

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Northumbrian Water Limited

Chester Le Street Sewage Treatment Works
Chester Le Street
County Durham
DH3 4NT

Variation number

245/1242/V001

Permit number

245/1242

Chester Le Street Sewage Treatment Works

Permit number 245/1242

Introductory note

This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

This variation consolidates all previous versions of the permit into one environmental permit, and introduces the requirements of the Urban Waste Water Treatment (England and Wales) Regulations 1994 for controlling phosphate releases to the water environment from agglomerations with a population equivalent of between 10,000 and 150,000. The phosphorus limit has been set at 2 milligrammes per litre as an annual average, and an associated iron limit has been introduced.

The Event Duration Monitoring requirements for activity A2 settled storm sewage and A3 storm sewage have been included with a start date of 1 April 2019.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Modification determined 245/1242	21/12/2000	Full permit issued, effective 01/01/2001
Variation determined	07/11/2001	Addition of Schedule 6
Modification determined 245/1242	17/01/2003	Replacement of Schedule 6 of the permit – sewage in an emergency
Modification determined 245/1242	25/04/2005	Amended capacity of storm tanks, effective 09/05/2005.
Modification determined 245/1242	14/10/2008	Operator Self Monitoring update
Variation determined 245/1242	01/04/2010	Dry Weather Flow update
Variation determined 245/1242/V001	19/07/2017	Variation to include the Urban Waste Water Treatment (England and Wales) Regulations suite of conditions including phosphorus limit and associated iron dosing limit. Varied and consolidated permit issued in modern condition format. EDM conditions applied effective from 1 April 2019.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

Permit number

245/1242

Issued to

Northumbrian Water Limited ("the operator")

whose registered office is

Northumbria House

Abbey Road

Pity Me

Durham

DH1 5FJ

company registration number 02366703

to operate a water discharge activity at

Chester Le Street Sewage Treatment Works

Chester Le Street

County Durham

DH3 4NT

to the extent set out in the schedules.

The notice shall take effect from 19/07/2017.

Name	Date
KARL SYDNEY	19/07/2017

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

245/1242

This is the consolidated permit referred to in the variation and consolidation notice for variation 245/1242/V001 authorising,

Northumbrian Water Limited ("the operator"),

whose registered office is

Northumbria House

Abbey Road

Pity Me

Durham

DH1 5FJ

company registration number 02366703

to operate a water discharge activity at

Chester Le Street Sewage Treatment Works

Chester Le Street

County Durham

DH3 4NT

to the extent authorised by and subject to the conditions of this permit.

Name	Date
KARL SYDNEY	19/07/2017

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution so far as is reasonably practicable, including those risks arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of the permit.

2 Operations

2.1 Permitted activities

- 2.1.1 The only activities authorised by the permit are the activities specified in schedule 1 table S1.1.

2.2 The site

- 2.2.1 The discharge activities shall take place at the discharge points marked on the site plan at schedule 7 to this permit, and as listed in table S3.2; and, the operating techniques that are the subject of conditions prefixed by 2.3 shall be applied at the locations shown, or otherwise described, in schedule 7.

2.3 Operating techniques

- 2.3.1 For the activities A4 and A5 referenced in schedule 1, table S1.1 the activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 For the activity A1 referenced in schedule 1, table S1.1 the operator shall comply with the relevant requirements of the Urban Waste Water Treatment (England and Wales) Regulations 1994.
- 2.3.3 For the discharge(s) specified in table S3.3:
- (a) The discharge shall only occur when and only for as long as the flow passed forward is equal to or greater than the overflow setting indicated due to rainfall and/or snow melt.
 - (b) Off-line storm storage must be fully utilised before a discharge occurs. It shall only fill when the flow passed forward is equal to or greater than the overflow setting indicated due to rainfall and/or snow melt and shall be emptied and its contents returned to the continuation flow as soon as reasonably practicable. The minimum off-line storm storage required is specified in table S3.3.
 - (c) The discharge shall not be comminuted or macerated and shall have passed through screens as specified and shall not contain a significant quantity of solid matter with a particle size greater than any indicated. All screenings shall be removed from the discharge.

