The Kemsley Mill K4 Combined Heat and Power Generating Station Development Consent Order

PINS Ref: EN010090

SoCG

DS Smith Paper Ltd and the Environment Agency

Document 7.3

Author: DHA Planning

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Statement of Common Ground between DS Smith Paper Ltd and the Environment Agency

Client:	**DS Smith Paper Ltd**
Project:	**The Kemsley Mill K4 CHP Generating Station DCO**
Date:	**July 2018**
Reference:	**EN010090**
Author:	**Tim Spicer** BSc MSc PIEMA **(For and on behalf of DS Smith Paper Ltd)**

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1 Introduction

1.1.1 DS Smith Paper Limited ("the Applicant") is seeking permission to decommission an existing gas fired Combined Heat and Power ("CHP") Plant ("K1") and build a new gas-fired CHP plant ("K4") with a nominal power output of 68-73 megawatts (the "Proposed Development") on DS Smith owned land ("the Site") to be operated by DS Smith and/or other companies to supply electricity and steam to their existing Kemsley Paper Mill, in Sittingbourne, Kent ("The Mill")with any excess power being exported to the National Grid. DS Smith's proposed operating partner for the Proposed Development is EON who currently operate K1.

1.1.2 The Planning Act 2008 states that the construction or extension of an onshore generating station of more than 50MW electrical output in England or Wales is considered by Section 14(1)(a) and Section 15 of the Act to be a 'nationally significant infrastructure project' (NSIP) and as such requires an application for a Development Consent Order (DCO) to be made to the Planning Inspectorate (PINS) and approved by the Secretary of State (SoS) for Business, Energy and Industrial Strategy. Such an application has therefore been prepared by DS Smith Paper Limited.

1.1.3 The Examining Authority requested that a Statement of Common Ground (SoCG) be prepared between the applicant and the Environment Agency at Annex G of their Rule 6 letter of the 18th June 2018.

1.2 The Application Site

1.2.1 The Site lies in the south east corner of the existing Kemsley Paper Mill approximately 600m west of the Swale Estuary and north of Milton Creek in the Borough of Swale, Kent. The entire Site is within the security fence for the Paper Mill. The main part of the Site is roughly triangular in shape and consists almost entirely of existing concrete hardstanding. The Site lies within the wider Paper Mill industrial complex which comprises a number of existing large industrial buildings, flue emission stacks, concrete hardstanding and other associated development.

1.2.2 The nearest statutory designation with regard to ecological interest is the Swale Special Protection Area and Site of Special Scientific Interest which lies approximately 280m east of the Site at its closest point. The Site is also less than 200m from the Milton Creek Local Wildlife Site.

1.3 The Proposed Development

1.3.1 A full description of the Proposed Development is provided within the Environmental Statement (ES) (Doc 3.1). DS Smith is seeking permission to decommission the existing gas-fired CHP Plant (K1) and build a new gas-fired CHP plant (K4) with a nominal power output of 68-73 Megawatts to be operated by DS Smith and/or other companies to supply steam and power to their existing Kemsley Paper Mill.

1.3.2 The Proposed Development will comprise a combined cycle plant fuelled by natural gas consisting of a gas turbine of 52-57 MW nominal power output, waste heat recovery

boilers providing 105 MWth steam and steam turbine technology of around 16 MW nominal power output.

1.3.3 The Environment Agency has been formally consulted by the applicant with regard to the Proposed Development and has issued their formal representation to PINs which is available as part of the online public register.

1.4 The role of the Environment Agency

1.4.1 The Environment Agency has multiple roles as an environmental regulator, an environmental operator and an environmental advisor. Specifically, their remit regarding this application covers the following areas:

(1) Flood Risk;

(2) Pollution prevention and biodiversity;

(3) Land contamination;

(4) Water resources;

(5) Environmental Permitting.

1.4.2 The Environment Agency submitted a Relevant Representation on 6th June 2018. This Statement of Common Ground has been prepared pursuant to this representation and seeks to agree all matters raised. It is supported by additional information issued to the Environment Agency subsequent to the relevant representation being made which is attached as Appendix 1 to this statement.

2 Matters agreed between the parties

2.1 Flood Risk

2.1.1 The nearest watercourses to the Proposed Development consist of a network of drains which ultimately drain into the River Swale. The tidally dominated Swale lies 300m from the Site and presents the greatest flood risk to the Site.

