

ENVIRONMENTAL IMPACT ASSESSMENT REPORT VOLUME 2 - APPENDICES

**KILDARE INNOVATION CAMPUS AT BARNHALL ROAD,
LEIXLIP, COUNTY KILDARE.**

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PREPARED FOR:

**THE DAVY PLATFORM ICAV FOR
AND ON BEHALF OF THE LIFFEY
SUB-FUND**

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Appendix 1.1: Cumulative Projects List

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Reg. Ref.	Planning Authority	Status	Development Description
SDZ22A/0005	South Dublin	under construction	Phase Three of the Adamstown District Centre and consists of 37,402sq.m (gross floor area including car parking and storage) of residential development to be constructed in 3 blocks ranging in height from 2 to 9 storeys; There is a total of 436 apartment
SDZ19A/0004	South Dublin	under construction	237 dwellings (up to a maximum of c.24,911sq.m GFA) in a mixture of terraced, semi-detached and detached houses, duplexes and apartments as follows; 119 apartment units shall be accommodated in 4 blocks of 2-5 storeys; Block 01 (4 storey) to consist of 2
SDZ21A/0003	South Dublin	under construction	Residential development (12,096sq.m) comprises of 128 dwellings (46 one bed apartments, 70 two bed apartments, 6 three bed duplex units and 6 four bed houses) arranged over 4 blocks as follows; Block A (4,049sq.m) contains 43 apartments, ancillary accomm

SDZ20A/0008	South Dublin	under construction	Construction of Phase One of the Adamstown District Centre; proposed development is a mixed use commercial and residential development of c.36,621sq.m (gross floor area) in total (excluding the multi-storey car park) to be constructed in buildings rangin
SDZ21A/0007	South Dublin	under construction	Phase Two of the Adamstown District Centre and consists of 17,764sq.m (gross floor area, including car park and storage) of residential development to be constructed in 2 buildings ranging in height from 4 to 9 storeys; a total of 185 apartments, compris
SD20A/0147	South Dublin	under construction	Construction of P3 Phase II expansion of the existing P3 biopharma production facility which includes the construction of a circa 2,155sq.m, two storey biopharma production facility to a maximum height of circa 14.9m to be located to the south of the exi

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SDZ21A/0023	South Dublin	not under construction	455 residential units (including a mixture of 2 and 3 storey semi-detached and terraced houses, and duplex units and apartments in 3 and 4 storey blocks), new internal roads and footpaths, site access, public open space, car parking, cycle stores, landsc
SD20A/0058	South Dublin	not under construction	Demolition of the existing single storey house of 'Little Acre' and its associated garage and other buildings; demolition of the single storey stable building on the overall site; construction of a gas powered Power Plant with all its associated elements
SD16A/0398	South Dublin	not under construction	Amendments to previously granted planning permission, Reg. Ref. SD15A/0061, consisting of the following: reduction of capacity of the plant from 115MW to 96MW; removal of 1 dual fired engine; alteration to the operational hours of the facility from 12 ho

SD15A/0061	South Dublin	not under construction	10 year permission for the construction of a 115MW Peaker Power Plant in a single storey building with a mezzanine level office and electrical control area. This building has a platform height of 17.52m, 7 shafts with a height of 20.74m and 2 stacks with
SD18A/0323	South Dublin	not under construction	Construction of a two storey data centre with three storey central service spine (7,246sq.m) with plant at roof level, that includes a reception area (274.4sq.m), shipping area (264.3sq.m) and three data halls (each 582.5sq.m - total 1,747.5sq.m) plus se
SDZ21A/0014	South Dublin	not under construction	Development of 227 dwellings (24,513.8sq.m gross floor area); 95 3-bed, 2 storey terraced houses and associated gardens; 28 4-bed, 3 storey terraced houses and associated gardens; 48 3-bed, 2 storey duplex apartments over 48 2-bed apartments (3 storey bu