- (d) Where a mechanically cleaned screen is installed, a telemetry alarm system shall be installed and maintained, as far as reasonably practicable, so as to give the operator immediate notification of a failure of the screen cleaning mechanism, unless otherwise agreed in writing by the Environment Agency. The operator shall take all appropriate measures to return the screen cleaning mechanism to normal operation as soon as reasonably practicable after receipt of notification of the failure.

2.3.4 For the activities A2 and A3 referenced in schedule 1, table S1.1 where the discharge results in unsatisfactory solid matter being visible in the receiving waters or on the banks or shoreline, in the vicinity of the outfall, the operator shall take all reasonable steps to collect and remove such matter as soon as reasonably practicable.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

3 Emissions and monitoring

3.1 Emissions to water

3.1.1 The limits given in schedule 3 table S3.1 shall not be exceeded.

3.1.2 The limits in schedule 3 table S3.1 to which this condition applies may be exceeded where: in any series of samples of the discharge taken at regular but randomised intervals in any period of twelve consecutive months as listed in column 1 of schedule 3A, no more than the relevant number of samples, as listed in column 2 of schedule 3A, exceed the applicable limit for that relevant parameter. For relevant parameters subject to schedule 3C the assessment is based on a fixed calendar year from 1 January to 31 December inclusive.

3.1.3

- (a) For the emission limits in schedule 3 table S3.1 to which this condition applies, no sample of the discharge taken at a time when unusual weather conditions are adversely affecting the operation of the waste water treatment works, shall be taken into account in deciding whether or not the emission limit has been complied with.
- (b) On any occasion where unusual weather conditions adversely affect the operation of the waste water treatment works, the operator shall use its best endeavours to mitigate that adverse effect.
- (c) For any sample of the discharge taken to be considered for the purposes of (a) above, the operator shall notify the Environment Agency in writing within 14 days of becoming aware that an emission limit has been exceeded. That notification shall include a full description of the unusual weather conditions and their impact on the operation of the works.

3.1.4

- (a) For the emission limits in schedule 3, table S3.1 to which this condition applies, no sample of the discharge taken at a time when abnormal operating conditions are adversely affecting the operation of the waste water treatment works, shall be taken into account in deciding whether or not the emission limit has been complied with.
- (b) On any occasion where abnormal operating conditions adversely affect the operation of the waste water treatment works, the Operator shall use its best endeavours to mitigate that adverse effect.
- (c) For any sample of the discharge taken to be considered for the purposes of (a) above, the Operator shall notify the Environment Agency in writing within 14 days of becoming aware that an emission limit has been exceeded. That notification shall include a full description of the abnormal operating conditions and their impact on the operation of the works.

3.1.5

- (a) If the measured Dry Weather Flow exceeds the permitted Dry Weather Flow limit then the operator shall, as soon as is practicable, investigate the reasons for the exceedance. The operator shall report the reasons for the exceedance to the Environment Agency and the steps that it proposes to take to restore compliance. An exceedance of the Dry Weather Flow limit shall not be recorded as a failure if the operator takes appropriate steps to restore compliance;
- (b) If the measured Dry Weather Flow exceeds the permitted Dry Weather Flow limit because of unusual rainfall during the 12-month period, then it will not be recorded as a failure of the Dry Weather Flow limit. For the purposes of this condition, unusual rainfall shall mean rainfall that causes significantly higher sewage flows during the three-month period that normally records the lowest flows;
- (c) The permitted Dry Weather Flow limit is set at the operator's planned annual 80% exceeded flow;
- (d) For compliance with this permit, the measured Dry Weather Flow is that total daily volume that is exceeded by 90% of the recorded measured total daily volume values in any period of 12 months; and
- (e) For unusual rainfall to be considered, the operator shall notify the Environment Agency and provide supporting evidence as part of the normal specified data returns.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 For the activity A1 referenced in schedule 1, table S1.1 the operator shall take appropriate measures to minimise so far as reasonably practicable the polluting effects of the emissions of substances in the discharge not controlled by emission limits (excluding odour).

