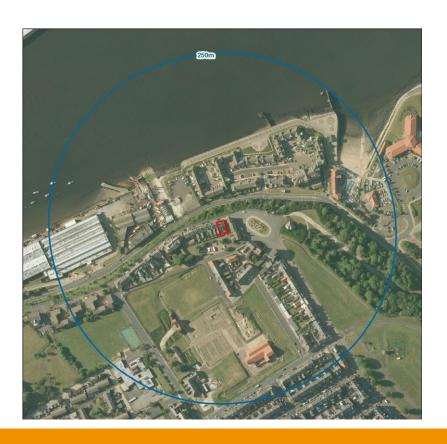
Phase One

Desktop Environmental Assessment



Report on:

Beacon Inn, 100 Greens Place, South Shields, Tyne and Wear, NE33 2AQ

Report prepared for:

Gary Craig Building Services Ltd.

Client Reference:

N/A

Report Reference:

AEL-4444-PH1-605463

National Grid Reference:

436501, 568072

Report date:

21 September 2015





South

Hote

Site Location

Report prepared on

Beacon Inn, 100 Greens Place, South Shields, Tyne and Wear, NE33 2AQ

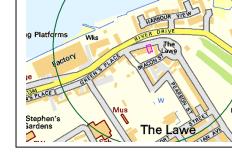
Size (m²) 234.01

Tenure Freehold

Current Use Public House

Proposed Use

Residential flat block without open landscaped areas.



The Narrows

Fish

Document Control

Prepared by:

8288enan

Ali Stanton BA (Hons) MSc AIEMA Senior Consultant

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Technical review and Approval by:

I bainly e

Document Status:

Final



Executive Summary

Argyll Environmental Limited (AEL) was commissioned by Gary Craig Building Services Ltd. to conduct a Phase One Desktop Environmental Assessment of Beacon Inn, 100 Greens Place, South Shields, Tyne and Wear, NE33 2AQ. This report presents the key findings and potential environmental liabilities identified during the assessment.

Key Findings	Recommendations
No contamination sources have been identified at the Site. Given the proximity of historical industrial facilities 30m north some limited contamination may have migrated to the Site. Though this is considered unlikely.	The risk of offsite contamination will be mitigated through the following recommendations. A watching brief document should be prepared and followed by contractors involved in the clearing and groundwork(s) stage of the redevelopment. This will help identify and appropriately deal with any unforeseen contamination. In addition, appropriate Personal Protection Equipment (PPE) should be used by contractors and any waste identified should be disposed of in line with Duty of Care requirements. Please note, should any visual or olfactory signs of contamination be encountered during the development works, work should cease immediately, the local authority informed and further investigation be undertaken by an environmental specialist.

Environmental Liability

Within the scope of this assessment no Liabilities have been identified, assuming that the above recommendations are actioned.

Note: This Executive Summary forms part of AEL's Phase One Environment Assessment (Ref. AEL-4444-PH1-605463) and should be read in conjunction with the body of the report.



1 Introduction

1.1 Objectives and Background

Argyll Environmental Limited (AEL) was commissioned by Adam Jones of the on behalf of Custom Built Ltd to conduct a Phase One Environmental Assessment of Beacon Inn, 100 Greens Place, South Shields, Tyne and Wear, NE33 2AQ. This report presents the key findings and potential environmental liabilities identified during the assessment. The works were completed in accordance with AEL's Conditions of Contract for Environmental Consulting Services version 2.0.

The objective of the Phase One Environmental Assessment is to support a planning application for the conversion of the Site into a residential flat block without landscaped areas.

Environmental liabilities in this context may derive from contamination due to past and current uses of the Site and surrounding land, and in the context of the Site's environmental sensitivity.

1.2 Scope of Work

The agreed scope of works and the data sources included in this assessment are detailed below:

- A review of available current and historical Ordnance Survey maps and other sources of historical information including aerial photography, relating to the Site and surrounding area;
- A review of data included in a Landmark dataset (ref: 72441185);
- A review of previous reports completed for the Site and surrounding area;
- Information provided by, or publicly available from, the statutory authorities, i.e South Tyneside Council Environmental Health and Planning Departments.
- A study of the environmental sensitivity of the Site, with reference to the local geological, hydrological and hydrogeological setting;
- Flood risk assessment;
- Radon data:
- Subsidence data;
- The derivation of a Conceptual Site Model, identifying potential pollutant linkages and an assessment of the risk and liabilities associated with the Site; and
- Formation of conclusions and recommendations for further work (if required) to include estimated capital expenditure for each material issue identified.



2 Historical Review

Argyll Environmental Limited has reviewed available historical Ordnance Survey maps and pre-Ordnance Survey (County Series) maps plus recent aerial photography for the Site and surrounding area. This information, in conjunction with historical data provided by the Local Authority Environmental Heath and Planning Departments has been used to develop a description of the history of development of the Site and the surrounding area. Historical maps are provided in Appendix I.

2.2 Summary of Site History

A review of planning information and historical map indicates that the Site was occupied by two residential properties, on part of a terraced street, from at least c.1862. The eastern property was labelled as an Inn c.1915, and both properties appeared to form a single public house by 1941. No further significant changes were noted from subsequent mapping.

A planning application was submitted on the Site for the demolition of the existing public house, and the erection of a residential flat block containing seven apartments, without landscaped areas. The Planning Department requested that a Phase 1 Land Contamination Assessment be submitted to support this application.

2.3 Summary of Historical Surrounding Area Use

The surrounding area to the south, east and west has remained largely in residential and commercial use since the first map edition. An industrial area associated with the banks of the River Tyne was evident 25m north, situated at the bottom of a slope, which begins approximately 5m from the Site. A shipping yard was evident at the foot of this slope from c.1862. The shippard had been cleared after 1881, and an oil depot had been developed in its place c.1898. An additional shipbuilding yard was noted 40m north west c.1921, and was no longer evident c.1941. The oil depot had been partially cleared by this time, and chemical works had been developed 90m west.

The north west formed a boat builder's yard from 1955, while the north east continued as an oil depot with multiple associated tanks. The boat builder's yard was redeveloped to form part of the oil depot c.1974, when it was occupied by numerous tanks. The entire oil storage depot was later cleared between 1986 and 1993, before this area was redeveloped for the current residential use c.1993. This area continued in residential use to present. However, the boat builder's yard and unspecified works and factory remain 60m north west throughout later mapping.

It is anticipated that the oil depot would have remediated to some degree during the redevelopment to residential houses, however no details are available to view the Local Authorities planning portal.



3 The Site and Surrounding Area

3.1 Site Location and Setting

The Site is located in South Shields at National Grid Reference 436501, 568072 (as shown on Page 2).

The Site occupies an area of approximately 0.02 hectares and is located in an area of predominantly residential use. Adjacent and nearby surrounding land uses include:

North: Greens Place is located adjacent north, beyond which is a slope, leading on to River Drive. A residential estate is located beyond River Drive, followed by the River Tyne 100m north. An industrial area is located from 40m north east, associated with the River Tyne docklands, largely comprising boat yards.

South: Victoria Road is situated adjacent south, beyond which are residential properties, extending 0.5 kilometers south.

East: Residential properties are located adjacent to the east, beyond which is Lawe Road, followed by a park 70m east. The park extends out to the seafront, following which is commercial buildings and car parking, with the River Tyne Entrance 380m east.

West: Residential properties lie adjacent to the west of the Site, forming a residential terrace which extends for 50m. River Drive is 90m west, beyond which is the aforementioned docklands, including an unspecified works and factory 100m west.

The Site is currently is public house and will be redeveloped for use as a residential flat block.

The lowest part of the Site is approximately 20m Above Ordnance Datum (m AOD). The Site slopes steeply downwards towards the north.



4 Regulatory Authority Consultation

The following statutory bodies and authorities have been consulted as part of this assessment:

4.1 Council Environmental Health Department

Enquires were directed to South Tyneside Council's Environmental Health Department. A written response was provided by Michelle Hogg (contaminated land officer) on 15 September 2015, and is summarised as follows:

- The Site has been in use as a public house or similar since the first map edition, and as a result has not been prioritsed for investigation under Part 2A of the Environmental Protection Act, 1990.
- Owing to the history of the Site, the Council would be satisfied with a Phase 1 Desk Study without a site walkover to support the proposed redevelopment at the Site.

4.2 Council Planning Department

A review of the Planning Department of Wiltshire Councils online planning platform was undertaken, which did not reveal any pertinent information.

Upon the request of the Planning Department, this report has been instructed to support a planning application for the demolition of the current public house and the construction of seven apartments, which will be in the form of a flat block with no open areas. As mentioned above, the Environmental Health Department has stated that in this case, a Phase 1 Desk Study without site walkover will be sufficient to meet their requirements.



5 Report and Data Review

The following reports and data have been reviewed as part of this assessment and can be seen in Appendix 2:

5.1 Landmark Licensing Data

A review of a SiteSolutions Combined report (ref: AEL-4444-SSC-605511) was undertaken as part of this assessment. Relevant information from the report is summarised below:

No licenses, authorisations, consents, or enforcements have been identified relating to the Site, or within 100m.

No other environmental permits (Registered Radioactive Substances, Control of Major Accident Hazard Sites, Notification of Installations Handling Hazardous Substances, Planning Hazardous Substance Consents, Contaminated Land Register Entries and Notices or Substantiated Pollution Incidents within 250m of the Site.

5.2 British Geological Survey

A review of BGS borehole data in the vicinity of the site revealed the following pertinent information.

The closet Borehole record ref.NZ36NE982 was located approximately 50m north of the Site. This indicates that the first 1.5m comprised ash, brick and sand fill, below which was 0.5m of brown and grey sand and gravel. Very dense damp sand was encountered below 2m, to a depth of 7m, with dark and very firm grey boulder clay situated from depths of 7m and beyond. Groundwater was not encountered in this borehole.

Although several borehole records have been identified in the vicinity of the Site, they are situated approximately 10m downslope to the north of the Site, on the former docklands. As a result, the majority of the findings noted in these records are more specific to the composition of the dockland area, rather than indicative of the general area and the Site.



6 Site Sensitivity

The following information on geology, hydrogeology and hydrology was obtained from available maps and reports.

6.1 Geology

The BGS online geological map viewer and available borehole data in the vicinity of the Site indicates that the Site is underlain by the following geological sequence:

Geological Unit	Description	Anticipated Thickness	Permeability
Superficial Deposits			
Till	Devensian – Diamicton, Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions.	Not supplied	Low to Moderate
Solid Deposits			
Pennine Middle Coal Measures Formation	Mudstone, Siltstone And Sandstone. Sedimentary Bedrock formed approximately 309 to 312 million years ago in the Carboniferous Period. Local environment previously dominated by swamps, estuaries and deltas.	200-600m	Moderate

6.2 Hydrogeology

The superficial deposits beneath the Site are expected to be largely impermeable and are classified by the Environment Agency (EA) as an Unproductive Aquifer.

The underlying bedrock hydrogeology (Pennine Middle Coal Measures) is classified by the Environment Agency as moderately permeable and are classified by the Environment Agency (EA) and as such may be used as a secondary water resource across this region. However, coal measures were not struck in the BGS borehole record detailed above, and as a result we have assumed that the unproductive superficial deposits extend to depths of beyond 9m.

Shallow groundwater in the Site area is generally anticipated to flow in a north easterly direction, towards the River Tyne 105m north, which in turn is flowing to the River Tyne Entrance 400m north east.

The Site does not lie within a designated groundwater Source Protection Zone, and there are no groundwater abstractions located within 1km of the Site.

6.3 Hydrology

The nearest surface water feature is the River Tyne located 110m north. The River Tyne drains in a north easterly direction towards The River Tyne Entrance, which is located approximately 400m north east.



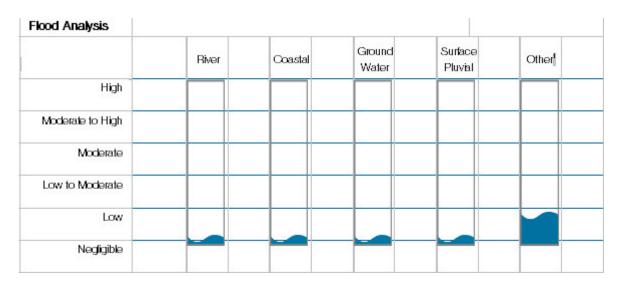
6.4 Sensitive Land Uses

There following designated eco-receptors were identified within 1km:

- Northumbria Coast (Ramsar Site and Special Protection Area) located 805m east;
- Northumberland Shore (Site of Special Scientific Interest) located 398m north;
- Durham Coast (Site of Special Scientific Interest) located 805m east.

It is understood that following the completion of the proposed development, the Site will be occupied by a residential flat block without open areas. The Site lies within a predominantly residential area with adjacent residential dwellings present to the east and west.

6.5 Flood Risk Assessment



The Site has not been identified as at risk of flooding. Although the River Tyne is situated 110m north, the Site is elevated more than 18m above the river, and as a result is not deemed to be at risk from this source of flooding according to data provided by the Environment Agency.

6.6 Radon

The property is in a lower probability radon area, as less than 1% of homes are above the action level,

6.7 Subsidence

The Site has been identified as being at a very low risk of landslides, collapsible ground and running sand ground stability hazards.

No risks have been identified for shrinking or swelling clay subsidence hazards or compressible ground.



7 Risk Assessment

The following Conceptual Site Model (CSM) comprises an evaluation of the information detailed in the previous sections of this report. The evaluation is based on the findings from the scope of works described in Section 1.2.

7.1 Outline Conceptual Site Model

The potential for an environmental risk to be present is assessed qualitatively using the contaminant-pathway-receptor concept introduced by Part 2A of the Environmental Protection Act 1990. Within the existing legislative framework, a site is designated to be 'Contaminated Land' if a plausible contaminant linkage between Contaminant, Pathway and Receptor can be demonstrated. The following tabulated discussion is based on the evaluation of the available information.

