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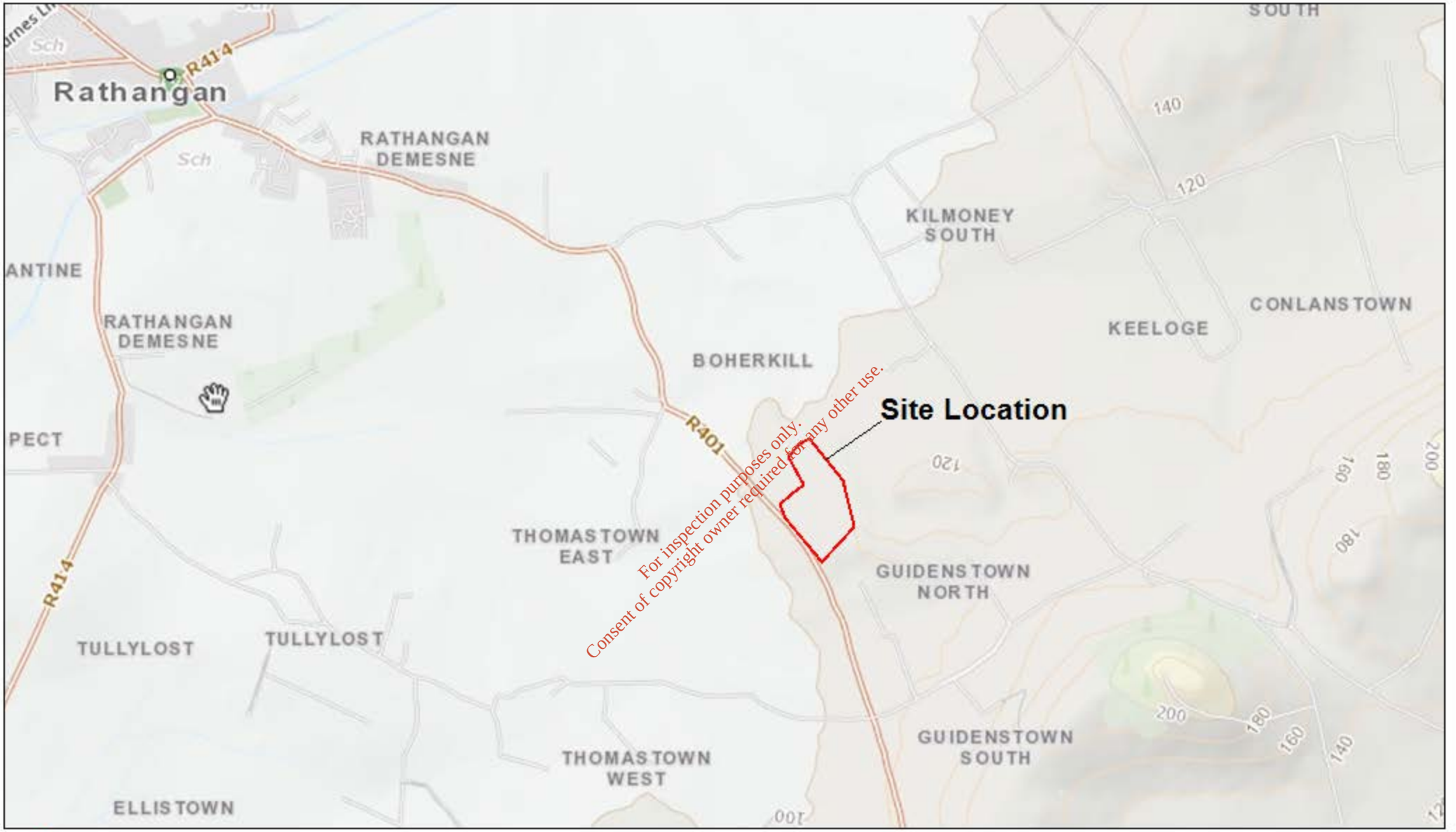
APPENDIX A



Site Outline

IE Consulting
Innovation Centre,
Green Road,
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Fax: 059-9140499
E-mail: info@iece.ie

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Project Title:	Geology and Hydrogeology EIS				
Project Address:	Boherkill, Rathangan, Co. Kildare				
Client:	Kildare Architects & Design Ltd				
Dwg. Title:	Site Location				
Dwg. Scale:	Date:	Dwg. No.:	Job No.:	Revision:	Dwg. By:
NTS	15/01/15	001	IE1105	A	ÁMcE

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Project Title:	Kildare Architects & Design Ltd
Project Address:	Boherkill, Rathangan, Co. Kildare
Client:	EIS Geology and Hydrogeology
Dwg. Title:	Site Layout

Dwg. Scale:	Date:	Dwg. No.:	Job No.:	Revision:	Dwg. By:
NTS	05/02/16	002	IE1105	A	ÁMcE

