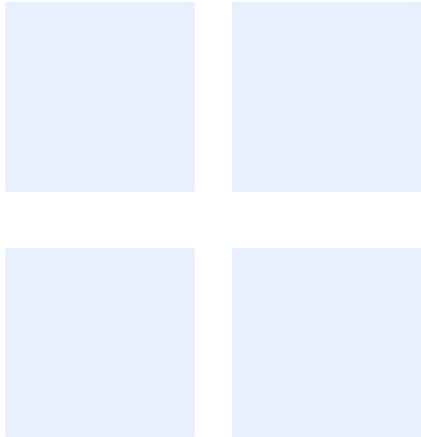


AESC Plant 3

10/11/2023

Reference number GB01T22A29



WATER FRAMEWORK ASSESSMENT



SYSTRA

AESC PLANT 3

WATER FRAMEWORK ASSESSMENT

IDENTIFICATION TABLE

Client/Project owner	AESC UK
Project	AESC Plant 3
Study	Water Framework Assessment
Date	10/11/2023
Reference number	GB01T22A29

APPROVAL

Version	Name		Position	Date	Modifications
1	Author	T Dawe	Associate	08/11/2023	First issue
	Checked by	G Pellegrino	Associate	10/11/2023	
	Approved by	B Sharp	Assoc. Director	10/11/2023	
2	Author			DD/MM/YY	
	Checked by			DD/MM/YY	
	Approved by			DD/MM/YY	

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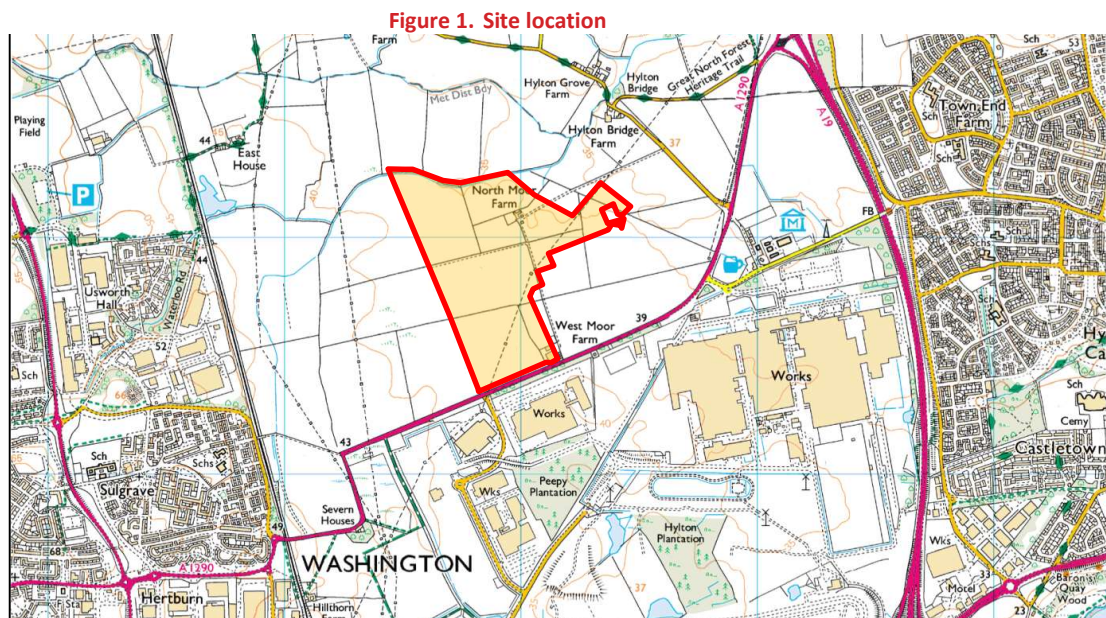
Appendix A	Drawings
Appendix B	WFD Water body information

1. INTRODUCTION & PROJECT DESCRIPTION

1.1 Introduction

1.1.1 AESC UK proposes to develop a second battery factory (AESC Plant 3) and warehouse on farmland immediately west of their AESC Plant 2 development that is currently under construction. The site is partially located within the boundaries of the International Advanced Manufacturing Park (IAMP) ONE Phase 2 on land near the Nissan UK's Sunderland factory.

1.1.2 The site is located north of the A1290 Washington Road. The former West Moor Farm (now demolished) was near the south-east corner. North Moor Farm is close to the north-east corner of the site. The location of AESC Plant 3 is shown on **Figure 1**.



Source: Ordnance Survey. Crown Copyright reserved.

1.2 Site Description

1.2.1 The AESC Plant 3 site occupies approximately 32ha of arable farmland between the A1290 Washington Road and Usworth Burn, which flows eastward past the northern end of the site. The site abuts the AESC Plant 2 to the east and will share access onto International Drive with that development. Farmland and open ground lie to the west with the edge of Washington 1km away.

