

# **Bespoke Permit Application**

Spalding Water Recycling Centre

Anglian Water Services Ltd Main Supporting Document (MSD) May 2022 (February 2024 update) Version 2.1

## Contents

Bespoke	Permit Application for Waste Operations at Spalding WRC	4
Documer	nt content and structure	4
Non-tech	inical Summary	6
1.1	Site and Location	6
1.2	Background and Current Position	6
1.3	Details of the Permit Application	6
1.4	Environmental Setting and Risks	7
1.5	Key Technical Standards	7
1. Part	A – About you	9
Directo	or details (question 5)	9
Contac	t details (question 6, 7)	9
2. Part B2	2 - General – new bespoke permit1	0
2.1 Dis	cussions before your application (question 1a/b)1	0
2.2 Sit	e details (question 2)1	0
2.2.1 F	Regulated Facility Type (question 2b)1	0
2.3 Ab	out the site (question 2d, 2e, 2f, 2g)1	0
2.4 Te	chnical ability (question 3)1	0
2.4.1 [	Details of the technically competent managers1	1
2.4.2 Y	'our ability as an operator, continued (question 3)1	1
2.5 Ma	anagement Systems (question 3b)1	1
2.5.2 F	Roles and Responsibilities1	2
2.5.3 (	Compliance monitoring1	3
2.6 Su	pporting Information (question 5)1	3
2.6.1 S	ite Layout1	3
2.6.2 S	ite Condition Report (question 5b)1	3
2.7 En	vironmental Risk Assessment (question 6)1	3
2.7.1 l	ntroduction1	3
2.7.2 S	ummary of site and sensitive receptors1	4
3. Part B4	4 - New bespoke waste operation permit1	6
3.1 Wa	aste Operations (question 1)1	6
3.1.1 T	ypes of waste accepted (question 1 continued)1	7
3.2 Em	nissions to air (question 2)1	7
3.2.1 F	Point source emissions to water (other than sewer)1	7

3.2.2 Point source emissions to sewer, effluent treatments or other transfers off site
3.2.3 Point source emissions to land1
3.3 Operating techniques (question 3)1
3.3.1 Technical standards1
3.3.2. Treatment Process (question 3 continued)1
3.3.3 Acceptance of wastes
3.3.4 Management of Cake Storage
3.3.5 General requirements (question 3b)2
Fugitive Emissions - Odour2
Fugitive Emissions - Noise2
4. Monitoring (question 4b)2
4. F1 Form – Charges and declarations
Working out charges (Question 1)2
Payment (Questions 3)2
Confidentiality and National Security (Question 5)2
Appendix A – Site Location Plans
Appendix B – Site Plan
Appendix C – Nearby sensitive Sites

Table 1a: Waste operations which do not form part of an installation	
Table 2: Waste codes accepted at Spalding WRC	
Table 3 Technical Standards	

## Bespoke Permit Application for Waste Operations at Spalding WRC

## Document content and structure

The main body of this permit application document ('Spalding Main Supporting Document') includes:

- A non-Technical Summary also provided as a stand-alone document.
- All the supplementary information required in response to relevant questions within the Part A, Part B2, Part B4 and Part F1 application forms for which there was insufficient space on the forms to answer the questions in full.
- Appendices with site location plans, permit boundary plans and maps showing sensitive receptors.

The following application forms have been completed to support the application and have been submitted as stand-alone documents, as well as referenced throughout this main supporting document:

- Part A: About You
- Part B2: New bespoke permit
- Part B4: New bespoke waste operation permit
- Part F1: Charges and declarations

This environmental permit application document ('Spalding Main Supporting Document') consists of four main parts:

- '1: Part A' provides information relating to Form A and contact details,
- '2: Part B2' provides the general information required to inform Form B2 relating to the application of a new bespoke permit,
- '3: Part B4' provides the more detailed information required to inform Form B4 relating the new bespoke waste operation permit; and
- '4: Form F1' covers the required financial information required for payment of the application fee.

Additional information included as part of this submission and not as stand-alone documents, are found in the following appendices:

- Appendix A Site location plan
- Appendix B Permit Boundary Site Plan
- Appendix C Sensitive Sites

Stand-alone documents included as part of this submission, are detailed below:

• Non-Technical Sumamry

- Environmental Risk Assessment
- Environmental Management Plan
- Climate Change Risk Assessment
- Odour Management Plan
- Odour Modelling Report
- Certificates ISO 9001, ISO 14001, CMS for technical competence
- Drainage Plan (HAZOP)
- Site Condition Report
- Habitats Screening (EA)
- Letter of Delegation
- Site Infrastructure Plan
- AWS convictions up to May 2023
- Site Permit Boundary 230124
- Form A
- Form B2
- Form B4
- Form F1

## Non-technical Summary

## 1.1 Site and Location

This Environmental Permit application has been made by Anglian Water Services (AWS) Limited for Spalding Sewage Treatment Works (Water Recycling Centre; WRC) located at Spalding Water Recycling Centre, West Marsh Road, Spalding, PE11 2BB (NGR: TF 26140 25180), hereby referred to as Spalding WRC.

