Iver South SDC

Summary Pest Management Plan

Mogden Catchment - Treatment

0 Document Control and Procedures

Contents

0.1 Document Confidentiality

This document and its associated sections will only be disclosed to those of the recipient's employees and contractors who have a need to see it as part of their duties.

0.2 Document Control

0.2.1 Document Change Request

Whilst Standards are mandatory, it is recognised that one process may not cover every eventuality and a document user may identify an improvement that does not compromise the objectives of the procedure; in this instance a change request against the Standard should be raised.

Information exchange is essential in supporting continuous improvement of the Standards, and a common document and data change request process is provided via the "TAPS" application available via the TW Portal. Within TAPS "Service Catalogue" menu option there are links and instructions for raising change requests for a variety of subjects.

Change requests are automatically sent to the Standards Process Team, and will be approved by the team, or escalated to the relevant governance group and/or standards board for approval depending upon the potential impact and complexity of the request.

It is a business requirement to comply with standards. Compliance issues will be escalated to the relevant governance group for further action as appropriate.

For further information/advice, please e-mail: am.standards@thameswater.co.uk

0.2.2 Owner Review Requirements

Document to be reviewed when any changes are made to the site or processes.

0.2.3 Local Review Requirements

Performance Manager should be informed when handwritten amendments are made to this document.

[redacted]

Next review: October 2025

1.0 Introduction

This Summary Pest Management Plan (PMP) forms part of the Best Operating Practice (BOP) for Iver South Sludge Dewatering Centre (SDC) and Environmental Management System (EMS). A key related document is the Site Operating Manual (SOM); this document can be found in the Iver South SDC administration building and on Thames Water's EMS SharePoint. Other key related documents are the Environmental Management System itself and associated Accident Management Plan.

The purpose of this Summary PMP is to supplement the Environmental Management System by detailing the management of pests at the site, specifically the control of *Lycoriella ingenua* (Diptera: Sciaridae).

This Summary PMP is an operational document, detailing operational and control measures appropriate to the reduction or elimination of the impact of specific pests from the sludge dewatering centre.

This Summary PMP is stored electronically within SharePoint.

2.0 Site Information

2.1 Site Location

Site Address:

Iver South Sludge Dewatering Centre
Lakeside Road
Colnbrook
Buckinghamshire
SL3 0ED

The Iver South SDC (Sludge Dewatering Centre) plant is located at the end of Lakeside Road, off the A4, just beyond the M25. The plant de-waters digested sludge that has been pumped from Mogden STW and has been built on the site of the previous Iver South STW. Sewage from the Iver South catchment area is returned to Mogden STW from a pumping station at Iver South SDC, along with wastewater from the de-watering process.

The catchment area that serves the return pumping station at Iver South SDC consists of Riching Park and Colnbrook Pumping Stations, Lakeside Road Pumping Station, which collects sewage from the Lakeside Industrial Estate and surface water from the Iver South SDC.

(See Appendices for Site Location Map, Site Plan and Process Block Diagram)

2.2 Potentially Sensitive Receptors

Receptor Address	Receptor Type	Approximate distance from site boundary	Direction from the site
M4	Drivers	50m	To the North
Lakeside Road, Colnbrook, Bucks	Industrial	200m	To the East and South
Old Slade Lane, Iver, Bucks	Residential	200m	To the North

2.3 Layout and Treatment Processes

Details of the site layout and treatment processes are given in the following sections of the Site Operating Manual and are therefore only given summary attention in this OMP.

Section	Description
1	Governance & Control
2	Location, key layout plans and diagrams. Site services, including power, water, drainage, SCADA and ICA. Consent details, process overview, chemical and waste handling.
3	Detailed description of each treatment process, including sludge and odour control.
4	Maintenance
5	Plant control, monitoring, and logging.

