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Review by: 10/07/2025 Owner: Head of Treatment

### **Odour Management Plan**

## **<u>1. Odour Management</u> 1.1 Whitlingham cake storage area**

The site is located off Kirby Road, Norwich, NR14 8TZ, its location is shown in Figure 1 of Appendix A.

National grid reference: NGR TG 27407 07197

This OMP is available to all site staff and those involved in the cake storage and all waste delivery operations, there are copies on site in the blue box and in an operational document folder on SharePoint.

## **1.2 Guidance for preparation of Odour Management Plans**

Table 8 of the IAQM Guidance on Odours and Planning provides recommended content for the preparation of an OMP, it suggests the main areas to be covered are:

- essential site details,
- routine controls under normal conditions,
- abnormal conditions and additional controls,
- triggers for additional controls, and
- management good practice.

The relevant table from the IAQM guidance is reproduced in Appendix B, which also provides details on the expected content for each section. This structure and content have been followed to produce the details of the OMP.

The OMP has been produced in accordance with the Environment Agency's H4 Odour management guidance published in April 2011 (<u>https://www.gov.uk/government/publications/environmental-permitting-h4-odour-management</u>).

The Appendices to this OMP are as follows:

#### Appendix A:

Figure 1 Site location plan (Source Google Earth)

Figure 2 Main process areas at WRC

Figure 3 Windrose for WRC

Figure 4 Routine odour monitoring locations

Figure 5 Maintenance requirements for odour control units including daily/weekly/monthly/annual checks and serviving (links to log books and check sheets to be included)

#### Appendix B – for information:

Table from IAQM Guidance

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### 2. Site 2.1 Essential Site Details

The site is an operational wastewater treatment works which can be split into distinct areas:

- Inlet
- Storm handling



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- Primary settlement
- Biological Treatment Anaerobic Zone (Known as Bio P) & Activated Sludge Plant (ASP)
- Secondary settlement
- Sludge handling and treatment STC
- Cake import, export and storage

These main processes areas are shown in Figure 2 of Appendix A. It is important to recognise that the areas of the site likely to produce the highest amounts of odour are those associated with treating fresh sewage (i.e. the inlet works) or where sludge might be handled. In the most recent odour survey, the proportion of odour emitted from the 7 general areas is shown in Table 1 here:

### Cake Import Export and Storage

Raw and digested cake EWC code 19 02 06 and 19 06 06 will be imported to the Whitlingham site cake storage facility. The maximum tonnage of cake the cake pad can hold is 25,000 tonnes. The cake pad has an impermeable surface with Lego block walls along the sides and the back and there are separate areas / bays within the cake storage pad area which would allow for the separation of the different forms of cake.

Cake will be imported and exported using rigid bulker lorries which are sheeted.

Days of operation for cake receipt for storage are variable through out the year and are needs based depending on land bank availability and storage capacity, Spring and Autumn are peak periods for imports and exports of cake. For cake removal from site this could be between 4:30 am and 7:30 pm and for cake delivery to site could be anytime. The number and time of deliveries per day varies. As an indication the mean, minimum and maximum numbers per day over the 4 month period September 2023 to December 2023 were: Mean – 5 Minimum – 1 Maximum – 16.

Table 1 Contribution of main source categories to odour emissions

Process area	Percentage of total odour emitted*
Inlet Works	20
Primary Settlement Tanks	15
Biological Treatment – Anaerobic Zone (Known as Bio P) & Activated Sludge Plant	0.5
Final Settlement Tanks	0.5
Sludge treatment and storage	30
Raw Cake and Digested cake (EWC code 19 02 06 19 06 06) storage	30

\*not totalling 100% – miscellaneous sources not included

The frequency of wind direction and the distance to the nearest properties are key factors in determining likely odour impacts.



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### 2.2 Odour Modelling

The frequency of wind direction and the distance to the nearest properties are key factors in determining likely odour impacts.

Receptors sensitive to odour include users of the adjacent land, which may vary in their sensitivity to odour. The level of sensitivity will be defined using the Institute of Air Quality Management guidance<sup>2</sup>

- High sensitivity receptors e.g. residential dwellings, hospitals, schools/education and tourist/cultural.
  - o users can reasonably expect enjoyment of a high level of amenity; and
  - people would reasonably be expected to be present here continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land.
- Medium sensitivity receptor e.g. places of work, commercial/retail premises and playing/recreation fields.
  - users would expect to enjoy a reasonable level of amenity, but wouldn't reasonably expect to enjoy the same level of amenity as in their home; or
  - people wouldn't reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land.
- Low sensitivity receptor e.g. industrial use, farms, footpaths and roads.
  - $\circ$  the enjoyment of amenity would not reasonably be expected; or
  - there is transient exposure, where the people would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land.