## 1.2 Background and Current Position

Spalding WRC operates under the Urban Wastewater Treatment Regulations (UWwTR) for the treatment of indigenous sewage sludge – (sewage from the local sewer network). The site's operation is a non-hazardous waste activity which is currently carried out under a registered T21 exemption (WEX361628). The waste activity comprises of physio-chemical treatment of the indigenous sewage, and the import of wastes for storage and treatment. Spalding WRC temporarily stores treated biosolid cake produced at other AWS sites before it can be deployed to land under Sludge Use in Agriculture Regulations (SUIAR). No hazardous waste is imported or treated at Spalding WRC. The site has a standalone Water Discharge Activity Environmental Permit which will remain an independent permitted activity (AW5TS741F).

## 1.3 Details of the Permit Application

AWS are applying for a bespoke waste operation permit for the WRC waste activity, due to the Environment Agency's decision that waste operation sites that store and treat biosolid wastes must be permitted under Environmental Permitting Regulations (EPR) and should no longer operate under a T21 waste exemption.

The bespoke permit is to operate a water recycling centre for imported wastes It is these wastes which require an EPR permit. The site receives imports of:

- Sewage Sludge (EWC code 19 08 05) from satellite AWS wastewater treatment works.
- Iron sludge (EWC code 19 09 02) from AWS water treatment works sites,
- Domestic cess (EWC 16 10 02) and septic wastes (EWC 20 03 04),
- Blue loo wastes (from chemical toilets) (EWC 16 10 02),

All the above imported wastes are fed into the treatment process at the head of the works. The volume of sludges is reduced, via the normal water recycling centre (WRC) treatment processes primary settlement tanks, gravity belt thickeners (GBT), dewatering and thickening (physical treatment).

Operating hours for deliveries for imports by 3rd party domestic waste tankers from 8:00 am to 5:00pm Monday to Friday. For Anglian Water (AW) Water recycling Operational Logistics (WROL) and AW contracted tankers access to the site can be at any time in case of need or emergency. number and time of tanker deliveries per day varies. As an indication the mean, minimum and maximum numbers per day over the 4-month period August 2023 to November 2023 were: Mean 9, minimum 4, and maximum 23.

The bespoke permit is also to operate the cake pad area of the site for the storage of biosolids wastes digested cake (EWC 19 06 06) before it is deployed to land.

AWS is seeking to set the total quantity of imported waste accepted at the WRC as 100,000 tonnes per annum (tpa), in line with the current T21 waste exemption. The maximum amount of cake stored to Spalding WRC at any one time is 4000 tonnes and will not be stored for more than 12 months.

The water recycling centre treatment process is not included in this bespoke permit as this operates under the Urban Wastewater Treatment Regulations. Dewatering is carried out on site but not solely on any of the imported wastes. Dewatering is carried out on the outputs from the WRC process which includes the indigenous sewage which will include any wastes deposited at the head of works.

No additional infrastructure or site operations will be changed or installed as part of this permit application. There will no increases to the storage capacity on the WRC.

## 1.4 Environmental Setting and Risks

Spalding WRC serves a population equivalent of 80,000 and receives flow from a catchment area of Spalding and surrounding areas. The water discharges from the site are managed on an existing discharge permit, and this will remain a separate independent permitted activity.

The site sits outside 200m of an European Site, Ramsar Site, or a Site of Special Scientific Interest (SSSI). The closest designated is Vernatts Local Nature Reserve, just over 1.5km to the south west. The closest SSSI is Surfleet Lows, approximately 3.5km to the north of the site.

The site is not within an Air Quality Management Area; the closest AQMA is in Wisbech approximately 25km south east.

There are no point source emissions to land from the waste operation. There are no point or fugitive emissions to surface water or groundwater during normal operation. There are no point source emissions to air from the waste operation. Therefore, there are no control measures proposed for these point source or fugitive emissions.

Refer to the Environmental Risk Assessment and Environmental Management Plan for the detailed risks and mitigation measures in place at Spalding WRC.

Description of the operation	Relevant Technical guidance	Document reference
Spalding WRC	Environmental management - guidance Developing a management system: environmental permits Environmental management - guidance	https://www.gov.uk/guidance/develop- a-management-system-environmental- permits https://www.gov.uk/guidance/control- and-monitor-emissions-for-your-
	Control and monitor emissions for your environmental permit	environmental-permit

## 1.5 Key Technical Standards

Description of the operation	Relevant Technical guidance	Document reference
	Environmental management –	https://www.gov.uk/guidance/risk-
	guidance	assessments-for-your-environmental-
	Risk Assessment for your	<u>permit</u>
	environmental permit	
	Biological waste treatment:	Biological waste treatment: appropriate
	appropriate measures for	measures for permitted facilities -
	permitted facilities - Biowaste	Guidance - GOV.UK (www.gov.uk)
	Appropriate Measure Guidance	

## 1. Part A – About you

Anglian Water Services is a registered company. The company registration number is 02366656, registered 1 April 1989.