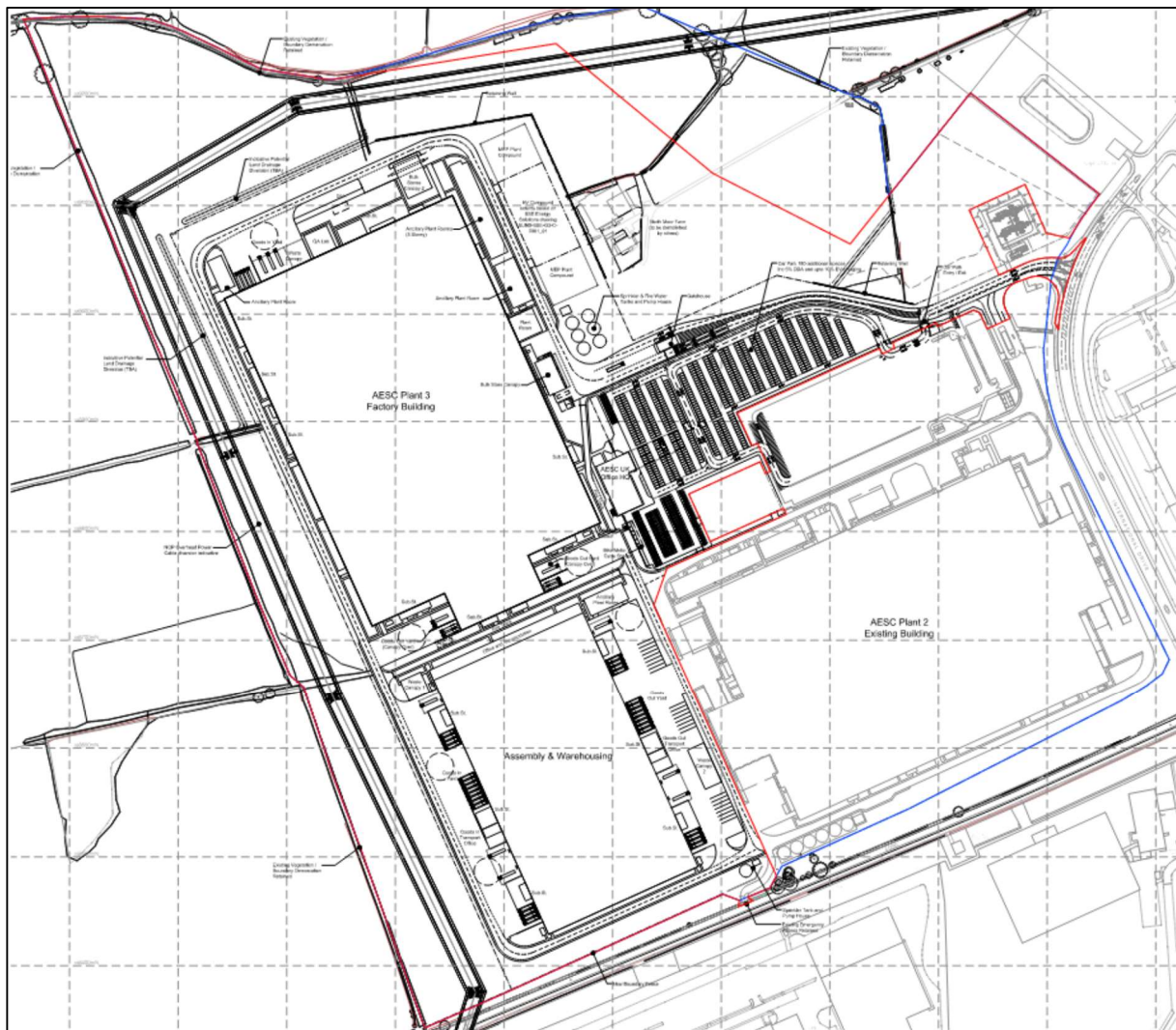
1.2.2 Part of the access route to the Proposed Development passes through the IAMP ONE area where both Plants 2 and 3 will share an access route onto International Drive. The majority of the Plant 3 scheme lies outside of the IAMP limits. Part of the Plant 3 site boundary overlaps with the planning application boundary for AESC Plant 2, which is now under construction. The majority of the Plant 3 scheme lies outside the area allocated for development within the IAMP Area Action Plan and on land designated, and implemented, as an Ecological and Landscape Mitigation Area.

1.2.3 The Usworth Burn passes to the north of the site and joins the River Don north-east of the site prior to reaching Hylton Bridge. A series of field-boundary ditches currently drain the land, the larger part draining northwards into the Burn and the remainder flowing south to discharge into a dyke and culvert that runs along the southern side of the A1290 or draining eastwards towards Plant 2.

1.3 Development description

1.3.1 The proposed development comprises erection of a building to be used for the manufacture of batteries for electric vehicles, an assembly & warehousing building, an office building, a sub-station, gatehouse, ancillary compounds/structures and associated infrastructure provision, access, parking, drainage and landscaping. The proposed layout is shown in **Figure 2** which also shows the adjacent Plant 2. National Grid power lines run alongside the western and northern sides of the proposed development. A larger-scale plan is included in **Appendix A** together with a drawing of the project's landscaping layout.

Figure 2. Proposed layout



Source: IAMP AAP

1.3.2 The facility will employ up to 1,900 staff across the factory, warehouse and offices.

2. ASSESSMENT METHODOLOGY & SCREENING

2.1 WFD Background

2.1.1 The Water Framework Directive (WFD) was a European Parliament directive designed to improve and integrate the way water, from all sources, was managed throughout Europe. Much of the implementation work in the UK was intended to be undertaken by competent authorities such as the Environment Agency (EA) and Local Authorities. It came into force in 2000 and was transposed into UK law in 2003. This was revisited further in 2017 under the Water Environment (WFD) (England & Wales) Regulations of that year.

2.1.2 Member States were originally required to achieve good chemical and ecological status for inland and coastal waters by 2015 though that date has since been deferred.

2.1.3 An associated 'daughter directive', Directive 2006/118/EC (the Groundwater Daughter Directive) came into force in 2006, intended to protect groundwater against pollution and deterioration.

