

Environmental Management Plan

Site Name	Great Billing STW
Site Address	23, Crow Lane, Gt Billing, Northampton. NN3 9BX
Short Code / Ref No.	GBILST
Catchment	RSTN

This is a controlled template and should not be altered unless authorised. The content of this document should be reviewed and signed off by the relevant managers on an annual basis and audited on a biennial basis by the business unit auditors. [C] [A]

Name	Signature	Position	Created / Reviewed	Date
Tim Hilsdon		Treatment Manager	Created	29/04/13
Graham Hackney		Catchment Manager	Approved	30/40/13
Claire Carter		Treatment Manager	Reviewed & updated	10/12/14
Polly Garrod		Treatment Manager	Reviewed document & updated sections 1.3, 2.1, 2.3, 3.3	9/10/15
Polly Garrod		Treatment Manager	Updated sec. 5	12/10/15
Polly Garrod		Treatment Manager	Review	22/12/15
P Garrod R Hillyard		TM Assistant TM	Review	29/11/16
John Hay		Treatment Manager	Reviewed & updated	24.01.18
John Hay		Treatment Manager	Reviewed	02.10.18
C Tedder		Treatment Manager	Reviewed & updated	17.01.2020

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Introduction

This document has been designed to cover the Plan, Do, Check, Act methodology used in all Management Systems.

PDCA is the founding principle of this document and therefore the references throughout are in relation to these definitions:

P – Plan – what is the situation, what do we need to achieve and how are we to achieve it?

D – Do – what are the controls in place to ensure that we do our everyday actions without impacting the environment in this area?

C – Check – how do we check that these controls are working and how do we report when they are not?

A – Act – what is the escalation process/review process when things are checked and seen to be not performing?

The key focus of this document is to identify existing processes and controls that cover environmental risk and identifying and addressing those areas that are not adequately covered. Therefore all processes and controls referred to in this document should be adhered to and this document's controls regarded in the same vein for site specific controls.

1 Site Information

1.1 Site description (P)

Great Billing Sewage Treatment Works is located on the outskirts of Northampton, access is via Crow Lane.

The wastewater treatment works covers approximately 90 acres, there is also dedicated farm land adjacent to the treatment works that is also owned by Anglian Water Services and covers approximately 400 acres

The site consists of:

- Administration buildings with office based staff
- A Maintenance team based on site
- A Collection team based on site
- RES lorries and drivers based on site
- Fleet services team based on site
- Temporary Portakabin type buildings containing Clean Water Contractors/Partners
- Sewage treatment works
- Sludge treatment centre including 4 CHP engines
- Mick George Skips recycling centre (this is covered by its own plan and managed by a third party)
- Grit washing plant based on site

The site operates as one of Anglian Water's strategic sludge treatment centres. In addition to treating sludge produced on site it imports in the region of 75,000 m³ per annum of liquid sludge from other Anglian Water WRCs. It also imports approximately 100,000 tonnes of sludge cake and approximately 15,000 tonnes of grit per annum from other Anglian Water WRCs.

Sludge is imported and treated under tight controls covered by other plans. Gas produced during this process will then be used in the Combined Heat and Power plant on site.

This plan will look at the environmental impacts of these activities.