3.3 Monitoring

- 3.3.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in tables S3.1 and S3.4;
 - (b) inlet quality specified in tables S3.1 and S3.4.
- 3.3.2 The operator shall maintain records of all monitoring required by this permit.
- 3.3.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.1 shall

have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

- 3.3.4 Accessible monitoring points shall be provided and maintained to enable the emissions monitoring programme and/or other monitoring to be carried out at the monitoring points specified in table S3.4 of schedule 3 and shown marked on the site plan in schedule 7.
- 3.3.5 The monitoring programme for the parameters subject to schedule 3B shall be:
- (a) pre-scheduled to cover a calendar year and the programme recorded before the start of a calendar year sample period; and
 - (b) spot samples collected at approximately equal intervals during the year, including samples from different days of the week and different times. Approximately 10% of samples should be outside the normal sampling window which is 9am-3pm, Monday to Friday.
- 3.3.6 After becoming aware, or following a notification that a sample has not been taken on the schedule 3B Monitoring Programme pre-scheduled date, or is lost, or a result for that sample cannot be reported, the operator shall record the details and reschedule the sample.
- 3.3.7 The monitoring programme for the parameters subject to schedule 3C shall be:
- (a) pre-scheduled before each calendar year;
 - (b) Unless otherwise agreed in writing by the Environment Agency, the operator shall submit the monitoring programme for the following calendar year to the Environment Agency before the 1st of December; and
 - (c) samples must be collected at approximately equal intervals during the year from different days of the week and approximately 10% of samples should be taken at weekends.
- 3.3.8 Unless otherwise agreed in writing by the Environment Agency, after becoming aware, or following notification that a sample has not been taken on the schedule 3C Monitoring Programme pre-scheduled date, or is lost, or a result for that sample cannot be reported, the operator shall notify the Environment Agency of the missed event and the reschedule date as soon as reasonably practicable.
- 3.3.9 Effective from 1 April 2019
- For the activities A2 and A3 referenced in schedule 1, table S1.1 an event duration monitoring system shall be installed and maintained, as far as reasonably practicable so as to give the operator data available of discharge occurrence (start and stop) at the frequency defined in table S3.1.

4 Information

4.1 Records

- 4.1.1 All records required to be made by schedule 3, 4 and 5 to this permit shall:
- (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made.
- 4.1.2 The operator shall maintain convenient access, in either electronic or hard copy, to the records, plan and management system required to be maintained by this permit.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 Within the time period after the end of the reporting period specified in schedule 4 table S4.1 the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and monitoring points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.2; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.3 Notifications

- 4.3.1 The Environment Agency shall be notified as soon as reasonably practicable following detection, within the site of the regulated facility of:
- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution; and
 - (b) any breach of a limit specified in schedule 3 table S3.1 (including individual exceedances of limits which are covered by condition 3.1.2).
- Any other significant adverse environmental effects, which may have been caused by the activity, shall also be notified to the Environment Agency as soon as reasonably practicable following detection.
- 4.3.2 The information provided under condition 4.3.1 shall be supported by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling specified in schedule 3B/3C, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
 - (b) any steps taken with a view to the dissolution of the operator.