SD22A/0303	South Dublin	not under construction	Construction of a Volatile Organic Compound (VOC) Abatement system comprising of a thermal oxidiser (TO), associated plant equipment and scrubbers positioned on a bunded concrete plinth with a maximum single stack height of 12m along with two access plat
SDZ22A/0007	South Dublin	not under construction	Comprising Phase 1 of the Adamstown Boulevard Development Area and consists of 38,768.21sq.m. of residential development to be constructed in a mix of housing and apartment units, with 423 residential units proposed in total (of which 166 units are subje
SDZ22A/0006	South Dublin	not under construction	Construction of 352 residential units (terraced, semidetached and detached) comprising 253 two storey houses (15 two bed units and 238 three bed units ranging in size from c. 86sq.m to c. 118sq.m) and 99 three storey houses (18 three bed units and 81 f

SD21A/0272	South Dublin	not under construction	Demolition of existing workshop and (defunct) Activated Carbon Building adjacent the old/northern Treatment Plant Building; construction of a Sulphuric Acid Storage and Dosing Facility Building (single storey up to approximately 8.7 metres in height) adj
SDZ20A/0017	South Dublin	not under construction	235 dwellings (up to a maximum of c.23,858.7sq.m GFA) in a mixture of terraced houses and apartments as follows: 159 houses shall consist of 109 2 storey, 3-bedroom houses; 7 3 storey, 3-bedroom houses and 43 3 storey, 4 bedroom houses; 76 apartment unit
SD21A/0042	South Dublin	not under construction	Construction of two single storey data centres with associated office and service areas; and three gas powered generation plant buildings with an overall gross floor area of 24,624sq.m that will comprise of the following: Demolition of abandoned single s

SDZ20A/0020	South Dublin	not under construction	Demolition of 3 existing dwelling houses in addition to 9 farm structures and outbuildings and the construction of 113 residential units comprising 70 two storey dwelling houses (comprising 61 three bed units and 9 four bed units ranging in size from 109
FW19A/0073	Fingal	not under construction	Erection of a 70 Kw 600 m2 ground-mounted photovoltaic array adjacent
161153	Kildare	under construction	residential development of 214 no. dwellings, a 2-storey crèche (552m2) and all associated and ancillary site development works including link road. The housing breakdown is as follows; 21 no. House Type A (4 bed, 2.5 storey, 174m2); 28 no. House Type

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161229 (amended under reg. ref. 1991)	Kildare	under construction	10 year permission for development comprising: Revised design and configuration of previously permitted manufacturing building Planning Reg Ref 12/435 – PL09.241071, over four levels (parapet height of 31m) with a total floor area of 88,740sqm includin
18233	Kildare	under construction	a new wastewater pumping station, control building, change of use of the existing balance tank western cell to a pumping station wet well, additional mechanical and electrical plant equipment , landscaping , internal access road, and hardstanding area an
181481	Kildare	under construction	the construction of 58 No. residential dwellings comprised of 4 No. 4 bed detached houses (Type A and A1); 14 No. 3 bed semi-detached houses (Type B); 10 No. 3 bed terraced houses (Type C and C1); 4 No. 2 bed terraced houses (Type D); 2 No. 1 bed bungalo

191282	Kildare	under construction	the construction of 75 no. residential dwellings consisting of 51no. two storey houses; 12 no. 2 bed own door duplex units contained in a three-storey block (Block 1) and 12 no. own door duplex apartment units (6 no. 2 bed duplex units and 6 no. 1 bed ap
15565	Kildare	not under construction	The proposed addition of 2 No. bunded chemical tanks sized 3 metres diameter and 18.2 metres high including steel framework and its associated tanker parking to the rear of FAB 24 and the addition of 1 No. exhaust stack on roof of FAB 24, 1.5 metres diam
16777	Kildare	not under construction	the development of a solar PV panel array with an export capacity of 7.8MW comprising approximately 30, 100 photovoltaic panels on ground mounted frames within a site area of 12.10 hectares, 6 no. single storey MV substations, 1 no. single storey DSO sub

18250	Kildare	not under construction	a 10 year permission (to construct development) for a solar farm comprising: the installation of photovoltaic panels on ground mounted frames in rows on a site of C.47.44 hectares, a single storey onsite 38kV substation with compound, with 2 no single st
19889	Kildare	not under construction	the replacement of the existing railway sleeper embankment structure with new masonry block work embankment structure along 100 linear metres approximately of river bank frontage to the river Liffey/Leixlip Reservoir at the existing (0.812 hectare) club
2048	Kildare	not under construction	18 no. warehouse/light industrial units with ancillary office and staff facilities in 1 no. block totalling 1,972 sq. metres. The proposed development includes connections to existing services at M4 Interchange Park, signs, internal roads, carparking, bi