2.1.2 It is agreed that the ES and Flood Risk Assessment have been produced using an appropriate methodology, are based on an appropriate baseline and that as a result it make an appropriate judgement regarding the likely significant residual impacts in terms of the flood risk relating to the proposed scheme.

2.1.3 The developed area of the Site where the CHP plant is to be situated lies in flood zone 1 and is therefore at low risk of flooding. The Proposed Development buildings will be set above the predicted flood levels for the area taking into account climate change. Details of floor levels for all permanent buildings and structures will be provided pursuant to Requirement 5 of the draft DCO. Flood risk associated with the construction access and laydown area is considered acceptable.

2.1.4 It is agreed that there is no discernible flood risk associated with the Site from other sources.

2.1.5 It is agreed that the Proposed Development is considered acceptable and compatible to the flood risk of the locality.

2.2 Pollution prevention and biodiversity

Construction

2.2.1 An outline Construction Environmental Management Plan (CEMP) has been produced in support of the DCO application and incorporates the mitigation measures required to safeguard the water environment during the construction period as set out in Chapter 9, Water Environment of the ES. This document is to be finalised pending approval of the application and appointment of the construction contractor. It will be submitted to the local planning authority and agreed in writing prior to the commencement of development in accordance with Requirement 7 of the draft DCO.

2.2.2 The best practice measures set out in Table 9-14 of Chapter 9 including good practice guidance and pollution prevention measures, and in addition to those specified in Table 9.16 including a Surface Water Management Strategy and Flood Management Plan will form part of the CEMP and it is agreed that they will reduce the risk of contamination to surface water during construction as far as reasonably practically possible.

Operation

Surface water and The River Swale

2.2.3 In terms of process water i.e. water used in the CHP plant this will be self-contained within the CHP plant itself and any wastewater from the Proposed Development will be discharged in a sealed pipe to DS Smith's own effluent treatment plant (ETP) operated under permit EPR BJ7468IC-V009 as currently occurs for the existing CHP plant (K1). This is a comprehensive permit for the paper mill site and its operation and includes the treatment of wastewater from the existing K1 CHP facility.

2.2.4 Permit EPR BJ7468IC-V009 details parameters with regard to discharges to water other than sewer (which incorporates DS Smith's ETP) and point sources to sewer. All waste water associated with the paper mill operations including the CHP plant are treated and discharged via DS Smith's ETP. Only toilet/bathroom facility waste from the paper mill is discharged to sewer and treated at Southern Water's waste water treatment works.

2.2.5 The permit parameters relevant to the ETP are set out in Table S3.2 of the licence but include a temperature control of 30 °C (hourly average) and 35 °C (instantaneous) for discharge into the Swale. All waste water from the Proposed Development hot or otherwise is to be conveyed to the ETP in a sealed piped network as existing for the K1 facility. It is therefore agreed that there is no pathway for hot water to reach the water environment except by discharge from the ETP.

2.2.6 K4 is essentially a modern smaller version of the paper mills existing CHP plant (K1). Wastewater from K1 forms approximately 5% of the total volume of water treated at the ETP and the chemical composition and volume of waste water from K4 will not materially alter from that of K1.

2.2.7 In accordance with the Environment Agency's relevant representation on the application a Water Framework Directive Scoping Exercise has been undertaken to determine the effect of the development on the WFD Water Body (the River Swale) (provided as Appendix 1).

2.2.8 It is agreed between the parties that following the conclusion of the WFD scoping assessment that it can be concluded that the Proposed Development will not affect the River Swale's compliance with the requirements of the Water Framework Directive.

2.2.9 Whilst potential pathways to surface water exist through accidental spillage, hydrocarbons from vehicles etc. it is agreed that subject to the standard operational and management measures set out in Table 9-15 of Chapter 9 of the ES and Table 9-17 including a Drainage Maintenance Plan, Emergency Spill Management Plan and Water Quality Monitoring Strategy that the risk of contamination to surface water from on-site drainage during operation will be reduced as far as reasonably practically possible.

Lighting

2.2.10 It is agreed that if draft Requirement 9 (lighting) is amended as set out below to specifically refer to the need for any lighting strategy to take account of eels and elver

that the Proposed Development will not have a detrimental effect on the ecology of the ditch network in this regard.

9.—(1) No part of the authorised development may be commenced until a scheme for the management and mitigation of artificial light emissions during the construction, operation and decommissioning of the authorised development has been submitted to and approved by the relevant planning authority.