2.1.4 Much current environmental policy and legislative framework in England had derived from EU practices and sources: the principal example is the WFD. The UK's withdrawal from the EU has been managed thus far mainly by the Environment (EU Exit) Regulations 2019 which took effect upon departure, though more recent actions by government to reduce the extent to which historical EU-derived legislation remains in statute risks removing some environmental legislation and the associated protections of the water environment.

2.2 Assessment methodology

2.2.1 The WFD sets out a number of 'Environmental Objectives' for surface water and groundwater bodies as follows:

- Prevent deterioration in the quality of water-based ecosystems, protect them and improve their ecological quality.
- Aim for all water bodies to achieve good status or potential by 2015 or by 2027 where not originally feasible under the WFD criteria.
- Comply with the requirements of WFD protected areas where appropriate.
- Conserve habitats and species that depend directly upon water for their form and quality.
- Promote sustainable use of water.
- Reduce and/or phase out the use of pollutants that present a specific threat to water-based ecosystems both above and below ground.
- Assist in managing flood risk and drought risk impacts upon the local water environment.

2.2.2 For the purposes of the WFA process, these are translated into four specific objectives against which the impact of the Proposed Development upon local surface and

groundwater bodies is assessed to determine whether and how the scheme meets the WFD objectives and where it actively promotes them. These objectives are as follows.

- The Proposed Development does not cause the Biological status of the water bodies to deteriorate.
- The Proposed Development does not hinder any water body from achieving its target status objectives.
- The Proposed Development does not permanently prevent or impede other water bodies in the same River Basin district from achieving their target status objectives.
- The Proposed Development contributes to delivery of the WFD objectives.

2.3 Water Framework Bodies

2.3.1 The local surface water and groundwater WFD bodies are as follows, based upon the Northumbrian River Basin Management Plan.

- GB103023075690 River Don from source to tidal limit (surface water)
- GB510302402900 River Wear (surface water)
- GB510302310200 River Tyne (surface water)
- GB40302G701500 Tyne Carboniferous Limestone and Coal Measures (CLCM) (ground water)
- GB40302G701600 Wear CLCM (ground water)

2.3.2 Protected areas are where special protection is required by other EC Directives and/or where abstraction for drinking water takes place. No such areas (e.g. Nitrate Vulnerable Zone, Drinking Water Safeguard Zone) are present at this site.

2.4 Screening

2.4.1 The Proposed Development directly affects the River Don water body, which discharges to the River Tyne about 10km downstream. The Tyne is considered to be too far downstream to warrant consideration in relation to the Proposed Development.

2.4.2 The Hylton Dene Burn, to which the south-eastern corner of the site is thought to drain, is not represented by a specific WFD water body. It discharges into the River Wear about 5km downstream of the site and likewise is considered to be too far downstream to warrant consideration in relation to the Proposed Development.

2.4.3 The River Wear and River Tyne water bodies will therefore be excluded from this assessment.

2.4.4 The proposed Development site lies wholly within the Tyne CLCM groundwater body though the boundary with the Wear CLCM is not far to the south. Given the poor permeability of the ground and the limited speed of groundwater movement that results, the Wear CLCM will be excluded from this assessment.

2.5 WFD Body Status

2.5.1 The current status of the two water bodies under consideration – the River Don body and the Tyne CLCM groundwater unit – are shown in Table 3. This information is taken from the EA’s website and dates from 2019.

Table 1. WRD Body Status 2019

UNIT	HYDROMORPHOLOGY	ECOLOGICAL	CHEMICAL
GB103023075690B River Don	Heavily modified	Moderate	Fail
GB40302G701500 Tyne CLCM	N/A	N/A	Poor

2.5.2 The chemical failures for the Don were caused by levels of mercury or associate compounds and PBDE compounds.

2.5.3 The biological elements were revisited in 2022 and the ‘invertebrates’ marker had deteriorated from ‘good’ in 2019 to ‘poor’.

2.5.4 The Tyne CLCM water body was classed for its quantitative status as ‘good’ in 2019.

2.5.5 Mine water was cited as the key reason for the poor chemical rating. The area has a significant mining past, evidenced by a number of former mines nearby: Boldon to north-east, Wardley and North Follingsby to north-west, Springwell and Usworth to west, Castletown to south-east.

2.5.6 The information summaries for both water bodies are included in **Appendix B** for information,

3. WFD ASSESSMENT

3.1.1 The key change presented by the Proposed Development is to create a substantial built and paved environment on what is currently arable farmland, poorly permeable and needing extensive agricultural field drainage to render the land usable for that purpose. Some effects arising from this development will be temporary during construction: others will be associated with the long-term operation of the new facility.

3.2 River Don surface water body

Hydromorphological

3.2.1 The Proposed Development is set back from the Usworth Burn channel and has no direct physical effect upon the channel, nor the channel upon the Development. A potential increase in flows arising from uncontrolled run-off during construction and then during the scheme’s operational phase will be managed firstly by the contractor during construction and then by the permanent drainage system thereafter. The cessation of arable farming and the associated regular disturbance to the land (ploughing, etc) will

reduce the transfer of silt from the fields into the Burn though this is only a small change in the wider context of the River Don catchment (42 km²) compared with the site area (approx. 0.3 km²).