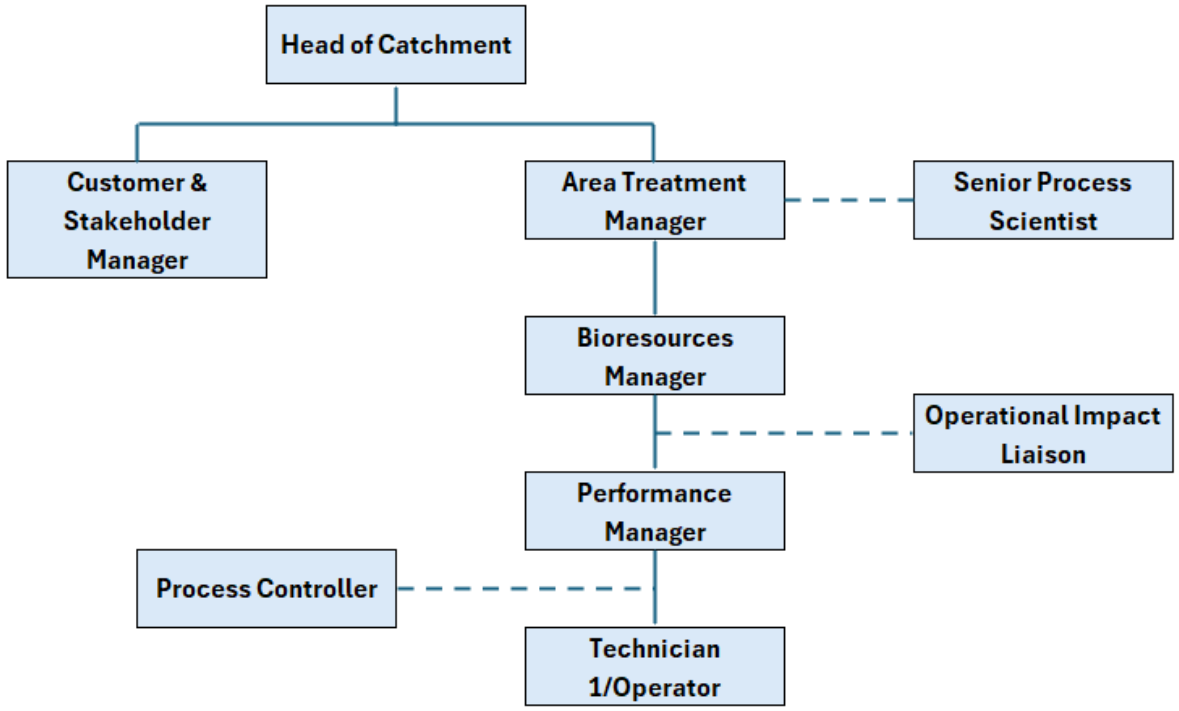
2.4 Process Description

The Environmental Permit covers the reception of non-indigenous sludge waste. Sludge is received from Mogden STW via a pipeline.

- Sludge entering the site is directed to 2 no. Centrifuge Feed Tanks, which are covered and odour controlled.
- Sludge is fed to up to 4 no. de-watering process streams depending on demand. Each stream consists of a feed pump, macerator, polymer-dosing unit and centrifuge.
- Sludge cake is transferred to a dedicated cake pad via conveyor and either loaded directly into vehicles to be transported off site or moved to storage bays within the hard standing area.
- There are 6 no. emergency sludge holding tanks and a further emergency storage lagoon.

3.0 Site Management

3.1 Organisational Structure



3.2 Roles and Responsibilities

Role	Responsibilities
Head of Catchment	Responsible for the overall performance of Treatment, Pumping and Network operations within the Catchment.
Area Treatment Manager	Responsible for the performance of Sewage Treatment Works within the Catchment.
Bioresources Manager	Responsible for the performance of sludge treatment assets at Mogden STW and Iver South SDC.
Performance Manager	Responsible for the performance of Iver South SDC, including but not limited to: • Pest control and management at the site • Day-to-day implementation of the PMP • Investigating and resolving customer complaints • Assessing the scope of, and updating, the PMP as it is implemented.
Technician 1/Operator	Day to day duties include maintaining and operating process equipment at the SDC.

