

Environmental Management Plan

Site Name	Basildon WRP (Water Recycling Plant)
Site Address	Basildon STW Courtauld Road Basildon Essex SS13 1DB
Short Code / Ref No.	BASIST
Catchment	Essex and Cambs

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]

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Roger Babington		Treatment Manager	Reviewed	3-6-13
Roger Babington		Treatment Manager	Reviewed	5-3-15
Paul Kitchen		Treatment Manager	Reviewed	10/03/16
Paul Kitchen		Treatment Manager	Reviewed	23-1-19
Philip Seamons		Sludge Treatment Mgr	Reviewed	09/05/2019
Philip Seamons		Sludge Treatment Mgr	Reviewed	01/05/2020
Philip Seamons		Sludge Treatment Mgr	Reviewed	20/12/2021
Philip Seamons		Sludge Treatment Mgr	Reviewed	20/12/2022
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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?

1 Site Information

1.1 Site Description [P]

Basildon STW serves a population equivalent of approximately 160,000 and treats the domestic sewage from Basildon and North Pitsea and also sludge imports from satellite works. The sewage works has two processes, one is Fine Bubble Aeration and the second has 2/ Triple Ditches treating a 60-40 split. It comprises of Inlet works, Preliminary Treatment of screening and grit removal, Primary Settlement, Aeration and Final Settlement.



This template is available electronically at: AW_hh_us_bsy/Publish/Electronic Document Control Library/Poswastes/Forms & Templates

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1.2 Site location [P]

Basildon WRP is located in an industrial area on the outskirts of Basildon Town Centre. There has been residential development near to the works over the years at Cricketers way and a small retail park and supermarket also built. To the north the site is bounded by the A127 to the east a large waste recycling plant is being built.



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
EPR/CP3038HT	Sludge Treatment permit	EPR – Waste	Lighthouse and hard copy in site office
B0890	Final Effluent discharge	EPR – Water	Lighthouse and hard copy in site office
B1280	Storm Discharge Consent	EPR – Water	Lighthouse and hard copy in site office

EPR/GB3735RL	CHP	EPR – Waste	Lighthouse and hard copy in site office
	Hazardous Waste	EPR - Waste	

The conditions relating to these permits are held within the permits and summarised in section 3.3 You can find the hazardous waste [Waste management & permitting \(sharepoint.com\)](#)



2 Contact information

2.1 Operational Contacts [P] [D]

Treatment Manager 01268 360149
OMC 08457 145 145

2.2 Emergency Contacts [P] [D]

EA emergency incident number 0800 807060
OMC 08457 147147

CHP Team through OMC for emergencies

Third party management

All third parties operating on AW sites will follow AW environmental controls or their own in house controls should they be more stringent.

All environmental incidents will be notified to the senior AW representative on site at the time of the incident or called through to the OMC should the site be unmanned.

AW site personnel are responsible for ensuring that adequate environmental controls are in place, for instance that third parties adhere to the clauses in the O&M standard contracts about environmental controls. (i.e. CHP team through). This will be reviewed at each appropriate contract review meeting.

3 Risks and mitigations

3.1 Risk Identification [P]

A risk assessment has been carried out and can be found in section 5

3.2 Risk Mitigation [P] [D]

3.2.1 Noise and Vibration

Assets were built to WIMES which is the water industry standard. There is no documented issue with regards to noise at the site as the current operations have not caused any noise related complaints.

During normal operations equipment is routinely checked for any increase in noise or vibration, and maintenance jobs raised and carried out where this is the case using the POSMAINT system and recorded on app for pumps and mechanic plants. Since there have been no noise related complaints and noise and vibration impacts are considered to be appropriately mitigated, a separate Noise Impact Assessment and Noise Management Plan are also not considered to be required.

If a complaint is made with respect to noise or vibration the Treatment Manager will assess the cause of the complaint and will report the findings. If the noise or vibration leading to the complaint has been caused by a continuing operation, additional noise or vibration surveys may be required to confirm the degree of impact upon the receptor. The Treatment Manager will make any recommendations for further noise or vibration control to the Management Team and shall inform the Environment Agency of the complaint as soon as it is practicable to do so.

3.2.3 Spill control

Reference WWS – PRO – 8.13

All Fuel/chemical tanks on site are double skinned and/or bunded. Spill Control equipment includes absorbent pads absorbent granules and booms which are located on site

3.2.4 Reporting an incident

Reference Policy WWS – PA – 008

All identified odours on site through operational activity will be reported to the OMC who will then report to the EA NIRS database. This will then be recorded in the on site odour diary.