(2) The scheme must be designed to avoid any consequential impact on eel and elver and other wildlife.

(3) The scheme must be implemented as approved.

Decommissioning

2.2.11 It is agreed that subject to standard construction practice and the decommissioning procedures to be agreed within the permit variation for K4 (see Environmental Permitting) that the risk of contamination of surface water will be as low as reasonably possible.

2.3 Land contamination

2.3.1 It is agreed that the ES has been produced using an appropriate methodology, is based on an appropriate baseline and that as a result makes an appropriate judgement regarding the likely significant residual impacts in terms of contamination regarding the proposed scheme.

2.3.2 It is agreed that Requirement 12 of the Draft DCO ensures the appropriate ongoing management of any contamination that might be present and that the risk of consequential environmental impact is adequately mitigated and any risk as low as reasonably practical.

2.4 Water Resources

2.4.1 It is agreed that by the Proposed Development being a smaller and modern replacement of K1 that it will therefore have a similar or reduced water demand, which compliments the Agency's water efficiency objectives that recognise the need to conserve Water Resources. The expectation is that K1's demand will be met through DS Smith's existing licensed groundwater abstraction [Licence 9/40/02/0021], and without the need to vary the Licence conditions. It is therefore agreed that the Proposed Development will not adversely affect water resources.

2.5 Environmental Permitting

2.5.1 The new K4 plant will require an environment permit to operate. E.ON will need to demonstrate how the new plant will meet BAT requirements as outlined in the LCP BREF. It has been agreed through prior discussions with the Environment Agency that the existing environmental permit held by E.ON for the K1 Plant (LCP 206, 207, 208) will be varied to include the K4 plant as a new combustion activity.

2.5.2 The variation application will also outline the intended timescales for closure of the existing K1 CHP Plant (LCP 208) and the upgrades to be undertaken to the K1 Auxiliary Boilers (LCP 206, 207) in order to enable this plant to meet IED and LCP BREF BAT requirements and be able to continue to operate into the future.

2.5.3 The environmental permit variation application will be prepared by E.ON and submitted to the Environment Agency during 2019.

2.5.4 The land on which K4 will be located currently sits within the installation boundary for the DS Smith Environmental Permit. DS Smith will transfer this area of land to E.ON through a partial permit transfer. The partial permit transfer application will be prepared by DS Smith and submitted to the Environment Agency in 2019.

2.5.5 E.ON and DS Smith will liaise closely to ensure the submission of the variation application and partial permit transfer are aligned.

2.5.6 The approach outlined above have been discussed and agreed with the Environment Agency.

2.5.7 Given the matters agreed the Environment Agency does not currently have any concerns about permitting and based on the information provided see no reason why a varied permit should not be granted.

3 Matters where discussions are ongoing

3.1.1 The parties to this SoCG confirm that there are currently no matters where ongoing discussion is required.

4 Matters Not Agreed

4.1.1 The parties to this SoCG confirm that there are currently no matters which have not been agreed.

Signed... [redacted] .....

Name and position TIM SPICER, ASSOCIATE AT DHA PLANNING LTD

On behalf of DS Smith Paper Ltd

Date.... 25/07/2018 .....

Signed... [redacted] .....

Name and position.... JENNIFER WILSON, PLANNING SPECIALIST

On behalf of the Environment Agency

Date..... 25/7/2018 .....

Appendix 1: WFD Scoping Exercise

Water Framework Directive assessment: scoping template for activities in estuarine and coastal waters

Use this template to record the findings of the scoping stage of your Water Framework Directive (WFD) assessment for an activity in an estuary or coastal water.

If your activity will:

- take place in or affect more than one water body, complete a template for each water body
- include several different activities or stages as part of a larger project, complete a template for each activity as part of your overall WFD assessment

The WFD assessment guidance for estuarine and coastal waters will help you complete the table.