The magnitude of risk relates to:

- Frequency: How often an individual is exposed to odour
- Intensity: The individual's perception of the strength of the odour
- Duration: The overall duration that individuals are exposed to an odour over time
- Odour unpleasantness: Odour unpleasantness describes the character of an odour as it relates to the 'hedonic tone' (which may be pleasant, neutral or unpleasant) at a given odour concentration/ intensity. This can be measured in the laboratory as the hedonic tone, and when measured by the standard method and expressed on a standard nine-point scale it is termed the hedonic score.
- Location/Receptor sensitivity: The type of land use and nature of human activities in the vicinity of an odour source. Tolerance and expectation of the receptor. The 'Location' factor can be considered to encompass the receptor characteristics, receptor sensitivity, and socio- economic factors.

### 2.3 Sensitive Receptors

There are a number of receptors in relative close proximity to the site. The sensitive receptors within 1000m of the site or where there has been contact regarding odour are identified in the tables 2 below and the location plan in Appendix 1 figure 2.

The closest residential areas are Able Community Care 285 m to the North North East of the site and properties on Whitlingham Lane which are around 320 m in a North West direction of the site.



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Table 2: Receptors within 1000m or where there has been contact regarding odour of potential emission sources from the cake pad storage operation at the Site

Receptor Type	Receptor (a)	Potential emission source to receptor	Process	Distance (m) from nearest potential emission source <sup>(c)</sup>	Direction of receptor from closest emission source
Sensitive receptors near the Site (places of work, amenity areas)	Marinas & Dockyards on river Yare	Cake Pad Storage Area <b>(b)</b>	Cake imports exports and storage	1000 m	North East
	Greenhouse Growers Kirby Lane			785 m (d)	West South West
	Crown Point Industrial Estate			1200 m	South South West
	Properties on Whitlingham Lane			320 m	North West
	Able Community Care			265 m (d)	North North East
Residential properties near the Site (residential)	Properties on Boundary Lane	Cake Pad Storage Area <b>(b)</b>	Cake imports exports and storage	1370 m	North East
	Properties on Common Lane			1000 m	North
	Whitlingham Hall			1650 m	West
	Properties in Postwick			1930 m	East
	Properties in Thorpe St Andrew			1400 m	North North West
	Properties on Bungalow Lane			765 m	North
	Properties on Kirby Lane			1440 m	South
	Whitlingham Marshes		Cake imports exports and storage	550 m	North North East
Amenity area near the Site	Thorpe Marshes	Cake Pad Storage Area (b)		750 m	North
	Whitlingham Wood			480 m (d)	North

pad



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- a) For the location of the sensitive receptors please see Appendix A figure 1
- b) For the location of the cake pad storage area please see Appendix A figure 2
- c) Distance from source to receptor is rounded to the nearest 5m
- d) Value in bold represents the nearest potential sensitive receptor within that receptor type

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### 2.4 Routine Controls

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#### 2.2.1 General Controls

All equipment on-site is serviced regularly to ensure correct operation of the works. There are staff onsite who inspect the site every day and would identify if any malfunction had occurred. In addition to this a standby shift operates to ensure availability of resource as required, the site is occupied from 06:00 – 18:00 daily, with standby cover 24/7. General housekeeping measures are in place across the whole site to keep surfaces clean and clear of odorous

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materials to reduce odour risk. Before any major planned works on the site that may result in unusually elevated odour emissions, our impact plan procedures must be followed.

### 2.2.2 Inlet works/Storm tanks

Incoming raw sewage can have higher levels of odour if allowed to become septic. Therefore collaboration with our networks teams is required to ensure the catchment is being managed as required to reduce septicity and to reduce the time raw sewage is entrained within the system before reaching Whitlingham WRC.