- 3.2.2 There is a heightened risk of silt wash-off during construction whilst the site is stripped of topsoil and is disturbed by the construction activities for a prolonged period compared with the farming cycle. However this is a temporary condition and is planned to last less than three years. The contractor will be obliged to provide and maintain silt management arrangements during that phase to control this risk.
- 3.2.3 The construction of new buildings and paved areas will reduce the connectivity of the land with the water table in those areas due to the blockage of the existing flowpath from the land's surface into the ground (despite the poor permeability of the land). The attenuation features that are part of the scheme drainage will be lined with impermeable membranes in order to contain the run-off prior to completing the full SuDS sequence for water-quality management.
- 3.2.4 The Proposed Development has a neutral impact upon the Burn's current morphological behaviour and does not interfere with any potential future interventions that might be considered to seek to mitigate the historic modifications of the Burn and Don's channels.

Ecological

- 3.2.5 The main impact with ecological implications created by the Proposed Development involve the erosion of fine material (i.e. silt) from the farmland into the Brun that affects the channel bed further downstream. This is particularly important where the bed contains areas of gravel which support breeding or living habitats for a range of fauna from the microscopic level up to fish spawning in the gravel. The cessation of farming and associated regular disturbance of the land will reduce this effect to a small degree in the wider Don catchment once the site is operational.
- 3.2.6 As noted in the hydromorphological section above, the risk of silt erosion and transfer into the river is heightened during construction due to the intensity and duration of disturbance to the land during that phase. It is only a temporary condition and will be addressed by the site management regime put in by the contractor. The new site drainage system includes features to capture and hold silt washed from roofs and roads.

Chemical

- 3.2.7 The main impact with chemical implications created by the Proposed Development involves the cessation of farming and the application of fertilisers or pesticides, offset by the introduction of vehicle traffic and the associated diffuse pollution from road run-off. This is less of a risk during the construction phase until such time as the accesses and parking are formed together with their drainage systems. Those systems include features to intercept and hold various pollutants.
- 3.2.8 The specific manufacturing processes for this scheme involve some materials that are classed as 'hazardous'. The Proposed Development design will block the creation of direct pathways that would otherwise enable transmission of such substances to the Burn and

Don. There should therefore be a negligible risk of such pollutants reaching the water environment.

Assessment

- 3.2.9 The Proposed Development creates a number of potential impacts upon the water quality of the River Don. Some are temporary during the construction phase whilst others are long-term during the operational phase. It is possible to mitigate those impacts, whether by temporary measures to control silt wash-off during construction or by the installation of vortex separator units in the permanent development drainage to intercept road pollution (fine material, hydrocarbons) washed off roadways and parking areas.
- 3.2.10 The newly-created sources of pollution within the Proposed Development are offset by the ending of farming activities and the associated use of fertilisers and pesticides on the site. This will reduce the ongoing diffuse agricultural pollution affecting the Don catchment.
- 3.2.11 Turning to the four specific WFD objectives, the Proposed Development is considered to support the Biological status of the River Don water body against further deterioration, principally due to the introduction of water quality controls in the new site drainage and the cessation of farming and regular disturbance of the land reducing silt load in the river.
- 3.2.12 The Proposed Development does not hinder the River Don water body from achieving its target status objectives. The scheme is set back from the river channel and will not impede any future intervention to mitigate historic modifications of the river channel. The change in land use and provision of new surface drainage are considered to be neutral as to impact upon the river’s chemical and biological character.
- 3.2.13 The Proposed Development does not permanently prevent or impede other water bodies in the same River Basin district from achieving their target status objectives. The River Don water body flows into the River Tyne estuary about 4km upstream from its mouth. The scheme is very small in the context of the River Don catchment size and its impacts are mainly localised to the site itself.
- 3.2.14 The Proposed Development may contribute to delivery of the WFD objectives through the changes in water-borne pollution sources and controls within the site. The proposed landscaping of peripheral areas will enhance local habitats and offset loss of the farmland habitats replaced by the new buildings but does not directly involve work to the river channel.

3.3 Tyne Carboniferous Limestone and Coal Measures groundwater body

Quantitative

- 3.3.1 The construction of new buildings and roadways/parking together with new drainage systems will locally disconnect recharge over a substantial area from the water table beneath the site. The poor permeability of the ground however limits the impact of this effect upon shallow groundwater and it is considered to have minimal impact upon the deeper groundwater body. The attenuation features will be limed to prevent such

infiltration as might occur in order to ensure that all run-off passes through the full sequences of SuDS features appropriate to the run-off source.

- 3.3.2 The changes to the nature of the site during construction will have minimal effect initially but the forming of pavements and buildings will progressively reduce the area of recharge to the shallow water table. Such changes will have negligible impact upon the deeper groundwater body.

Chemical

- 3.3.3 The Proposed Development’s impact upon the deeper groundwater in the bedrock will be minimal due to the physical separation in tandem with the poor permeability of superficial ground. The changes from farming to manufacturing and in the associated nature of pollutant sources will in time affect the shallow groundwater but the dominant sources of pollution to the groundwater body (former mines) are unaffected by this scheme.

- 3.3.4 Any pollution occurring during construction is likely to be localised and in small quantities. The contractor will operate a spill management process that should contain any such incidents and the residual risk of pollution to groundwater is negligible.

Assessment

- 3.3.5 The Proposed Development has negligible impact upon the groundwater body, due principally to the depth of the groundwater body and the poor permeability of the superficial layers.

- 3.3.6 The newly-created sources of pollution within the Proposed Development are offset by the ending of farming activities and the associated use of fertilisers and pesticides on the site. This will reduce the ongoing diffuse agricultural pollution affecting area but the impact of this change is not expected to reach beyond the shallow water table.

- 3.3.7 The existing groundwater quality is dominated by pollution originating from old deep mine workings.