☆ Well Location

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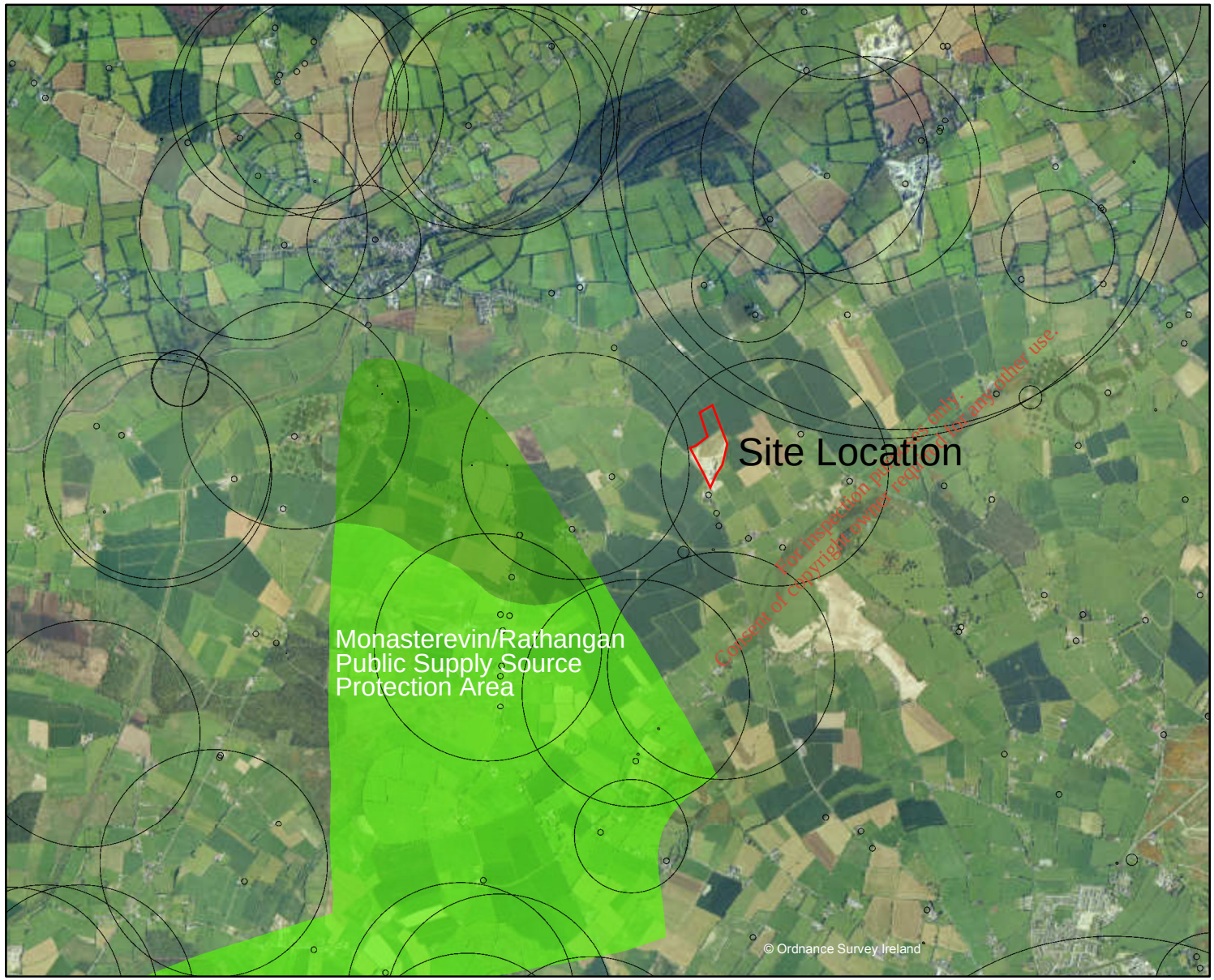
WATER-ENVIRONMENTAL-CIVIL

Project Title:	EIS Geology and Hydrogeology
Project Address:	Boherkill, Rathangan, Co. Kildare
Client:	Kildare Architects & Design Ltd.
Dwg. Title:	Disused well audit locations

Dwg. Scale:	Date:	Dwg. No.:	Job No.:	Revision:	Dwg. By:
NTS	03/02/16	003	IE1105	A	ÁMcE

IE1105-004-A Nearby Groundwater Supplies



Legend

- Groundwater Wells and Springs

Public Supply Source Protection Areas

- SI-Inner Protection Area
- SO-Outer Protection Area

Scale: 1:53,916

Geological Survey of Ireland

N W E S

0 0.375 0.75 1.5 mi

0 0.5 1 2 km

Map Centre Coordinates (ITM) 668,960 717,311

Snapshot Date: February 5, 2016

Safety Data Sheet

According to Regulation (EU) No. 453/2010

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Product Name: POLYGOLD® ANIONIC/NON-IONIC POWDERS

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use: Flocculation agent for treatment of water

1.3 Details of the supplier of the safety data sheet

Company name: Abbeywater Ltd.
Address: Unit L4A
Smithstown Industrial Estate
Shannon
Co Clare
Web address: www.abbeywater.com
Tel: 061 368787
Fax: 061 368720
E-mail: sales@abbeywater.com

1.4 Emergency telephone number

Tel: 061 368787

Section 2: Hazards identification

2.1 Classification of the substance or mixture

CLASSIFICATION ACCORDING TO REGULATION (EC) NO. 1272/2008

This product is not classified as hazardous to health or to the environment in accordance with this regulation.