Your activity	Description, notes or more information
Applicant name	DS Smith Paper Ltd
Application reference number (where applicable)	
Name of activity	Paper Mill Effluent Treatment Plant
Brief description of activity	Effluent treatment
Location of activity (central point XY coordinates or national grid reference)	TQ921670
Footprint of activity (ha)	0.6
Timings of activity (including start and finish dates)	Ongoing
Extent of activity (for example size, scale frequency, expected volumes of output or discharge)	No change in volumes; the permitted limits/ discharge flow are not changing
Use or release of chemicals (state which ones)	No change in chemical characteristics of effluent

Water body[1]	Description, notes or more information
WFD water body name	Swale
Water body ID	GB530604011500
River basin district name	Medway Swale Estuary
Water body type (estuarine or coastal)	Estuarine
Water body total area (ha)	2905.47
Overall water body status (2015)	Moderate
Ecological status	Moderate
Chemical status	Good
Target water body status and deadline	Moderate
Hydromorphology status of water body	Supports Good
Heavily modified water body and for what use	Yes; Flood protection
Higher sensitivity habitats present	Saltmarsh; 485 Ha
Lower sensitivity habitats present	Cobbles 0.05; Intertidal 3104, Rocky Shore 47.55ha & Subtidal 944.65
Phytoplankton status	High
History of harmful algae	No
WFD protected areas within 2km	Saltmarsh

[1] *Water body information can be found in the Environment Agency's catchment data explorer and the water body summary table. Magic maps provide additional information on habitats and protected areas. Links to these information sources can be found in the WFD assessment guidance for estuarine and coastal waters.*

Specific risk information

Consider the potential risks of your activity to each of these receptors: hydromorphology, biology (habitats and fish), water quality and protected areas. Also consider invasive non-native species (INNS).

Section 1: Hydromorphology

Hydromorphology is not at risk from our activity.

Consider if your activity:	Yes	No	Hydromorphology risk issue(s)
Could impact on the hydromorphology (for example morphology or tidal patterns) of a water body at high status		Impact assessment not required	*No Risk*
Could significantly impact the hydromorphology of any water body		Impact assessment not required	*No Risk*
Is in a water body that is heavily modified for the same use as your activity		Impact assessment not required	*No Risk*

Section 2: Biology

Habitats

Consider if habitats are at risk from your activity.

Use the water body summary table and Magic maps, or other sources of information if available, to find the location and size of these habitats.

Higher sensitivity habitats [2]	Lower sensitivity habitats [3]
saltmarsh	**cobbles, gravel and shingle**

	intertidal soft sediments like sand and mud
	rocky shore
	subtidal soft sediments like sand and mud

Consider if the footprint[4] of your activity is:	**Yes**	**No**	**Biology habitats risk issue(s)**
0.5km^2 or larger		Impact assessment not required	There will be no change in the size, chemical composition or temperature of the plume resulting from the proposed development. Further detailed impact assessment is not therefore deemed necessary.
1% or more of the water body's area			
Within 500m of any higher sensitivity habitat			
1% or more of any lower sensitivity habitat			

Fish

Consider if fish are at risk from your activity, but only if your activity is in an estuary or could affect fish in or entering an estuary.

Consider if your activity:	**Yes**	**No**	**Biology fish risk issue(s)**
Is in an estuary and could affect fish in the estuary, outside the estuary but could delay or prevent fish entering it or could affect fish migrating through the estuary		Impact assessment not required	There will be no change in the size, chemical composition or temperature of the plume resulting from the proposed development.
Could impact on normal fish behaviour like movement, migration or spawning (for example creating a physical barrier, noise, chemical change or a change in depth or flow)		Impact assessment not required	There will be no change in the size, chemical composition or temperature of the plume resulting from the proposed development.
Could cause entrainment or impingement		Impact assessment	There will be no change in the size, chemical composition or temperature of the plume resulting from the proposed

of fish		not required	development.

Section 3: Water quality

It should be noted that release of the effluent can only potentially have an impact in a localised area; the mixing zone 0.4ha.

A permit review process took place in 2014 across the paper industry. All substances that were not present in concentrations that could cause harm were removed from the Environmental permit; if there were listed substances the requirement to monitor remained in place but the limits were removed. The consequence is that there are no limits on substances released as effluent from the paper industry apart from total suspended solids (TSS) and BOD. There will be no change in the chemical composition of the discharge from the existing ETP.

Consider if your activity:	Yes	No	Water quality risk issue(s)
Could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days)		Impact assessment not required	Nutrient levels will not change. Ammonia is not on the EQSD list; ammonia is not monitored as ammonia is not a permit requirement; levels have been extremely low in past years past. It is in the interest of the plant to retain nutrients within the process. Internal NH4 levels are low < 0.4 mg/l and are not considered an issue required for further assessment. DO levels are monitored internally and will not change. Total Phosphorus and Nitrogen levels are currently below the BAT requirements for Annual load limits. A requirement for a limit for Nitrogen and Phosphorus was removed from all permits across the paper industry as the concentrations released are below levels that can cause

			harm. There will be no change in the temperature of the plume resulting from the proposed development.
Is in a water body with a phytoplankton status of moderate, poor or bad		Impact assessment not required	High Status
Is in a water body with a history of harmful algae		Impact assessment not required	No history of harmful algae

Consider if water quality is at risk from your activity through the use, release or disturbance of chemicals.