#### Director details (question 5)

#### **Director and Company Secretary contacts:**



Directors' dates of birth should be redacted wherever this application is made public.

#### Contact details (question 6, 7)

#### Application contact :

Name: Donald Haymes

Address: Anglian Water Services, Lancaster House, Lancaster Way, Huntingdon, PE29 6XU

Phone number: 07811 606787

Email: dHaymes@anglianwater.co.uk

#### **Operational contact:**

Name: Nathan Ward

Address: Spalding Water Recycling Centre, West Marsh Road, Spalding, PE11 2BB

Phone number: 07808 630207

Email: <u>nward4@anglianwater.co.uk</u>

## 2. Part B2 - General – new bespoke permit

#### 2.1 Discussions before your application (question 1a/b)

The pre-application reference from the Environment Agency is EA/EPR/KB3603UB/A001.

The permit is for a permanent site not a mobile plant.

#### 2.2 Site details (question 2)

Site address: Spalding Water Recycling Centre, West Marsh Road, Spalding, PE11 2BB

Grid reference: TF 26140 25180

#### 2.2.1 Regulated Facility Type (question 2b)

This is a waste operation site.

#### 2.3 About the site (question 2d, 2e, 2f, 2g)

The application is for a waste operation permit, and no activities regarding treatment of batteries or ship recycling will take place.

#### 2.4 Technical ability (question 3)

No relevant person in AWS relating to this permit application has been convicted of any relevant offence. Any information relating to previous AWS convictions is provided in the standalone document AWS convictions April 2023.

Operational management is provided by qualified individuals and considered to be technically competent. All staff on site are trained to manage and operate activities without causing pollution. Competency in terms of the requirements of the environmental permit will be ensured through. the appropriate training of all staff, covering:

- Awareness of the regulatory implications of the Permit for the permitted activity and their own work activities.
- Awareness of all potential environmental effects from operation under normal and abnormal circumstances.
- Awareness of the need to report any deviation from the Permit; and
- Prevention of accidental emissions, and action to be taken when accidental emissions occur.

All staff are aware of the implications of activities undertaken including the operation of the site. Skills and competencies necessary to work on site are documented and records of training needs and training received for these posts are maintained.

Currently AWS uses the AWS developed technical competency course to demonstrate that personnel have the appropriate technical skills and knowledge to manage the activities undertaken. The AWS scheme is independently certificated as meeting the requirements of the Standard. The Competence Management System (CMS) enables Operators to demonstrate technically competent management on the basis of corporate competence and employees' individual competence. Individual competence remains a key component with each employee having the relevant technical competences required to carry out their role. It is also confirmed that the Spalding site and site type (activity) will be covered in the scope of the CMS. AWS engage a third-party certification body (LRQA) to audit and certify the CMS. The CMS certificate has been included in the application pack for reference.

Anglian Water are however in the process of moving from LRQA to BSI as the accredited certification body for the CMS system. Therefore, a copy of the contract that is in place with BSI has been provided which includes the Spalding site as part of the schedule listed on page 10 of the document.

#### 2.4.1 Details of the technically competent managers

Nathan Ward Simon Pavitt

Andrew Tawn

Gary Hooker

Kate Forshaw

All those listed are trained on the CMS system and deemed technical competent or will be within 12 months of permit issue.

#### 2.4.2 Your ability as an operator, continued (question 3)

Nathan Ward is also treatment manager for March WRC which has a standard rules permit, reference EPR/WE1464AB.

### 2.5 Management Systems (question 3b)

AWS's water recycling operations department has internal quality procedures for the operation, maintenance, and monitoring of its treatment assets. AWS continues to develop these standards, policy and procedures to improve environmental performance at its treatment plants.

An Environmental Management Plan (EMP) is in place, prescribing requirements for (where necessary):

- establishing an environmental policy.
- determining environmental aspects and impacts of products / activities / services through a risk assessment process.
- planning environmental objectives and measurable targets.
- implementing and operating programs to meet objectives and targets.
- ensuring compliance with environmental legislation including the requirements of environmental permits.
- checking and corrective action; and
- management review.

The EMP allows for the auditing of environmental performance against given criteria and those within the Environmental Permit to demonstrate continual improvement as part of the Plan, Do, Check, Act methodology.

AWS has a site-specific environmental management plan for each waste permitted AWS site, including Spalding WRC. The site-specific environmental management plan (refer to EMP in application folder) was developed to identify potential risks of the activities carried out, manage and control these impacts. The EMP also acts as a signposting tool for staff to understand what plans and mitigation are in place for:

- risk mitigation,
- odour control,
- reducing impacts on biodiversity.

AWS has a number of policies and procedures covering the O&M and monitoring of wastewater treatment processes that include sludge treatment plants; these policies and procedures fall within AWS's overarching management systems. The key procedures are called POSWASTES, POSMAINT and POSTEL.