Role	Responsibilities
Process Controller	Monitoring and controlling process plant at Mogden STW and Iver South SDC.
Senior Process Scientist	Process monitoring, improvement and troubleshooting.
Customer and Stakeholder Manager	Responsible for managing liaison with all external customers and stakeholders in collaboration with the customer centre, escalation team, local govt. liaison team etc.
Operational Impact Liaison	Responsible for supporting the Performance Manager with investigating customer complaints and preparing reports. Manages service contracts for pest management across Mogden STW and Iver South SDC.
Duty Manager	The duty manager is centrally based (off-site) and is responsible for event management across the business.
Customer Centre	Responsible for receiving all customer calls, logging them and passing them to the appropriate operational departments.

Thames Water employ specialist contractors to support with the monitoring and control of *Lycoriella ingenua* at Iver South SDC, currently [redacted]

The site is manned Monday to Friday from 07:30hrs to 15:30hrs. The Mogden STW Control Room also monitors the Iver South SDC via SCADA out of hours with support from both operations and MEICA call out resource as and when required.

[redacted]

3.4 Staff Training

Staff working on site undergo a site induction that is carried out by the Performance Manager. The site induction includes direction to the presence and location of the various operational procedures which include the SOM and the PMP. In addition, site Tech 1's undergo a specific programme of training which covers management of activities on site.

The SDC permit requires that a Technically Competent Manager holding a relevant WAMITAB qualification is in place at the site and meets a weekly site attendance requirement.

Training is also provided on an ad hoc basis by [redacted] in techniques and best practices for the prevention of pestiferous flies.

Records of staff training are held on the company HR training database in Learning on Tap or within the local Team Skills Register.

4.0 Background of Lycoriella ingenua

Black-winged Fungus Gnats can breed continuously in small residues of cake, e.g. along the walls of the cake storage bays, thus leading to a faster increase in population size once cake is stored again and becomes suitable for breeding. The cake needs to be colonised by fungi first so that the flies can feed on their underground features (the mycelium); this latter process is temperature dependant and takes ca. six to ten weeks after storage starts. Black-winged Fungus Gnats are also found in the wider environment, where suitable conditions exist, which is usually in woodland or wooded areas, albeit in much lower numbers.

The Black-winged Fungus Gnat females lay 50 to 200 eggs each on the compost / cake. These hatch into larvae which moult four times. They then turn into a pupa, from which the adult fly emerges. The entire life cycle takes about 18 days at 24ºC under ideal conditions, but more slowly at low temperatures or with insufficient food. These flies are not strong flyers but can be carried on the wind. They have been reported to cause a nuisance on mushroom farms and in domestic premises and their larvae are known to feed on decaying organic matter.

4.1 *Lycoriella ingenua* at Iver South SDC

At Iver South SDC the cake is managed to reduce fly numbers as far as possible by storing cake preferentially in the covered bays and removing compliant cake to agriculture as quickly as possible. Thames Water has agreed with the Local Authority to not store sludge cake in the covered bays between 1st April and 31st October each year. When the bays are empty, any residues of cake, including any accumulating on top of the bay walls as well as in the back corners and all internal perimeters, are removed to ensure residues of cake potentially hosting infestation are removed.

5.0 Monitoring

Monitoring is conducted throughout the year by [redacted] international experts in [redacted] with specialist knowledge of pestiferous flies. During the warmer seasons these are conducted fortnightly and three-weekly in cooler periods, usually from October to early March. These periods are flexible and are adjusted accordingly should climatic conditions suggest fly activity may occur earlier or later into the season. This monitoring is used to determine the onset of chemical treatment and as a measure of the efficacy of control. The Black-winged Fungus Gnat population is monitored with yellow sticky traps and standardised sweep sampling. The emergence of these flies and their occurrence in high numbers is weather dependent. The monitoring is essential to establish the size of the population, to time the onset of treatment for maximum effect, and to avoid overuse of pesticides. Furthermore, the effectiveness of the treatment is evaluated and can, if necessary, be adjusted.