CLASSIFICATION ACCORDING TO DIRECTIVE 67/548/EEC OR 1999/45/EC

This product is not classified as hazardous to health or to the environment in accordance with these directives.

2.2 Label elements

LABELLING ACCORDING TO REGULATION (EC) NO. 1272/2008

This product does not require a hazard warning label in accordance with this regulation.

LABELLING ACCORDING TO DIRECTIVE 67/548/EEC OR 1999/45/EC

This product does not require a hazard warning label in accordance with these directives.

2.3 Other hazards

May be dusty if not handled correctly.
As with many organic powders, flammable dust clouds may be formed.
Very slippery when wet.
This product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006.

Section 3: Composition/Information on ingredients

3.2 Mixtures

Chemical nature: An anionic/non-ionic polyacrylamide.

This product does not contain any ingredients classified as hazardous to health or to the environment in concentrations which should be taken into account according to EC regulations and directives.

Section 4: First aid measures

4.1 Description of first aid measures

Skin contact: Remove all contaminated clothing and wash before wearing again.
Wash affected area with soap and plenty of water.
Seek medical attention if any irritation or symptoms persist.

Eye contact: Remove contact lenses if worn and rinse eye with plenty of water for at least 10 minutes holding eye open.
Seek medical attention if any irritation or symptoms persist.

Ingestion: If confined to mouth, wash out with plenty of water taking care not to swallow, and seek medical advice if there is any ill effect.
If swallowed, DO NOT INDUCE VOMITING, give one or two glasses of water to drink, seek immediate medical attention and show this safety data sheet or label.

Inhalation: Move to fresh air and seek medical attention if any irritation or symptoms persist.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact: There is a possibility of irritation.

Eye contact: There may be temporary irritation.

Ingestion: May cause irritation to digestive system.

Inhalation: May cause irritation to respiratory system.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically, no specific antidote known.

Section 5: Firefighting measures

5.1 Extinguishing media

Use carbon dioxide, dry powder or foam.
It is preferable not to use water as the floor will become very slippery.

5.2 Special hazards arising from the substance or mixture

Dust may form an explosive mixture with air.
Ammonia and oxides of carbon and nitrogen may be emitted in fire conditions.
Slip hazards will be formed in the presence of water.

5.3 Advice for firefighters

Wear full protective clothing and self contained breathing apparatus.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedure

Wear suitable equipment for protection of eyes and skin.
Prevent formation of dust if possible.
Respiratory equipment should be worn if a dust has been formed.

6.2 Environmental precautions

Prevent product from entering drains and prevent further spillage if safe to do so.
Advise local authorities if large spills cannot be contained.

6.3 Clean-up procedures

Do not use water to clean up this product as it may cause surfaces to become very slippery.
Use vacuum cleaner or, if only a small amount is involved, sweep up very carefully without raising a dust. Then transfer to suitable, labelled container for disposal.

6.4 Reference to other sections

Suitable equipment for eye/face, skin and respiratory protection is quoted in section 8.
Suitable methods for disposal are quoted in section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with eyes and skin.
Avoid formation of dust and ensure adequate ventilation of the working area.
Wear suitable equipment for protection of eyes and skin.
Respiratory equipment should be worn if Workplace Exposure Limit is exceeded.
Do not eat or drink in working area and wash hands after use.

7.2 Conditions for safe storage, including any incompatibilities

Keep packaging well sealed and away from moisture.
Store in cool, dry, well ventilated area.
Avoid using metal containers or equipment, except stainless steel, when mixing.

7.3 Specific end use

There is no specific end use in addition to that shown in section 1.

Section 8: Exposure controls/personal protection

8.1 Control parameters

WORKPLACE EXPOSURE LIMIT EH40

Ingredient name	8 hr TWA		15 min TWA	
	ppm	mg/m³	ppm	mg/m³
Respirable dust	-	4	-	-
Inhalable dust	-	10	-	-

8.2 Exposure controls

Engineering controls: Ensure adequate ventilation of the working area.
Where dust can be generated, local exhaust ventilation should be provided.

Eye/face protection: Safety goggles (EN166).

Skin protection: Chemical resistant gloves (EN374), lightweight protective overalls and protective footwear.

Respiratory protection: Full or half mask respirator with P2 particle filter (European standard EN143) or disposable respirator (EN149 FFP2S).