POSWASTES includes policies, procedures and standards covering all aspects of wastewater treatment operation, including day-to-day operation, training requirements for operators and sampling / testing. POSMAINT covers policies and standards for the maintenance of assets such as planned preventative maintenance and reactive maintenance. POSTEL covers AWS remote monitoring telemetry systems, including policies and standards for alarm action codes, response times and data collection.

### 2.5.2 Roles and Responsibilities

The Treatment Manager is supported and advised by experts within the Energy Team, Process Science team and the Environmental Regulation team. The Treatment Manager has a staff of works technicians reporting to them.

The Waste Permitting Scientist located within the Environmental Quality team for AWS provides face to face CMS training to all appropriate AWS personnel and the Treatment Manager, and once issued, training will be provided in respect of the obligations of the Environmental Permit for the site.

ISO 14001 Environmental Management only covers RES's activities on site and sludge and cake movements between AWS sites. The Water Recycling Operational Logistic (WROL) / Circular Economy (CE) environmental management system manages the impact of the activities carried out by the team as detailed below:

- Cake storage on site and it's compliance to the waste permit,
- Haulage of AWS cake to and from the WRC,

• Spreading biosolids on land – the regulation of this activity is covered under a separate mobile plant permit.

The scope of ISO 14001 covers the activities that WROL / CE carry out, rather than the site itself as the site's responsibility lies with the Water Recycling team (the site owners). Locations that are listed on the ISO 14001 certificate relate to the main office bases for the WROL / CE team.

The Water Recycling team own and manage the permit and have operational control over the WRC, and work in conjunction with WROL / CE who oversee cake movements and storage of cake on site. Any complaints received proven to be specific to WROL's / CE's operations will be passed on to WROL's / CE's Environmental Compliance Team for further investigation.

#### 2.5.3 Compliance monitoring

AWS ensures compliance with both relevant legislation and appropriate standards (for example Environmental Permit conditions) by undertaking regular legislation reviews to identify updates to legislation and guidance applicable to the Plant and its management. The Waste Permitting Scientist monitors waste imports into site to ensure they are below permitted limits.

The Treatment Manager is in regular contact with several colleagues regarding operational and compliance issues.

#### 2.6 Supporting Information (question 5)

#### 2.6.1 Site Layout

Refer to Appendix A for the Site location plans.

Refer to Appendix B for the Site plan with permit boundary.

The site plan shows the permitted activity boundaries marked in green, the Head of works discharge emission point, a scale indicator, a North arrow and with the main road identified. There is also a stand alone copy site plan please see document "Spalding Permitted Activity Boundaries".

Detailed labelled site plans can also be found in the Odour Assessment Report.

A site infrastructure plan is also included as is a HAZOP drawing showing the site drainage arrangements.

### 2.6.2 Site Condition Report (question 5b)

A site condition report has been completed as part of this permit application. No groundwater or soil investigations have occurred as part of this application. Refer to the stand-alone document entitled Site Condition Report for more information.

As this is a new permit application, only the relevant sections 1-3 inclusive have been completed.

### 2.7 Environmental Risk Assessment (question 6)

#### 2.7.1 Introduction

Using the methodology outlined in with the EA's environmental management guidance 'Risk Assessments for your environmental permit', this section provides a revised assessment of the

effects of releases from the site on the environment. It also provides a justification that the measures in place for their control will adequately protect the environment. Emissions resulting in insignificant effects have been screened out; where further detailed assessments of potential environmental impacts are required this is also noted. A full description of the nature of the releases and measures to control them is provided in Section 3.2 below.

#### 2.7.2 Summary of site and sensitive receptors

Spalding WRC is located to the north of Spalding, and is an industrial setting, immediately surrounded by Spalding Power Station and various recycling companies. The site is bordered by the watercourse Vernatt's Drain to the north and the River Welland to the south, and the A16 to the east. Agricultural farmland surrounds the site to the north and east, and the closest residential property is 0.4km to the north east, across from the A16.

Spalding WRC sits outside 200m of an European Site, Ramsar Site, or a Site of Special Scientific Interest (SSSI). The closest designated is Vernatts Local Nature Reserve, just over 1.5km to the south west. The closest SSSI is Surfleet Lows, approximately 3.5km to the north of the site. Refer to Appendix C for a map of the sensitive receptors near the site. Spalding WRC is not in Air Quality Management Area (AQMA; Figure 1). The Environmental Risk Assessment and Environmental Management Plan describe any potential impacts to sensitive receptors and mitigation measures to adequately control the impact on the environment.

A climate change risk assessment has been carried out as a part of this application, and additional information can be found within the Environmental Management Plan. A total screening score of 7 was found using the Climate Change Risk Screening in Part B2 Form; The site will be used for at least 40 years, the site has a very low or low risk of flooding, and mains water is used for site operations, although final effluent (FE) is used were possible. Therefore, the Climate Change Risk Assessment was completed, and further information was added to the Environmental Management Plan.