Monitoring needs to be conducted by experienced entomologists to identify the species and give quantifiable results. To ensure the sticky traps produce accurate and measurable results the traps are located close to the potential breeding sites, i.e. at least two in each bay, and one close to the outside storage area (Bay 5). In addition, eleven traps are located close to the site boundaries in all directions. The traps close to the boundaries indicate whether flies might be getting close to the site boundary, in addition to the reports of the staff from the offices, security hut and outside companies. The traps are currently set by staff from [redacted] and left in place for 5 to 7 days.

Staff from [redacted] collect the traps after five to seven days, then determine the Black-winged Fungus Gnat numbers on the traps. Fly numbers are compared to the previous week by extrapolating results to five days, independent of how long the traps have been in place. Other flies present on the traps are checked for their potential to either breed on site or for their potential to control sciarids on site. It will be noted if flies emanating from areas off site, e.g. from the adjoining lakes and watercourses, occur in high numbers on the traps. When collecting the traps, each bay is examined for the presence of Black-winged Fungus Gnats. Also, samples are taken from the front surface of the cake by standardised sweeping and subsequently identified by staff from [redacted]

Results are included in the monitoring reports. When the monitoring shows a sharp rise in numbers of Black-winged Fungus Gnats or if a threshold is reached, treatment is recommended. After subsequent analysis of the findings by [redacted] a comprehensive report is supplied to Thames Water and to [redacted] who provide the treatment service for Thames Water. A summarised report is also supplied to Thames Water for submission to the Environmental Health Officers of Buckinghamshire Council and Slough Borough Council.

5.1 Record Keeping

Monitoring reports are held on SharePoint.

6.0 Treatment

Treatment is conducted by [redacted], a company with many years' experience of specialising in the control of pestiferous flies originating from water treatment facilities. Treatment with an adulticide (an insecticide designed to kill adult flies) is initiated when recommended by [redacted] as per the above monitoring protocol.

Following treatment, feedback is provided by [redacted] to both Thames Water and [redacted] in order for the details of the treatment(s) to be included in the next monitoring report. The insecticide AquaPy (HSE 5799), which is based on naturally occurring pyrethrum, is [redacted]s current preferred adulticide and is alternated with Flymax ULV (Flymax ULV is a non-biocidal product due to its physical mode of action and is exempt from EU Reg: 528/212) in order to manage resistance risk. Both products are applied as undiluted space sprays (ULV) and are approved for use by Thames Water.

Thresholds have been calculated by [redacted] using historic data based just below numbers of these flies on site that triggered complaints. Upon reaching these thresholds [redacted] will recommend treatment of some or all bays. Curtains can be used strategically to separate the cake barns, therefore allowing treatment by isolating individual bays and, importantly, eliminating the risk of chemical drift. Thames Water employees close and open the curtains both before and after treatment. This encourages airflow which assists in reducing the temperature in the bays and aids the drying process of the cake. High temperatures in the bays for several days can kill the Black-winged Fungus Gnats, however, the local temperatures are rarely high enough for this to happen.

[redacted] continues to assess the appropriateness of control methods at apposite intervals as a matter of best practice and in order to help avoidance of insecticide resistance in the population. The break in treatment during the winter period, when numbers of flies are typically very low, also reduces the risk of resistance.

7.0 Customer Communications

Customers/residents are encouraged to communicate with the local Thames Water Operations via the Customer Centre to report if they are noticing pests from Iver South Sludge Dewatering Centre, to ensure that all contacts are recorded and actioned.

customer.feedback@thameswater.co.uk with the subject 'Iver South Sludge Dewatering Centre'.

Thames Water Customer Services
Telephone: 0800 316 9800

Thames Water Website – www.thameswater.co.uk The form is called "Report A Problem".