- 3.3.8 In respect of the four specific WFD objectives as those relate to groundwater, the first is not relevant as biological quality is not a WFD aspect of groundwater.

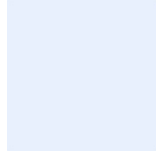
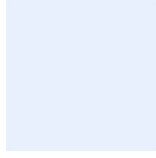
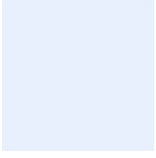
- 3.3.9 The Proposed Development does not hinder the Tyne CLCM groundwater body from achieving its target status objectives. The scheme does not affect or modify the old mine workings but does not prevent any future actions to address those (though this is currently deemed technically unfeasible).

- 3.3.10 The Proposed Development does not permanently prevent or impede other water bodies in the same River Basin district from achieving their target status objectives. The Wear CLCM groundwater body is close by but is not considered to be affected by this scheme..

- 3.3.11 The Proposed Development is not considered to meaningfully contribute to delivery of the WFD objectives for the Tyne CLCM as it does not involve or affect the deep mine workings that are the principle source of pollution to the groundwater unit. Such changes in groundwater quality as may result from the scheme are considered to be confined to the water table in the shallow superficial ground.

4. SUMMARY

- 4.1.1 The Proposed Development is directly associated (by location) with the River Don (source to Tyne) surface water body and the Tyne CLCM groundwater body. The Usworth Burn is closer to the site than the River Don but the two join not far downstream of the site.
- 4.1.2 The Hylton Dene Burn, to which the south-east corner of the site nominally drains, is not represented by a distinct water body. The River Wear, to which Hylton Dene Burn discharges, and the River Tyne are both considered to be beyond the direct impact of the scheme and the surface water bodies representing their respective reaches including the confluences have both been excluded from this assessment.
- 4.1.3 The Wear CLCM groundwater body extends close to the site's southern end but is also considered to be beyond the range of direct impact. This body has also been excluded from the assessment.
- 4.1.4 The River Don (and the Usworth Burn) catchment is dominated by urban run-off or by farmland run-off. The Proposed Development will involve a change in use from farming to manufacturing and an associated change in the prevailing sources of pollution.
- 4.1.5 The water quality in the Tyne CLCM groundwater body is dominated by pollution from abandoned deep mine works, well below the extent of any work under this scheme.
- 4.1.6 In terms of the four specific WFD objectives, the Proposed Development is considered to support the River Don body's Biological status against further deterioration. This objective is not relevant to groundwater units.
- 4.1.7 The Proposed Development does not hinder either the River Don water body or the Tyne CLCM from achieving their respective target status objectives.
- 4.1.8 The Proposed Development does not permanently prevent or impede other water bodies in the same River Basin district from achieving their target status objectives.
- 4.1.9 The Proposed Development may contribute to delivery of WFD objectives for the River Don water body but is considered to have no discernible effect upon the Tyne CLCM groundwater body.

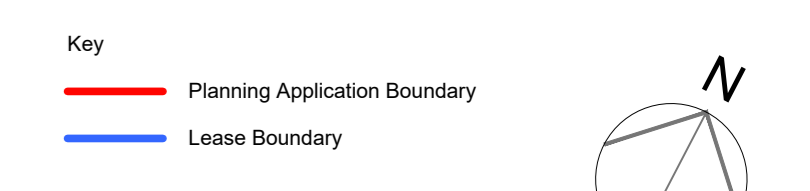


SYSTRA

Appendix A: Contents

- RPS drawing 204-P04 *Proposed site layout*
- RPS drawing 205-P01 *Proposed landscape plan*

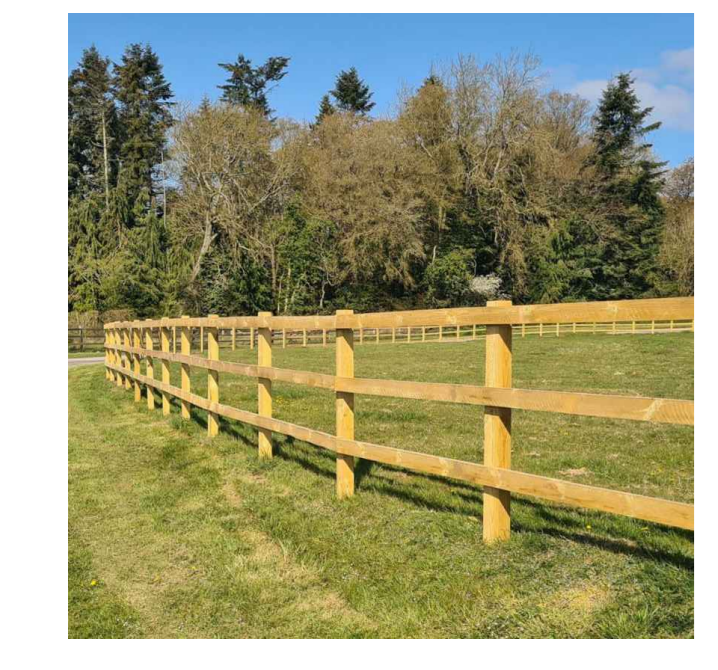
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Drawing Reference:
 For 400KV Route Plan and Profile Permanent Diversion refer to Groundline drawings:
 21762-GL-0608-ZZ-DR-Y-060250
 21762-GL-0608-ZZ-DR-Y-060251
 21762-GL-0608-ZZ-DR-Y-060252



2.4m high Wire Mesh Fence (RAL 6005 - Green)