Trade effluent is regulated to ensure discharges reduce the risk of odour release, where the waste composition is likely to be highly odorous it is not accepted at the site. Anglian Water consents multiple parameters on trade effluent discharges to minimise the impact of odour on the receiving sewer network and WRC. The following are considered for inclusion in the permit:

- TON (Total Oxidised Nitrogen) to protect crude sewage levels at the WRC inlet
- pH to minimise hydrogen sulphide production in the receiving sewer and WRC
- Temperature will be lowered from standard consent limits if there is an increased odour risk
- Sulphide where odour is an issue in the receiving catchment
- Sulphate to limit the production of hydrogen sulphide

Where limits are set these are monitored through the routine Trade Effluent sample programme.

The septic tanker discharge point is submerged to avoid turbulence and odour release. Imports are only allowed during the working day to limit any potential impact on housing during evenings and weekends.

The skips at the inlet works can be potential sources of odour if the contents are stored for long period or contain waste material that is unusually odorous. These skips are changed regularly to reduce the potential for odour emissions, and they are inspected daily by site staff to determine if any further action is required, such as immediate removal of the contents by contractor.

Regular servicing of the screens and compactors is undertaken to ensure that the equipment is operating at optimum performance.

In normal operation the storm tanks are manually emptied and cleaned as soon as is practical after use. Storm tanks used in heavy rainfall conditions. If they are required to enable planned maintenance, EA permission will be sought, and impact plans written to mitigate all risks including odour.

#### 2.2.3 Primary settlement tanks

Primary settlement tanks (PSTs) contain screened raw sewage and collect primary sludge that can be odorous if not removed regularly. Daily sludge removal is manually undertaken to maintain a consistent low volume of sludge within the PSTs. PST sludge blanket target is greater than 2.5m for optimum operation.

Regular tank inspections are carried out and there is a maintenance plan to keep the equipment operating at its expected performance levels.

Sludge depth testing is carried out two times a week. Extra manual de-sludging of a specific PST is carried out if a high level is recorded in that tank.



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#### 2.2.4 Activated sludge plant

The activated sludge units aerate settled sewage with an active biomass, as a result, septicity should not occur within this process unless sludge is not removed correctly.

The treated sewage is settled in the final tanks with part of the settled sludge (RAS) returned to the activated sludge tanks and part removed from the tanks for further processing (the SAS).

There is a routine maintenance regime for the sludge removal equipment and its operation is carefully controlled to maintain optimum performance.

### 2.2.5 Sludge handling & Treatment - STC

Regular servicing of the equipment use is undertaken to maintain optimum performance. This includes the assets that are used to maintain the plant, such as pumps, strainpresses, mixers and any odour control units (OCU's) that operate alongside the storage tanks.

#### 2.4.1 Cake Storage

Limited storage time that raw and digested cake would be stored for. The maximum storage time of 12 months is to ensure that the maximum period of potential storage is covered, this would be from one growing season to the next. Normal circumstances would see cake stored for 6 to 8 months. Storage time is dependent on landbank availability. It is tried to source landbank outlets that could accept all the cake stored and would ensure the building is emptied at least annually.

To minimise odour during all cake movements by the front-end loader the bucket is kept as low as possible to the ground and a narrow working face as possible is maintained. When loading cake into vehicles with a loading shovel tipping is done at the lowest safe minimum height possible to minimise the release of odour.

WROL / CE teams control two odour suppression spray mobile units for the cake pad. These sprays can be run either on a timer or on a continual process.

Monitoring of the cake storage area is by monthly cake storage facility inspections, cake stocks are monitored weekly and the individual cake bays are emptied at least annually for any maintenance.

On site capacity is monitored to ensure storage capacity is not exceeded. Cake deliveries and on site storage capacity is managed through Water Recycling Operational Logistics (WROL) by the use of spreadsheets which track the amount of cake already delivered, the amount of cake removed form site to land and thus the total available on site capacity based on the capacity of the building.

The cake storage facility will be inspected monthly, during monthly cake storage facility inspections the following will be checked:

- That the storage lego block walls are intact.
- Make sure that the drainage is still working and not blocked.
- Make sure stored cake is pushed up and stockpiled correctly.

Once a year carry out maintenance on cake storage facility.

All information from monthly and annually inspections is stored on M2i (a performance management database) and reported to relevant persons with a monthly report now going to FLM and senior management board.