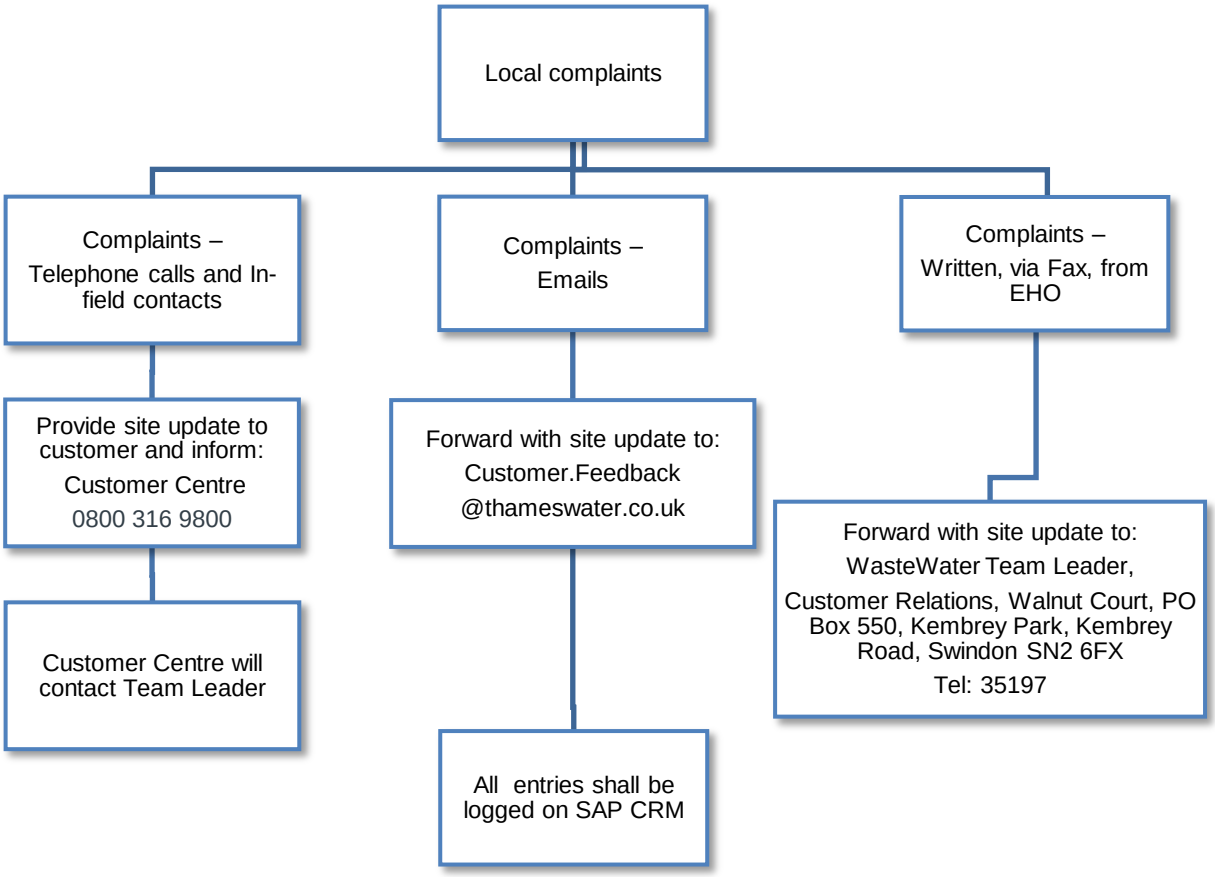
Customer contacts regarding Iver South Sludge Dewatering Centre will be made via the Customer Centre, logged, and passed (directly, or via the WOCC) to the local Operations Team via e-mail. Operations will investigate and take appropriate action.