The site is situated in a primarily industrial area and there have been no complaints of odour therefore even where odour may increase with increasing temperatures, there is a very limited risk on sensitive receptors. If odours do become an issue in the future, this would be proactively managed in line with the odour management plan.

Flooding from surface water is shown to be a low risk to the sites operations as Spalding WRC. Flooding from rivers and the sea was deemed a very low risk as the site is suitably above sea level. There has never been a flooding event at Spalding WRC.

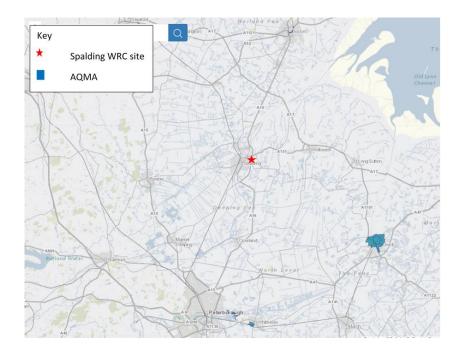


Figure 1: Air Quality Management Areas

The government 'Check the long-term flood risk for an area in England' tool: https://flood-warning-information.service.gov.uk/long-term-flood-risk/risk

## 3. Part B4 - New bespoke waste operation permit

#### 3.1 Waste Operations (question 1)

Spalding WRC is currently permitted to accept a total quantity of 100,000 tonnes per annum (tpa) (on a T21 exemption). This application proposes to vary the current waste operation to accept up to 100,000 tonnes per annum. The pre-application advice reference is EA/EPR/KB3603UB/A001.

Name of the waste operation	Schedule 1 or other references	Description of the waste operation	Annex I (D codes) and Annex II (R codes) and descriptions	Hazardous waste treatment capacity	Non-hazardous waste treatment capacity
Spalding WRC	Storage	Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the Site where it is produced).	R13		Maximum 4000 tonnes at any one time
	Treatment	Discharge of domestic wastes to head of works	D13		
	Raw material storage	Storage of raw materials including treated biosolids			
For all waste operations	Total storage capacity				4000 tonnes
	Annual throughput <sup>1</sup>				100,000 tonnes

Table 1a: Waste operations which do not form part of an installation.

1 This figure excludes flows through sewers and the treatment process as this is covered under UWWTD. Only sludge imports and cake imports should be considered as a throughput in the context of this permit.

### 3.1.1 Types of waste accepted (question 1 continued)

Only the following waste codes are accepted as imports to Spalding WRC. No hazardous waste is accepted. The total quantity of waste accepted will be 100,000 tonnes per annum.

Waste Code	WM3 Description of waste	Anglian Water Description
16 10 02	aqueous liquid wastes other than those mentioned in 16 10 01	Domestic waste (chemical toilets)
19 06 06	digestate from anaerobic treatment of animal and vegetable waste	Digested cake
19 08 05	sludges from treatment of urban wastewater	Raw sludge
19 09 02	Sludges from water clarification	Iron sludge
20 03 04	Septic tank sludge	Domestic waste (non chemical toilets, septic tanks).

Table 2: Waste codes accepted at Spalding WRC

The codes required are 19 06 06, to reflect the recent changes to the Environment Agency's interpretation of cake from a wastewater treatment works. 19 08 05 has also been included as requested in the pre application advice.

16 10 02 has been included as the site imports domestic wastes from chemical toilets (porta-loos).

A maximum of 4000 tonnes of biosolids (digested cake) will be stored at Spalding at any of time. Biosolids will not have cake stored for more than 12 months.

#### 3.2 Emissions to air (question 2)

There are no point source emissions to air, land, or water as part of normal operations. There is a standby back up generator on site for emergency/back up use only.

There are three mobile units on site which emit suppression sprays (perfume) into the air to reduce odours on site.

#### 3.2.1 Point source emissions to water (other than sewer)

There are no point source emissions to water from the site. There are no point source emissions to water as part of the proposal. There are no soakaways on site.

#### 3.2.2 Point source emissions to sewer, effluent treatments or other transfers off site

There are no point source emissions to water from the site other than sewer. There are no point source emissions to water as part of the proposal. Discharges are permitted under a separate permit as highlighted above.

#### 3.2.3 Point source emissions to land

There are no point source emissions to land from the site. There are no point source emissions to land as part of the proposal.

#### 3.3 Operating techniques (question 3)

#### 3.3.1 Technical standards

The table below provides further information in relation to the activity at the site. The table lists the technical guidance relevant to the site, used to inform the techniques and measures proposed to prevent and reduce waste arising and emissions of substances and heat, including during periods of start-up and shut-down, leaks and momentary stoppage/malfunction.

The Environmental Management System and Environmental Risk Assessment (refer to documents in application pack) indicate that, given the current and continued use of appropriate management measures, there are not expected to be any significant risks to the environment arising as a result of the proposed continuation of site operations. Where a risk has been shown in these documents, appropriate mitigation measures have been put in place to minimise the risk to the environment.