- 4.3.5 For the activity A1 referenced in schedule 1, table S1.1 where the operator proposes to make a change in the nature of the activity by increasing the concentration of, or the addition of, or allowing the introduction of, a substance to the activity to an extent that the operator considers could have a significant adverse environmental effect on the receiving waters, and the change is not permitted by emission limits specified within schedule 3 table S3.1 or the subject of an application for approval under the EP Regulations or under the terms of this permit:
- (a) the Environment Agency shall be notified in writing at least 14 days before the increase or addition or allowing the introduction; and
 - (b) the notification shall contain a description of the proposed change.
- 4.3.6 For the activity A1 referenced in schedule 1, table S1.1 the operator shall inform the Environment Agency in writing of any change, or proposed change, to the population equivalent such as would make a material change to the application of the Regulations and shall, on request, inform the Environment Agency in writing of the actual population equivalent.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “as soon as reasonably practicable”, in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 Activities		
Activity reference	Description of activity	Limits of specified activity
A1	Discharge of secondary treated sewage effluent with nutrient removal via Outlet 1	N/A
A2	Discharge of settled storm sewage via Outlet 2	N/A
A3	Discharge of storm sewage via Outlet 2	N/A
A4	Discharge of sewage in an emergency (from high level inlet pumping station) via Outlet 2	An emergency shall be defined as the period when the high level inlet sewage pumping station is inoperative as a result of one or more of the following, which is not due to the act or default of the operator, its agents, representatives, officers, employees or servants; • electrical power failure; • mechanical breakdown of duty and standby pumps; • rising main failure; • blockage of the downstream sewer.
A5	Discharge of sewage in an emergency (from low level inlet pumping station) via Outlet 3	An emergency shall be defined as the period when the low level inlet sewage pumping station is inoperative as a result of one or more of the following, which is not due to the act or default of the operator, its agents, representatives, officers, employees or servants; • electrical power failure; • mechanical breakdown of duty and standby pumps; • rising main failure; • blockage of the downstream sewer.
A6	Discharge of sewage in an emergency – River Flooding scenario –via Outlet 2	A discharge of primary treated sewage is made under the following circumstances: 1. When river levels at Outlet 1 are greater than 5.9 metres but less than 8.5 metres above Ordnance Data Newlyn. 2. When flows at the inlet are less than 145 l/s The discharge shall not contain a significant quantity of solid matter having a size greater than 6 millimetres in more than one dimension. The discharge shall not be comminuted or macerated to achieve this standard.

Table S1.1 Activities		
Activity reference	Description of activity	Limits of specified activity
		A discharge of screened and/or comminuted sewage is made under the following circumstances: 1. When river levels at Outlet 1 are greater than 5.9 metres but less than 8.5 metres above Ordnance Data Newlyn. 2. When flows at the inlet are greater than 145 l/s The discharge shall not contain a significant quantity of solid matter having a size greater than 6 millimetres in more than one dimension. A discharge of screened or comminuted sewage is made under the following circumstances: 1. When river levels at the outlet are greater than 8.5 metres above Ordnance Data Newlyn 2. When flows at the inlet works are greater than 145 l/s and less than 1300 l/s The discharge shall not contain a significant quantity of solid matter having a size greater than 6 millimetres in more than one dimension.

Table S1.2 Operating techniques			
Activity reference	Description of documentation	Parts	Date Received
A5	A5 PSKPM1 14 November 2016	All	14/11/2016
A4	A4 PSKPM2 14 November 2016	All	14/11/2016

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IP1	Submit in writing to the Environment Agency the NGR for the Event duration monitoring point as required in table S3.4 for activity A2, discharge of storm sewage via Outlet 2 and activity A3, discharge of settled storm sewage via Outlet 2.	01/10/2019

Schedule 2 – Waste types, raw materials and fuels

Schedule 2 not in use.

Schedule 3 – Emissions and monitoring

Table S3.1a Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Effective up to and including 31/03/2019						
Effluent(s) and discharge point(s)	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
A1 Secondary treated sewage effluent with nutrient removal via Outlet 1	Dry weather flow	8,365 m ³ /day	Total daily volume	N/A	Continuous	Condition 3.1.5 applies
	15-minute instantaneous or averaged flow	No limit set. Record as l/s	15 minute	N/A	Continuous	N/A
	ATU-BOD as O ₂	23 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Look up table (Conditions 3.1.2 and 3.1.3 apply)
	ATU-BOD as O ₂	58 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Maximum (Condition 3.1.3 applies)
	Ammoniacal nitrogen (expressed as N)	10 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Look up table (Conditions 3.1.2 and 3.1.3 apply)
	Ammoniacal nitrogen (expressed as N)	37 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Maximum (Condition 3.1.3 applies)
	Suspended solids (measured after drying at 105°C)	35 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Look up table (Conditions 3.1.2 and 3.1.3 apply)
	Total iron as Fe	4000 µg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Look up table (Conditions 3.1.2 and 3.1.3 apply)
	Total iron as Fe	8000 µg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Maximum (Condition 3.1.3 applies)