If the customer/resident would prefer to contact either the environmental services of Buckinghamshire Council, Slough Borough Council or the Environment Agency instead, their contact details are as follows:

Buckinghamshire Council – Environmental Services
https://www.buckinghamshire.gov.uk/environment/environmental-health-and-nuisance/contact-environmental-health/

Slough Borough Council – Environmental Services
Telephone: 01753 475111 (option 4)

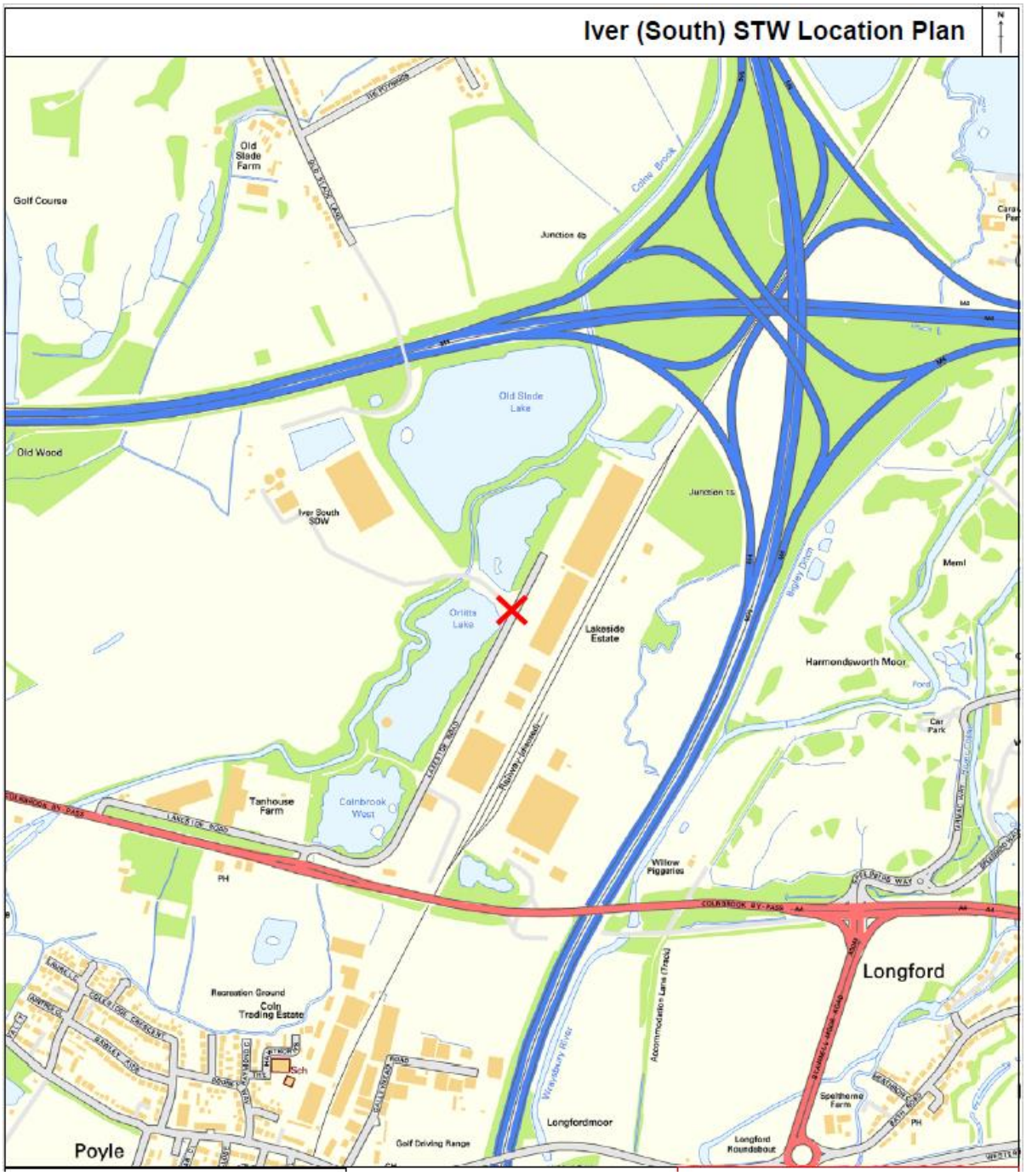
For permitted sites:
Environment Agency Incident hotline: 0800 80 70 60