As there is technical guidance and standards (Biological waste treatment: appropriate measures for permitted facilities - Biowaste Appropriate Measure Guidance) and within the technical guidance there is no choice of standards, and it is not proposed to use another standard there is no need to justify using the technical guidance or standards. Section 3.2 above indicates there will be no point source emissions to air, water, land or sewer or other transfers off site. Diffuse emissions have been screened out in the environmental risk assessment provided as a standalone document with this application.

Description of the	Relevant Technical guidance	Document reference
operation		
Spalding WRC	Environmental management -	https://www.gov.uk/guidance/develop-
	guidance	a-management-system-environmental-
	Developing a management	<u>permits</u>
	system: environmental permits	
	Environmental management –	https://www.gov.uk/guidance/control-
	guidance Control and monitor	and-monitor-emissions-for-your-
	emissions for your	environmental-permit
	environmental permit	
	Environmental management –	https://www.gov.uk/guidance/risk-
	guidance Risk Assessment for	assessments-for-your-environmental-
	your environmental	<u>permit</u>
	permit	
	Biological waste treatment:	Biological waste treatment: appropriate
	appropriate measures for	measures for permitted facilities -
	permitted facilities - Biowaste	Guidance - GOV.UK (www.gov.uk)
	Appropriate Measure	
	Guidance	

#### Technical Guidance

Table 3 Technical Standards

## 3.3.2. Treatment Process (question 3 continued)

There are no proposed changes to the treatment process as a result of this permit application. The processes are the same what operated under the T21 exemption. The current treatment process is outlined below.

The site receives imports of iron sludge from AWS water treatment works sites which is fed into the treatment process at the head of works. The site also receives mixed imports of domestic waste, cess and septic and blue loo wastes (from chemical toilets). All domestic wastes are fed into the treatment process at the head of the works.

The wastewater treatment process consists of two pumped flows into the works. In the event of a storm event, the flow first passes through a storm screen before flowing past the overflow to the storm tanks. After the overflow the flow is measured through the flow to treatment flume, there is further screening before grit removal. Treatment consists of primary settlement after which the flow is pumped to the first stage biological filers after which there is intermediate settlement. There is a further wet well from where the flow is pumped for the second stage biological filtration after which there is final settlement. The flow then discharges from site by gravity unless the tidal valve is closed in which case the flow backs up and is pumped from the site.

The storm tank contents are taken off and returned upstream of the flow to treatment flow measurement system and other works returned liquors and re-circulated flows are taken off and returned downstream of the flow to treatment flow measurement system.

The flow to treatment flume and associated ultra sonic flow meter are used to certify the works under the Environment Agency MCERTS scheme.

Dewatering is carried out on site but not solely on any of the imported wastes. Dewatering is carried out on the outputs from the WRC process which includes the indigenous sewage which will include any wastes deposited at the head of works. Any sludge produced from the process is thickened via an Aquabelt to around 6% D.S and sent offsite via road tanker for further processing at an AWS sludge treatment centre (STC).

Cake is only imported for temporary storage on the site's storage pad and is not a part of the treatment process. There is site drainage around the pads with a retaining wall on 3 sides to reduce the risk of pollutions. There are also groyne walls creating bays made from concrete lego walls. Vehicles discharge cake onto a concrete pad with sealed drainage allowing excess liquid to drain back to the head of the works for full treatment. If there is deemed an issue with the storage pad then cake should be removed until further notice whilst the issue is fixed.

The HAZOP drainage plan shows the drainage (purple dotted line) from the cake pad area which has sealed drainage connecting to the supernatant sludge liquor drainage (light blue line) to return to the head of works. The HAZOP drainage plan is provided as a standalone document Spalding HAZOP.

#### 3.3.3 Acceptance of wastes

There will be no changes to the current waste acceptance procedure as followed under the T21 exemption. No hazardous waste will be accepted. Only wastes listed in Table 2 above are accepted at Spalding WRC.

Sludge (19 08 05) is accepted from the onsite Water Recycling Centre and from other AWS sites. Incoming vehicles delivering imported sludge from other Water Recycling Centres are directed to the reception import tank.

Digested cake (19 06 06) is imported from other AWS sites for storage. Digested cake is BAS compliant and stored until it can be recycled to land.

The following acceptance procedures are in place:

- Quantity of waste delivered is measured.
- Unloading is undertaken by trained operative.
- Vehicle movements are managed by RES.

Iron sludge (19 09 02) is imported to the head of works for full treatment through the water recycling centre. This waste is only from AWS operated water treatment works.

Given all sludge and cake is from other Anglian Water sites, AWS is aware of the composition of the waste, handling requirements and the EWC codes to ensure that these are compliant with the EWC codes of waste that can be accepted as contained in the Environmental Permit. The reception area is regularly inspected to ensure that there are no cracks or damage to the integrity of the impervious areas. The reception area has drainage to ensure that any spillages are collected and contained and transferred to the head of the WRC for treatment.