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### 2.5 Reasonably Foreseeable Abnormal Conditions

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The following have been identified as conditions that could give rise to increased levels of odour and the proposed mitigation is detailed:

Potential abnormal condition	Mitigation
Unable to process sludge through the strain presses or centrifuge due to a breakdown on sludge de-watering equipment.	For strainpresses and centrifuges, we have three of each that operate a Duty/Assist/Standby mode to ensure there is always availability. In the event of mass asset failure, hire equipment is available and can be deployed to site at short notice
Cake Silo Failure	Over pumping facilities are in place to allow effective bypass of cake silos to ensure the treatment process can still operate
Unusually septic sewage arriving at WRC	Reduce incoming sludge loads from satellite sites and increased desludging to remove the load
PST desludge failure	Each PST can be isolated in the event of failure and emptied, the PST's are routinely maintained
OCU break down	OCU's are routinely maintained and hire units are readily available for deployment at short notice
Storm tanks full for prolonged period	Dependent on whether, manual return can be ensured to reduce holding times and an automated gantry with washwater is available for quick cleaning
Extended storage of cake	Bio resource team to manage removal.
Drainage channels on cake storage area become	Monthly inspections to check and clearance of channels arranged
blocked	if blocked.

## 2.6 Triggers for Additional Controls

Investigation of the need for additional controls will be triggered if any of the following occurs:

- More than three validated complaints from different locations being received over a one week period.
- Routine odour monitoring with the Jerome monitor carried out by staff indicates levels of odour are present at sensitive receptors are likely to result in complaint.
- Period where the average ambient temperature exceeds 27C for more than five days.
- Equipment breakdown on the site that leads to treatment or storage processes becoming more odorous.

### 2.5 Routine Monitoring

To manage the day-to-day fluctuations in odour and operations the site has dedicated technicians who assess for odours daily. This is carried out as part of their routine activities and any highlighted issues will be escalated and mitigated where possible.

The site has access to, and uses the following methods to assess the odours detected on site:

- Operational staff detecting differences in odours compared with normal operation
- Jerome odour meter
- Routine odour surveillance using Jerome monitor completed by site staff and readings logged for reference (minimum x2 per week).



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On site there is a Sky Link Pro weather station (http://www.skylink-pro.com/index.php), which provides live weather data and historic records. This information will be used to help identify likely sources of odours when complaints are received. Skyview Systems maintain the station and provide access to the output data from their website.

This station continuously logs the following parameters:

- Atmospheric pressure
- Ambient temperature
- Humidity
- Wind speed and direction
- Rainfall

The location of any odour detected, and the wind speed and direction recorded at the time can be used to assist in identifying the general area of the WRC which may be the source of the odours (or show that there is another source in the area).

It is acknowledged that at times it is difficult for operational staff to detect odour changes, however where this occurs, or where the routine investigation highlights an issue, or a complaint is received, the site personnel will investigate and if the issue is on-going, the Senior Modeller would be contacted to potentially carry out further odour surveys.

If an odour is detected on site, sources will be investigated to determine the source and consider wind direction along with other local sources of odour. Any highlighted issues will be escalated and mitigated where possible. If the source can be identified, actions will be taken to stop odour generation or stop the activity responsible. If the activity cannot be stopped immediately for operational reasons, the Regulators will be informed, with a time scale to affect a permanent solution.

Odour detection findings would be recorded and rectifications if required. A record is also maintained of any known off-site activities that may have an impact on odour, such as agricultural practices. This consists of an entry in the site log book showing relevant time and date.

All odour reports will be shared with the EA on the incident reporting line – 0800 80 70 60.

If the issue is on-going, the Senior Modeller would be contacted to potentially carry out odour surveys.

### **2.6 Odour Complaints**

There are 3 routes through which complaints may be received:

- Customer call into the AWS Operational Management Centre (OMC) on 08457 145145 (24hr emergency contact).
- Customers report odour complaints electronically; via a mailbox (CustomerReports@anglianwater.co.uk), via the Anglian water website or via social media.
- In person on site either direct or via Environment Agency.

Complaints received through any of these routes will be handled in the same manner using the following procedures.

#### 2.6.1. Action taken to resolve complaint

The complaint will be initially logged in the AWS SAP database, this system holds records of all customer jobs/complaints received by the company and allows a history of actions taken. The treatment manager will be contacted and will investigate the issue and report back to customer care team or direct to the customer.

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Any significant changes, including process changes, plan changes or increase in complaints or odours detected will result in this plan being reviewed.

This plan will be stored on Sharepoint.