Possible Contaminants

On Site None Identified. The Site has existed predominantly as two residential properties, and later a public house.

Off Site The River Tyne docklands, located from 25m north, has had an industrial heritage, with historical and current operations including an oil storage depot, various ship building yard, and unspecified factories and works.

As a result, contaminants including organics, heavy metals and in-organics could have resulted from historic and current operations surrounding the Site.

Possible Contaminant Pathways

Soil Low permeability soils in the underlying drift deposits should restrict the migration of sub-surface contaminants both vertically and laterally.

both vortically and laterally

Aquifer The geology underlying the site is classified as Till, which is classified by the EA as an Unproductive Aquifer. This will act as a low permeability barrier for the transport of contaminants into the deeper aquifer and mitigate lateral migration.

The bedrock geology underlying the Site is Coal Measures, classified as a Secondary Aquifer, which may contain water and allow the later and vertical migration of contaminants.

Surface The River Tyne is located approximately 100m north of the Site.

Waters

Possible Receptors

Controlled The underlying Superficial Aquifer is not considered to be an important water resource. The Site is not within a **Waters** groundwater source protection zone and no water abstractions were identified within 1km.

Although the superficial till geology is classified as Unproductive, the deeper bedrock geology is classified as a Secondary Aquifer which could support some water abstraction and be considered a potential receptor.

Human There is a proposal to redevelop the Site as a residential flat block, without landscaped areas. Health

Ground workers could come into contact with soils on the Site during redevelopment works. However ground workers should be wearing the correct personal protection equipment (PPE) whilst on Site.

Ecological Several designated eco-receptors were identified within a 100m radius of the Site, the closest of which is a Site of Special Scientific Interest located 398m north.



Third Residential properties are located adjacent to the east and west. **Parties**

Following the above analysis of potential sources, pathways and receptors, the following CSM is presented for the Site:

	Dermal Contact	Ingestion	Inhalation	Diffusion	Surface Runoff/Drainage	Vertical Migration	Lateral Migration	Plant Uptake	Building Contact
Site Users									
Site Buildings/Services									
Surface Waters									
Groundwater									
Eco receptors									
Third Parties									
Ground Workers									

Significant Pathway Present (none identified)



7.2 Qualitative Risk Assessment

Based on our evaluation of the CSM and all available information gathered during this study, Argyll's qualitative risk assessment focuses on below ground contamination issues and is presented as follows:

Contamination Potential	Risk Category
Potential for significant on-Site contamination The Site was predominantly in agricultural use from the late 1800s existing as open fields. The Site later formed part of private residential gardens. No potentially significant contaminative land uses have been identified on Site.	Low
Potential for off-Site contamination migrating onto the Site The surrounding area to the north of the Site has been in industrial use since at least the late 1800s. However, low permeability soils in the underlying drift deposits will restrict the migration of sub-surface contaminants. Furthermore the development Site is 10m above the historical areas of contamination. In addition, groundwater in the area is anticipated to flow north, away from the Site.	Low to Moderate

Environmental Consequences	Risk Category
Pollution of Controlled Waters The Site is not currently discharging any trade effluent nor is there proposals for such. The Site has not been subject to any contaminative land uses and percolation of rainwater through soils is unlikely to mobilise any contaminants and migrate into the Secondary Aquifer.	Low
Damage to Property Aggressive ground conditions are not expected to be present given the historic and current operations at the Site.	Low
Harm to Human Health Ground workers could come into contact with soils on the Site during redevelopment works. However ground workers should be wearing the correct personal protection equipment (PPE) whilst on Site. No significant contaminant risk is anticipated provided standard construction practices are followed.	Low to Moderate

Financial Consequences	Risk Category
Likelihood of statutory designation as Contaminated Land under Part 2A of the EPA 1990 No significant plausible contaminant linkage has been identified in light of the proposed development for residential use. As such, we do not consider that any further investigations will be required.	Low
Risk of diminution in Value and/or future Site Saleability being affected	
The assessment has not identified any material issues that could impact the Site value and/or saleability.	Low



Risk of Site being deemed unacceptable for banking/lending security This assessment has not identified any material issues which could affect lending security.	Low
Likelihood of further investigations being required by the statutory authorities No significant plausible contaminant linkage has been identified in light of the proposed development for residential use. As such, we do not consider that any further investigations will be required.	Low to Moderate
Risk of Liability for Owner This assessment has not identified any material issues for the proposed Site owner.	Low

OVERALL RISK RATING

Low to Moderate

OVERALL LIABILITY ASSESSMENT

No further environmental investigation is recommended prior to commencing the planned redevelopment. However, those carrying out the groundworks for the development should be made aware that there is the potential for localised contamination to exist and they should carry out a 'watching brief' during such groundworks.

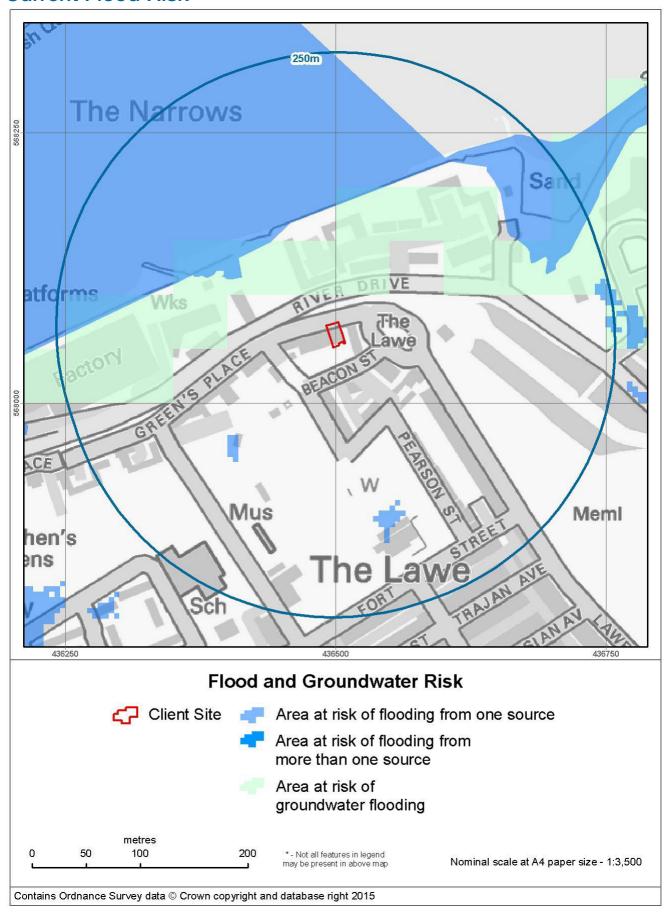
The local planning authority should be informed immediately that any suspected contamination is encountered and all works should cease in that area. The suspected contamination should be investigated by a qualified environmental engineer, remediated as necessary and works only recommenced once the local planning authority have given their consent.

All ground workers should wear appropriate personal protection equipment and follow appropriate safety procedures for working within low-risk areas of potentially contaminated land.



Appendix 1 - Data Section

Current Flood Risk



Flood Risk Management Options

Flooding can usually be managed by the installation of flood protection measures either on/within the building(s) or across the Site. Flood protection measures can be divided into two categories; flood resistance and flood resilience.

Both flood resistance and flood resilience solutions can be integrated with design proposals for new build properties or retro-fitted to existing properties. Specific flood protection packages can often include both resistance and resilience measures. What is suitable will depend on a number of factors including flood source, likely flood depths, property design and age.

Research conducted by CLG Sustainable Buildings Division and The Environment Agency revealed that installing flood resistance measures may be inappropriate where likely flooding will be deep. Certain types of building construction are unable to resist the pressure load placed on the exterior skin of the building by retained flood waters. Generally a flood depth between 0.6m and 1.0m above ground level is used as a benchmark to decide whether to consider flood resilience measures rather than rely on flood resistance measures. This is dependent on the age and construction of the property.

Guideline Costs for Resistance Measure

Building Feature	Cost Estimate for Baffles (+ VAT)
Standard (900mm) single door	£750
Standard (1800mm) double entrance door	£950
Large roller shutter door (up to 2,745mm span)	£1,420 (inc channel)
Standard garage door	£1,400 - £1,575
Standard window (up to 1,240mm span)	£750
Large window (1,240mm to 2,150mm span)	£550 - £700
Single air brick	£60 / £90
Double air brick	£80 - £230
Building Feature	Cost Estimate for Tanking (+ VAT)
Tanking (of basement, walls or floors)	£25 - £50 per metre ²
System Component	Cost Estimate for Plumbing (+ VAT)
Simple non-return valve	£35 / £170
Sophisticated non-return valve	£670 / £900

The costs above are for indicative budget purposes only. They are based on installing components of a standard design and colour. If the Site requires bespoke products, these are likely to cost more (for example, if the Site is in a conservation area, different colours may be required).

If you require a property specific assessment of which measures are suitable, and a more accurate cost appraisal, Argyll will need to complete a FLOODSOLUTIONS Consult Report. This report normally costs from £500 to £1,000 (plus VAT) and provides more detailed information on the likelihood and, in particular, the depth of all potential types of flooding. Argyll can also arrange for one of a panel of specialist contractors to provide a tailored estimate for flood protection measures.



Environmental Hazards

	Risk	Recommendation
**	Mining Instability	As the Site lies in an area subject to mining instability, you may wish to consult a local RICS accredited surveyor and/or review any available geotechnical surveys. Further information may be available from the minerals and waste officer at the County Council and the local Building Controls Officer. British Geological Survey GeoHazard reports (www.bgs.ac.uk/georeports) may also provide more detailed information.
⊗ /	Coal Mining	As the Site lies within a Coal Mining area, it is recommended that a Commercial Coal Mining Report is obtained from the Coal Authority.
	Telecommunication Base Stations	No telecommunication base stations are located within 100m of the Site.
	COMAH	No Control of Major Accident Hazards (COMAH) sites are located within 500m.

Argyll's Comment



This report is primarily a desktop assessment of potential soil and groundwater liabilities. We also comment whether the above Environmental Hazards are relevant. Contact details are provided at the end of this report.



Contents of the Data Section

Section	Description
Tabular Summary	This section presents a tabular summary of information found for the Site and surrounding area. The data is presented in three buffer zones for ease of reference: data found at the Site, from 1-250m and from 251-500m.
	If a database has been searched the number of records found will be displayed under the relevant search band. If a database is not available or has not been searched, this will be represented by the abbreviation N/A under the relevant search band.
Current Land Use Mapping	This section provides information on current land uses and is divided into three sections, statutory information, waste and current industrial uses. It is preceded by two maps.
Statutory Information	This section presents detailed statutory information for the Site and surrounding area (up to 500m depending upon dataset). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.
	If no data is identified then the section will be omitted.
Waste	This section presents detailed information on waste and landfill sites for the Site and surrounding area (up to 500m depending upon dataset). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.
	If no data is identified then the section will be omitted.
Current Industrial Land Use	This section presents detailed information on current land use for the Site and surrounding area (0-250m). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.
	If no data is identified then the section will be omitted.
Historical Land Use Mapping	The Historical Land Use Map presents 1:10,000 scale and selected 1:2,500 scale (tanks and energy facilities) historical land use information within 250m of the Site boundary.
Historical Land Use	This section presents selected information on historical land use for the Site and surrounding area (0-250m). The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.
	If no data is identified then the section will be omitted.
Aquifer Designations and Geology	This section is preceded by two maps that present information relating to the aquifer designations beneath the Site. The first of these maps indicates the designation of the Superficial geology. The second map presents the aquifer designation of the solid geology.
	These maps are followed by detailed information in relation to aquifer designations/groundwater vulnerability and geology at the Site and surrounding area (0-500m).
	If no data is identified then the section will be omitted.
Environmental Sensitivity	This section presents detailed information on the environmental sensitivity of the Site and surrounding area (up to 500m depending upon dataset) and is preceded by two maps. The first shows areas with statutory designations, the second shows source protection zones. The Map ID of each feature is indicated (where applicable) followed by specific information on each feature and its distance and direction from the Site.
	If no data is identified then the section will be omitted.
Natural and Mining Related Hazards	This section contains information on natural and mining related hazards which may affect the Site. These include subsidence, radon and mining.
Flooding	This section contains information on the risks associated with flooding. It includes maps and data associated with Flooding from Rivers or Sea, The Environment Agency Risk of Flooding from Rivers and Sea, Groundwater Flooding, Surface Water Flooding, Historical Flooding and other information such as the Detailed River Network.