Domestic waste tanker companies must have a consented licence, issued from AWS, before any domestic imports are accepted. Drivers must sign in on site and record their imports. Random sampling is taken by competent persons on site and failed samples are investigated thoroughly and enforcement action is taken where necessary. A minimum of 1 sample per month is taken, in line with POSWASTE.

Operating hours for deliveries for imports by 3rd party domestic waste tankers from 8:00 am to 5:00pm Monday to Friday. For Anglian Water (AW) Water recycling Operational Logistics (WROL) and AW contracted tankers access to the site can be at any time in case of need or emergency. number and time of tanker deliveries per day varies. As an indication the mean, minimum and maximum numbers per day over the 4-month period August 2023 to November 2023 were: Mean 9, minimum 4, and maximum 23.

#### 3.3.4 Management of Cake Storage

Digested cake is imported from other AWS sites after going through a treatment process as detailed in the relevant site's HACCP plan. All cake is compliant with BAS (biosolids assurance scheme). Any requirements for quarantining stock are detailed in the HACCP plan. Sampling is done at the relevant treatment site, not at Spalding WRC. The cake pad is concrete pad with concrete walls separating the stocks, with a concrete wall at the back.

The only handling of the waste is done by the excavators, operated by RES/contractor's technically competent people.

The WROL / CE Recycling and Environmental Compliance Team inspect the site at regular intervals. In addition, there is a framework of AW employees and contractors (drivers) who will monitor cake stocks and flag any potential compliance issues to the Recycling and Environmental Compliance Team as needed. ISO 14001 accredited Environmental Management System for WROL / CE manages the impact of the activities carried out by the team as detailed below:

- Cake storage on site and it's compliance to the waste permit
- Haulage of AWS sludge and cake to and from the site

• Spreading biosolids on land – the regulation of this activity is covered under a separate mobile plant permit.

The scope of ISO 14001 covers the activities that WROL / CE carry out, rather than the site itself as the site's responsibility lies with the Water Recycling team (the site owners). Locations that are listed on the ISO 14001 certificate relate to the main office bases for the WROL/ CE team.

The Water Recycling team own and manage the permit and have operational control over the site, and work in conjunction with WROL / CE who oversee cake movements and storage of cake on site. Any complaints received proven to be specific to WROL's / CE's operations will be passed on to WROL's / CE's Environmental Compliance Team for further investigation.

Due to the wet form of the biosolids stored on the site, they do not pose a fire risk. Therefore, a Fire Prevention Plan is not required for the site.

## 3.3.5 General requirements (question 3b)

The site has been constructed and operational for a number of years. All elements of the site have been constructed to appropriate standards and are maintained by the existing management systems outlined.

The revised Environmental Risk Assessment and Odour Management Plan indicate that, given the current and continued use of appropriate management measures, there are not expected to be any significant risks to the environment arising as a result of this permit application. There are no emission limits for operations at Spalding WRC.

Passive controls were considered within the design process of the WRC; The tanks, pipes and valves are designed to appropriate industry standards at the time of the build (WIMES). Regular checks on cake storage area integrity are undertaken as part of the ongoing monitoring regime.

### Fugitive Emissions - Odour

The scope the permit application does not directly impact on odour risk. The odour modelling done for this permit application has shown that there is low risk of fugitive odour emissions. Modelling was done as the site has had issues with odour in the past, however the source of this (liming) is not done anymore. Odours will continue to be controlled using the current operational procedures.

There is a risk that residents of relatively close properties will be able to detect odours from the WRC at an intensity of  $3 OU_{\text{E}}/m_3$ , as a 98 percentile of 1-hour average odour concentration. At this concentration, the odour will be very faint and not recognisable.

Refer to the Odour Management Plan and Odour Modelling Report for further guidance.

#### Fugitive Emissions - Noise

Noise modelling was not carried out as part of this application as the current normal operation of the site has not resulted in any noise complaints. As such it is taken that the continuation of the site's activities will have minimal impact on the noise levels of the surrounding area and no noise modelling is required.

Refer to the Environmental Management Plan for further guidance; due to the very low noise impact on the surrounding area a Noise Management Plan has not been created. The pre application advise letters mentioned above did not request the creation of a Noise Management Plan. Despite this, appropriate measures have been considered for noise as all equipment on site is maintained under the AWS internal management system, POSMAINT, and there is an existing complaints procedure in place in case there are any complaints in the future.

Furthermore, the control measures implemented for fugitive emissions to land and water were considered during the construction of Spalding WRC. Spillages on site are appropriately dealt at the time of the incident, and all sludge treatment handling and storage is conducted on impermeable surfaces with drainage which flows to the head of the works for treatment. Any release of process waters are also rerouted to the head of works for treatment. Flows and levels of tanks have fill level meters to reduce the potential for leakages and overfilling.