Any external odour complaints will be dealt with immediately with feed back to the OMC and EA and logged in the on site odour diary.

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 site consent failures are reported to the OMC who then report to the EA NIRS

3.2.4 Odour event

Reference policies

WWS – POL – 010

WWS – STD – 010

WWS – PRO – 10.01

All identified odours on site through operational activity will be reported to the OMC who will then report to the EA NIRS database. This will then be recorded in the on site odour diary.

Any external odour complaints will be dealt with immediately with feed back to the OMC and EA and logged in the on site odour diary.

3.2.5 Damage to a habitat

No reason to be off road on site, A Plan of mitigation will be produced by the Biodiversity Team in the future. Mitigation is limited access to areas and more details are in the biodiversity section of the plan

3.3 Permit conditions

Quarterly Waste Returns	Treatment Manager	Tonnage waste Streams
Yearly CHP report	Treatment Manager	Units
CHP Emissions	Treatment Manager	Units

3.4 Permit Limits

Determinant	Maximum Numeric Value	Units
Sludge	250,000	Tonnes
NO	500	Mg/3/hour
NO2	500	Mg/3/hour
CO	1400	Mg/3/hour
Total VOC	1000	Mg/3/hour

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.



3.4.1 Odour

Plan stored on Basildon team lighthouse
Review period of no less than 12 months

3.4.2 Gas

Plan stored on Basildon team Lighthouse
Review period of no less than 12 months

3.4.3

Sludge Treatment Centre Operational and Contingency Plan
Stored on Basildon Team lighthouse
To be reviewed no less than 12 months

3.4.4

CHP Plant Site Closure Plan
To be reviewed no less than 12 months

4 Site Management [D]

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

4.1 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.

4.1.1 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	Sludge
19 06 06	Digestate from anaerobic treatment of animal and vegetable waste	Digested cake
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

4.1.2 Location of wastes

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

Waste Type	Location	Container
Sludges	Import Area	Tanks and Silos
Septic Tank	Septic Discharge Point	Direct to inlet
Screenings	Inlet Screens and Strainpresses	Skips
Light Bulbs	Rear of Workshop	Wheelie Bin
Wood	Rear of Workshop	Skip
Oils	Rear of Workshop	IBC

4.1.3 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		Recycled to 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		
16 06 01	Batteries Lead	Biffa		Recycled
16 06 02	Batteries Ni-cd	Biffa		Recycled
19 06 06	Digested Cake	Biosolids		Recycled to land

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

4.1.4 Management of importing waste

Waste is imported to this site as part of the waste operations.

This site does accept transfers of AW waste falling under the classifications:

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

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 WROL.

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

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, *add in information about where the sampling programme is held and where the sign in book is etc.*

4.2 Biodiversity

Anglian Water has a 'duty' to have regard for the conservation of biodiversity in exercising its functions under the Natural Environment and Rural communities (NERC) Act 2006, in addition to maintaining compliance with various other pieces of environmental legislation. AW has

identified priority species and habitats on its landholdings through the AW Biodiversity Action Plan (BAP) which brings us in line with Government strategy.

4.2.1 This Site [P]

The biodiversity on this site has been surveyed whilst AW has been in ownership.

The survey was complete on the 02/08/2011.

Findings from the biodiversity surveys are held on the biodiversity database and will eventually be mapped on to overlays of each site. All sites - no tree or hedge works during the bird breeding season from 1st March to 31st July. Some birds, such as wood pigeon, will nest outside of this period. It is an offence to destroy the nest of any wild bird so this needs to be a consideration at all times of the year.

- This site was surveyed and the following was found to be of interest: Reptiles including slow worm, adder and common lizard have been recorded on the site.
- Great crested newts have been recorded in the locality and there is potential that the site may be used for foraging or hibernation.
- Badger sett on site, offence to disturb when occupying a sett. No heavy machinery or digging within 30 metres. No disturbance around the sett.

4.2.2 Active biodiversity

All AW personnel are encouraged to act as the "eyes and ears" of the company and report any species that they see that has not previously been identified on the site. Any records can be emailed to biodiversity@anglianwater.co.uk Here the surveys will be looked at and used to inform company decisions and so that the biodiversity team can provide support to the site.

4.2.3 Rules for biodiversity

There are some general rules which have been developed for operation on sites:

- Do not drive on the grassed areas unless specifically authorised to do so.
- Report all damage to trees and habitats caused on site.
- No tree/hedge/scrub removal during bird nesting period from 1st March to 31st July.
- Prior to tree works check with local Authority to check whether any Tree Preservation Orders have been enforced.



5 Other documents

None to date of printing