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Tabular Summary

Statutory Information

Authorisations	On-site	1-250m	251-500m
Local Authority Pollution Prevention and Controls	0	0	0
Local Authority Integrated Pollution Prevention and Controls	0	0	0
Integrated Pollution Controls	0	0	1
Integrated Pollution Prevention And Control	0	0	0
Registered Radioactive Substances	0	0	0
Discharges	On-site	1-250m	251-500m
Discharge Consents	0	18	15
Water Industry Act Referrals	0	0	0
Hazardous Sites	On-site	1-250m	251-500m
Control of Major Accident Hazards Sites	0	0	0
Explosive Sites	0	0	0
Notification of Installations Handling Hazardous Substances	0	0	0
Planning Hazardous Substance Consents	0	0	0
Contraventions	On-site	1-250m	251-500m
Contaminated Land Register Entries and Notices	0	0	0
Local Authority Pollution Prevention and Control Enforcements	0	0	0
Enforcement and Prohibition Notices	0	0	0
Planning Hazardous Substance Enforcements	0	0	0
Substantiated Pollution Incident Register	0	0	0
Prosecutions Relating to Authorised Processes	0	0	0
Prosecutions Relating to Controlled Waters	0	0	0

Waste

Waste/Landfill Sites	On-site	1-250m	251-500m
BGS Recorded Landfill Sites	0	0	0
Integrated Pollution Control Registered Waste Sites	0	0	0
Licenced Waste Management Facilities (Landfill Boundaries)	0	0	0
Licenced Waste Management Facilities (Locations)	0	0	3
Local Authority Recorded Landfill Sites	0	0	0 (0) *
Registered Landfill Sites	0	0	0 (1) *
Registered Waste Transfer Sites	0	0	3
Registered Waste Treatment or Disposal Sites	0	0	0
Historical Landfill Sites	0	0	0

Current Land Use

Current Potentially Contaminative Uses	On-site	1-250m	251-500m
Contemporary Trade Directory Entries	0	3	8
Fuel Station Entries	0	0	0
Other Features	On-site	1-250m	251-500m
Telecommunication Base Stations	0	O ²	N/A
Overhead Transmission Lines	0	0	0
Gas Pipelines	0	0	0
Gas Feeders	•	0	0

Historical Land Use

Historical Potentially Contaminative Uses	On-site	1-250m	251-500m
Historical Tanks And Energy Facilities	0	23	3
Potentially Infilled Land	On-site	1-250m	251-500m
Former Marshes	0	0	0
Potentially Infilled Land (Non-Water)	0	0	1
Potentially Infilled Land (Water)	0	0	0

 $^{^2\}mbox{Tele}\mbox{communication}$ base stations are searched to a radius of 100m from the Site boundary

Groundwater Vulnerability

Hydrogeology	On-site	1-250m	251-500m
Superficial Aquifer Designations	1	1	2
Bedrock Aquifer Designations	1	0	1
Groundwater Vulnerability	1	1	1
Geology	On-site	1-250m	251-500m
Low Permeability Drift Deposits	1	N/A	N/A
BGS 1:50,000 Bedrock Geology	1	0	2
BGS 1:50,000 Superficial Deposits	1	2	2
BGS 1:50,000 Geological Mapping Coverage	1	0	0
Detailed River Network Lines	0	1	0
Detailed River Network Offline Drainage	0	0	0
BGS 1:625,000 Solid Geology	1	N/A	N/A
BGS Borehole Logs	0	1	N/A

Environmental Sensitivity

Environmental Sensitivity	On-site	1-250m	251-500m
Areas of Outstanding Natural Beauty	0	0	0
Environmentally Sensitive Areas	0	0	0
Forest Parks	0	0	0
Local Nature Reserves	0	0	0 (0) *
Marine Nature Reserves	0	0	0 (0) *
National Nature Reserves	0	0	0 (0) *
National Parks	0	0	0
National Scenic Areas	0	0	0
Nitrate Sensitive Areas	0	N/A	N/A
Nitrate Vulnerable Zones	0	N/A	N/A
Ramsar Sites	0	0	0 (1) *
River Quality Biology Sampling Points	0	0	0
River Quality Chemistry Sampling Points	0	0	0
Nearest Surface Water Feature	0	1	0
Sites of Special Scientific Interest	0	0	1 (1) *
Special Areas of Conservation	0	0	0 (0) *
Special Protection Areas	0	0	0 (1) *
Water Abstractions	0	0	0 (0)*
Source Protection Zones	0	0	0

Natural and Mining Related Hazards

Subsidence	On-site	1-250m	251-500m
Collapsible Ground Stability Hazards	1	1 ³	N/A
Compressible Ground Stability Hazards	1	0	N/A
Ground Dissolution Stability Hazards	1	0	N/A
Landslide Ground Stability Hazards	1	1	N/A
Running Sand Ground Stability Hazards	1	1	N/A
Shrinking or Swelling Clay Subsidence Hazards	1	1	N/A
Non-Coal Mining Hazards	0	0	N/A
Radon	On-site	1-250m	251-500m
Radon Potential	1	N/A	N/A
Radon Protection Measures	1	N/A	N/A
Mining	On-site	1-250m	251-500m
Brine Compensation Areas	0	N/A	N/A
Coal Mining Affected Areas	1	N/A	N/A
Natural and Mining Cavities	0	0	0
Mining Instability	1	0	N/A
BGS Recorded Mineral Sites	0	0	0

 $^{^{\}rm 3}\text{Ground}$ stability hazards are only searched to a radius of 50m from the Site boundary.

Flooding

Current Flood Risk	On-site	1-250m	251-500m
Flooding From Rivers or Sea	0	1	0
Flooding From Rivers or Sea (in an Extreme Flood)	0	1	0
Areas Benefiting from Flood Defences	0	0	0
Flood Storage Areas	0	0	0
Flood Defences	0	0	0
Risk of Flooding from Rivers and Sea	0	3	1
Groundwater Flood Risk	0	2	0
Surface Water Flooding (1:75 year rainfall event)	0	2	0
Surface Water Flooding (1:200 year rainfall event)	0	3	0
Surface Water Flooding (1:1,000 year rainfall event)	0	3	0
Historical Flooding	On-site	1-250m	251-500m
Historical Flooding Historical Flood Events	On-site 0	1-250m 1	251-500m 0
	On-site 0 0	1-250m 1 1	251-500m 0 0
Historical Flood Events	0	1-250m 1 1 1-250m	0
Historical Flood Events Geological Indicators of Flooding	0 0	1	0
Historical Flood Events Geological Indicators of Flooding Other Flood Information	0 0	1	0
Historical Flood Events Geological Indicators of Flooding Other Flood Information Detailed River Network	0 0 On-site 0	1 1 1-250m 1	0 0 251-500m 0
Historical Flood Events Geological Indicators of Flooding Other Flood Information Detailed River Network Surface Water Features	0 0 On-site 0	1 1 1-250m 1 5	0 0 251-500m 0
Historical Flood Events Geological Indicators of Flooding Other Flood Information Detailed River Network Surface Water Features Dam or Reservoir Failure	0 0 On-site 0 0	1 1 1-250m 1 5	0 0 251-500m 0

Tabular Summary Explanation

Argyll has carefully selected a range of datasets which are considered appropriate for the intended use of this report. Each dataset is searched to a set radius from the Site boundary and the tabular summary is divided into different search bands accordingly. If a database is searched and information is found, then the number of records available are detailed in the table above. If the database was searched and no data was found, then a zero will be present. If a database was not searched then the abbreviation N/A will be found, indicating this information was not available at the radius searched.

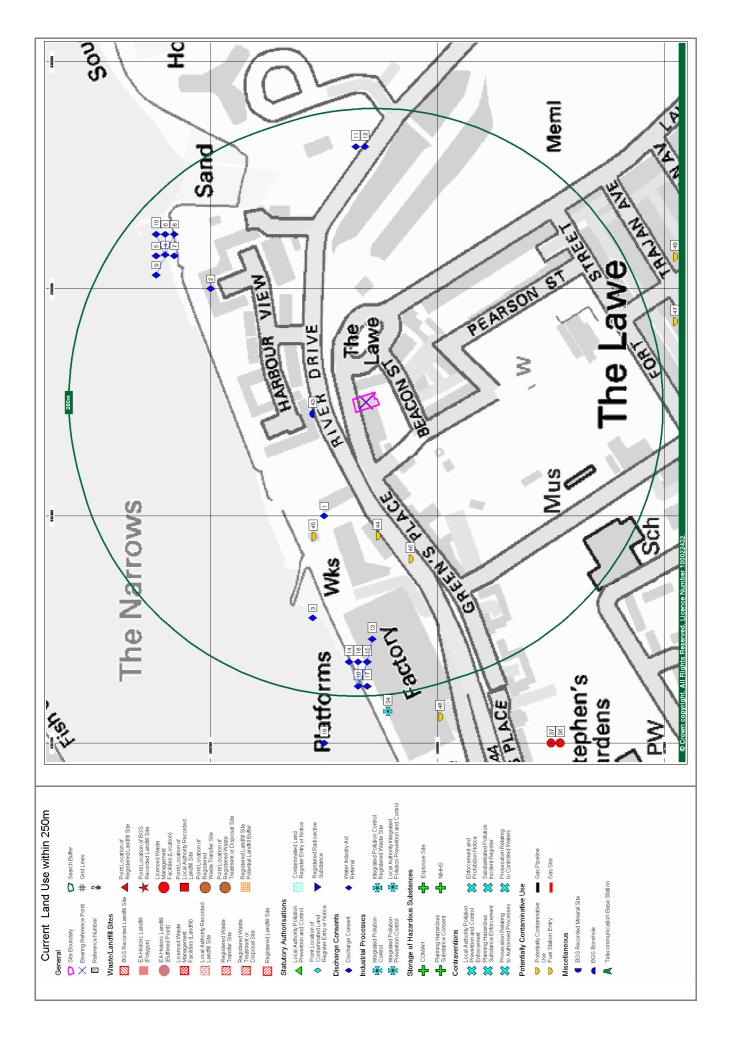
Landfill Site Information

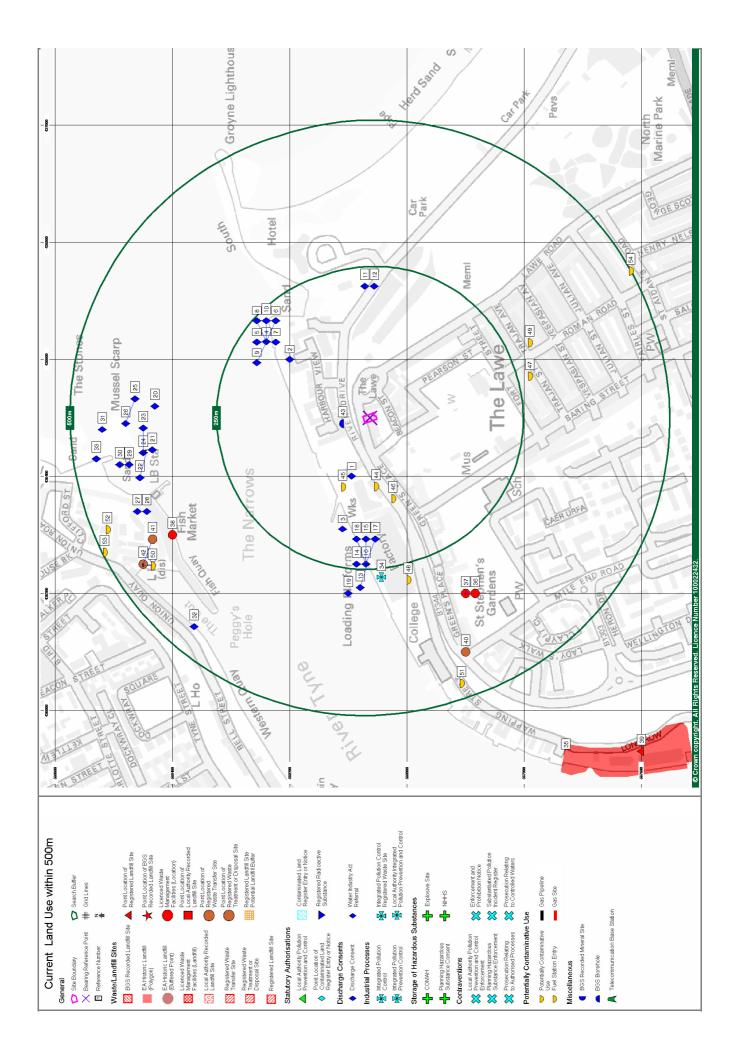
Registered landfill site boundaries (where available), are shown on the map as a red diagonal hatched polygon and referred to in the map legend as Registered Landfill Sites. At present no complete national dataset exists for landfill site boundaries, therefore a point grid reference provided by the data supplier is used for some landfill sites. The point grid references supplied provide only an approximate position, and can vary from the site entrance to the centre of the site. A point cannot properly define landfill boundaries therefore Landmark constructs a 250 metre or 100 metre "buffer" zone around the point to warn of the possible presence of landfill. The "buffer" zone is shown on the map as an orange crosshatched area and is referred to in the map legend as Potential Landfill Buffer.

Local Authority landfill data is sourced from individual local authorities that were able to provide information on sites operating prior to the introduction of the Control of Pollution Act (COPA) in 1974. Appropriate authorities are listed under Local Authority Landfill Coverage with an indication of whether or not they were able to make landfill data available. Details of any records identified are disclosed. You should be aware that if the local authority had landfill data but passed it to the relevant Environment Agency office, it does not necessarily mean that local authority landfill data is now included in our other Landfill datasets. In addition if no data has been made available for all or part of the search area, you should be aware that a negative response under 'Local Authority Recorded Landfill Sites' does not necessarily confirm that no local authority landfills exist.

Subsidence Hazards

Information on subsidence hazards is provided by the British Geological Survey (BGS). Information present within 250m of the Site is reported under Natural and Mining Related Hazards. Due to the level of detail of this data and the complexities of the real world, the BGS recommends a precautionary approach when using this information and advises taking the worst reading noted for each dataset within the vicinity of a property. Therefore, Argyll reports the presence of a ground stability or non-coal related mining hazard in the Risk Analysis section based on the highest reading found within 50m of the Site boundary.