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Off-white powder
Odour:	Not significant
pH:	6 - 8 (1.0% aqueous solution)
Melting point/freezing point:	n/a
Boiling point or boiling range:	n/a
Flash point:	n/a
Evaporation rate:	n/a
Flammability:	Combustible
Upper/lower flammability or explosive limits:	n/a
Vapour pressure :	n/a
Vapour density:	n/a
Bulk density:	700 -1000 kg/m^3.
Solubility:	Solubility in water limited by viscosity
Partition coefficient: n-octanol/water:	n/a
Auto-ignition temperature:	n/a
Decomposition temperature:	Approx. 200°C
Viscosity:	n/a
Explosive properties:	n/a
Oxidising properties:	n/a

9.2 Other information

None available.

Section 10: Stability and reactivity

10.1 Reactivity

Not likely to react adversely if stored and handled as prescribed.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions are likely, but contact with water forms a slippery glue-like product.

10.4 Conditions to avoid

Moisture and extreme temperatures.
Dust formation, electrostatic discharges and sources of ignition.

10.5 Incompatible materials

Strong acids, strong bases, strong oxidising agents.

10.6 Hazardous decomposition products

Evolution of ammonia and oxides of carbon and nitrogen is possible when exposed to excessive heat.

Section 11: Toxicological information

11.1 Information on toxicological effects

Information based on a structurally or compositionally similar product.

Acute toxicity:	**LD50 oral mg/kg**	**LD50 dermal mg/kg**	**LC50 inhalation mg/l**
	>2000 (rat)	>2000 (rabbit)	-

Irritation:	Low expectation of irritation to skin, eyes and mucous membranes.
Corrosivity	Not reported.
Sensitisation:	Not reported.
Repeated dose toxicity	Not reported.
Carcinogenity:	Not reported.
Mutagenicity	Not reported.
Toxicity for reproduction	Not reported.

Section 12: Ecological information

12.1 Toxicity

Information based on a structurally or compositionally similar product.

Aquatic toxicity:	**Fish LC50 96hrs mg/l**	**Daphnia EC 50 48 hrs mg/l**	**Aquatic plants EC 50 72 hrs mg/l**
	>100	>100	-

12.2 Persistence and degradability

Readily biodegradable.

12.3 Bioaccumulative potential

Not expected to bioaccumulate.

12.4 Mobility in soil

Solubility in water limited by viscosity.

12.5 Results of PBT and vPvB assessment

Not applicable.

12.6 Other adverse effects

None known.

Section13: Disposal considerations

13.1 Waste treatment methods

Disposal of product: Must be disposed of in accordance with local and national regulations.

Disposal of packaging: Packaging should be emptied as far as possible then sent for recycling or disposed of as for the product.

Section 14: Transport information

This product is not classified as dangerous for carriage by, road, sea or air.

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Council Directive 67/548/EEC (Classification, Packaging and Labelling of Dangerous Substances) and Commission Directive 1999/45/EC (Classification, Packaging and Labelling of Dangerous Preparations) and subsequent amendments.
Regulation (EC) No. 1272/2008 on Classification, Labelling and Packaging of substances and mixtures.
Regulation (EC) No. 1907/2006 on Registration, Evaluation, Authorisation and Restriction of Chemicals.

15.2 Chemical safety Assessment

Not applicable.

Section 16: Other information

This safety data sheet is produced in accordance with Commission Regulation (EU) No. 453/2010 which amends Regulation (EC) No. 1907/2006.

It is revision 02 and replaces revision 01 issued on 01/09/2012.

Changes have been made to sections 2, 9, 11, 12 and 15.

There are no risk phrases or hazard statements not written in full in section 3.

In section 9 the abbreviation n/a = not applicable or not available.

The information given in this document is based on current knowledge and experience and is given in good faith. No warranty expressed or implied is made, and data is only relevant to the use for which the product is supplied.