### 2.7.1 Business management systems

There are various documents and processes within the business management systems for AWS that address odour and the management of complaints. The list below details some of the key processes and how they can be found on Lighthouse:

- POSWASTE Odour Control holds all the standard documents relating to managing odour.
- Where further investigation is required the Odour Modeller and Process Science team will support with root cause analysis and next steps.
- The current odour model can be obtained from the modelling team, contact Omid Shafibeik. •

#### 2.8 **Community Engagement**

We will communicate planned activities with the potential to cause odours and any other identified issues on-site, to the following:

Organisation	Contact name	Email
	South Norfolk District	
Environmental Health	Council	council@southnorfolkandbroadland.gov.uk
		naomi.rodrigo@environment-agency.gov.uk /
		ANEM-N-NORFOLK@environment-
Environment Agency	Naomi Rodrigo / EA Officer	agency.gov.uk
	General Enquires	enquiries@environment-agency.gov.uk
Anglian Water Customer Service	Customer Issues	CustService@anglianwater.co.uk

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Any complaints received from either members of the public or from regulators (Environment Agency, Environmental Health) will be investigated promptly and appropriate remedial action taken. Complaints are regularly monitored by the Treatment Manager and compared to actions being undertaken on the site or in the local network.

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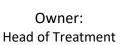
The treatment manager will be responsible for reporting odour complaints to the Environment Agency in line with the permit conditions and by sharing them with the EA on the incident reporting line 0800 80 70 60.

Should continuing odour complaints be received then this is a trigger for consideration of further odour controls. The results will be noted in the site odour log book, the complainant will be informed of the outcome of the investigation and any steps required to mitigate the odours.

#### 2.7 Management Responsibilities

Responsibility for the implementation and updating of this OMP lies with the Treatment Manager. This OMP will be reviewed annually and whenever there are major changes in the process. Where new information regarding odours becomes available (for instance though new odour surveys and modelling) the OMP will be reviewed and updated to reflect this information.

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### 2.9 Training of Staff

All staff who have responsibilities under this plan will receive training from the Treatment Manager and an odour elearning module will be completed by relevant staff when available. This will be updated annually or whenever there are significant changes to the OMP. Selected operations staff to receive training in the following:

- SNIFF Testing (Includes selected office/admin workers allocated to undertake the SNIFF)
- Complaint reporting (Management and operations staff)

## 2.10 Keeping of Records

A logbook will be maintained which will contain the OMP and the maintenance schedule for the equipment. Records of the cleaning of the extract system will be maintained in the logbook.

The logbook will record:

- Results of the regular Jerome tests.
- Details of any odour complaints received and the outcome of any odour testing.

The site odour logbook will be available for inspection by the local authority environmental health officer.



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### Appendices

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#### Appendix A:

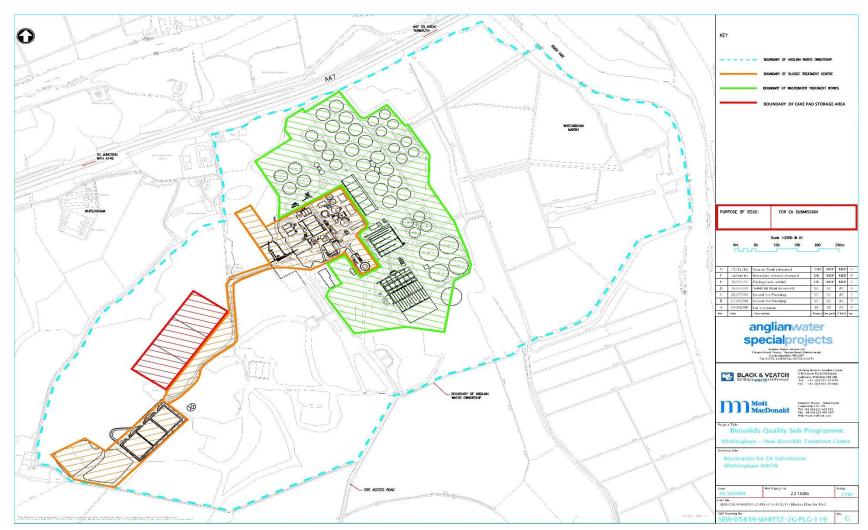
Figure 5 Site location plan (Source = Google Earth)

Location Plan showing Whitlingham STC



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#### Site Location Plan with cake storage area, WRC and STC marked