1.2m high Timber Fence and Rail



P04 Planning Submission		HR	JAT	06/10/23
Rev	Description	By	Ckd	Date

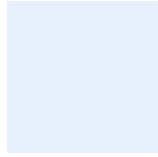
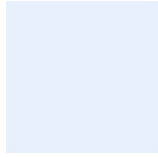
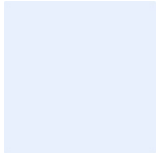
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Client
AESC Wates
 Project AESC Giga Factories Plot 2 Planning
 Title Proposed Site Layout

RPS Project Number NK020439P Scale @ A0 Date Created 09/06/23
 Task Team Information Author Task Information Manager JAT
 Status S2 (Suitable for Information) Revision P04
 Document Number 204 Project Code - Originator - Function - Spec - Type - Rev - Number
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SCALE 1:1250

Appendix B: WFD Record information



SYSTRA

Appendix B: Contents

- EA website data for GB103023075690 River Don from source to tidal limit (surface water)
- EA website data for GB40302G701500 Tyne Carboniferous Limestone and Coal Measures (groundwater)



Don from Source to Tidal Limit Water Body

Moderate ecological status



Get Don from Source to Tidal Limit data

- [Download water body \(Shapefile\)](#)
- [Download water body \(GeoJSON\)](#)
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- [Download site classifications \(CSV\)](#)
- [Download investigations \(CSV\)](#)
- [Download challenges \(CSV\)](#)
- [Download objectives \(CSV\)](#)
- [Download protected areas \(CSV\)](#)

Related links

- [Plan maps on ArcGIS online](#)
- [Flood risk management plans](#)

Attributes

Water Body ID	Water Body Type	Hydromorphological designation
---------------	-----------------	--------------------------------

Viewing latest data (Updated on 03 August 2023). Switch to river basin management plan data

NGR NZ3506561510	Surveillance Water Body No	Length 15.367 km
Catchment area 42.669 km ²	Catchment area 4266.941 ha	

Classifications

Time period: Cycle 3 ▾

Classification Item	2019	2022
Ecological	Moderate	Moderate
Biological quality elements	Good	Poor
Invertebrates	Good	Poor
Macrophytes and Phytobenthos Combined		
Macrophytes Sub Element	Moderate	Moderate
Physico-chemical quality elements	Good	Good
Acid Neutralising Capacity		High
Ammonia (Phys-Chem)	Good	High
Dissolved oxygen	High	High
Phosphate	Good	Good
Temperature	High	High
pH	High	High
Hydromorphological Supporting Elements	Supports good	Supports good
Hydrological Regime	Supports good	Supports good
Supporting elements (Surface Water)	Moderate	Moderate
Mitigation Measures Assessment	Moderate or less	Moderate or less
Specific pollutants	High	High
Copper	High	High
Iron	High	High
Triclosan	High	High
Chemical	Fail	Does not require assessment
Priority hazardous substances	Fail	Does not require assessment
Benzo(a)pyrene	Good	
Dioxins and dioxin-like compounds	Good	
Heptachlor and cis-Heptachlor epoxide	Good	
Hexabromocyclododecane (HBCDD)	Good	
Hexachlorobenzene	Good	
Hexachlorobutadiene	Good	
Mercury and Its Compounds	Fail	
Nonylphenol	Good	
Perfluorooctane sulphonate (PFOS)	Good	

Classification Item	2019	2022
Tributyltin Compounds	Good	
Priority substances	Good	Does not require assessment
Cypermethrin (Priority)	Good	
Fluoranthene	Good	
Other Pollutants	Does not require assessment	Does not require assessment

[Why do all water bodies have a chemical status of fail?](#)

Investigations into classification status

Classification Element	Cycle	Year	Status	Outcome
Ammonia (Phys-Chem)	2	2016	High	

Reasons for not achieving good (RNAG) and reasons for deterioration (RFD)

All reasons (RFDs and RNAGs) attributed to the classification elements in this water body.

Reason Type	SWMI	Activity	Category	Classification Element	More information
RNAG	Physical modification	Other (not in list, must add details in comments)	Urban and transport	Mitigation Measures Assessment	Details
RNAG	measures delivered to address reason, awaiting recovery	Not applicable	No sector responsible	Mercury and Its Compounds	Details
RNAG	measures delivered to address reason, awaiting recovery	Not applicable	No sector responsible	Polybrominated diphenyl ethers (PBDE)	Details
RFD	High to Good deterioration, no action required (RFD only)	Not applicable	No sector responsible	Phosphate	Details

Reasons for not achieving good status by business sector

The issues preventing waters reaching good status and the sectors identified as contributing to them. The numbers in the table are individual counts of the reasons for not achieving good status with a confidence status of 'confirmed' and 'probable', where the latest classification is less than good status. There may be more than one reason in a single water body. Note, table does not include reasons for deterioration.