308585	SID - An Bord Pleanala	under construction	Clutterland 110kV GIS Substation building and 2 underground single circuit transmission lines
309146	SID - An Bord Pleanala	under construction	2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation
309951	SID - An Bord Pleanala	Built	Provision of two 110kV transmission lines. Connecting Coolderrig 110kV GIS Substation to Grange Castle - Kilmahud circuits.
314232	SID - An Bord Pleanala	not under construction	DART+ West Railway Order - Dublin City to Maynooth and M3 Parkway

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314567	SID - An Bord Pleanala	not under construction	Underground 110kV transmission line connections between the permitted Kishoge 110kV GIS substation and the permitted Aungierstown - Castlebaggot underground 110kV transmission line.
314942	SID - An Bord Pleanala	not under construction	BusConnects Lucan to City Centre Core Bus Corridor Scheme
304862	SID - An Bord Pleanala	under construction	220 kV Gas Insulated Switchgear substation, 2 no. 220 kV underground circuits forming a loop-in/loop-out to the existing Maynooth-Woodland 220 kV Overhead Line and 6 no. 220 kV underground circuits and associated low voltage and communication underground cabling connecting the proposed substation with electricity transformers within the Intel Ireland Facility, and all associated and ancillary site development works.
308130	SID - An Bord Pleanala	not under construction	220kV substation with 2 underground transmission cables

300606	SHD - An Bord Pleanala	under construction	450 no. residential units (350 no. houses, 100 no. apartments), childcare facility, new roundabout on the Celbridge Road (R404) and associated road alignment to facilitate vehicular access with revised entrance arrangement to the Wonderful Barn Complex (Protected Structure), and incorporating landscape features and signage to the Wonderful Barn Complex (Protected Structure); associated internal roads, pedestrian and cycle paths and linkages; open space and all associated site and development works.
303295	SHD - An Bord Pleanala	under construction	251 no. residential units (167 no. houses and 84 no. apartments), creche and all associated site works. www.oakleymanor.ie
306504	SHD - An Bord Pleanala	under construction	Demolition of existing structure, construction of 372 no. residential units (218 no. houses, 154 no. apartments), childcare facility and associated site works.
307100	SHD - An Bord Pleanala	not under construction	467 no. residential units (199 no. houses, 216 no. apartments, 52 no. duplexes), childcare facility and associated site works.
307223	SHD - An Bord Pleanala	not under construction	Demolition of existing buildings, construction of 239 no. residential units (136 no. houses, 103 no. apartments), creche and associated site works.