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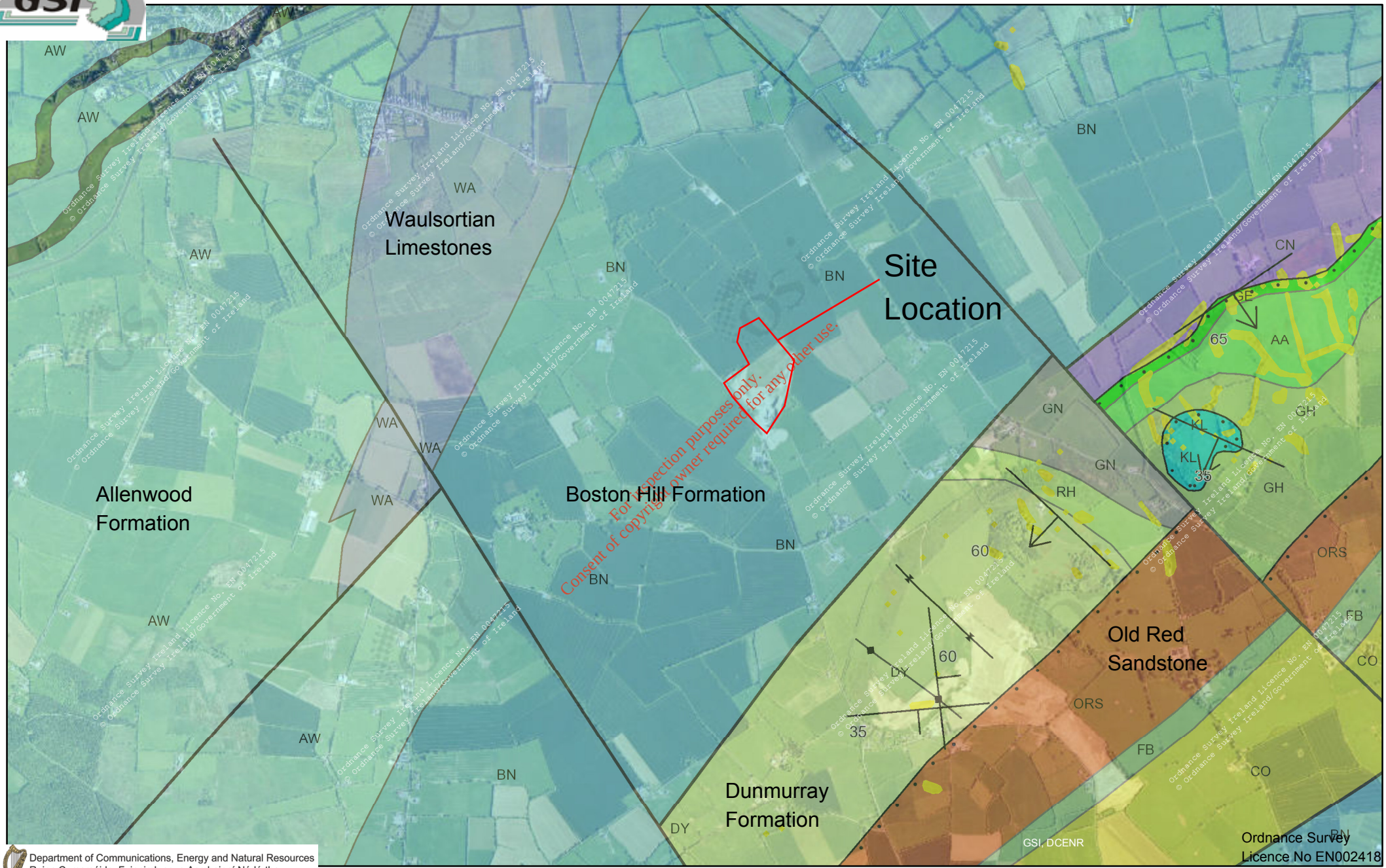
APPENDIX B

Figure 1 - Bedrock Geology Map 100k



Department of Communications, Energy and Natural Resources
Roinn Cumarsáide, Fuinnimh agus Acmhainní Nádúrtha

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Geological Survey of Ireland