Sludge treatment centre

Mick George skips

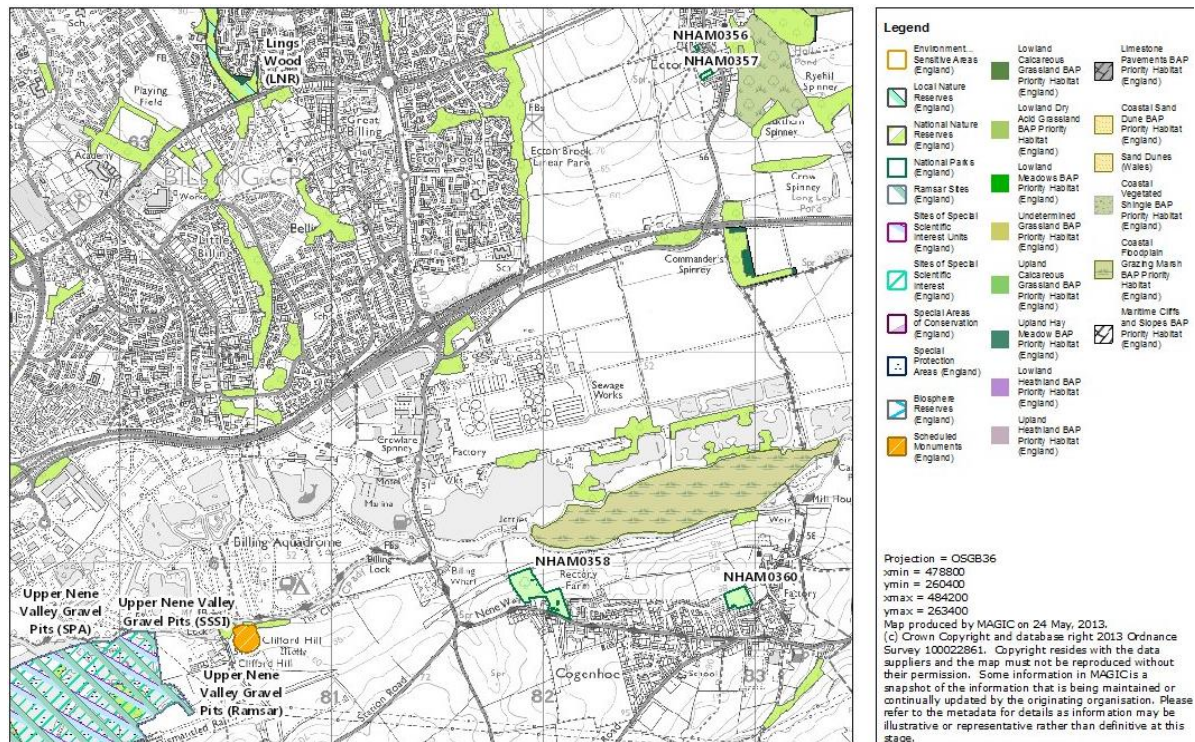


Grit washing plant

Decommissioned Compost plant

1.2 Site Location (P)

Site is on the outskirts of Northampton, adjacent to the River Nene. The surrounding area consists of Billing Garden village, Billing Aquadrome, Crow Lane Industrial Estate, local Amenity recycling centre, residential houses across the A45 dual carriageway, Travellers camp off Lower Ecton Lane, Lower Ecton School and BP fuel depot



1.3 Permits, Permissions, Licences (D)

This table highlights the permits, exemptions and licences that relate to the sites operation and its impact on the environment:

Ref No	Description	Regulation	Location held
EAWML 73270	Sludge treatment permit	EPR Waste	GBILST site page on HAWK Site page found here
EPR/KP3734GJ	CHP permit	EPR Waste	GBILST site page on HAWK Site page found here
AWNNF/13052	Discharge permit	EPR Waste	GBILST site page on HAWK Site page found here
MWRP RPS 007	Cess & Septic permit	EPR Waste	Managing Waste Pages on HAWK
NWP995	Hazardous Waste	EPR Waste	Managing Waste Pages on HAWK

The conditions relating to these permits are held within the permits and summarised in section 3.3

2 Contact Information

2.1 Operational contacts (P) (D)

Head of Sludge Treatment	Pete Joyce	07841958572
Bioresources Delivery Manager	Stephen Boulton	07885 135281
Treatment Manager	Chris Tedder	07802277673
Assistant Treatment Manager	Grace James	07801674651
Optimiser	Nick Myall	07764 164942
CHP Manager	Graham Powell	07710 616517
CHP Maintenance Manager	Matt Green	07710 599212
OMC – Tactical operations	Ops control manager	08450 703446

2.2 Emergency contacts (P) (D)

OMC – Tactical operations	Ops control manager	08450 703446
EA NIRS		08450 8503518

2.3 Third party contacts (P) (D)

Mick George site		07464549123
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3 Risks and Mitigations

3.1 Risk Identification (P)

An environmental Risk Assessment was completed as part of the generation of this plan and can be found appended to this document when printed and as an independent document on HAWK.

The site has also completed an Asset Plan for the Sludge Treatment Centre; this document is stored by Asset Planning (Richard Lyon).

3.2 Risk Mitigation (P) (D)

The following section addresses some of the risks identified in the risk assessment process.

3.2.1 Spill control

Reference WWS – PRO – 8.13

All Fuel/chemical tanks on site are double skinned or bunded

Spill control equipment includes absorbent pads absorbent granules and booms which are located in the Collection compound.

3.2.2 Reporting an incident

Reference Policy WWS – PA - 008

The site odour management plan can be found on the site HAWK page.