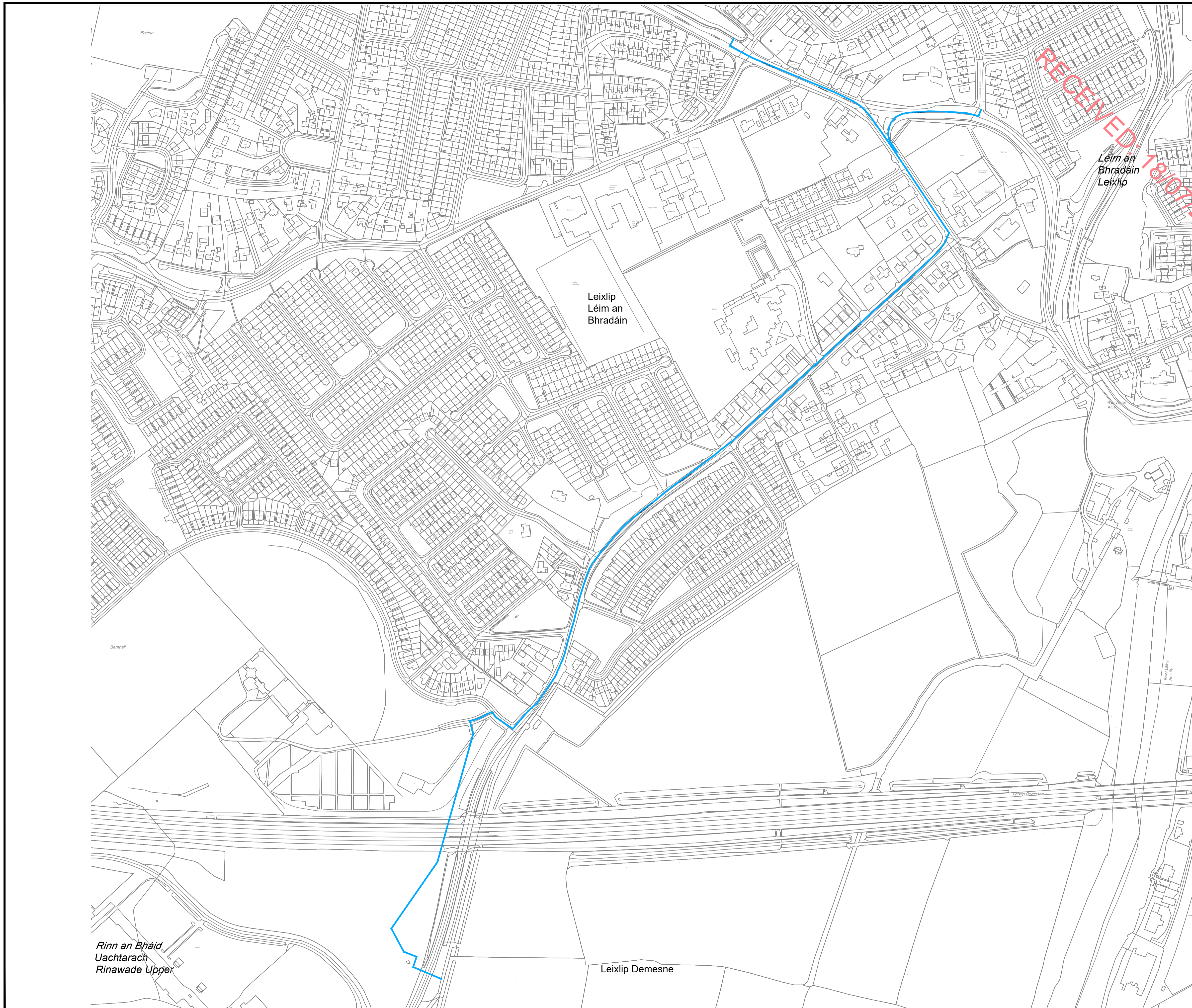
310865	SHD - An Bord Pleanala	under construction	194 no. residential units (119 no. houses, 75 no. apartments). creche and associated site works.
305343	SHD - An Bord Pleanala	under construction	Demolition of 5 no. structures, construction of 406 no. residential units (281 no. houses, 125 no. apartments) creche and associated site works.

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Appendix 2.1: GNI Pipe Works

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NOTES

1. Pipeline routing from GNI Design Drawing 47152188 of 30/11/2022. See GNI Design Drawing for technical details.

CLIENT

The Davy Platform ICAV
for and on behalf of
the Liffey Sub Fund

PROJECT

Kildare Innovation Campus

TITLE

Gas Network Connection Works

REV	DATE	DESCRIPTION
0	28/04/2023	

PROJECT NUMBER
1348

DRAWING NUMBER
1348-004

DRAWN BY	AF	SCALE	
CHECKED BY	JMcM		As Shown
APPROVED BY	TMcM		


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Appendix 7.1: NRA Criteria for Rating the Magnitude and Significance of Impacts at EIA Stage

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APPENDIX 7.1

**NRA CRITERIA FOR RATING THE MAGNITUDE AND SIGNIFICANCE OF IMPACTS AT EIA
STAGE**

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Impact Ratings and Assessment Criteria (Soils, Geology and Hydrogeology)

The A criteria for rating the magnitude and significance impacts at A stage on the geological related attributes are also relevant in determining impact assessment and are presented in table below

Table 1 Criteria for rating site importance of Geological Features (NRA)

