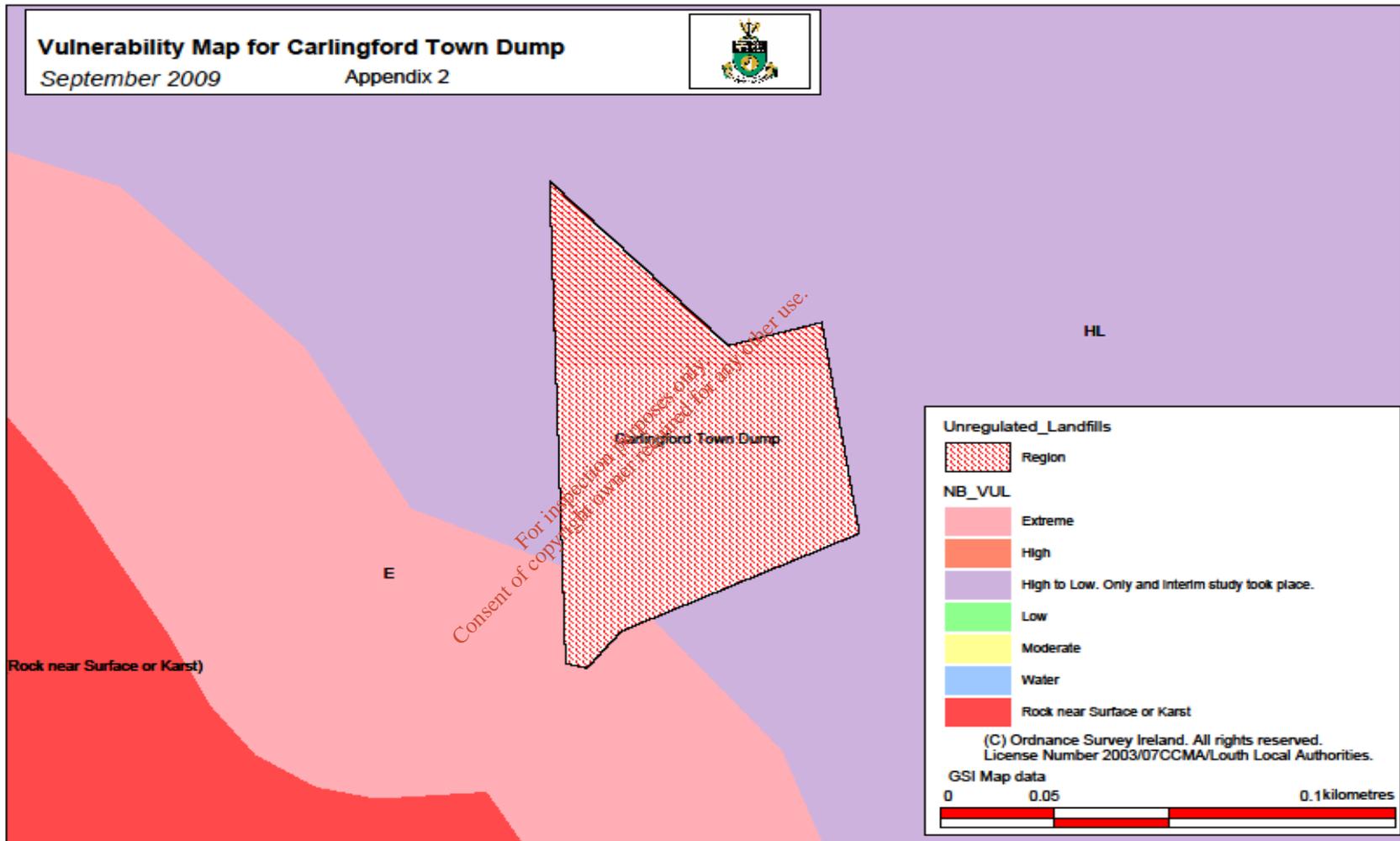
# Appendices

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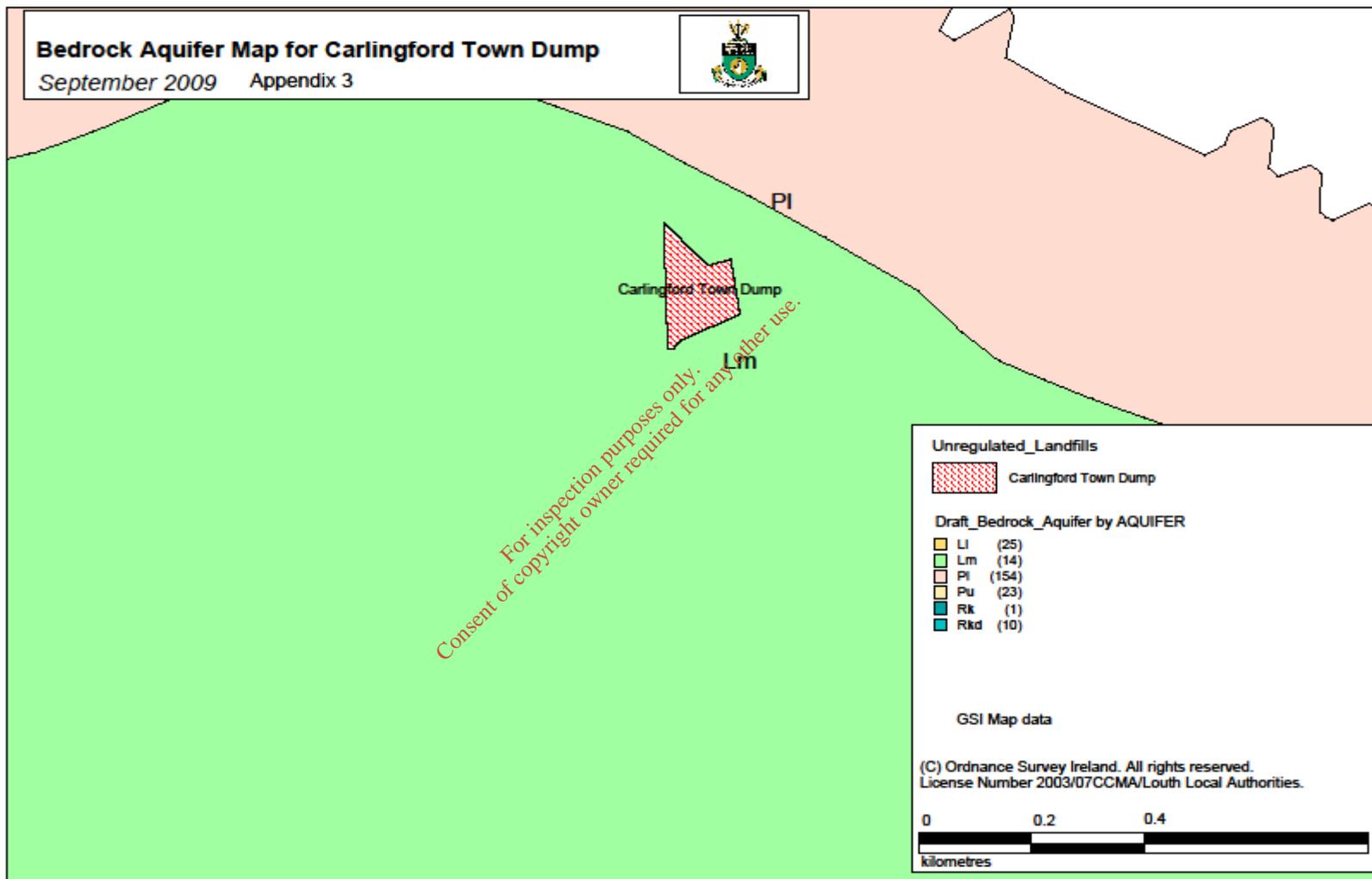
### Appendix 1 Special Protected area Carlingford Historical Landfill



## Appendix 2 Vulnerability Map For Carlingford Historical Landfill



### Appendix 3 Bedrock Aquifer Map For Carlingford Historical Landfill



### Appendix 4 Subsoil Map for Carlingford Historicla Landfill