Statutory Information

Integrated Pollution Controls

Map ID	Details	Distance	Direction
34	Name: Crompton Eternacell Ltd, Location: River Drive, SOUTH SHIELDS, Tyne And Wear, NE33 2TR, Authority: Environment Agency, North East Region, Permit Ref: AL0354, Dated: 11th November 1993, Process Type: Application since found to be exempt from IPC, Description: Not Given, Status: Application since found to be exempt from IPC, Positional Accuracy: Unknown.	265m	W

Discharges

Map ID	Details	Distance	Direction
1	Operator: Plant Services (Gateshead) Ltd, Property Type: Other Mach & Mech Equipment, Location: Plant Services (Gateshead) Ltd, South Shields, Tyne And Wear, Ne33 1lh, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/0224, Permit Version: 1, Effective Date: 2nd October 1985, Issued Date: 2nd October 1985, Revocation Date: 11th November 1992, Discharge Type: Trade Discharge - Process Water, Discharge Environment: Saline Estuary, Receiving Water: Tyne, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 10m.	96m	W
2	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Pumping Station - Water Company, Location: Littlehaven Ps, North Shields, Tyne And Wear, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/1129, Permit Version: 1, Effective Date: 1st July 1992, Issued Date: 1st July 1992, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Pumping Station - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: New Consent, by Application (Water Resources Act 1991, Section 88), Positional Accuracy: Located by supplier to within 100m.	159m	NE
3	Operator: Plant Services (Gateshead) Ltd, Property Type: Other Mach & Mech Equipment, Location: Plant Services (Gateshead) Ltd, South Shields, Tyne And Wear, Ne33 1lh, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/1151, Permit Version: 1, Effective Date: 11th November 1992, Issued Date: 11th November 1992, Revocation Date: Not Supplied, Discharge Type: Trade Discharge - Process Water, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: New Consent, by Application (Water Resources Act 1991, Section 88), Positional Accuracy: Located by supplier to within 10m.	186m	W
10	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Pumping Station - Water Company, Location: Pilot Street Pumping Station South Shields Watersports Centre, River Drive, South Shields, Tyne & Wear, Ne33 1lh, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/0076, Permit Version: 2, Effective Date: 1st April 2010, Issued Date: 31st March 2010, Revocation Date: 1st December 2010, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne, Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	209m	NE
4	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Pumping Station - Water Company, Location: Pilot Street Pumping Station South Shields Watersports Centre, River Drive, South Shields, Tyne & Wear, Ne33 1lh, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/0076, Permit Version: 1, Effective Date: 29th November 1989, Issued Date: 29th November 1989, Revocation Date: 31st March 2010, Discharge Type: Sewage Discharges - Pumping Station - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne, Status: Transferred from Water Act 1989, Positional Accuracy: Located by supplier to within 10m.	209m	NE

Map ID	Details	Distance	Direction
5	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Pumping Station - Water Company, Location: Pilot Street Pumping Station South Shields Watersports Centre, River Drive, South Shields, Tyne & Wear, Ne33 1lh, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/0076, Permit Version: 2, Effective Date: 1st April 2010, Issued Date: 31st March 2010, Revocation Date: 1st December 2010, Discharge Type: Sewage Discharges - Pumping Station - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne, Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	209m	NE
6	Operator: Redundant - Northumbrian Water Ltd, Property Type: Sewerage Network - Pumping Station - Water Company, Location: Pilot Street Pumping Station South Shields Watersports Centre, River Drive, South Shields, Tyne & Wear, Ne33 1lh, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/X/0076, Permit Version: 1, Effective Date: 24th April 1987, Issued Date: 28th April 1987, Revocation Date: 22nd May 1991, Discharge Type: Unspecified, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 10m.	209m	NE
7	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Pumping Station - Water Company, Location: Pilot Street Pumping Station South Shields Watersports Centre, River Drive, South Shields, Tyne & Wear, Ne33 1lh, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/0076, Permit Version: 3, Effective Date: 2nd December 2010, Issued Date: 31st March 2010, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne, Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	209m	NE
8	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Pumping Station - Water Company, Location: Pilot Street Pumping Station South Shields Watersports Centre, River Drive, South Shields, Tyne & Wear, Ne33 1lh, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/0076, Permit Version: 1, Effective Date: 29th November 1989, Issued Date: 29th November 1989, Revocation Date: 31st March 2010, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne, Status: Transferred from Water Act 1989, Positional Accuracy: Located by supplier to within 100m.	209m	NE
9	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Pumping Station - Water Company, Location: Pilot Street Pumping Station South Shields Watersports Centre, River Drive, South Shields, Tyne & Wear, Ne33 1lh, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/0076, Permit Version: 3, Effective Date: 2nd December 2010, Issued Date: 31st March 2010, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Pumping Station - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne, Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	209m	NE
11	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Pumping Station - Water Company, Location: Pilot Street Pumping Station South Shields Watersports Centre, River Drive, South Shields, Tyne & Wear, Ne33 1lh, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/0076, Permit Version: 3, Effective Date: 2nd December 2010, Issued Date: 31st March 2010, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Pumping Station - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne, Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	217m	E

Map ID	Details	Distance	Direction
12	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Pumping Station - Water Company, Location: Pilot Street Pumping Station South Shields Watersports Centre, River Drive, South Shields, Tyne & Wear, Ne33 1lh, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/0076, Permit Version: 2, Effective Date: 1st April 2010, Issued Date: 31st March 2010, Revocation Date: 1st December 2010, Discharge Type: Sewage Discharges - Pumping Station - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne, Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	217m	E
13	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Sewers - Water Company, Location: Wapping Street Cso, Souyh Shields, South Tyneside, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/1902, Permit Version: 2, Effective Date: 1st April 2010, Issued Date: 1st April 2010, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Saline Estuary, Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	241m	W
14	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Sewers - Others, Location: River Drive Sewer, South Shields, Tyne And Wear, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/1165, Permit Version: 1, Effective Date: 29th October 1992, Issued Date: 29th October 1992, Revocation Date: 19th July 1993, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 10m.	242m	W
15	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Sewers - Water Company, Location: Wapping Street Cso, Souyh Shields, South Tyneside, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/1902, Permit Version: 1, Effective Date: 24th January 2005, Issued Date: 24th January 2005, Revocation Date: 31st March 2010, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Saline Estuary, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	242m	W
16	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Sewers - Others, Location: River Drive Sewer, South Shields, Tyne And Wear, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/1409, Permit Version: 1, Effective Date: 19th July 1993, Issued Date: 19th July 1993, Revocation Date: 9th March 1999, Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 100m.	242m	W
17	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Sewers - Water Company, Location: Wapping Street Cso, Souyh Shields, South Tyneside, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/1641, Permit Version: 1, Effective Date: 7th August 1998, Issued Date: 7th August 1998, Revocation Date: 24th January 2005, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Saline Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 10m.	242m	W
18	Operator: Redundant - Northumbrian Water Ltd, Property Type: Sewerage Network - Sewers - Others, Location: River Drive Sewer, South Shields, Tyne And Wear, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/X/0077, Permit Version: 1, Effective Date: 28th April 1987, Issued Date: 28th April 1987, Revocation Date: 29th October 1992, Discharge Type: Unspecified, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 10m.	242m	W

Map ID	Details	Distance	Direction
19	Operator: Plant Services (Gateshead) Ltd, Property Type: Trade (Unknown/Other), Location: Crompton Eternacell Limited, South Shields, Tyne And Wear, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/1061, Permit Version: 1, Effective Date: 10th May 1991, Issued Date: 10th May 1991, Revocation Date: 15th February 1994, Discharge Type: Trade Discharge - Process Water, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 10m.	293m	W
20	Operator: Redundant - Northumbrian Water Ltd, Property Type: Trade (Unknown/Other), Location: Lloyds Hailing Station Outfall 14, North Shields, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/X/0279, Permit Version: 1, Effective Date: 16th July 1987, Issued Date: 16th July 1987, Revocation Date: 1st July 1995, Discharge Type: Unspecified, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 100m.	356m	N
21	Operator: Northumbrian Water Ltd, Property Type: Undefined Or Other, Location: Fish Quay Cso, NORTH SHIELDS, Authority: Environment Agency, North East Region, Catchment Area: Not Given, Permit Ref: 235/1573, Permit Version: Not Supplied, Effective Date: Not Supplied, Issued Date: Not Supplied, Revocation Date: Not Supplied, Discharge Type: Storm sewage overflow discharge, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Not Supplied, Positional Accuracy: Located by supplier to within 100m.	375m	N
22	Operator: Northumbrian Water Ltd, Property Type: Undefined Or Other, Location: Fish Quay Cso, NORTH SHIELDS, Authority: Environment Agency, North East Region, Catchment Area: Not Given, Permit Ref: 235/1573, Permit Version: Not Supplied, Effective Date: Not Supplied, Issued Date: Not Supplied, Revocation Date: Not Supplied, Discharge Type: Unknown, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Not Supplied, Positional Accuracy: Located by supplier to within 100m.	376m	N
23	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Sewers - Water Company, Location: Fish Quay Cso, North Shields, Tyne & Wear, Authority: Environment Agency, North East Region, Catchment Area: Not Given, Permit Ref: 235/1573, Permit Version: 1, Effective Date: 26th January 1996, Issued Date: 26th January 1996, Revocation Date: 25th January 2005, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 10m.	381m	N
24	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Sewers - Water Company, Location: Fish Quay Cso, North Shields, Tyne & Wear, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/1914, Permit Version: 1, Effective Date: 25th January 2005, Issued Date: 25th January 2005, Revocation Date: 5th July 2010, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	381m	N
25	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Pumping Station - Water Company, Location: North Groyne Pumping Station, North Shields, Tyne & Wear, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/1481, Permit Version: 1, Effective Date: 5th September 1994, Issued Date: 5th September 1994, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Pumping Station - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: New Consent, by Application (Water Resources Act 1991, Section 88), Positional Accuracy: Located by supplier to within 10m.	406m	N

Map ID	Details	Distance	Direction
26	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Pumping Station - Water Company, Location: North Groyne Pumping Station, North Shields, Tyne & Wear, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/1481, Permit Version: 1, Effective Date: 5th September 1994, Issued Date: 5th September 1994, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: New Consent, by Application (Water Resources Act 1991, Section 88), Positional Accuracy: Located by supplier to within 10m.	406m	N
27	Operator: Redundant - Northumbrian Water Ltd, Property Type: Trade (Unknown/Other), Location: Charlotte Street/Beacon Street - A2, North Shields, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/X/0037, Permit Version: 1, Effective Date: 11th February 1987, Issued Date: 11th February 1987, Revocation Date: 1st July 1996, Discharge Type: Unspecified, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 100m.	417m	N
28	Operator: Redundant - Northumbrian Water Ltd, Property Type: Trade (Unknown/Other), Location: Charlotte Street/Beacon Street - A2, North Shields, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/X/0038, Permit Version: 1, Effective Date: 11th February 1987, Issued Date: 11th February 1987, Revocation Date: 1st July 1996, Discharge Type: Unspecified, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 10m.	417m	N
29	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Sewers - Water Company, Location: Swaddles Hole Cso, North Shields, Tyne And Wear, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/1915, Permit Version: 2, Effective Date: 20th August 2010, Issued Date: 20th August 2010, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: River Tyne Estuary, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	424m	N
30	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Sewers - Water Company, Location: Fish Quay Cso, North Shields, Tyne & Wear, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: 235/1914, Permit Version: 2, Effective Date: 5th July 2010, Issued Date: 5th July 2010, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995), Positional Accuracy: Located by supplier to within 10m.	424m	N
31	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Sewers - Water Company, Location: Fish Quay Storm Sewage Overflow, North Shields, Tyne And Wear, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/1479, Permit Version: 1, Effective Date: 5th September 1994, Issued Date: 5th September 1994, Revocation Date: 26th January 1996, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 100m.	446m	N

Map ID	Details	Distance	Direction
32	Operator: Northumbrian Water Limited, Property Type: Sewerage Network - Sewers - Water Company, Location: Union Quay Cso, Tynemouth Cso 8, Opposite 4 Union Quay, North Shields, Tyne And Weat, Ne30 1hj, Authority: Environment Agency, North East Region, Catchment Area: Not Supplied, Permit Ref: Eprbb3497ez, Permit Version: 1, Effective Date: 16th September 2014, Issued Date: 16th September 2014, Revocation Date: Not Supplied, Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company, Discharge Environment: Saline Estuary, Receiving Water: River Tyne (Tidal), Status: New issued under EPR 2010, Positional Accuracy: Located by supplier to within 10m.	454m	NW
33	Operator: Redundant - Northumbrian Water Ltd, Property Type: Trade (Unknown/Other), Location: Cliffords Fort/Life Boat House Outf, North Shields, Authority: Environment Agency, North East Region, Catchment Area: Tyne (Lower)/Team/Don, Permit Ref: 235/X/0282, Permit Version: 1, Effective Date: 16th July 1987, Issued Date: 16th July 1987, Revocation Date: 1st July 1996, Discharge Type: Unspecified, Discharge Environment: Saline Estuary, Receiving Water: Tyne Estuary, Status: Authorisation revoked, Positional Accuracy: Located by supplier to within 100m.	461m	N

Waste

Waste/Landfill Sites

Local Authority Landfill Coverage

South Tyneside Metropolitan Borough Council - Has no landfill data to supply North Tyneside Metropolitan District Council - Has supplied landfill data

Licenced Waste Management Facilities (Locations)