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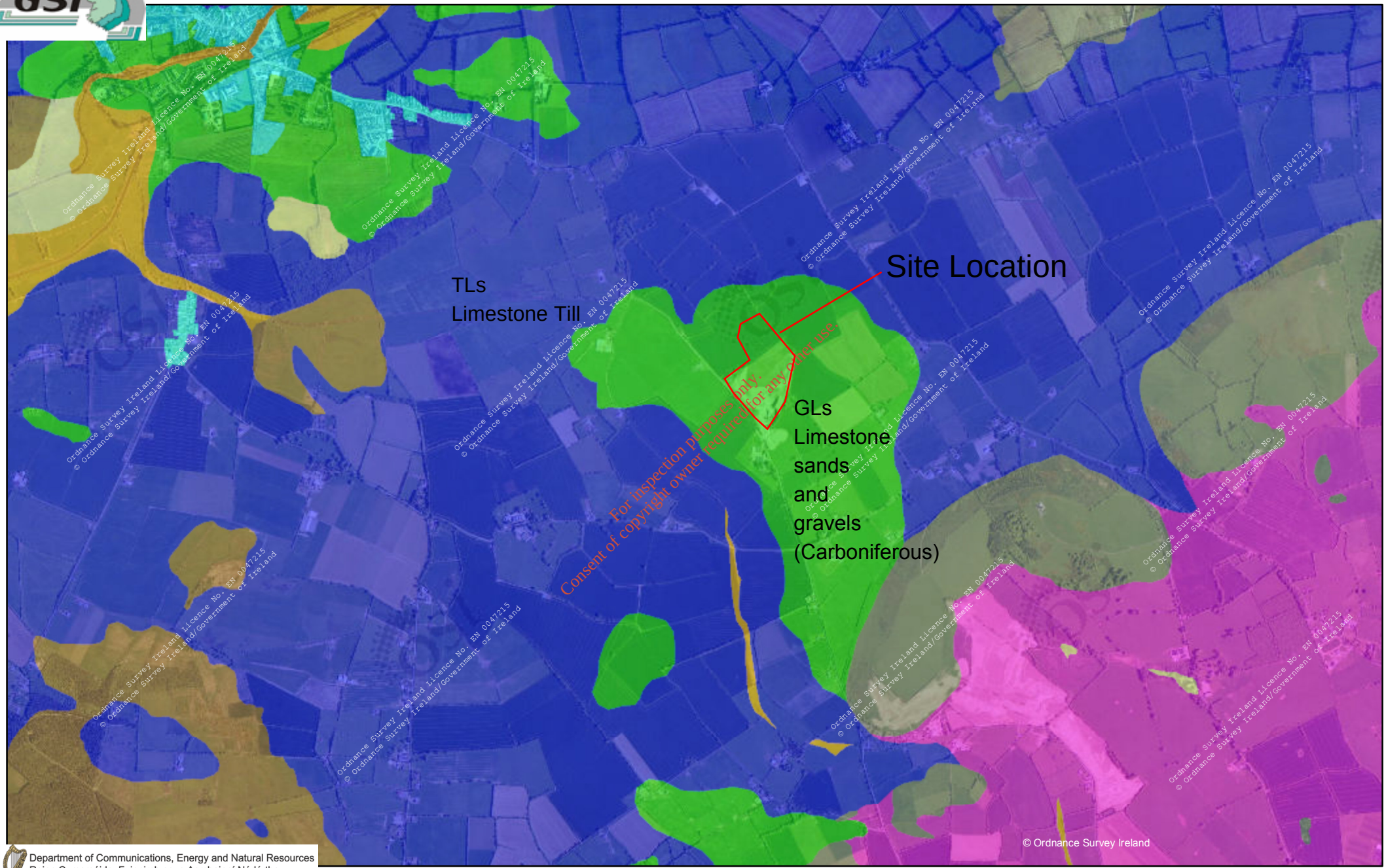
November 13, 2015

0 0.175 0.35 0.7 mi
0 0.275 0.55 1.1 km

Figure 2 - Teagasc Subsoils Map



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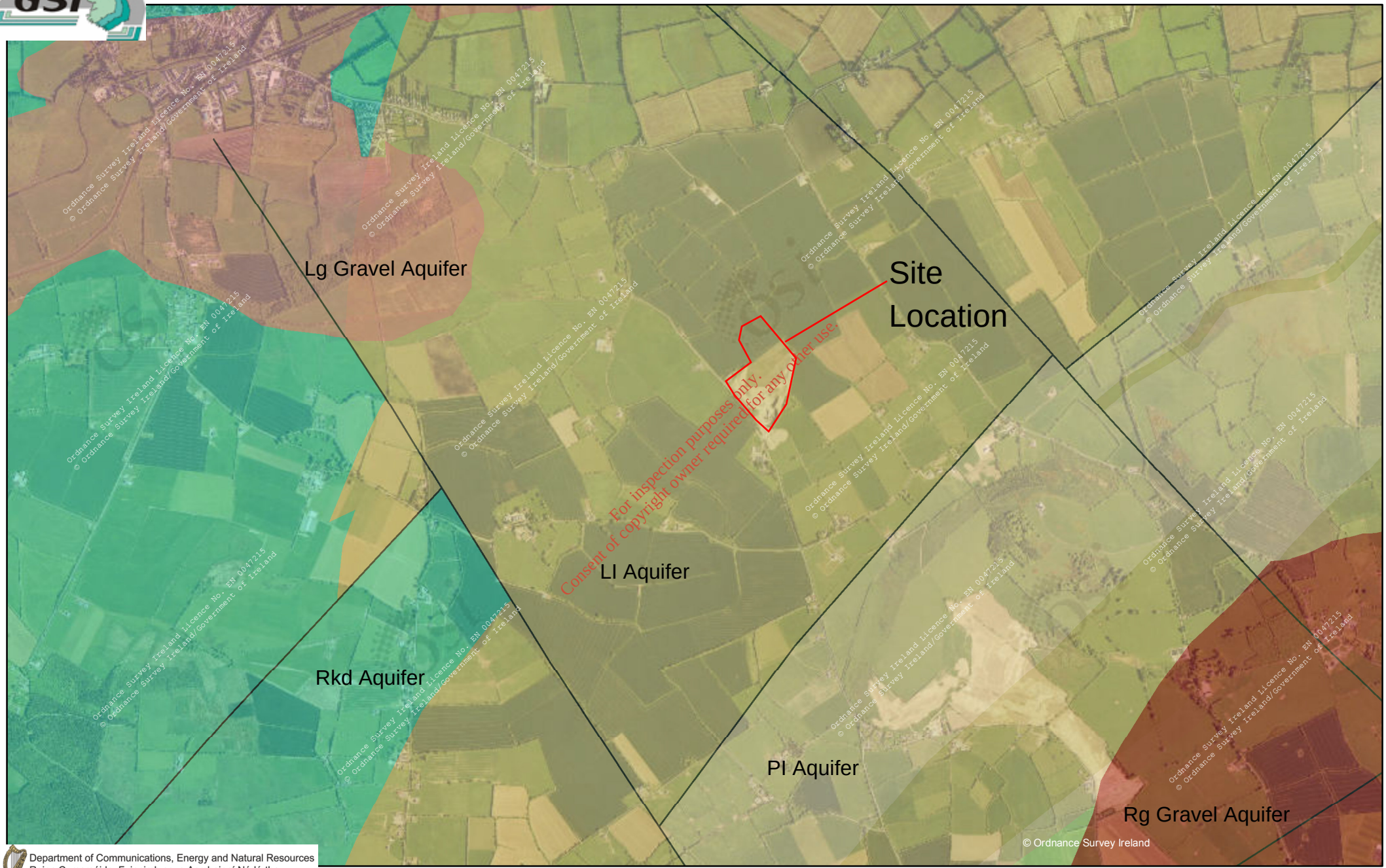
November 13, 2015