External odour complaints will be reported to the site manager and Customer Liaison Manager (CLM). The CLM will record odours and report to relevant parties who sit on the odour liaison group.

For proactive works which have the potential to cause odour complaints a message is uploaded on the GBILST website for information for customers. Proactive works are also shared with the odour liaison group.

Any failure of the CHP will be monitored by the OMC and standby personnel called out. Depending on the fault/failure will be reported via the OMC to the EA NIRS database.

Any potential or actual pollutions are reported to the OMC who then report to the EA NIRS in line with the Environmental Permitting Regulations.

3.2.3 Odour event

Reference

WWS – POL – 010

WWS – STD – 010

WWS – PRO – 10.01

Handling of odour events is covered in the odour management plan which can be found on the site HAWK page.

An odour liaison group meets regularly to discuss any issues raised and action plans to resolve.

3.2.4 Damage to a habitat

No reason to be off road on site.

A site specific management plan will be produced by the Biodiversity Team.

Standard Rule - No tree or hedge works during the bird breeding season from 1st March to 31st July: Consideration should be given to birds, such as wood pigeon that will nest outside of this period. It is an offence to destroy the nest of any wild bird under the Wildlife and Countryside Act 1981 (Amended).

3.2.5 Other risks identified

If the site is affected by cold weather and causes failure of the plant appropriate mitigations and action plans would be put in place. Extensive cold weather protection has been installed. Very few stoppages have since occurred over winter months due to freezing. Defrosting equipment along with portable heating and insulation material are stored on site along with salt supplies for roadways leading to site, a road gritting contract is in place with 'Ground Control' who attend site during cold weather.

3.3 Permit conditions

The permits in place require a number of things to be completed and limits to be met.

Reports to the Environment Agency required by the permits are:

Type	Responsible	Detail	Frequency
Waste Returns	Chris Tedder	Tonnage waste	Quarterly
CHP report	Chris Tedder	Units	Annual
CHP Emissions	Chris Tedder	Units	Annual

Other conditions include the limits set by the regulator. These include import and emissions limited as detailed below:

- 250000 tonnes annual import threshold (waste streams permitted listed later in this document)
- Emissions sampling
 - 500mg/m³ NOx
 - 1400mg/m³ CO
 - Monitor VOCs
- Improvement conditions
 - See the CHP permit for details

3.4 Specific plans

Each site has a comprehensive library of documents that support the efficient and successful operation of the site. This plan is not going to detail those plans but direct the reader to the locations of the plans. These are usually available on site HAWK page.

3.4.1 Odour

An odour plan for the site can be found at on the site HAWK page and should be reviewed at a period of no less than 12 months.

3.4.2 Gas

A gas plan for the site can be found on the site HAWK page and should be reviewed at a period of no less than 12 months.

At least annual gas leak exercises are also completed on site.

3.4.3 Contingency

A sludge treatment centre asset plan is managed by the central asset planning team.

Site Management (D)

This section looks at the management of site to minimise impact to the environment

4 Waste management

Waste management is a highly regulated activity and as a site we have regulatory obligations with regards importing and treating waste as well as the standard Duty of Care obligations. This section looks at those obligations