Local complaints
Complaints – Telephone calls and In-field contacts
Complaints – Emails
Complaints – Written, via Fax, from EHO
Provide site update to customer and inform:
Customer Centre
0800 316 9800
Forward with site update to:
Customer.Feedback
@thameswater.co.uk
Forward with site update to:
WasteWater Team Leader,
Customer Relations, Walnut Court, PO Box 550, Kembrey Park, Kembrey Road, Swindon SN2 6FX
Tel: 35197
Customer Centre will contact Team Leader
All entries shall be logged on SAP CRM

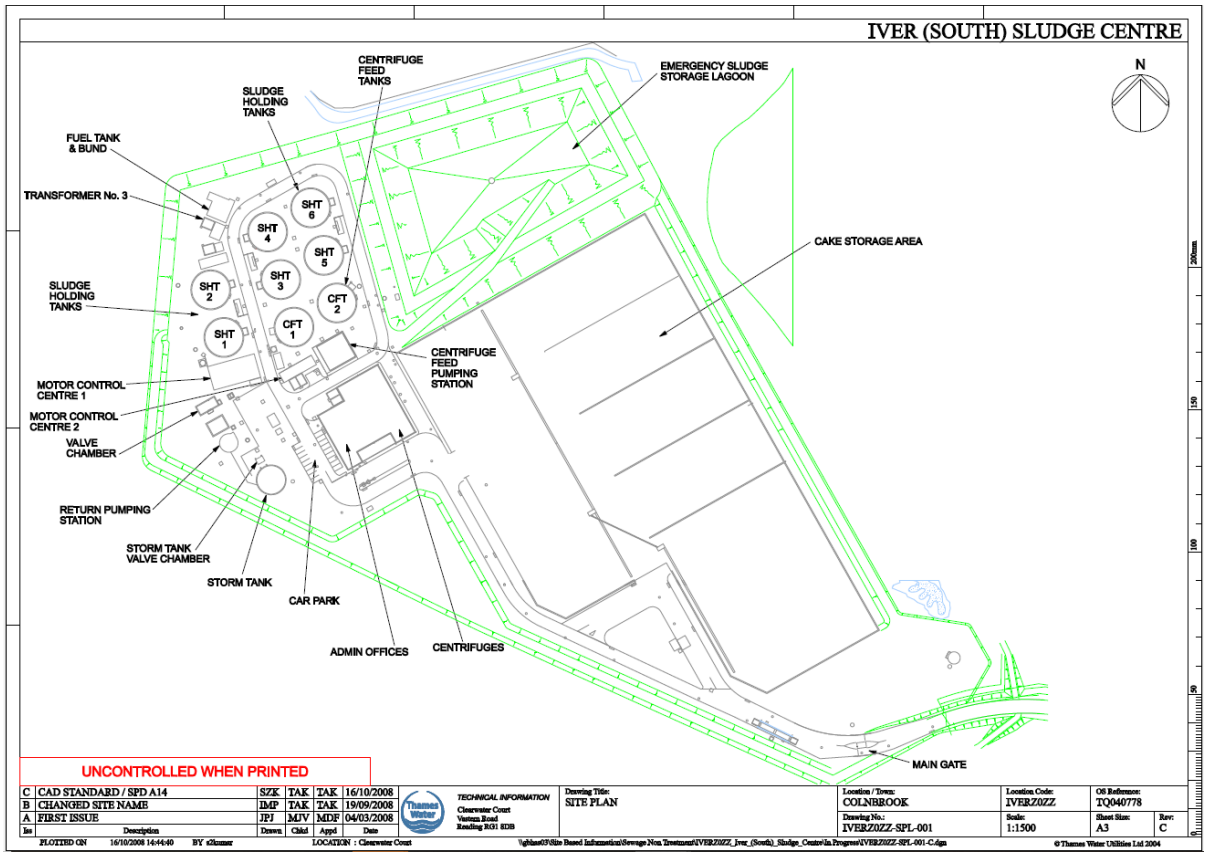
[redacted]