0 0.175 0.35 0.7 mi
0 0.275 0.55 1.1 km

Figure 3 - Aquifer Map



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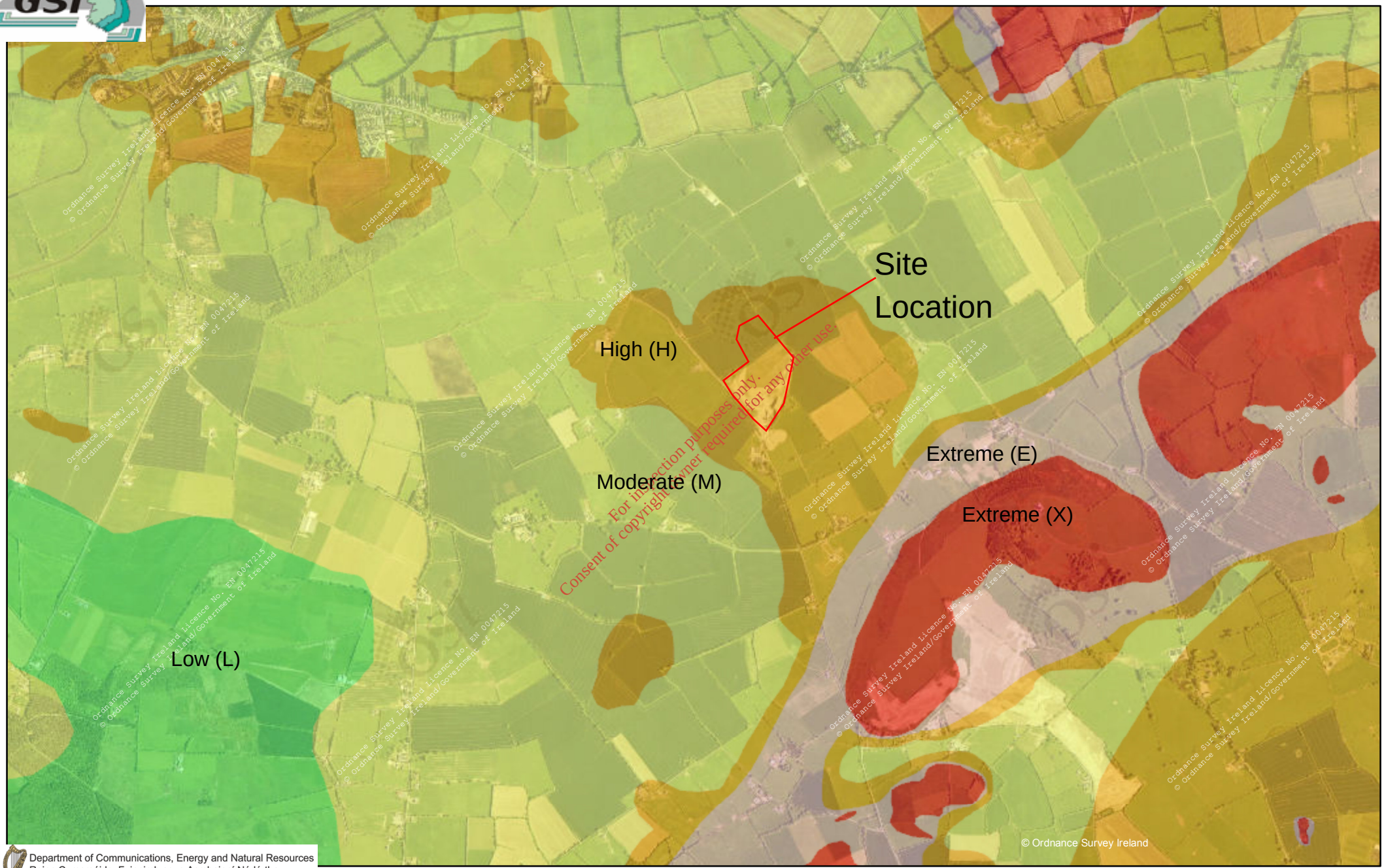
November 13, 2015