Table S3.1a Point Source emissions to water (other than sewer) – emission limits and monitoring requirements

Effective up to and including 31/03/2019

Effluent(s) and discharge point(s)	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
	Visible oil or grease	No significant trace present so far as is reasonably practicable	Instantaneous (visual examination)	N/A	N/A	No significant trace (Condition 3.1.3 applies)
	ATU-BOD as O ₂ (UWWTR)	Minimum of 70 % removal compared to influent	24 hour composite	To be compliant a sample has to meet the 70% removal standard or the 25 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)
	ATU-BOD as O ₂ (UWWTR)	25 mg/l	24 hour composite	To be compliant a sample has to meet the 70% removal standard or the 25 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)
	ATU-BOD as O ₂ (UWWTR)	50 mg/l	24 hour composite	This limit does not apply if a sample has met the 70% removal standard	As specified in schedule 3C	Maximum (Condition 3.1.4 applies)
	COD as O ₂ (UWWTR)	Minimum of 75 % removal compared to influent	24 hour composite	To be compliant a sample has to meet the 75% removal standard or the 125 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)

Table S3.1a Point Source emissions to water (other than sewer) – emission limits and monitoring requirements

Effective up to and including 31/03/2019

Effluent(s) and discharge point(s)	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
	COD as O ₂ (UWWTR)	125 mg/l	24 hour composite	To be compliant a sample has to meet the 75% removal standard or the 125 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)
	COD as O ₂ (UWWTR)	250 mg/l	24 hour composite	This limit does not apply if a sample has met the 75% removal standard	As specified in schedule 3C	Maximum (Condition 3.1.4 applies)
	Total phosphorus as P (UWWTR)	2mg/l	24 hour composite	To be compliant a sample has to meet the 80% removal standard or the 2 mg/l limit not both	As specified in schedule 3C	Annual mean (Condition 3.1.4 applies)
	Total phosphorus as P (UWWTR)	Minimum of 80% removal compared to influent	24 hour composite	To be compliant a sample has to meet the 80% removal standard or the 2 mg/l limit not both	As specified in schedule 3C	Annual mean (Condition 3.1.4 applies)

Table S3.1b Point Source emissions to water (other than sewer) – emission limits and monitoring requirements
Effective from 01/04/2019

Effluent(s) and discharge point(s)	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
A1 Secondary treated sewage effluent with nutrient removal via Outlet 1	Dry weather flow	8,365 m ³ /day	Total daily volume	N/A	Continuous	Condition 3.1.5 applies
	15-minute instantaneous or averaged flow	No limit set. Record as l/s	15 minute	N/A	Continuous	N/A
	ATU-BOD as O ₂	23 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Look up table (Conditions 3.1.2 and 3.1.3 apply)
	ATU-BOD as O ₂	58 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Maximum (Condition 3.1.3 applies)
	Ammoniacal nitrogen (expressed as N)	10 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Look up table (Conditions 3.1.2 and 3.1.3 apply)
	Ammoniacal nitrogen (expressed as N)	37 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Maximum (Condition 3.1.3 applies)
	Suspended solids (measured after drying at 105°C)	35 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Look up table (Conditions 3.1.2 and 3.1.3 apply)
	Total iron as Fe	4000 µg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Look up table (Conditions 3.1.2 and 3.1.3 apply)
	Total iron as Fe	8000 µg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Maximum (Condition 3.1.3 applies)

Table S3.1b Point Source emissions to water (other than sewer) – emission limits and monitoring requirements