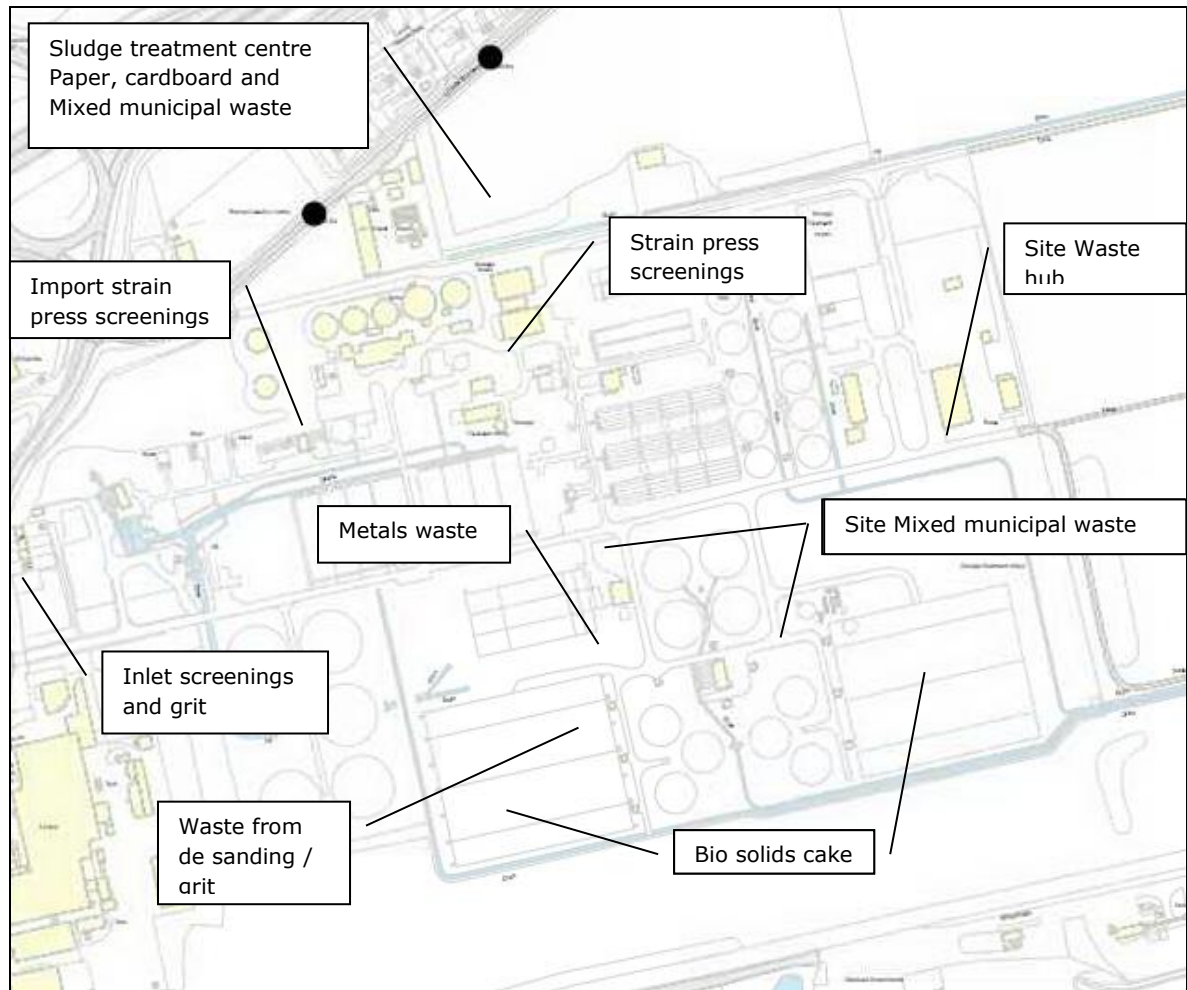
4.1 Identification of wastes (P)

The activities on this site generate a wide range of wastes. Primarily though we generate:

EWC code	EWC Description	AW Description
19 08 05	Sludge from treatment Urban Wastewater	Cake/sludge
20 03 01	Mixed municipal waste	General waste
20 01 01	Paper and cardboard	Paper and Cardboard
20 03 06	Screenings	Grit and screenings
20 01 38	Wood other than that in 20 01 37	Wood
20 01 40	Metals	Metal
20 01 21	Fluorescent tubes and other mercury containing waste	Fluorescent lights
16 01 07	Oil filters from vehicles	Oil filters
15 02 02	Absorbent filter materials (including oil filters not otherwise specified) wiping cloths protective clothing contaminated by dangerous substances	Oily rags
13 02 08	Other engine gear and lubricant oils	Waste oil
16 06 01	Batteries Lead	Batteries Lead
16 06 02	Batteries Ni-cd	Batteries Ni-cd

4.2 Location of wastes

Waste storage on this site is part of our normal operations the diagram below highlights areas where wastes are stored in skips and other waste containers. The processes that treat waste are labelled.