If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if:	**Yes**	**No**	**Water quality risk issue(s)**
The chemicals are on the Environmental Quality Standards Directive (EQSD) list		Impact assessment not required	N/A
It disturbs sediment with contaminants above Cefas Action Level 1		Impact assessment not required	N/A

If your activity has a mixing zone (like a discharge pipeline or outfall) consider if:	Yes	No	Water quality risk issue(s)
The chemicals released are on the Environmental Quality Standards Directive (EQSD) list		Impact assessment not required	A permit review process took place in 2014 across the paper industry, all substances that were not present in concentrations that could cause harm were removed from Environmental permits; if these were listed substances the requirement to monitor remained in place but the limits were removed – this is the case for the substances within the H1 assessment and substances screened out. Refer to H1 assessment for substances that are released and monitored currently under the permit - PCP and Nickel. The level of these substances will remain unchanged (all samples well below EQS levels) thus no further assessment in required. A number of substances have been screened out as these substances are below limit of Detection in all samples taken: - Cadmium - Chlorphyrifos & Cypermethrin - Copper - Mercury - TBT - Zinc & Lead - Endosulfan, and 4-nonyphenol only

			LOD is below 10% of the EQS. All analysis is undertaken in a UKAS accredited lab to the required standard - The Environment Agency National Laboratory Service is used.

[5] *Carry out your impact assessment using the Environment Agency's surface water pollution risk assessment guidance, part of Environmental Permitting Regulations guidance.*

Record the findings for water quality go on to section 4: WFD protected areas.

Section 4: WFD protected areas

Consider if WFD protected areas are at risk from your activity. These include:

- special areas of conservation (SAC)
- **special protection areas (SPA)**
- shellfish waters
- bathing waters
- nutrient sensitive areas

Use Magic maps to find information on the location of protected areas in your water body (and adjacent water bodies) within 2km of your activity.

Consider if your activity is:	Yes	No	Protected areas risk issue(s)
Within 2km of any WFD protected area[6]		Impact assessment not required	There will be no change in the size, chemical composition or temperature of the plume resulting from the proposed development.

[6] *Note that a regulator can extend the 2km boundary if your activity has an especially high environmental risk.*

Record the findings for WFD protected areas and go to section 5: invasive non-native species.

Section 5: Invasive non-native species (INNS)

Consider if there is a risk your activity could introduce or spread INNS.

Consider if your activity could:	Yes	No	INNS risk issue(s)
Introduce or spread INNS		Impact assessment not required	No change

Summary

Receptor	Potential risk to receptor?	Note the risk issue(s) for impact assessment
Hydromorphology	No	
Biology: habitats	No	
Biology: fish	No	
Water quality	No	
Protected areas	No	
Invasive non-native species	No	

Describe the Objectives

Depending on the reason for the assessment you will need to complete different parts of the tool.

Select the type of assessment:

◉ a)	to carry out an ENVIRONMENTAL ASSESSMENT of the releases resulting from the facility as a whole	Do Steps 1, 2 and 3 only
○ b)	to conduct a costs/benefits OPTIONS APPRAISAL to determine BAT or support the case for derogation under the Industrial Emission Directive.	Do Steps 1,2, 3 and 4 and continue with 5 and 6 if necessary

1.1 Briefly summarise the objectives and reason for the assessment in terms of the main environmental impacts or emissions to be controlled:

Assessment of releases from existing ETP plant regarding the K4 application and water assessment

Receiving Water Body(s)

Please define the Final Discharge Locations for Releases to Water

Are there any discharges to surface waters? Yes

Use the 'Add' button below to list all final discharge points.
For discharges to sewer, this should be the point where the sewage works discharges to a surface water
N.B. For Riverine discharges (River, Upper Estuary) you only need enter the River description and flow once. Further details of individual releases can be entered on the next page. For discharges to TRaC waters, seperate Discharge Locations must be added for each release point that has a different mixing zone

Number	Description	Final Discharge Category	Freshwater Q95 flow rate
1	Swale	T	Not Applicable