Map ID	Details	Distance	Direction
36	Licence Number: 0, Location: River Drive, South Shields, Tyne & Wear, NE33 1LH, Operator: Velva Liquids (North Shields) Ltd, Operator Location: River Drive, South Shields, Tyne & Wear, NE3 1LH, Authority: Environment Agency - North East Region, Northumbria Area, Site Category: Special Waste Transfer Stations, Licence Status: Surrendered, Issued Date: 21st July 1977, Last Modified: Not Supplied, Expiry Date: Not Supplied, Suspended Date: Not Supplied, Revoked Date: Not Supplied, Surrendered Date: 31st March 1994, IPPC Reference: Not Supplied, Positional Accuracy: Located by supplier to within 100m.	335m	SW
37	Licence Number: 64441, Location: River Drive, South Shields, Tyne & Wear, NE33 1LH, Operator: Velva Liquids (North Shields) Ltd, Operator Location: Not Supplied, Authority: Environment Agency - North East Region, North East Area, Site Category: Special Waste Transfer Stations, Licence Status: Surrendered, Issued Date: 21st July 1977, Last Modified: Not Supplied, Expiry Date: Not Supplied, Suspended Date: Not Supplied, Revoked Date: Not Supplied, Surrendered Date: 31st March 1994, IPPC Reference: Not Supplied, Positional Accuracy: Located by supplier to within 100m.	335m	SW
38	Licence Number: 67550, Location: Fish Quay, Clifford Fort Moat, North Shields, Tyne & Wear, NE30 1JE, Operator: North Tyneside Council - Head Of Environment, Operator Location: Not Supplied, Authority: Environment Agency - North East Region, North East Area, Site Category: Household, Commercial And Industrial Transfer Stations, Licence Status: Surrendered, Issued Date: 25th March 1993, Last Modified: Not Supplied, Expiry Date: Not Supplied, Suspended Date: Not Supplied, Revoked Date: Not Supplied, Surrendered Date: 26th January 2009, IPPC Reference: Not Supplied, Positional Accuracy: Located by supplier to within 100m.	380m	NW

Registered Landfill Sites

Map ID	Details	Distance	Direction
39	Licence Holder: Mowlem Northern Ltd, Licence Reference: TW 151 ST, Site Location:	726m	SW
	Brigham & Cowan Dry Dock Yard, South Shields, Tyne And Wear, Easting: 435930,		
	Northing: 567600, Operator Location: Saltmeadows Road, Easr Gateshead Industrial		
	Estate, GATESHEAD, Tyne and Wear, NE8 3AH, Authority: Environment Agency - North		
	East Region, Northumbria Area, Site Category: Landfill, Maximum Input Rate: Very		
	Large (Equal to or greater than 250,000 tonnes per year), Waste Source Restrictions:		
	No known restriction on source of waste, Dated: 21st October 1986, Preceded By		
	Licence: Not Given, Superseded By Licence: Not Given, Positional Accuracy: Manually		
	positioned to the address or location, Boundary Accuracy: Not Applicable, Authorised		
	Waste: 1. tyne and wear, renfrew c -rubble *, 2. tyne and wear, renfrew di -coh.inorg *,		
	3. tyne and wear,renfrew dii -coh.inorg *, 4. tyne and wear,renfrew e -frict.inorg *,		
	Prohibited Waste: 1. Waste N.O.S.		

Registered Waste Transfer Sites

Map ID	Details	Distance	Direction
40	Licence Holder: Velva Liquids Ltd, Licence Reference: TW 28 ST, Site Location: River Drive, SOUTH SHIELDS, Tyne and Wear, NE33 1LH, Operator Location: As Site Address, Authority: Environment Agency - North East Region, Northumbria Area, Site Category: Transfer, Maximum Input Rate: Undefined, Waste Source Restrictions: No known restriction on source of waste, Dated: 21st June 1977, Preceded By Licence: Not Given, Superseded By Licence: Not Given, Positional Accuracy: Manually positioned to the road within the address or location, Boundary Accuracy: Not Supplied, Authorised Waste: 1. liquid wastes, Prohibited Waste: N/A.	426m	W
41	Licence Holder: North Tyneside M.B.C., Licence Reference: TW9 29 NT, Site Location: Fish Quay, North Shields, Tyne And Wear, Operator Location: Kent Avenue, Willington Quay, WALLSEND, Tyne and Wear, NE28 0EE, Authority: Environment Agency - North East Region, Northumbria Area, Site Category: Transfer, Maximum Input Rate: Undefined, Waste Source Restrictions: Some restriction on source of waste, Dated: 1st July 1990, Preceded By Licence: Not Given, Superseded By Licence: TW 357 NT, Positional Accuracy: Manually positioned to the road within the address or location, Boundary Accuracy: Not Supplied, Authorised Waste: 1. licenced wastes not to hand, 2. market/fish quay wastes, Prohibited Waste: N/A.	449m	NW
42	Licence Holder: North Tyneside Council, Licence Reference: TW 357 NT, Site Location: Fish Quay Ship Compound, Clifford Ford Moat, North Shields, Tyne And Wear, Operator Location: Graham House, Whitley Road, BENTON, Tyne and Wear, NE12 9TQ, Authority: Environment Agency - North East Region, Northumbria Area, Site Category: Transfer, Maximum Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year), Waste Source Restrictions: No known restriction on source of waste, Dated: 25th March 1993, Preceded By Licence: TW9 29 NT, Superseded By Licence: Not Given, Positional Accuracy: Manually positioned to the road within the address or location, Boundary Accuracy: Not Supplied, Authorised Waste: 1. normal house, com + ind.waste, 2. road sweepings, Prohibited Waste: 1. Clinical Wastes, 2. Spec.Waste (Epa'90:S62/1996 Regs), 3. Waste N.O.S	449m	NW

Historical Landfill Sites

Map ID	Details	Distance	Direction
35	Licence Holder: Mowlem Northern Limited, Location: Wapping Street, The Lawe, South	643m	SW
	Shield, Tyne and Wear, Name: Brigham and Cowans, Operator Location: Not Supplied,		
	Boundary Accuracy: As Supplied, Provider Reference: EAHLD06263, First Input Date:		
	21st October 1986, Last Input Date: 1st December 1986, Specified Waste Type:		
	Deposited Waste included Inert Waste, EA Waste Ref: 0, Regis Ref: YO1/L/MOW001,		
	WRC Ref: 4500/0082, BGS Ref: Not Supplied, Other Ref: TW 151 ST, ST 047		

Current Land Use

Current Potentially Contaminative Uses

Contemporary Trade Directory Entries

Map ID	Details	Distance	Direction
44	Furniture Manufacturers - Home & Office, Name: Plant Services (Gh) Ltd, Status: Active, Location: River Drive, South Shields, Tyne and Wear, NE33 1LH, Positional Accuracy: Automatically positioned to the address.	111m	W
45	Boatbuilders & Repairers, Name: Tyne Slipway & Engineering Co Ltd, Status: Inactive, Location: River Drive, South Shields, Tyne and Wear, NE33 1LH, Positional Accuracy: Automatically positioned to the address.	116m	W
46	Battery Manufacturers & Supplies, Name: Saft, Status: Inactive, Location: River Dr, South Shields, Tyne & Wear, NE33 2TR, Positional Accuracy: Manually positioned to the road within the address or location.	138m	W
47	Glass Fibre Manufacturers, Name: Able Handyman And Decorating Services, Status: Active, Location: 25, Trajan Street, South Shields, Tyne and Wear, NE33 2AW, Positional Accuracy: Automatically positioned to the address.	271m	S
48	Battery Manufacturers & Supplies, Name: Saft Ltd, Status: Active, Location: River Dr, South Shields, Tyne And Wear, NE33 2TR, Positional Accuracy: Manually positioned within the geographical locality.	279m	W
49	Carpet, Curtain & Upholstery Cleaners, Name: Four Seasons, Status: Inactive, Location: 36, Trajan Avenue, South Shields, Tyne and Wear, NE33 2AN, Positional Accuracy: Automatically positioned to the address.	291m	SE
50	Ports, Docks & Harbours, Name: North Shields Fish Quay Co Ltd, Status: Inactive, Location: Market Office, Fish Quay, North Shields, Tyne & Wear, NE30 1HZ, Positional Accuracy: Manually positioned within the geographical locality.	451m	NW
51	Marine Engineers, Name: Northeast Engineering & Supply Co Ltd, Status: Inactive, Location: Wapping St, South Shields, Tyne & Wear, NE33 1LQ, Positional Accuracy: Manually positioned to the road within the address or location.	475m	W
52	Marine Electrical Services, Name: Succorfish, Status: Inactive, Location: The Barracks Building, 10 Cliffords Fort, North Shields, Tyne And Wear, NE30 1JE, Positional Accuracy: Manually positioned within the geographical locality.	476m	NW
53	Printers, Name: Digital Art Works Ltd, Status: Inactive, Location: Suite 3, Vita House, Fish Quay, North Shields, Tyne and Wear, NE30 1JA, Positional Accuracy: Manually positioned to the address or location.	495m	NW
54	Laundries & Launderettes, Name: Launderette Services, Status: Active, Location: 9, St. Aidans Road, South Shields, Tyne and Wear, NE33 2EY, Positional Accuracy: Automatically positioned to the address.	500m	SE

Historical Land Use

Historical Potentially Contaminative Uses

Historical Tanks and Energy Facilities

Map ID	Details	Distance	Direction
мар ір		65m	N
	Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1972.	84m	NE
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1956.		NE NE
	Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1955 - 1972.	85m	
	Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1955 - 1972.	93m	NE NE
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1956 - 1968.	94m	NE NE
	Oil Industry Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1972.	97m	NE NE
	Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1972.	100m	NE NE
	Oil Industry Facilities, Scale of Mapping: 1:2,500, Date of Mapping: 1968.	100m	NE NE
	Oil Industry Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1955.	102m	NE =
	Oil Industry Facilities, Scale of Mapping: 1:2,500, Date of Mapping: 1956.	102m	NE
	Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1967.	120m	W
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1968.	121m	W
	Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1955 - 1972.	132m	NE
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1956 - 1968.	133m	NE
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1956 - 1968.	133m	NE
	Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1955 - 1972.	133m	NE
	Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1955 - 1972.	141m	NE
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1956 - 1968.	141m	NE
	Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1955 - 1972.	149m	NE
	Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1956 - 1968.	150m	NE
	Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1972.	168m	NE
	Electrical Sub Station Facilities, Scale of Mapping: 1:2,500, Date of Mapping: 1956.	207m	S
	Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1956 -	207m	S
	1987.		
	Potential Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1956.	493m	SW
	Potential Tanks, Scale of Mapping: 1:1,250, Date of Mapping: 1956 - 1987.	493m	SW
	Electrical Sub Station Facilities, Scale of Mapping: 1:1,250, Date of Mapping: 1974 - 1987.	497m	SW

Potentially Contaminative Industrial Uses (Past Land Use)

Map ID	Details	Distance	Direction
	Transport manufacturing and repair, Date of Mapping: 1862-1938.	27m	N
	Oil, petroleum & gas refining & storage, Date of Mapping: 1899-1938.	31m	Ν
	Chemical manufacturing general, Date of Mapping: 1952.		Ν
	Hospitals, Date of Mapping: 1899.	66m	W
	Factory or works - use not specified, Date of Mapping: 1993.	94m	W
	Coal storage and depot, Date of Mapping: 1899.	114m	Ν
	Coal storage and depot, Date of Mapping: 1952.	116m	Ν
	Mining & quarrying general, Date of Mapping: 1898-1952.	146m	NE
	Machinery: engines, building and general industrial [manufacture], Date of Mapping: 1952.	153m	W
	Coal storage and depot, Date of Mapping: 1899-1952.	155m	NE
	Mineral railway, Date of Mapping: 1898-1952.	160m	NE
	Coal storage and depot, Date of Mapping: 1899.	164m	Ν
	Mineral railway, Date of Mapping: 1862.	187m	S
	Mineral railway, Date of Mapping: 1898-1952.	196m	E
	Heap, unknown constituents, Date of Mapping: 1862.	203m	SE
	Coal storage and depot, Date of Mapping: 1899.	219m	NE
	Mineral railway, Date of Mapping: 1862.	224m	S
	Cemetery or Graveyard, Date of Mapping: 1862.	231m	SW
	Railways, Date of Mapping: 1952.	259m	W
	Transport support & cargo handling, Date of Mapping: 1865-1993.	345m	Ν
	Heavy product manufacture - rolling and drawing of iron, steel and ferroalloys, Date of Mapping: 1921.	357m	W

Potentially Contaminative Industrial Uses (Past Land Use)

Map ID	Details	Distance	Direction
	Transport support & cargo handling, Date of Mapping: 1899.	376m	W
	Natural and man-made textile manufacture and products, Date of Mapping: 1862.	433m	SW
	Transport support & cargo handling, Date of Mapping: 1862.	449m	W
	Road haulage, Date of Mapping: 1993.	450m	SW
	Coal storage and depot, Date of Mapping: 1899-1952.	467m	W
	Clay bricks & tiles [manufacture], Date of Mapping: 1921-1938.	495m	SW
	Transport support & cargo handling, Date of Mapping: 1865.	497m	NW

Potentially Infilled Land

Potentially Infilled Land (Non-Water)

Map ID	Details	Distance	Direction
	Unknown Filled Ground (Pit, quarry etc), Date of Mapping: 1993.	495m	SW

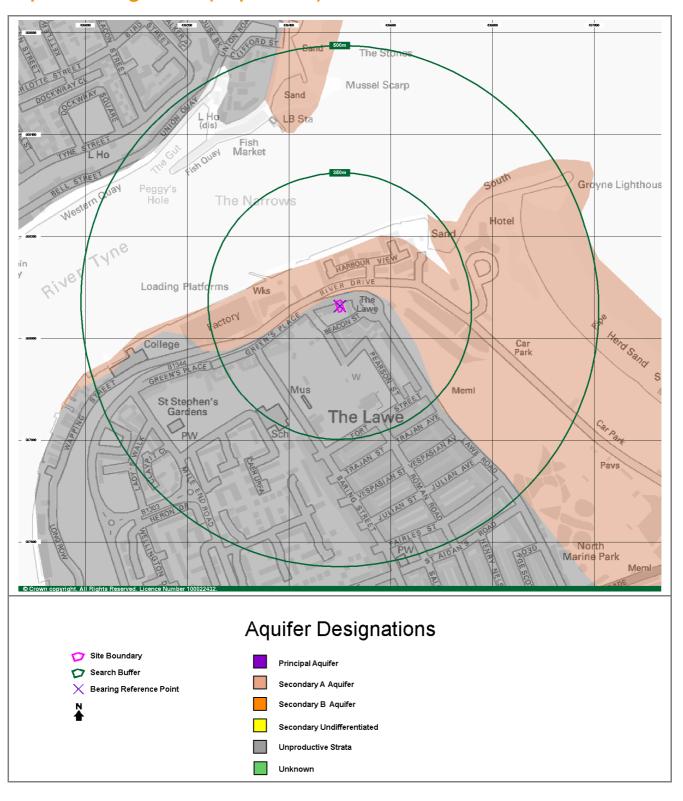
Historical Maps

The following maps have been manually reviewed by a consultant and presented in the Risk Analysis section at the front of this report:

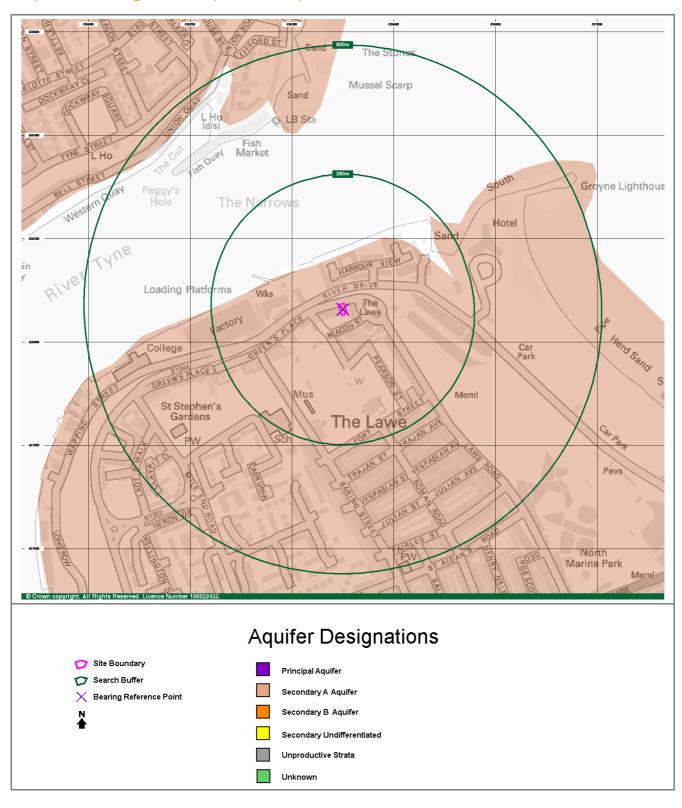
Scale	Map Sheet	Published Date
1:2,500	Northumberland 089_12	1861
1:2,500	Northumberland 089_16	1861
1:2,500	Durham 004_01	1881
1:2,500	Durham 004_01	1898
1:2,500	Northumberland 089_12	1898
1:2,500	Durham 004_01	1915
1:2,500	Durham 004_01	1941
1:2,500	National Grid NZ3667	1956
1:2,500	National Grid NZ3668	1956
1:2,500	National Grid NZ3668	1968
1:2,500	National Grid NZ3668	1968
1:10,560	Durham 003_00	1862
1:10,560	Durham 004_00	1862
1:10,560	Northumberland 089_00	1865
1:10,560	Northumberland 090_00	1865
1:10,560	Durham 003_NE	1898
1:10,560	Durham 004_NW	1898
1:10,560	Northumberland 089_SE	1899
1:10,560	Northumberland 090_SW	1899
1:10,560	Durham 003_NE	1921
1:10,560	Durham 004_NW	1921
1:10,560	Durham 003_NE	1938
1:10,560	Durham 004_NW	1938
1:10,560	Northumberland 095_NE	1938
1:10,560	Northumberland 096_NW	1938
1:10,560	National Grid NZ36NE	1952
1:10,560	National Grid NZ36NE	1967
1:10,000	National Grid NZ36NE	1976
1:10,000	National Grid NZ36NE	1986
1:10,000	National Grid NZ36NE	1993
1:10,000	National Grid NZ36NE	2014
1:1,250	National Grid NZ3668SE	1955
1:1,250	National Grid NZ3668SW	1955
1:1,250	National Grid NZ3667NE	1956
1:1,250	National Grid NZ3667NW	1956

Scale	Map Sheet	Published Date
1:1,250	National Grid NZ3668SW	1967
1:1,250	National Grid NZ3668SE	1972
1:1,250	National Grid NZ3667NE	1974
1:1,250	National Grid NZ3667NW	1974
1:1,250	National Grid NZ3667NW	1987
1:1,250	National Grid NZ3667NE	1973
1:1,250	National Grid NZ3668SW	1974
1:1,250	National Grid NZ3668SW	1974
1:1,250	National Grid NZ3667NE	1993
1:1,250	National Grid NZ3667NW	1993
1:1,250	National Grid NZ3668SE	1993
1:1,250	National Grid NZ3668SW	1993
1:1,250	National Grid NZ3667NE	1994
1:1,250	National Grid NZ3667NW	1994
1:1,250	National Grid NZ3667NW	1979
1:1,250	National Grid NZ3668SW	1989

Aquifer Designation (Superficial)



Aquifer Designation (Bedrock)



Groundwater Vulnerability

Hydrogeology

Superficial Aquifer Designations

Map ID	Details	Distance	Direction
-	Unproductive Strata	On Site	-
	The rock layers or drift deposits have a low permeability that have negligible significance for water supply or river base flow.		
	Secondary Aquifer - A	11m	Ν
	These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.		
	Secondary Aquifer - A	342m	N
	These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.		
	Unproductive Strata	404m	NW
	The rock layers or drift deposits have a low permeability that have negligible significance for water supply or river base flow.		

Bedrock Aquifer Designations

Map ID	Details	Distance	Direction
	Secondary Aquifer - A	On Site	-
	These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.		
	Secondary Aquifer - A	342m	Ν
	These aquifers are formed of moderately permeable layers capable of supporting water supplies at a local scale, and in some cases forming an important source of base flow to rivers.		

Groundwater Vulnerability

Map ID	Details	Distance	Direction
	Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise, Map Scale: 1:100,000, Map Name: Sheet 5 Tyne and Tees.	On Site	-
	Soil Classification: Not classified, Map Scale: 1:100,000, Map Name: Sheet 5 Tyne And Tees.	123m	N
	Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise, Map Scale: 1:100,000, Map Name: Sheet 5 Tyne and Tees.	310m	N

Geology

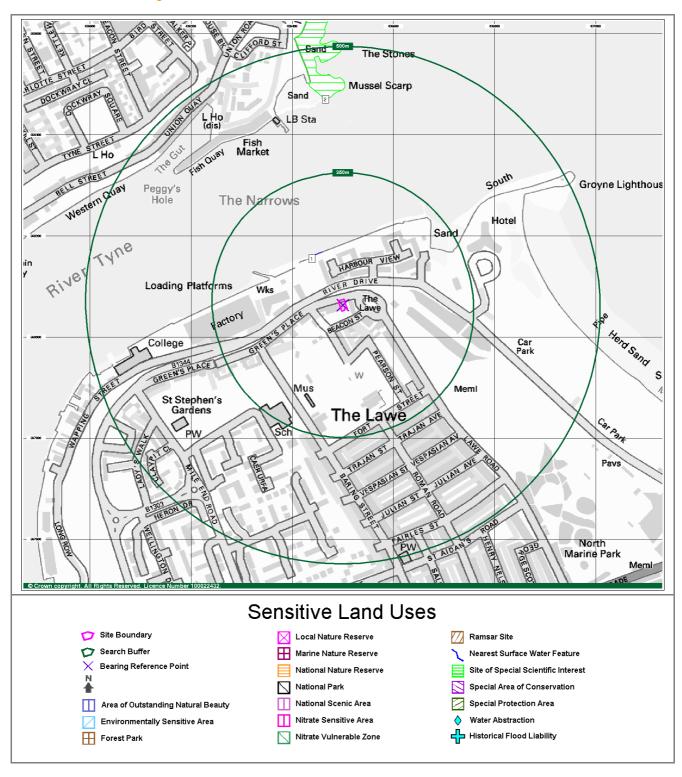
Low Permeability Drift Deposits

Map ID	Details	Distance	Direction
	Low permeability drift deposits occuring at the surface and overlying Major and Minor	On Site	-
	Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine		
	and estuarine alluvium, Map Sheet: Sheet 5 Tyne and Tees, Scale: 1:100,000.		
	Low permeability drift deposits occuring at the surface and overlying Major and Minor	430m	NW
	Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine		
	and estuarine alluvium, Map Sheet: Sheet 5 Tyne and Tees, Scale: 1:100,000.		

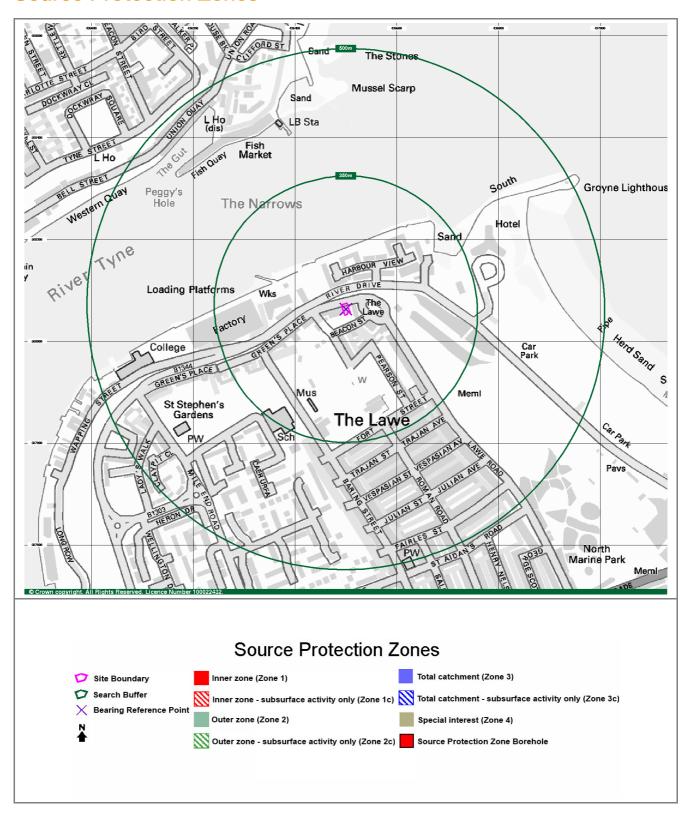
RCS	1.50		3edro	مار (2001	2011
DUO	1:50.0	JUU E	searoc	ĸι	3601	JUV

Map ID	Details	Distance	Direction
•	LEX Code: PMCM, Rock Name: Pennine Middle Coal Measures Formation, Rock Type:	On Site	-
	Mudstone, Siltstone and Sandstone, Min Age: Bolsovian, Max Age: Duckmantian.		
	LEX Code: PMCM, Rock Name: Pennine Middle Coal Measures Formation, Rock Type:	342m	Ν
	Mudstone, Siltstone and Sandstone, Min Age: Bolsovian, Max Age: Duckmantian.		
	LEX Code: PMCM, Rock Name: Pennine Middle Coal Measures Formation, Rock Type:	469m	NW
	Sandstone, Min Age: Bolsovian, Max Age: Duckmantian.		
BGS 1:5	50,000 Superficial Deposits		
Map ID	Details	Distance	Direction
	LEX Code: TILLD, Rock Name: Till, Devensian, Rock Type: Diamicton, Min Age: Devensian, Max Age: Devensian.	On Site	-
	LEX Code: BSA, Rock Name: Blown Sand, Rock Type: Sand, Min Age: Quaternary, Max Age: Quaternary.	11m	N
	LEX Code: MBD, Rock Name: Marine Beach Deposits, Rock Type: Sand and Gravel, Min Age: Quaternary, Max Age: Quaternary.	209m	NE
	LEX Code: MBD, Rock Name: Marine Beach Deposits, Rock Type: Sand and Gravel, Min Age: Quaternary, Max Age: Quaternary.	342m	N
	LEX Code: TILLD, Rock Name: Till, Devensian, Rock Type: Diamicton, Min Age: Devensian, Max Age: Devensian.	404m	NW
BGS 1:5	50,000 Geological Mapping Coverage		
Map ID	Details	Distance	Direction
Map ID	Map Sheet No: 015, Map Name: Tynemouth, Map Date: 1975, Bedrock Geology: Available, Superficial Geology: Available, Artificial Geology: Available, Faults: Not Supplied, Landslip: Not Available, Rock Segments: Not Supplied.	On Site	-
BGS 1:6	S25,000 Solid Geology		
Map ID	Details	Distance	Direction
	Pennine Middle Coal Measures Formation And South Wales Middle Coal Measures Formation (Undifferentiated).	On Site	-
BGS Bo	reholes		
Map ID	Details	Distance	Direction
43	BGS Reference: Nz36ne982, Drilled Length (m): 8.5, Borehole Name: Velva Liquids, South Shields 3	38m	N

Environmentally Sensitive Features



Source Protection Zones



Environmentally Sensitive Features

	Rai	nsar	Sites
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Map ID	Details	Distance	Direction
	Name: Northumbria Coast, Multiple Area: Y, Area (m²): 10598711.52, Source: Natural England, Reference: UK11049, Designation Date: Not Supplied.	805m	E
Nearest	Surface Water Feature		
Map ID	Details	Distance	Direction
1	Surface water feature identified in proximity.	99m	NW
	Special Scientific Interest Details	Dietopoo	Direction
Map ID		Distance 398m	N
2	Name: Northumberland Shore, Multiple Area: Y, Area (m²): 18882655, Source: Natural England, Reference: 2000134, Designation Date: 11th December 1992, Date Type: Notified, Designation Details: Local Nature Reserve.	390111	IN
	Name: Durham Coast, Multiple Area: Y, Area (m²): 5108567, Source: Natural England,	805m	E
	Reference: 1000255, Designation Date: 27th May 1999, Date Type: Notified,		
	Designation Details: Geological Conservation Review.		
Special	Protection Areas		
Map ID	Details	Distance	Direction
	Name: Northumbria Coast, Multiple Area: Y, Area (m²): 10974508, Source: Natural	805m	Е
	England, Reference: UK9006131, Designation Date: Not Supplied.		