Significant water management issue	Physical modifications	Pollution from waste water	Pollution from towns, cities and transport	Changes to the natural flow and level of water	Invasive non-native species	Pollution from rural areas	Pollution from abandoned mines
Agriculture and rural land management	0	0	0	0	0	0	0
Industry	0	0	0	0	0	0	0
Mining and quarrying	0	0	0	0	0	0	0
Navigation	0	0	0	0	0	0	0

Viewing latest data (Updated on 03 August 2023). [Switch to river basin management plan data](#)

Significant water management issue	Physical modifications	Pollution from waste water	Pollution from towns, cities and transport	Changes to the natural flow and level of water	Invasive non-native species	Pollution from rural areas	Pollution from abandoned mines
Water Industry	0	0	0	0	0	0	0
Local & central government	0	0	0	0	0	0	0
Domestic general public	0	0	0	0	0	0	0
Recreation	0	0	0	0	0	0	0
Waste treatment and disposal	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
No sector responsible	0	0	0	0	0	0	0
Sector under investigation	0	0	0	0	0	0	0
Total	1	0	0	0	0	0	0

Objectives

Classification Item	Status	Year	Reasons
Ecological	Good	2027 - Low confidence	Disproportionately expensive: Disproportionate burdens
Biological quality elements	Good	2021	Disproportionately expensive: Disproportionate burdens
Invertebrates	Good	2015	
Macrophytes and Phytobenthos Combined	Not assessed	2021	Disproportionately expensive: Disproportionate burdens
Physico-chemical quality elements	Good	2015	
Ammonia (Phys-Chem)	Good	2015	
Dissolved oxygen	Good	2015	
Phosphate	Good	2015	
Temperature	Good	2015	
pH	Good	2015	
Hydromorphological Supporting Elements	Supports good	2015	
Hydrological Regime	Supports good	2021	Disproportionately expensive: Disproportionate burdens
Supporting elements (Surface Water)	Good	2027 - Low confidence	Disproportionately expensive: Disproportionate burdens
Mitigation Measures Assessment	Good	2027 - Low confidence	Disproportionately expensive: Disproportionate burdens
Specific pollutants	High	2015	
Copper	High	2015	
Iron	High	2015	

Classification Item	Status	Year	Reasons
Chemical	Good	2063	Natural conditions: Chemical status recovery time
Priority hazardous substances	Good	2063	Natural conditions: Chemical status recovery time
Benzo(a)pyrene	Good	2015	
Dioxins and dioxin-like compounds	Good	2015	
Heptachlor and cis-Heptachlor epoxide	Good	2015	
Hexabromocyclododecane (HBCDD)	Good	2015	
Hexachlorobenzene	Good	2015	
Hexachlorobutadiene	Good	2015	
Mercury and Its Compounds	Good	2040	Natural conditions: Chemical status recovery time
Nonylphenol	Good	2015	
Perfluorooctane sulphonate (PFOS)	Good	2015	
Polybrominated diphenyl ethers (PBDE)	Good	2063	Natural conditions: Chemical status recovery time
Tributyltin Compounds	Good	2015	
Priority substances	Good	2015	
Cypermethrin (Priority)	Good	2015	
Fluoranthene	Good	2015	
Other Pollutants	Does not require assessment	2015	

Protected areas

No data to show

Monitoring sites which have been used to classify this water body

[DON JUST U/S FARM BRGE AT MOUNT PLEASANT](#) 43500018

[DON JUST D/S CONF OF TRIB AT WARDLEY](#) 43500145

[DON JUST U/S THE LEAM SSO](#) 43500003

[81719](#) 81719

[1746](#) 1746

[2131](#) 2131

[DON AT JARROW CEMETERY](#) 43500032

Upstream water bodies

Downstream water bodies

[TYNE](#)

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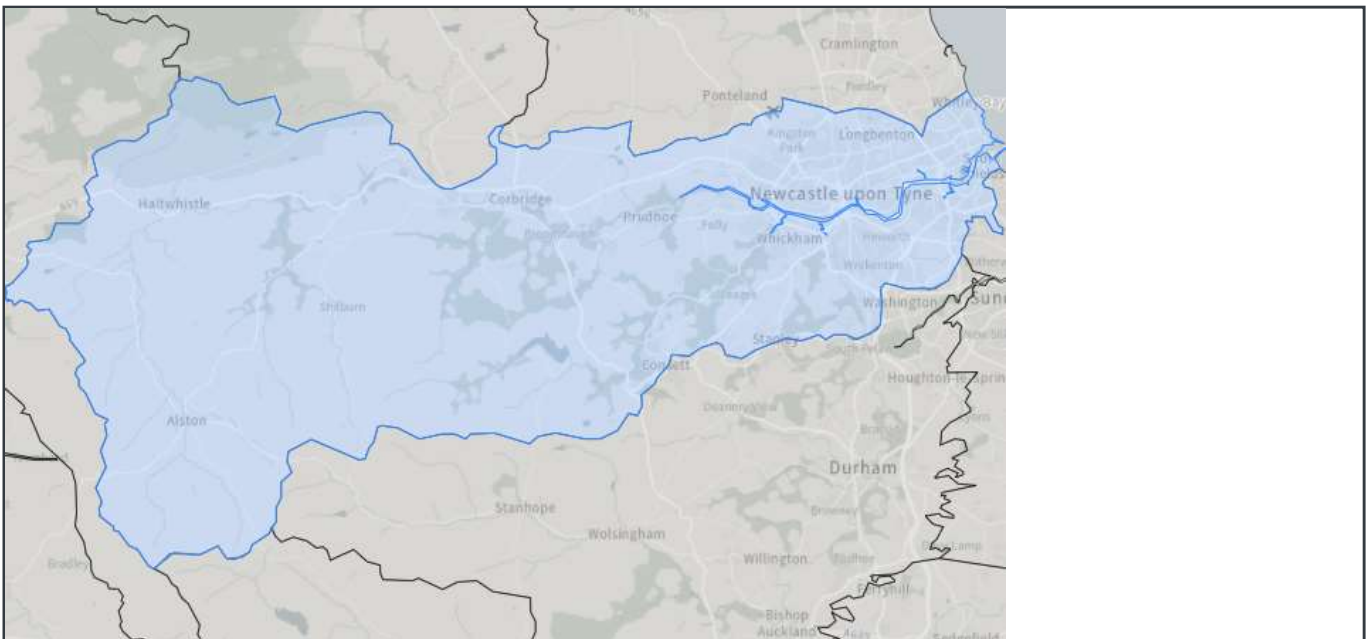
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Tyne Carboniferous Limestone and Coal Measures Water Body