0 0.175 0.35 0.7 mi
0 0.275 0.55 1.1 km

Figure 4 - Groundwater Vulnerability Map



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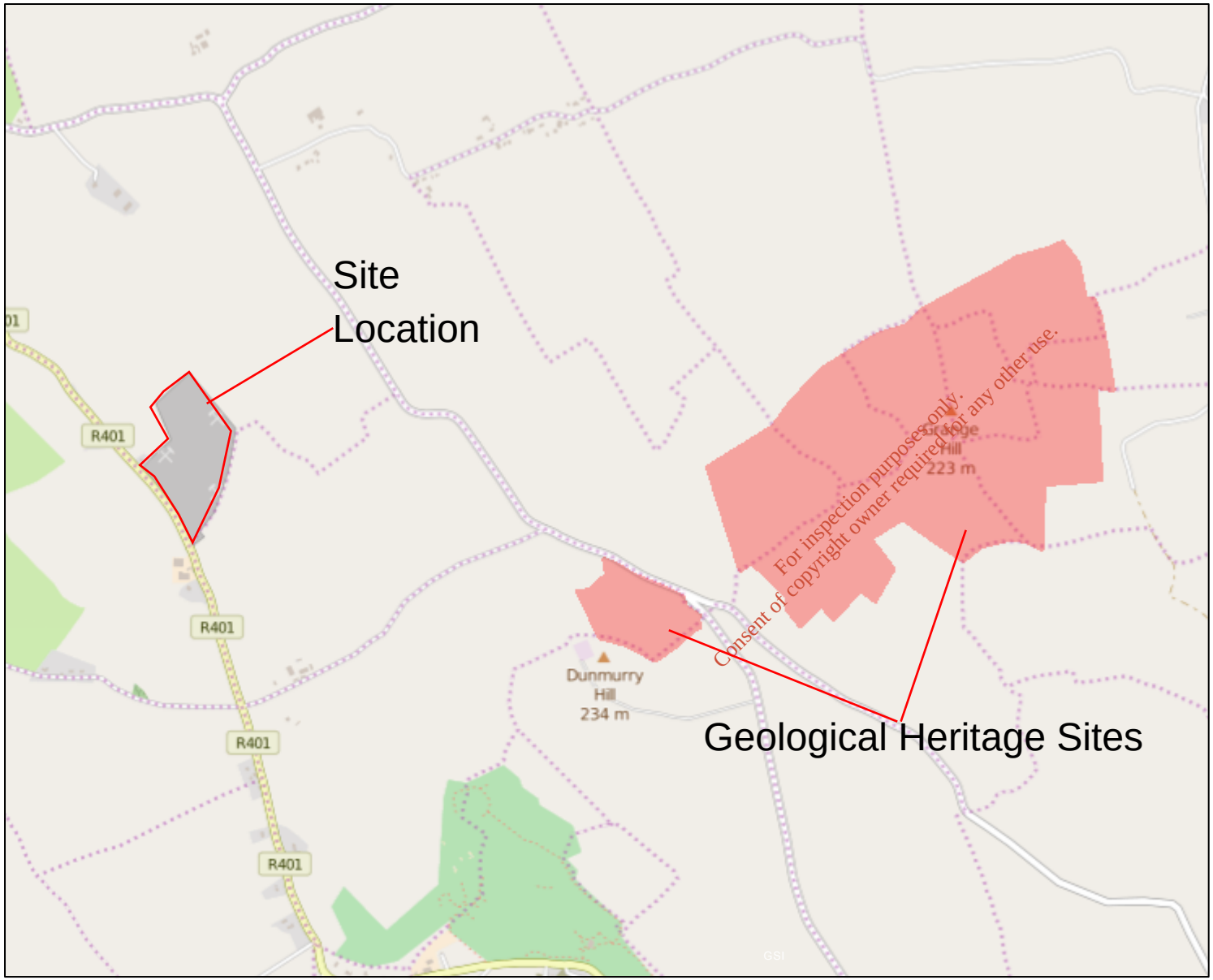
November 13, 2015

0 0.175 0.35 0.7 mi
0 0.275 0.55 1.1 km

Figure 5 - GSI Geological Heritage Map



Legend

- Heritage Site Audited Boundaries
- Heritage Sites Unaudited Boundaries
- Red: Band_1
- Green: Band_2
- Blue: Band_3

Scale: 1:36,112

Geological Survey of Ireland

N W E S

0 0.25 0.5 1 mi

0 0.4 0.8 1.6 km

Map Centre Coordinates (ITM) -771,719 7,020,777

Snapshot Date: February 4, 2016