Appendices

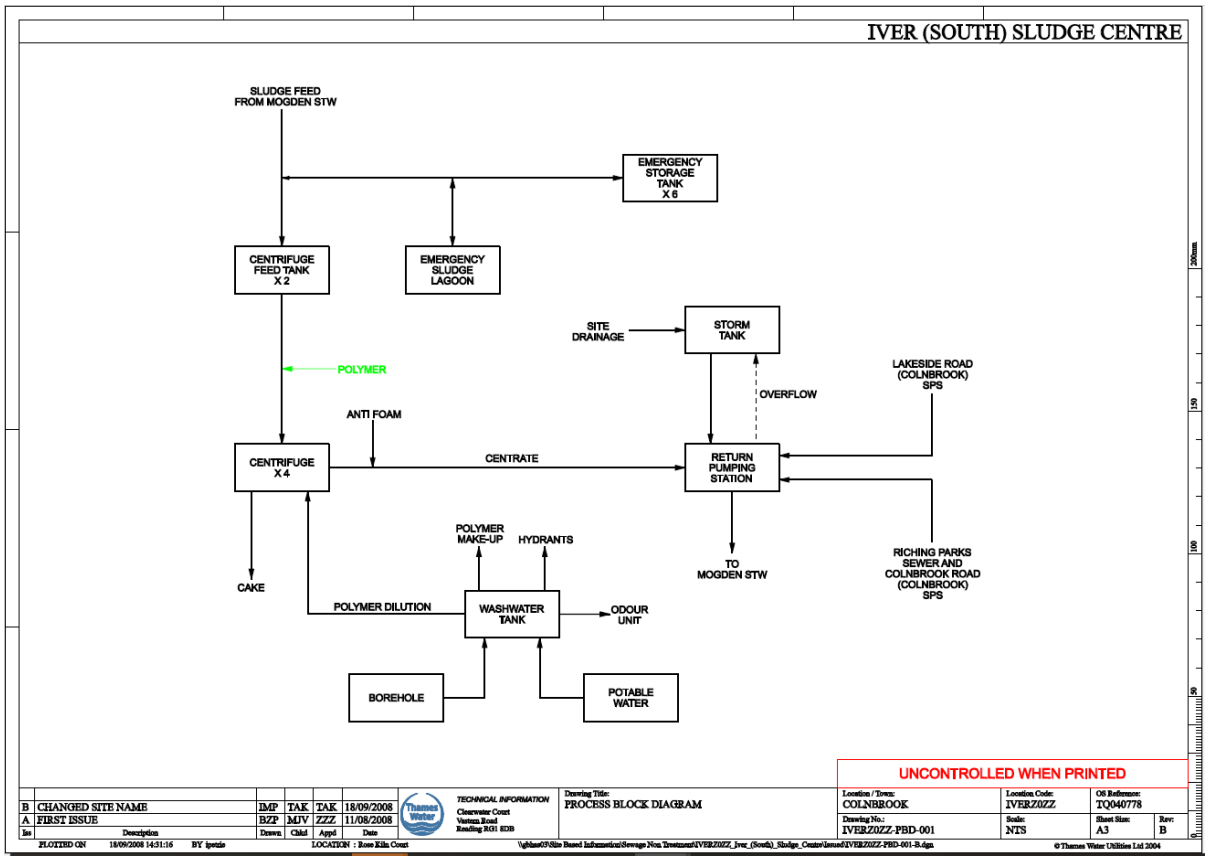
Appendix 1 - Site Location Plan


Iver (South) STW Location Plan
N
Old Slade Farm
Golf Course
Colne Brook
Junction 4b
Old Slade Lake
Old Wood
Iver South SDW
Junction 5
Mem
Higley Ditch
Orlitts Lake
Lakeside Estate
Harmondsworth Moor
Ford
Car Park
Tanhouse Farm
Colnbrook West
LANGLEY ROAD
PH
Willow Piggeries
COLNBROOK BY-PASS
Longford
Recreation Ground
Colnbrook Trading Estate
Sch
Accommodation Lane (Track)
Wraysbury River
Longfordmoor
Spelthorne Farm
Poyle
Golf Driving Range
Longford Roundabout

Appendix 2 - Site Plan



Appendix 3 - Process Block Diagram

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