Natural and Mining Related Hazards

Subsidence

Collapsible Ground Stability Hazards

Map ID	Details	Distance	Direction
IVIAP ID	Risk: Very Low, Source: British Geological Survey, National Geoscience Information Service.	On Site	- -
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	11m	N
Compre	ssible Ground Stability Hazards		
Map ID	Details	Distance	Direction
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
Ground	Dissolution Stability Hazards		
Map ID	Details	Distance	Direction
	Risk: No Hazard, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
Landslid	de Ground Stability Hazards		
Map ID	Details	Distance	Direction
	Risk: Very Low, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
	Risk: Low, Source: British Geological Survey, National Geoscience Information Service.	11m	Ν

Running Sand Ground Stability Hazards

Map ID	Details	Distance	Direction
	Risk: Very Low, Source: British Geological Survey, National Geoscience Information	On Site	-
	Service.		
	Risk: Moderate, Source: British Geological Survey, National Geoscience Information	209m	NE
	Service.		
Shrinkir	ng or Swelling Clay Subsidence Hazards		
Map ID	Details	Distance	Direction

Risk: Low, Source: British Geological Survey, National Geoscience Information Service.

Risk: No Hazard, Source: British Geological Survey, National Geoscience Information

Rado	n

Radon Potential

Map ID	Details	Distance	Direction
	The property is in a lower probability radon area, as less than 1% of homes are above the action level, Source: British Geological Survey, National Geoscience Information Service.	On Site	-
Radon I	Protective Measures		

Map ID	Details	Distance	Direction
	None, Source: British Geological Survey, National Geoscience Information Service.	On Site	-

Mining

Map ID	Details	Distance	Direction
	In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report	On Site	-
Mining Instability			

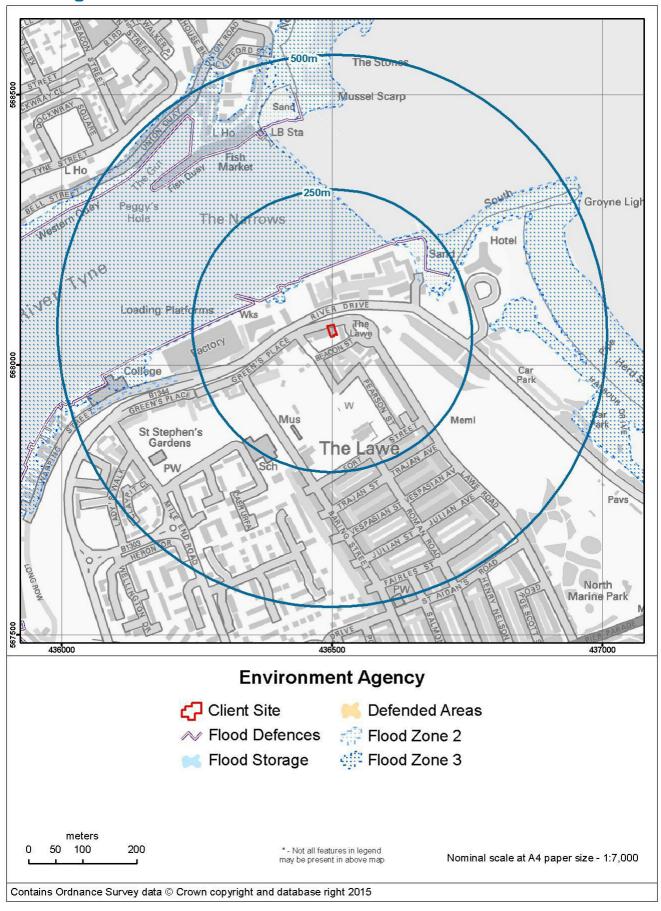
Map ID	Details	Distance	Direction
	Mining Evidence: Inconclusive Coal Mining, Source: Ove Arup & Partners, Boundary	On Site	-
	Quality: As Supplied.		

On Site

11m

Ν

Flooding from Rivers or Sea



Current Flood Risk

Flooding from River or Sea (Flood Zone 3)

Details	Distance	Reply or Direction
Are there any flood plains within 500m?	<501m	YES
Type: Tidal Models, Source: The Environment Agency, Boundary Accur	racy: As 92.3m	NW
Supplied.		

Flooding from River or Sea in an Extreme Flood (Flood Zone 2)

Details	Distance	Reply or Direction
Are there any flood plains (extreme floods) within 500m?	<501m	YES
Type: Tidal Models, Source: The Environment Agency, Boundary Accuracy: As Supplied.	89.5m	NW



The Site is at a low risk of flooding from rivers or the sea, as defined by the regulatory body's Flood Map. If the Site area is greater than one hectare, any planning application for development would need to be accompanied by a Flood Risk Assessment in accordance with NPPF. There should be no difficulty in obtaining flood insurance for properties on the Site. Most insurers will cover risk of less than 1.33% annual probability.

Flood Defences

Details	Distance	Reply or Direction
 Are there any flood defences within 500m?	<501m	YES



The Site is more than 5m above the base level at a flood defence. There may therefore be a small residual risk of flooding should the protection standard of the defences be exceeded (and the defences overtopped) or should the defence line fail. Reference should be made to the assessment of 'Areas Benefiting from Flood Defences' to ascertain whether the Site could potentially be at risk.

Areas Benefiting from Flood Defences

Details	Distance	Reply or Direction
Does the Site or any areas within 500m benefit from flood defences?	<501m	NO



The Site is over 500m from an Area Benefiting from a Flood Defence, as defined by the regulatory body. The residual risk that the Site may flood if the protection standard of any flood defences is exceeded, or if the defences fail, is insignificant.

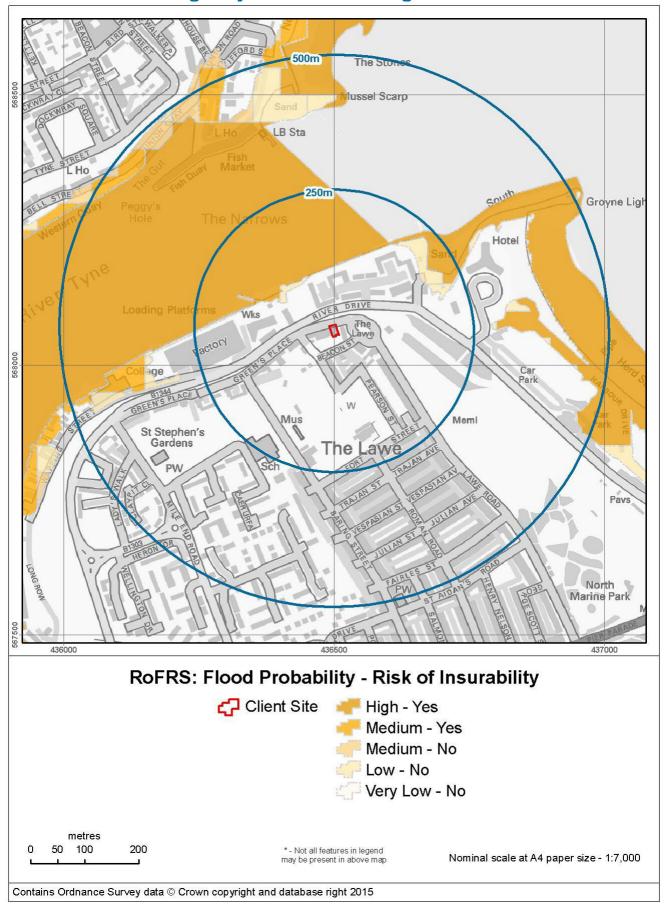
Flood Storage Areas

Details	Distance	Reply or Direction
Are there any flood storage areas within 500m?	<501m	NO



The Site is over 500m from a Flood Storage Area (FSA) as defined by the regulatory body. These areas store flood water during flood events. It is unlikely that any FSA presents any associated flood risk to the Site.

The Environment Agency Risk of Flooding from Rivers and Sea



Risk of Flooding from Rivers and Sea

Details Distance	Reply or Direction
What is the flood likelihood category for the Site? On Site	

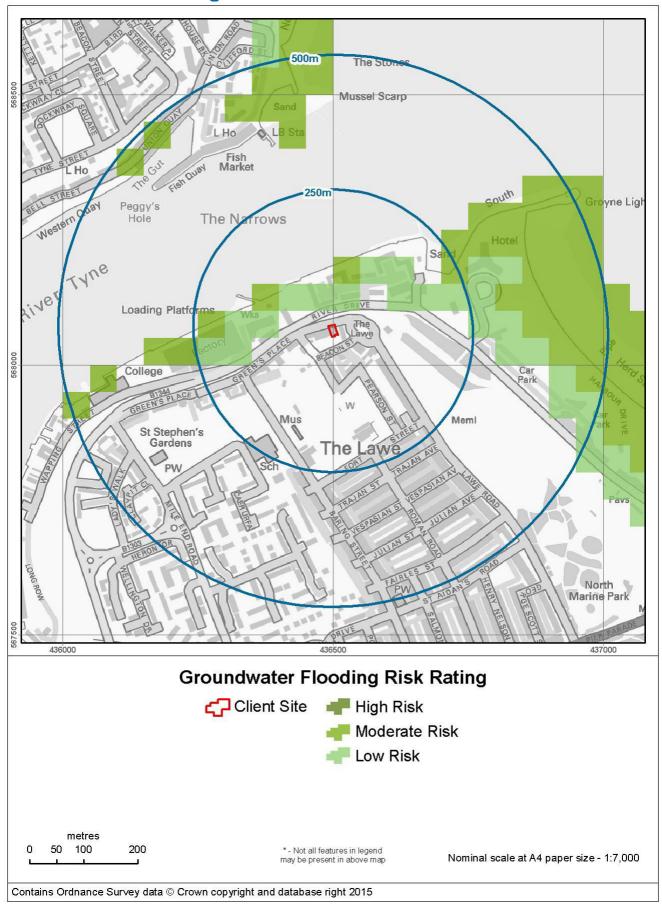


Some areas may be classified as having no result. This occurs where there is no output data from the regulatory body's risk assessment, but the area falls within the extreme flood outline (with a 0.1% or 1 in 1000 chance of flooding in any year).

The Environment Agency Data

The data in the Property Flood Likelihood Database is sourced from The Environment Agency's National Receptor Dataset (NRD). The information provided includes the flood likelihood category low, moderate, or significant according to the flood likelihood analysis. Some areas may be classified as having no result. This occurs where there is no output data from the analysis, but the area falls within the extreme flood outline (with a 0.1% or 1 in 1000 chance of flooding in any year).

Groundwater Flooding Risk



Groundwater Flooding Risk

Details	Distance	Reply or Direction
What is the risk of groundwater flooding at the Site?	On Site	-



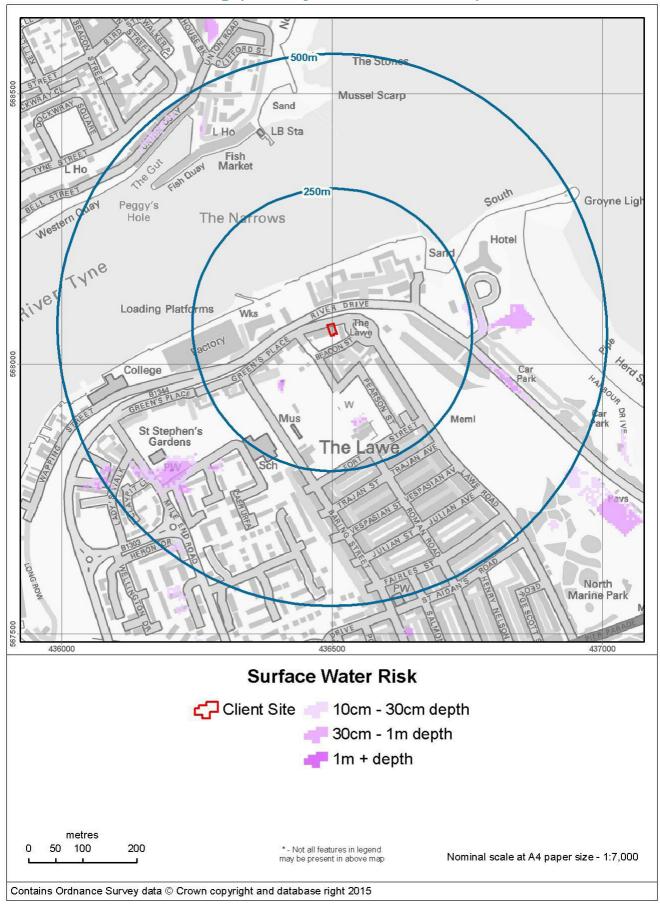
Information from ESI indicates that there is a negligible risk of groundwater flooding in this area and any groundwater flooding incidence will be less frequent than 1 in 100 years return period. No further investigation of risk is deemed necessary unless the proposed site use is unusually sensitive. However, data may be lacking in some areas, so assessment as 'negligible risk' on the basis of the map does not rule out local flooding due to features not currently represented in the national datasets used to generate this version of the map.

ESI Data

ESI provides data to Argyll in relation to groundwater flooding. Through research and development, building on their expertise in addressing groundwater flooding issues for The Environment Agency and other clients in the UK, ESI has developed algorithms and calibrated predictions of the risk of groundwater flooding occurring in England and Wales. This differs from other suppliers of data regarding groundwater flooding which only report on the susceptibility of groundwater flooding. Susceptibility merely has to be identified, whereas risk must be quantified. The resulting map is a 50x50m classification of groundwater flooding risk into four categories (Negligible, Low, Moderate and High). ESI's classifications are based on the level of risk, combining severity and uncertainty that a site will suffer groundwater flooding within a return period of about 100 years.