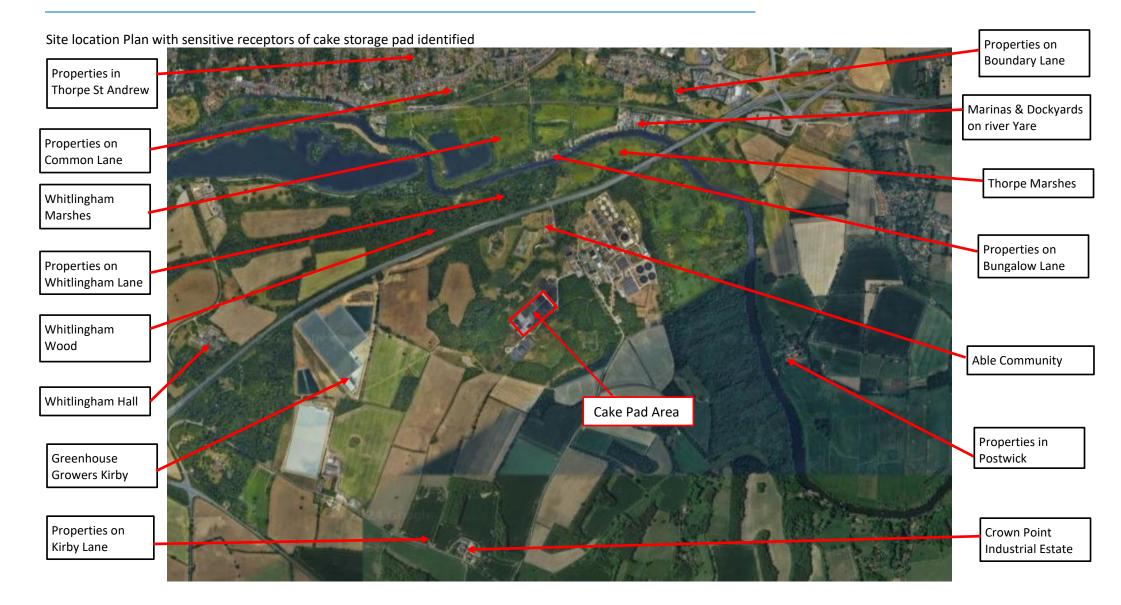




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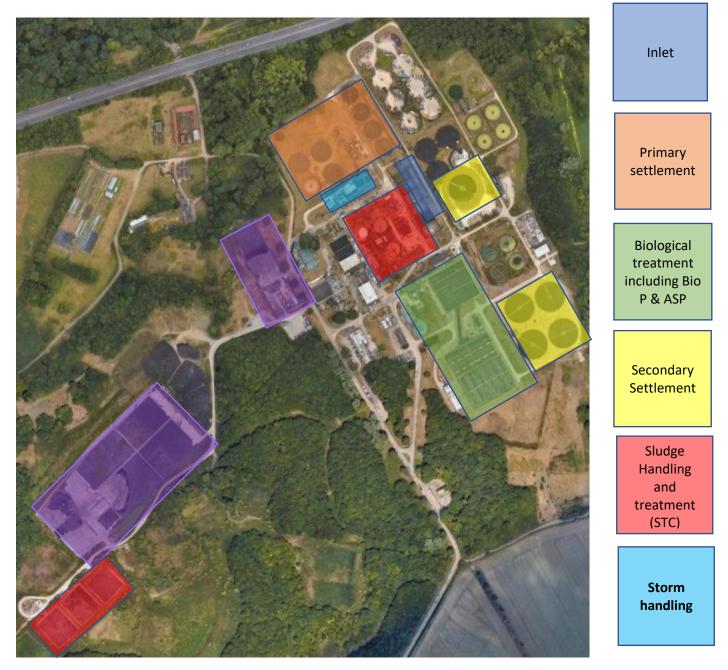


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Figure 6 Main process areas at Whitlingham:



Cake storage

<b>Odour Management Plan - cake storage</b>	
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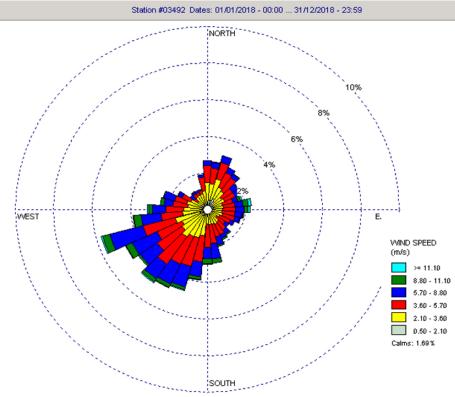
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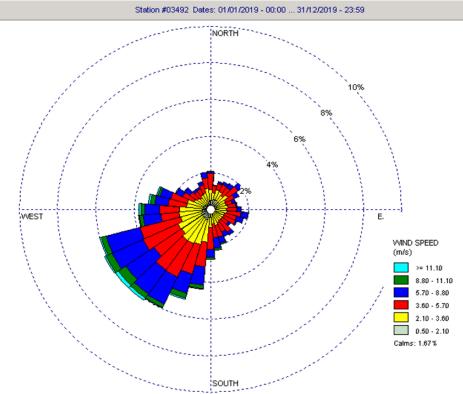
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Figure 7 Windroses for Whitlingham:

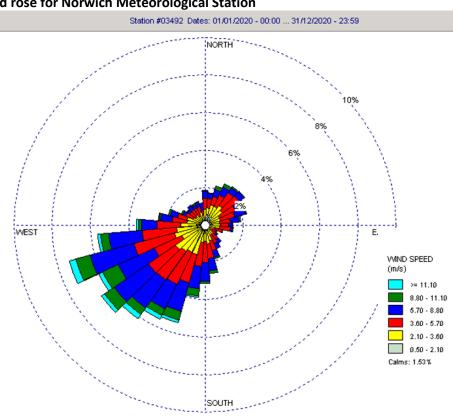
#### 2018 wind rose for Norwich Meteorological Station





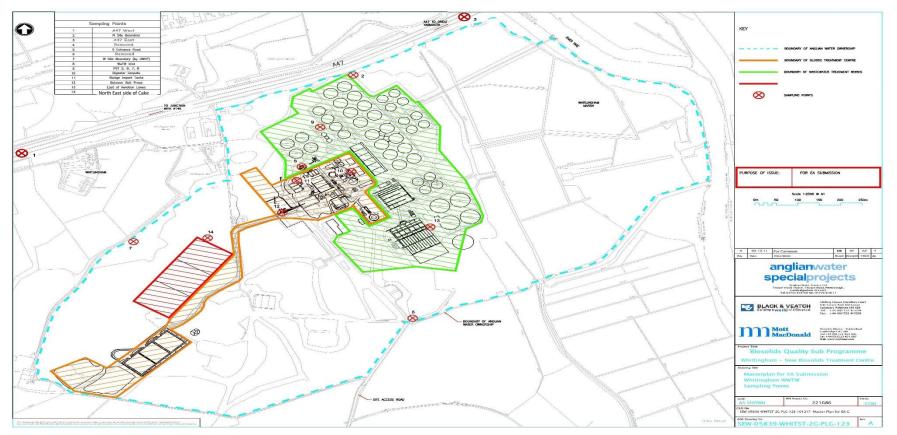


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Figure 8 Routine odour monitoring locations:



To manage the fluctuations in odour and operations the site has dedicated work technicians who assess for odours when on site. This is carried out as part of their routine activities and any highlighted issues will be escalated and mitigated where possible. The site has access to, and uses the following methods to assess the odours detected on site:

It is acknowledged that at times it is difficult for operational staff to detect odour changes, however where this occurs, or where the routine investigation highlights an issue, or a complaint is received, the site personnel will investigate and if the issue is on-going, the Senior Modeller would be contacted to potentially carry out further odour surveys. During routine operations the below areas are checked for changes in odour and escalated where applicable.



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Figure 5 Maintenance requirements for odour control units including daily/weekly/monthly/annual checks and servicing (links to log books and check sheets to be included)

## Parameters and monitoring requirements in relation to the odour control system to be undertaken at the site

Emission Point Type	Parameter	Monitoring Frequency	Monitoring standard or method
Channelled emission to air (biofilter and scrubbing system	Ammonia	Once every 6 months or more frequent if stated in the permit.	Emissions of pollutants into the environment through any kind of duct pipe stack etc. As per design and manufacturer's specifications EN ISO 21877
	H <sub>2</sub> S		CEN TS 13649 for sampling NIOSH 6013 for analysis
	Odour concentration		BS EN 13725
	Efficiency checks	Annual	Annual report detailing the removal efficiency of all abatement systems and planned maintenance including media health air flow distribution and emissions removal efficiency BS EN 13275
	Media moisture and gas flow temperature	Daily	Recorded using a moisture meter and temp probe
	Gas stream flow	Continuous	As per design and manufacturer's specifications
	Surface condition	Daily	Visual assessment
	Thatching and compaction	Weekly	Back pressure