All storage tanks are built of suitable materials, which are resistant to the vessel content. Site surfaces surrounding liquid storage areas and transfer pipes are constructed of impermeable material and equipped with appropriate drainage structures to prevent escape of fluids to surface waters.

#### 4. Monitoring (question 4b)

The site currently does not have requirements for any monitoring of activities, emissions or the environment. This is a waste permit application for a site with no point source emissions like generators or engine, therefore there is no monitoring proposed.

## 4. F1 Form – Charges and declarations

#### Working out charges (Question 1)

The pre application advise confirmed that this application is has two activities, 1.16.12 and 1.16.7 as on the Environment Agency's charging scheme.

#### Payment (Questions 3)

Payment will be by BACS payment.

Unique reference number for the application: PSCAPPANGLI014

Who is paying: Anglian Water Services Ltd

Fee paid: £17,885.

Break down of fee:

- New permit application 1.16.12 £7,930
- New permit application 1.16.7 £7,930
- Habitats assessment £779
- Odour Management Plan £1246

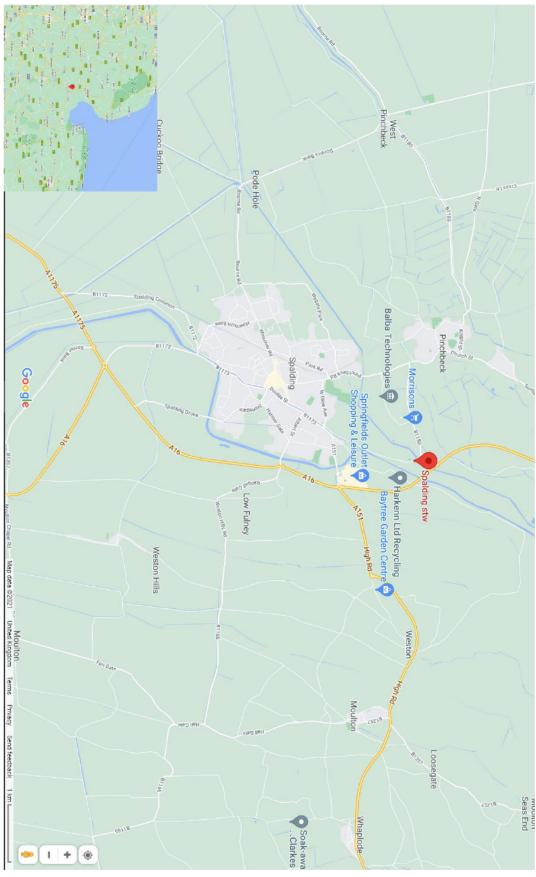
Date PO order sent: 11/05/2022.

#### Confidentiality and National Security (Question 5)

AWS do not wish to claim confidentiality with this application. **Directors' dates of birth should be redacted wherever this application is made public.** 

A full list of stand-alone documents which form part of the application can be found in section 1.2 above. References to all other questions are found in the MSD which makes reference to the question in the subtitle. Specific sections to the MSD are identified in the relevant forms.

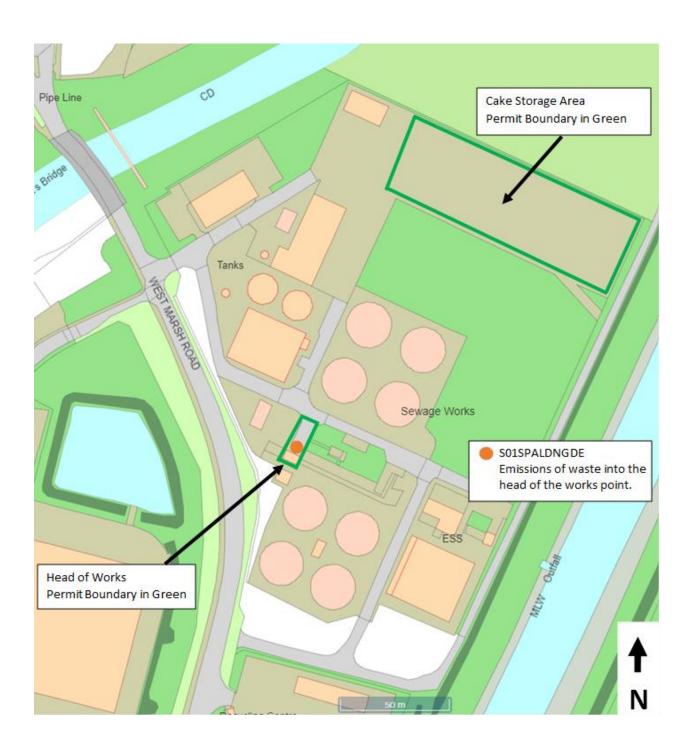
# Appendix A – Site Location Plans



24

## Appendix B – Site Plan

This site plan has also been supplied as a standalone document in the application folder.



## Appendix C – Nearby sensitive Sites

The red circle is Spalding WRC. The closest designated site is Vernatts LNR.