The map is a general purpose indicative screening tool, and is intended to provide a useful initial view for a wide variety of applications. However, it does not provide an alternative to a site specific assessment, and a detailed risk assessment should be used for any site where the impact of groundwater flooding would have significant adverse consequences.

Surface Water Flooding (1:200 year rainfall event)



Surface Water Flooding

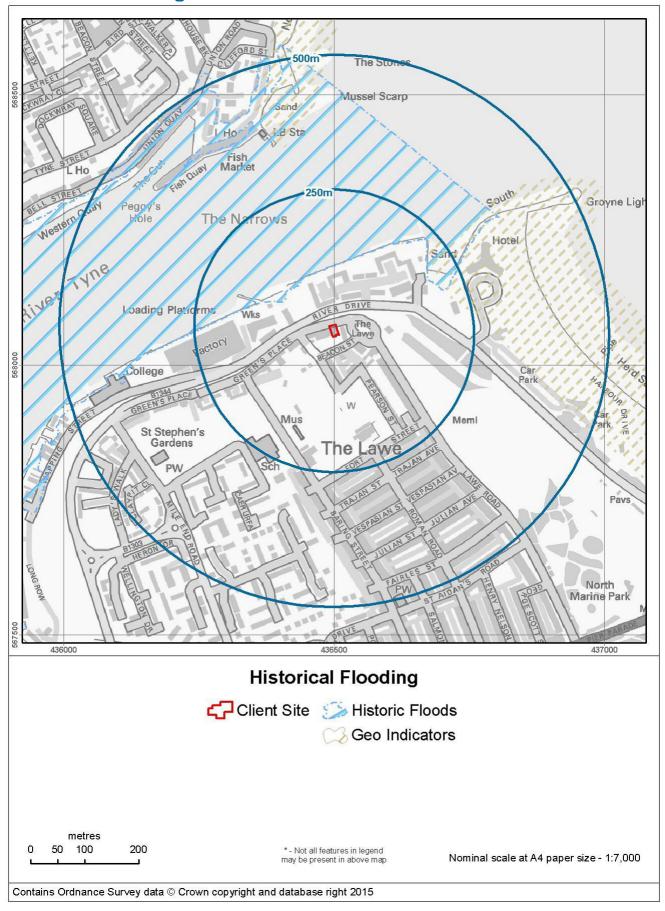
Details	Distance	Reply or Direction
What is the risk of surface water flooding at the Site following a 1 in 75 year rainfall event?	On Site	negligible
What is the risk of surface water flooding at the Site following a 1 in 200 year rainfal event?	I On Site	negligible
What is the risk of surface water flooding at the Site following a 1 in 1,000 year rains event?	fall On Site	negligible



JBA Risk Management Data

Surface Water Flooding - Information regarding the risk of natural surface water or pluvial flooding. The risk is classified by JBA into four categories, negligible, low (more than 0.1m), medium (more than 0.3m) and high (more than 1m) which reflect varying depths of potential surface water flooding during a range of rainfall events including 1:75 year, 1:200 year and 1:1,000 year events.

Historical Flooding



Historical Flood Events

Details	Distance	Reply or Direction
Have any historic flood events occurred at the Site or within 500m?	<501m	YES



The Site is more than 5m above a historical flood event, as recorded by the regulatory body. It is considered that there is only a minimal associated risk to the Site.

The Environment Agency Data

The Environment Agency has collated extensive records (including outlines) of flooding from rivers, the sea, or groundwater which have occurred in England and Wales since c.1950. This information comes from various sources including maps, aerial photographs, and private records. It is not necessarily comprehensive.

Geological Indicators of Flooding

Details	Distance	Reply or Direction
Are there any geological deposits which indicate the Site may have been flooded in the past?	<26m	NO

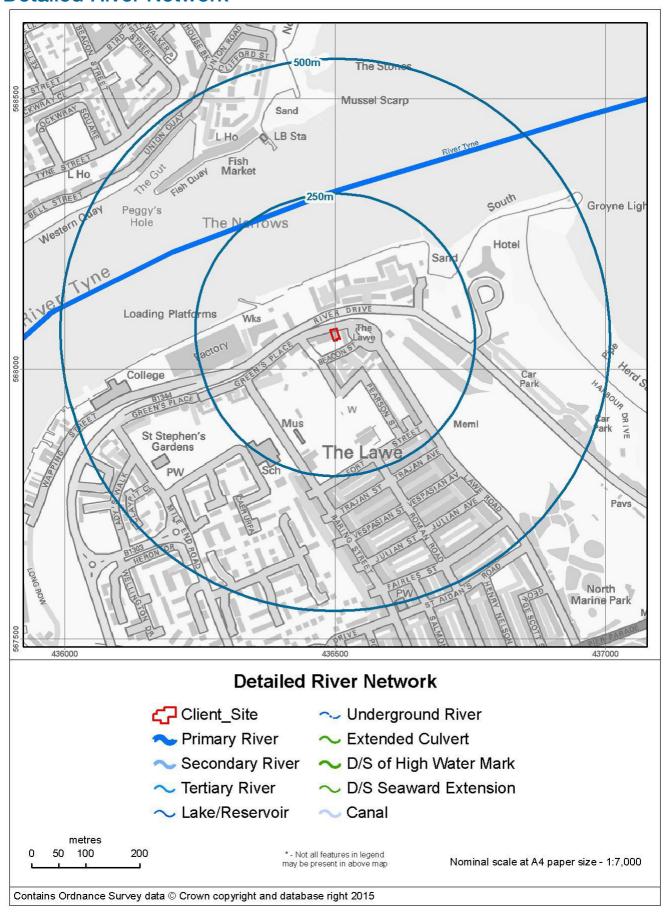


Data from the British Geological Survey (BGS) indicates that the type of deposits in the locality of the Site are not of the type normally associated with floodplains. However, this data should only be considered as complementary to the regulatory body's Flood Map. This BGS data does not indicate the likelihood of flooding, since such deposits may be due to flood events which occurred thousands of years ago. Refer to the other assessments in this report for an overall assessment of flood risk.

British Geological Survey Data

Geological Indicators of Flooding – The BGS Geological Indicators of Flooding (GIF) data set is a digital map based on the BGS Digital Geological Map of Great Britain at the 1:50,000 scale (DiGMapGB-50). It was produced by characterising Superficial (Drift) Deposits on DiGMapGB-50 in terms of their likely vulnerability to flooding, either from coastal or inland water flow and reflects areas which may have flooded in the recent geological past. This normally relates to flooding which happened many thousands of years ago.

Detailed River Network



Other Information

Detailed River Network

Details		Distance	Reply or Direction
Is there any inforr	nation from the EA's Detailed River Network within 500m?	<501m	YES
River Name: Rive	r Tyne, Watercourse Name: , Is The Feature a Main River?: YES, Is The	238.6m	N
Feature a Drain?:	NO.		



The Site is more than 5m above canal or drainage channel identified by the regulatory body's detailed river network. Although this suggests a low risk of flooding, other assessments of risk within this report should be consulted.

The Environment Agency Data

This data was derived from Ordnance Survey Mastermap (the UK's most detailed digital mapping) and shows the centre-lines of the river network (rivers, drains and streams) in England and Wales. Where relevant, it assigns attributes such as river type and designation (i.e. Main River status). It can be important to know this because certain statutory bodies must be consulted about development proposals near to a Main River, canal or drainage channel.

Height Above Sea Level

Details	Distance	Reply or Direction
Maximum height of the Site above sea level	On Site	18.80m
Minimum height of the Site above sea level	On Site	17.40m
Average height of the Site above sea level	On Site	18.10m



The Site is at a relatively high elevation above sea level. However, this is not in itself indicative of the absence of flood risk and reference should be made to other assessments within this report.

Distance to Water Features

Details	Distance	Reply or Direction
Are there any water features within 500m?	<501m	YES
Surface water feature	100.4m	NW
Surface water feature	100.4m	NW
Surface water feature	128.4m	Ν
Surface water feature	151.2m	W
Surface water feature	202.8m	NE
Surface water feature	382.9m	Ν
Surface water feature	463.4m	W



The Site is more than 5m above a water feature (as shown on the Ordnance Survey maps). Although this suggests a low risk of flooding, other assessments of risk within this report should be consulted.

Dam or Reservoir Failure

Details	Distance	Reply or Direction
Is there a risk of the Site being affected by the failure of a nearby dam or reservoir?	On Site	NO



Neither the Site nor areas near to it will be likely to flood if a dam or reservoir in the surrounding area failed.

JBA Risk Management Data

Dam or Reservoir Failure – JBA has modelled approximately 1700 dams and reservoirs across the UK which are considered to pose the greatest risks to people and property. These models are able to predict the areas likely to flood on all sides of a feature, should an element of it fail e.g. a wall, dam or earth bund.



Appendix 2 - Report Methodology, Limitations and Reliance

Reliance

Argyll Environmental Limited (AEL) has prepared this Phase One Environmental Assessment with all reasonable skill, care and diligence within the terms and conditions for Environmental Consultancy Services September 2011. This report has been solely prepared for Gary Craig Building Services Ltd. and has not been assigned to any other third parties. If reliance on this report was required by a third party, this could be arranged for an agreed fee.

The assessment has been carried out with due regard to industry guidelines including the ASTM International Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment (E1527 – 05), the Contaminated Land Guidance documents issued by the Department for Environment, Food and Rural Affairs (and its Predecessors), the British Standards Institute (the BSi), the Royal Institution of Chartered Surveyors (RICS). The methods used follow a risk-based approach, with the potential environmental risk assessed qualitatively using the 'contaminant-pathway-receptor pollutant linkage' concept introduced in the Environmental Protection Act 1990.

Report Methodology and Limitations

The evaluations and recommendations presented within this report are based only on the examination of available historical maps, directories, environmental records, discussions with regulatory bodies, and any previous reports made available to AEL. No intrusive surveys or environmental sampling was conducted as part of this study. AEL accepts no responsibility for the accuracy or completeness of third party data reviewed within this assessment. Copies of the third party data used in this report can be provided upon request (subject to any copyright limitations).

Where budget estimates have been provided, the figures have been identified on the basis of documentation gathered on the Site and discussions with Site management. AEL is unable to warrant the accuracy of these figures and you are recommended to seek appropriate quotations where reliance on a budget estimate is required.

The scope of this report does not include an assessment of the presence of asbestos containing materials within or below buildings at the Site. However if the presence of asbestos is known or suspected, recommendations will be provided to develop an asbestos management plan to comply with current regulations and additional survey/sampling works may then be required.

The conclusions of this study are not necessarily indicative of future conditions or operating practices at or adjacent to the Site.

The liabilities for contaminated land in the United Kingdom are primarily set out under Part 2A of the Environmental Protection Act 1990, although action may also be taken under the Water Resources Act 1991 or, in the event of a proposed change of use, through the statutory planning regime (Relevant Legislation). The interpretation of the wording "significant risk" within the context of exiting legislation is based on the following:

"Significant harm is being caused or there is a significant possibility of such harm being caused, (where harm is defined as harm to health of living organisms or other interference with the ecological systems of which they form a part and, in the case of man, includes harm to his property); and / or, pollution of Controlled Waters is being caused".

Argyll's assessment of risk and environmental liability under the Relevant Legislation is thus based upon the principal of determining the presence of a potential contaminant-pathway-receptor relationship. Where a 'contaminant' is a source of contamination, a 'pathway' a medium through which the contamination can mobilise and 'a receptor' something that could be detrimentally affected by the contamination. Where each of these elements is present, it is considered that a potential contaminant linkage exists at the Site

A Site will be assessed by AEL, based on the risk of there being contaminative substances present in, under or on the Site (excluding asbestos containing materials, lead based paints, invasive plant species or mould infestations) such that, on the basis of its current use, there is a reasonable likelihood of a UK regulatory authority, acting in accordance with Relevant Legislation, requiring that remedial measures are taken in order to remedy or mitigate the contaminative substances that are present, under or on the land that forms all or part of the Site.

There will be one of the following three responses:



Assessment	Liability Statement & Explanation	DEFRA Category*
PASSED	Within the scope of this assessment no Liabilities have been identified. No further action is required. This statement indicates that within the scope of this assessment, no	3 or 4
	issues have been identified that are likely to result in significant cost liabilities under Relevant Legislation.	
PASSED	Within the scope of this assessment no Liabilities have been identified. However, your attention is drawn to the prudent enquiries suggested below.	3 or 4
	This statement indicates that within the scope of this assessment, no issues have been identified that are likely to result in significant cost liabilities under Relevant Legislation. However, a client may wish to obtain further information about other issues disclosed in the Report, which could be material.	
FURTHER ACTION	Potential Liabilities have been identified under Part 2A of the Environmental Protection Act 1990 (or where appropriate, equivalent requirements under the planning regime) and/or the Water Resources Act 1991. To quantify these you may decide to undertake a more detailed assessment through the recommendation(s) set out below.	Potentially 1 or 2
	This statement indicates that within the scope of this assessment, an issue or a number of issues have been identified that are likely to result in significant cost liabilities under Relevant Legislation. In this event, recommendations are made, in order that additional information is collected so that the liabilities may be more accurately assessed.	

¹ Water Environment (Controlled Activities)(Scotland) Regulations 2005 where appropriate.

^{*} According to Defra's updated Statutory Guidance on Contaminated Land, Regulators have a four-stage test to decide when land is and is not contaminated. Category 1 and Category 2 sites would encompass land which is capable of being determined as contaminated land, whereas Category 3 and Category 4 sites would encompass land which is not capable of being determined as contaminated land.