4.3 Management of contractors exporting waste (D)

Anglian Water has 14 waste streams removed from this site. These are managed and controlled in the following manner:

EWC Code	EWC Description	Carrier	Broker	Disposal Route
19 08 05	Sludges from treatment urban waste water	Biosolids		Land
19 08 01	screenings	Biffa		Landfill
19 08 02	Waste from de sanding	Biosolids		recycled
20 03 01	Mixed municipal waste	Biffa		Landfill
20 01 01	Paper and cardboard	Biffa		Recycled
20 03 06	Waste from sewage cleaning	Biffa		Landfill
20 01 38	Wood other than that in 20 01 37	Biffa		Recycled
20 01 40	Metals	Biffa		Recycled
20 01 21	Fluorescent tubes and other mercury containing waste	Biffa		Recycled
16 01 07	Oil filters from vehicles	Biffa		Land fill
15 02 02	Absorbent filter materials (including oil filters not otherwise specified) wiping cloths protective clothing contaminated by dangerous substances	Biffa		Landfill
13 02 08	Other engine gear and lubricant oils	Biffa		Treatment
16 06 01	Batteries Lead	Biffa		Recycled
16 06 02	Batteries Ni-cd	Biffa		Recycled

Copies of the Waste Transfer Notes and Consignment Notes for these waste movements (skips and the like) can be found in the office. Wastes that are disposed of to land by RES and Biosolids have comprehensive records held by RES and Biosolids and can be obtained from The Biosolids office in Cambridge.

There is also an asbestos disposal point on site for low risk asbestos which is monitored. Oracle Ltd provide expert advice on asbestos issues.

4.4 Management of importing waste

Waste is imported to this site as part of the waste operations. All cess and septic waste imported to this site is not part of any permit as it is outside the permitted area for this waste. Imports are undertaken under the MWRP RPS 007 for the import of domestic waste. We do have licensed carriers bringing septic and cess waste in under the control of RES.

This site does accept transfers of AW waste falling under the classifications (as stipulated in the Sludge Treatment Centre Permit):

19 08 01	19 09 02	20 03 06
19 08 02	19 09 03	20 03 09
19 08 05	19 09 06	
19 08 09	20 03 04	

Copies of the Waste Transfer Notes for the import of Cess and Septic are covered by the signing in process and with a sampling regime to ensure that the waste is the correct classification. These are held in the weighbridge office and sent monthly to RES.

Wastes that are imported by RES and Biosolids have comprehensive records held by RES and Biosolids and can be obtained from The Biosolids office in Cambridge.

5 Biodiversity

Anglian Water has a duty under the Natural Environment and Rural Communities (NERC) Act 2006 to have regard to the conservation of biodiversity in exercising its functions. In addition protection in law is afforded to habitats and species by key pieces of legislation including the Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended).

5.1 This Site (P)

Great Billing WRC sits within the Nene Valley Nature Improvement Area (NIA), one of 12 landscape scale initiatives that were created off the back of the Natural Environment White Paper in 2011. The NIA aims to bring local organisations and communities together to create more and better-connected habitats to the benefit of society and the environment.

The River Nene and gravel pits both upstream and downstream of the site are designated at a European level as the Upper Nene Valley Special Protection Area (SPA) and nationally as a Site of Special Scientific Interest (SSSI) for their assemblage of waterbirds.

Great Billing WRC provides a habitat connection between these important sites.

5.2 Active biodiversity

All staff have a responsibility to comply with environmental legislation in the course of their work to protect both themselves and the company. It is really important that employees are aware of how their actions can impact upon the natural environment when working on our sites. The Biodiversity: Guidance for Operations booklet outlines relevant legislation and best practice when undertaking operational activities.

Nobody knows our sites better than the people who work on them. Submitting species records allows the company to build an improved knowledge base thus helping to inform day-to-day work and capital schemes and reducing planning time and costs in the long-term. Species records can be submitted to biodiversity@anglianwater.co.uk.

5.3 Rules for biodiversity

Refer to the Biodiversity: Guidance for Operations booklet in the first instance for legislation and best practice information. Any specific queries or issues should be directed to the Climate Change and Biodiversity Team as soon as possible.

5.4 climate change risk and mitigations

Implement additional odour control measures

Introduce additional water to systems

Boiler control cut off points above 40oc to safeguard against high temperatures

Chp,s auto shut down to stop risk of overheating

Ensure screening in place for wastewater

Alternatively increasing the stormwater storage capacity

Site emergency plan and site management system are kept up to date on flood risk from environment Agency (new flood risk available of future climate change progresses)

Storm tanks at feed to carry excess water away from works Alternatively increasing the stormwater storage capacity.

Ensure flood plan for site follows EA guidance, include provision of sump pumps to keep site clear of surface water

Ensure diesel generators are at sufficient height to ensure they are not at risk of flooding.

Implement additional odour control measures

Introduce additional water systems

Potable water is assessed by water regs team