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### Corgin Odour Suppressant Cake Pad Maintenance Plan

Check	Frequency	Ref.	Action
Check level of concentrate in tank/drum	Daily	Pg.5 item 19	Top up as necessary, take appropriate care, use correct PPE, and check MSDS.
Check system is in daily use. If not, it should be purged	Daily	Pg.4 item12	Purge as required, press purge button on control panel.
Check likelihood of freezing, purge if required.	Daily	Pg.4 item 12	Purge as required, press purge button on control panel. If auto-purge is fitted, confirm frost-stat operates correctly.
Check appearance of filter cartridge within control panel	2 weeks	Pg.3 items 2,4	Change cartridge if discoloured, and change inline filter at the same time. This should be done in any event every 3 months. This is tracked in TM and Optimiser calendar
Legionella check	6-monthly	Pg.7	Contact Corgin to carry out precautionary Legionella test and disinfection service.
Strip down and lubricate nozzles	Annually	Pg. 5 item 21	Access each nozzle position, service by competent person, discuss with Corgin for details.



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Owner: Head of Treatment

#### Appendix B: Extract from IAQM Guidance

Odour Table 8: Recommended content of an OMP for planning purposes ESSENTIAL SITE DETAILS A process description, particularly describing odorous, or potentially odorous, activities or materials used (inventory) Identification of all the release points for each of the activities (plan/map) Identification of the sensitive receptors within the area of influence that could be impacted (plan/map) A description of the meteorological conditions prevailing at the site, especially wind direction. A wind rose (from a nearby representative meteorological station or from site sensors if installed) is an ideal format. A description of the routine mitigation/control measures that would be used day-to-day under normal operating conditions in the absence of any unusual risk factors. Examples of routine control measures include receipt, inspection, acceptance/rejection of materials, storage, containment, handling, treatment and timing of activities. A list of the actions in detail and who is responsible for carrying them out. REASONABLY FORESEEABLE ABNORMAL CONDITIONS AND ADDITIONAL CONTROLS Identification of possible risk factors (e.g. adverse weather conditions) and anticipation of resonably foreseeable odour-related incidents and accidents (e.g., abnormal situations, spillages, power failure, breakdown of doors, equipment or abatement) and a listing of the consequences for odours of these risk factors. A description of the additional measures (e.g. additional control measures and modifications to site operations, such as diverting odorous waste loads to facilities with less sensitive surroundings during adverse weather conditions) that will be applied during these periods to deal with these risks and any reasonably foreseeable incidents and accidents. It should be stated that if all the measures are shown not to be sufficient, then they will need to be tightened further or else, possibly ceasing/reducing odourous operations. A list of the actions in detail and who is responsible for carrying them out A description of what would trigger this further action/additional measures, such as: - the results of planned routine checks/inspections/surveys on site; - the results of on-site measurements of process parameters and surrogate measurements for odour (e.g. pH, temperature, oxygen, etc) exceeding defined trigger levels; – other metrics, such as particular meteorological conditions (e.g. temperature above a certain value, wind blowing in a particular direction, or calms); and - odour monitoring on- and/or off-site, including: odour complaints monitoring (which should be carried out for all sites); monitoring carried out on-site, showing non-compliance with any emission limit values (ELVs) set for controlled point source releases; and monitoring carried out off-site (e.g. by sniff testing, odour diary surveys, etc), showing non-compliance with any action levels for ambient odour levels. A description of: - the roles and responsibilities of personnel on site (e.g. organisational chart); and - the training and competence of staff in odour-critical roles Details of how the following will be carried out, and who has been assigned managerial and operational responsibilities for them: - implementing and maintaining the OMP; - responding to odour-related incidents and any elevated odour levels from the aforementioned checks/inspections/surveys, monitoring, or on receipt of complaints of odour nuisance; including carrying out investigations and taking appropriate remedial action to prevent recurrence; - planned maintenance and repair and the keeping of essential odour-critical spares; - regular review (at least once per year) of the effectiveness of odour controls - including the OMP itself - taking account of complaints, monitoring results, inspections, surveys and other information and feedback received. This interval may be shorter if there have been complaints or relevant changes to your operations or infrastructure; - engaging with your neighbours and communicating with relevant interested parties (e.g. local community and local authority) to provide necessary information and minimise their concerns and complaints, including methods used, content and frequency of communication; and - keeping records of all activities and actions relating to odour and the OMP.

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