Importance	Criteria	Typical Example
Very High	Attribute has a high quality, significance or value on a regional or national scale Degree or extent of soil contamination is significant on a national or regional scale Some peat and/or soft organic soil underlying route is significant on a national or regional scale	Geological feature rare on a regional or national scale (HAA) Large existing quarry or pit Proven economically extractable mineral resource
High	Attribute has a high quality, significance or value on a local scale Degree or extent of soil contamination is significant on a local scale Some peat and/or soft organic soil underlying route is significant on a local scale	Contaminated soil on site with creeps heavy industrial usage Large recent landfill site or mixed wastes Geological feature which value on a local scale (county Geological Site) Well drained and/or high fertility soils Moderately sized existing quarry or pit Marginally economically extractable mineral resource
Medium	Attribute has a medium quality, significance or value on a local scale Degree or extent of soil contamination is moderate on a local scale Some peat and/or soft organic soil underlying route is moderate on a local scale	Contaminated soil on site with creeps light industrial usage Small recent landfill site or mixed wastes Moderately drained and/or moderate fertility soils Small existing quarry or pit Sub-economic extractable mineral resource
Low	Attribute has a low quality, significance or value on a local scale Degree or extent of soil contamination is minor on a local scale Some peat and/or soft organic soil underlying route is small on a local scale	Large historical and/or recent site for construction and demolition wastes Small historical and/or recent landfill site for construction and demolition wastes Poorly drained and/or low fertility soils Non-economically extractable mineral resource

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Table 2 Criteria for rating impact magnitude at EIS stage – Estimation of magnitude of impact on soil / geology attribute (NRA)

Magnitude of Impact	Criteria	Typical Examples
Large Adverse	Results in loss of attribute	Loss which erodes or destroys the site or its reserves
Moderate Adverse	Results in impact on integrity of attribute or loss of part of attribute	Loss of moderate erosion or destruction of site or its reserves
Small Adverse	Results in minor impact on integrity of attribute or loss of small part of attribute	Loss of small erosion or destruction of site or its reserves
Negligible	Results in an impact on attribute but of insufficient magnitude to affect either use or integrity	Small measurable changes in attributes
Minor Beneficial	Results in minor improvement of attribute quality	Minor enhancement of geological heritage feature
Moderate Beneficial	Results in moderate improvement of attribute quality	Moderate enhancement of geological heritage feature
Major Beneficial	Results in major improvement of attribute quality	Major enhancement of geological heritage feature

The NRA criteria for estimation of the importance of hydrogeological attributes at the site during the NRA stage are summarised below

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Table 3 Criteria for rating Site Attributes - Estimation of Importance of Hydrogeology Attributes (NRA)

Magnitude of Impact	Criteria	Typical Examples
Extremely High	Attribute has a high quality or value on an international scale	Groundwater supports river, wetland or surface water body ecosystem protected by legislation e.g. SPA or SPA status
Very High	Attribute has a high quality or value on a regional or national scale	Regionally important Aquifer with multiple well fields Groundwater supports river, wetland or surface water body ecosystem protected by national legislation – SPA status Regionally important potable water source supplying homes Inner source protection area
High	Attribute has a high quality or value on a local scale	Regionally important Aquifer Groundwater provides large proportion of baseflow to local rivers Locally important potable water source supplying homes Outer source protection area Regionally important water source Inner source protection area Locally important water source
Medium	Attribute has a medium quality or value on a local scale	Locally important Aquifer Potable water source supplying homes Outer source protection area Locally important water source
Low	Attribute has a low quality or value on a local scale	Poor bedrock Aquifer Potable water source supplying homes

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Table 4 Criteria for Rating Impact Significance at EIS Stage – Estimation of Magnitude of Impact on Hydrogeology Attribute (NRA)