Water Discharge/Release Details and Flow Data

Please define your Release Points for Releases to Water

Number	Description	Location or Grid Reference	Activity or Activities	Final Discharge Point	Discharge via Sewer?	Mean Effluent Flow Rate* m3/s	Max Effluent Flow Rate* m3/s
1	W1	Discharge from the ETP to Swale		1 Swale	No	0.2000	0.2600

Comments:

* When operating

Effective Volume Flux - TRaC Water Releases

Apply Test 5 (See Guidance) and compare the Effective Volume Flux of your discharge with the Allowable Effective Volume Flux

This table applies Test 5 and enables you to enter the depth of the TRaC water discharge. From this data the Allowable Voumne Flux for your location can be calculated and compared with the Effective Volume Flux of your discharge.

Description:	Location:	TRaC Water Release Depth Below Chart Datum (m):
W1	Discharge from the ETP to Swale	0

		Annual Avg EQS				MAC EQS				
Release Point and Substance	Background Conc	Release Conc	Effluent Flow	EQS AA	EVF (AA)	Release Conc	Effluent Flow	EQS MAC	EVF (MAC)	Allov EVF
[W1] Nickel and its compounds		3.10	0.20	8.60		3.10	0.26	34.00		
[W1] Pentachlorophenol		0.15	0.20	0.40		0.15	0.26	1.00		

Release Concentrations of Substances Present in Discharges to Water

Please list all Substances released to Water for each Release Point identified in the previous page.

Which type of assessment method are you using? (See help box & H1 Annex D for information)

Continue with the method below.

Method: Chemical Specific

Reference:

Number	Substance	Meas'ment Method	Operating Mode (% of Year)	Average Concentration in the Effluent (AA)		Maximum Concentration in the Effluent (Max)		Annual Rate	Significant Load (PHS Only)
				Conc.	Meas'ment Basis	Conc.	Meas'ment Basis		
				µg/l		µg/l		kg/yr	kg/year
1	Nickel and its compounds	Spot	100.0%	3.1	Annual Avg	3.1		19.55232	
2	Pentachlorophenol	Spot	100.0%	0.152	Annual Avg	0.152		0.9586944	3

Comments: No changes to limits or chemcial charaterstics of effluent released. Substances above do not have permit limits as were screened out as part of the paper industry permit review process in 2014.

Water Impacts - TRaC Water Releases

Apply Test 1 (See Guidance) and Calculate Process Contributions of Emissions to Water

This table applies Test 1 and also estimates the Process Contribution for releases in to saline waters, this is calculated after dilution into the relevant surface water type for each emission to water listed in the inventory, according to the release point parameters input earlier. If you have more accurate data obtained through dilution modelling, this may be entered as indicated and will be used instead of the estimated PC. Any releases which 'Pass' Test 1 are screened out at this point.

	Annual Avg EQS			MAC EQS		
Substance	Release µg/l	EQS	Release conc < 100% EQS **Test 1**	Release µg/l	EQS	Release conc < 100% EQS **Test 1**
[W1] Nickel and its compounds (Swale)	3.1	8.6	Pass	3.1	34	Pass
[W1] Pentachlorophenol (Swale)	0.152	0.4	Pass	0.152	1	Pass

Note that the Process Contribution shown for each substance is the sum of the individual process contributions of each point from which the substance is emitted. Process Contributions obtained from modelling data should incorporate all relevant release points and flow conditions.

* If you have valid dispersion modelling data available - please enter it here

Comments:

Water pH

Where relevant, please enter pH of effluent for each release point.

This table is to check that the effluent is acceptable, i.e. within the required pH range. It is not used to make relative judgement between options.

Discharge Location	Release Point	Measurement Method	High Normal Rate	High Peak Rate	Low Normal Rate	Low Peak Rate	pH of Receiving Water	Do artificial variations caused by effluent exceed 0.5pH units?
1 Swale	1 W1	Continuous	8	8.6	7.5	7.42	8	No

Comments:

Water Temperature

Where relevant, please enter temperature of effluent for each release point.

This table is to check that the effluent is acceptable, i.e. within the required temperature range. It is not used to make relative judgement between options.

Discharge Location	Release Point	Measurement Method	High Normal Rate	High Peak Rate	Max Temp. Difference	Benchmarks: Max Summer	Benchmarks: Max Winter	Benchmarks: Max Temp
1 Swale	1 W1	Continuous	28	35		21.5	10	2

Comments: Expected maximum temperatures are 30 degrees in winter and 35 degrees in summer.