Poor overall status



Get Tyne Carboniferous Limestone and Coal Measures data

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- [Download objectives \(CSV\)](#)
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Attributes

Viewing river basin management plan data. [Switch to latest data](#)

GB40302G701500	Groundwater Body	not applicable
NGR NY9483354320	Surface area 1765.251 km2	Surveillance Water Body No
Groundwater area 176525.11 ha		

Classifications

Classification Item	2019
Overall Water Body	Poor
Quantitative	Good
Quantitative Status element	Good
Quantitative Dependent Surface Water Body Status	Good
Quantitative GWDTEs test	Good
Quantitative Saline Intrusion	Good
Quantitative Water Balance	Good
Chemical (GW)	Poor
Chemical Status element	Poor
Chemical Dependent Surface Water Body Status	Poor
Chemical Drinking Water Protected Area	Good
Chemical GWDTEs test	Good
Chemical Saline Intrusion	Good
General Chemical Test	Poor
Supporting elements (Groundwater)	
Prevent and Limit Objective	Active
Trend Assessment	No trend

[Why do all water bodies have a chemical status of fail?](#)

Investigations into classification status

No data to show

Reasons for not achieving good (RNAG) and reasons for deterioration (RFD)

All reasons (RFDs and RNAGs) attributed to the classification elements in this water body.

Reason Type	SWMI	Activity	Category	Classification Element	More information
RNAG	Diffuse source	Abandoned mine	Mining and quarrying	Chemical Dependent Surface Water Body Status	Details

Reason Type	SWMI	Activity	Category	Classification Element	More information
RNAG	Point source	Abandoned mine	Mining and quarrying	Chemical Dependent Surface Water Body Status	Details
RNAG	Point source	Abandoned mine	Mining and quarrying	Chemical Dependent Surface Water Body Status	Details
RNAG	Point source	Abandoned mine	Mining and quarrying	General Chemical Test	Details

Reasons for not achieving good status by business sector

The issues preventing waters reaching good status and the sectors identified as contributing to them. The numbers in the table are individual counts of the reasons for not achieving good status with a confidence status of 'confirmed' and 'probable', where the latest classification is less than good status. There may be more than one reason in a single water body. Note, table does not include reasons for deterioration.

Significant water management issue	Physical modifications	Pollution from waste water	Pollution from towns, cities and transport	Changes to the natural flow and level of water	Invasive non-native species	Pollution from rural areas	Pollution from abandoned mines
Agriculture and rural land management	0	0	0	0	0	0	0
Industry	0	0	0	0	0	0	0
Mining and quarrying	0	0	0	0	0	0	5
Navigation	0	0	0	0	0	0	0
Urban and transport	0	0	0	0	0	0	0
Water Industry	0	0	0	0	0	0	0
Local & central government	0	0	0	0	0	0	0
Domestic general public	0	0	0	0	0	0	0
Recreation	0	0	0	0	0	0	0
Waste treatment and disposal	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
No sector responsible	0	0	0	0	0	0	0
Sector under investigation	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	5

Objectives

Classification Item	Status	Year	Reasons
Overall Water Body	Poor	2015	Disproportionately expensive: Disproportionate burdens; Technically infeasible: No known technical solution is available
Quantitative	Good	2015	
Quantitative Status element	Good	2015	
Quantitative Dependent Surface Water Body Status	Good	2015	
Quantitative GWDTEs test	Good	2015	
Quantitative Saline Intrusion	Good	2015	
Quantitative Water Balance	Good	2015	
Chemical (GW)	Poor	2015	Disproportionately expensive: Disproportionate burdens; Technically infeasible: No known technical solution is available
Chemical Status element	Poor	2015	Disproportionately expensive: Disproportionate burdens; Technically infeasible: No known technical solution is available
Chemical Dependent Surface Water Body Status	Good	2027 - Low confidence	Disproportionately expensive: Disproportionate burdens
Chemical Drinking Water Protected Area	Good	2015	
Chemical GWDTEs test	Good	2015	
Chemical Saline Intrusion	Good	2015	
General Chemical Test	Poor	2015	Technically infeasible: No known technical solution is available

Protected areas

PA Name	Id	Directive	More information
Border Mires, Kielder-Butterburn	UK0012923	Special Area of Conservation	Natural England
North Pennine Moors	UK9006272	Special Protection Area	Natural England
North Pennine Moors	UK0030033	Special Area of Conservation	Natural England
Northumbria Coast	UK9006131	Special Protection Area	Natural England
Northumbria Coast	UK11049	Ramsar Site	Natural England
Irthinghead Mires	UK11032	Ramsar Site	Natural England
Moor House-Upper Teesdale	UK0014774	Special Area of Conservation	Natural England
Roman Wall Loughs	UK0030267	Special Area of Conservation	Natural England
Cong Burn from Twizell Burn to Wear NVZ	S240	Nitrates Directive	
Smallhope Burn from Source to Browney NVZ	S236	Nitrates Directive	
Team from Source to Tyne NVZ	S234	Nitrates Directive	
Pont Burn Catchment (trib of Derwent) NVZ	S232	Nitrates Directive	

Monitoring sites which have been used to classify this water body

Upstream water bodies

Downstream water bodies

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