Magnitude of Impact	Criteria	Typical Examples
Large Adverse	Results in loss of attribute and/or quality and integrity attribute	<p>Removal of large proportion of aquifer</p> <p>Changes to aquifer or unsaturated zone resulting in extensive change to existing water supply systems and wells, river baseflow or ecosystems</p> <p>Potential high risk of pollution to groundwater from routine runoff</p> <p>Unrelated risk of serious pollution incident once annually</p>
Moderate Adverse	Results in impact on integrity attribute or loss of part of attribute	<p>Removal of moderate proportion of aquifer</p> <p>Changes to aquifer or unsaturated zone resulting in moderate change to existing water supply systems and wells, river baseflow or ecosystems</p> <p>Potential medium risk of pollution to groundwater from routine runoff</p> <p>Unrelated risk of serious pollution incident once annually</p>
Small Adverse	Results in minor impact on integrity attribute or loss of small part of attribute	<p>Removal of small proportion of aquifer</p> <p>Changes to aquifer or unsaturated zone resulting in minor change to water supply systems and wells, river baseflow or ecosystems</p> <p>Potential low risk of pollution to groundwater from routine runoff</p> <p>Unrelated risk of serious pollution incident once annually</p>
Negligible	Results in an impact on attribute but is insufficient magnitude to affect either use or integrity	<p>Unrelated risk of serious pollution incident once annually</p>

Table 5 Rating of Significant Environmental Impacts at EIS Stage (NRA)

Importance of Attribute	Magnitude of Importance			
	Negligible	Small Adverse	Moderate Adverse	Large Adverse
Extremely High	Intolerable	Significant	Profound	Profound
Very High	Intolerable	Significant/moderate	Profound/Significant	Profound
High	Intolerable	Moderate/Slight	Significant/moderate	Profound/Significant
Medium	Intolerable	Slight	Moderate	Significant
Low	Intolerable	Intolerable	Slight	Slight/Moderate

Table 6 Criteria for rating impact magnitude at EIS stage – Estimation of magnitude of impact on hydrology attributes (NRA, 2009)

Magnitude of Impact	Criteria	Typical Examples
Severe Adverse	Results in loss of attribute and/or quality and integrity of attribute	Loss or extensive change to a water body or water dependent habitat
Moderate Adverse	Results in impact on integrity of attribute or loss of part of attribute	Associated risk of serious pollution incident once annually
Small Adverse	Results in minor impact on integrity of attribute or loss of small part of attribute	Increase in predicted sea level of 100mm
De minimis	Results in an impact on attribute but insufficient magnitude to affect either use or integrity	De minimis change in predicted sea level
Minor Beneficial	Results in minor improvement of attribute quality	Associated reduction in pollution risk once or more where existing risk is once annually
Moderate Beneficial	Results in moderate improvement of attribute quality	Associated reduction in pollution risk once or more where existing risk is once annually
Major Beneficial	Results in major improvement of attribute quality	Reduction in predicted sea level of 100mm

Additional examples are provided in the NRA Guidance Document

1 Refer to Annex 1, Methods E and F, Annex 1 of HA216/06

1 Refer to Appendix B3 / Annex 1, Method D, Annex 1 of HA216/06

Source: 'Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes' by the National Roads Authority (NRA, 2009)

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Table 7 Criteria for Rating Impact Significance of Hydrological Attributes (NRA, 2009)

Importance	Criteria	Typical Examples
Extremely High	Attribute has a high quality or value on an international scale	River, wetland or surface water body ecosystem protected by EU legislation e.g. 'European sites' designated under the Habitats Regulations or 'Salmonid waters' designated pursuant to the European Communities Quality of Salmonid Waters Regulations, etc.
Very High	Attribute has a high quality or value on a regional or national scale	River, wetland or surface water body ecosystem protected by national legislation – OHA status Regionally important potable water source supplying homes Quality class A watercourse, etc. Flood plain protection more than residential or commercial properties from flooding Regionally important amenity site or wide range leisure activities
High	Attribute has a high quality or value on a local scale	Salmon fishery Locally important potable water source supplying homes Quality class B watercourse, etc. Flood plain protection between residential or commercial properties from flooding Locally important amenity site or wide range leisure activities
Medium	Attribute has a medium quality or value on a local scale	Coarse fishery Local potable water source supplying homes Quality class C watercourse, etc. Flood plain protection between residential or commercial properties from flooding
Low	Attribute has a low quality or value on a local scale	Locally important amenity site or small range leisure activities Local potable water source supplying homes Quality class D watercourse, etc. Flood plain protection residential or commercial property from flooding Amenity site used by small numbers local people

Source: 'Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes' by the National Roads Authority (NRA, 2009)



Appendix 7.2: Factual Ground Investigation Report

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APPENDIX 7.2
FACTUAL GROUND INVESTIGATION REPORT
IGSL, 2020

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