Effective from 01/04/2019

Effluent(s) and discharge point(s)	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
	Visible oil or grease	No significant trace present so far as is reasonably practicable	Instantaneous (visual examination)	N/A	N/A	No significant trace (Condition 3.1.3 applies)
	ATU-BOD as O ₂ (UWWTR)	Minimum of 70 % removal compared to influent	24 hour composite	To be compliant a sample has to meet the 70% removal standard or the 25 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)
	ATU-BOD as O ₂ (UWWTR)	25 mg/l	24 hour composite	To be compliant a sample has to meet the 70% removal standard or the 25 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)
	ATU-BOD as O ₂ (UWWTR)	50 mg/l	24 hour composite	This limit does not apply if a sample has met the 70% removal standard	As specified in schedule 3C	Maximum (Condition 3.1.4 applies)
	COD as O ₂ (UWWTR)	Minimum of 75 % removal compared to influent	24 hour composite	To be compliant a sample has to meet the 75% removal standard or the 125 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)
	COD as O ₂ (UWWTR)	125 mg/l	24 hour composite	To be compliant a sample has to meet the 75% removal standard or the 125 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)
	COD as O ₂ (UWWTR)	250 mg/l	24 hour composite	This limit does not apply if a sample has met the 75% removal standard	As specified in schedule 3C	Maximum (Condition 3.1.4 applies)
	Total phosphorus as P (UWWTR)	2mg/l	24 hour composite	To be compliant a sample has to meet the 80% removal standard or the 2 mg/l limit not both	As specified in schedule 3C	Annual mean (Condition 3.1.4 applies)

Table S3.1b Point Source emissions to water (other than sewer) – emission limits and monitoring requirements Effective from 01/04/2019						
Effluent(s) and discharge point(s)	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
	Total phosphorus as P (UWWTR)	Minimum of 80% removal compared to influent	24 hour composite	To be compliant a sample has to meet the 80% removal standard or the 2 mg/l limit not both	As specified in schedule 3C	Annual mean (Condition 3.1.4 applies)
A2 Settled storm sewage via Outlet 2	Settled storm sewage discharge event duration monitoring (discharge / no discharge)	N/A	N/A	Condition 3.3.3 does not apply	15 minute	N/A
	Settled storm sewage discharge start and end times	N/A	N/A	Condition 3.3.3 does not apply	Whenever a discharge occurs	N/A
	Settled storm sewage discharge event duration monitoring status (operational / not operational)	N/A	N/A	Condition 3.3.3 does not apply	15 minute	N/A
A3 Storm sewage via Outlet 2	Storm sewage discharge event duration monitoring (discharge / no discharge)	N/A	N/A	Condition 3.3.3 does not apply	15 minute	N/A
	Storm sewage discharge start and end times	N/A	N/A	Condition 3.3.3 does not apply	Whenever a discharge occurs	N/A

Table S3.1b Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Effective from 01/04/2019						
Effluent(s) and discharge point(s)	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
	Storm sewage discharge event duration monitoring status (operational / not operational)	N/A	N/A	Condition 3.3.3 does not apply	15 minute	N/A

Table S3.2 Discharge points			
Effluent Name	Discharge Point	Discharge point NGR	Receiving water/Environment
A1 Secondary treated sewage effluent with nutrient removal	Outlet 1	NZ 28029 52040	River Wear
A2 Settled storm sewage	Outlet 2	NZ 28050 51740	River Wear
A3 Storm sewage	Outlet 2	NZ 28050 51740	River Wear
A4 Sewage in an emergency (high level pumping station)	Outlet 2	NZ 28050 51740	River Wear
A6 Sewage in an emergency – River Flooding scenario	Outlet 2	NZ 28050 51740	River Wear
A5 Sewage in an emergency (low level pumping station)	Outlet 3	NZ 27782 51534	Cong Burn

Table S3.3 Storm sewage discharge settings					
Effluent(s) and discharge point(s)	Description of discharge	Overflow setting l/s	Maximum size of solid matter	Screen aperture size	Minimum storage capacity m³ (offline)
A2 Settled storm sewage via Outlet 2	Settled storm sewage	194	No greater than 6 mm in more than 1 dimension	6 mm x 6 mm	3,330
A3 Storm sewage via Outlet 2	Storm sewage	300	No greater than 6 mm in more than 1 dimension	6 mm x 6 mm	N/A

Table S3.4a Monitoring points Effective up to and including 31/03/2019			
Effluent(s) and discharge point(s)	Monitoring type	Monitoring point NGR	Monitoring point reference
A1 Secondary treated sewage effluent with nutrient removal via Outlet 1	UWWTR inlet monitoring	NZ 27916 51622	UWWT Raw Sample Point Monitoring point to be appropriately labelled.
A1 Secondary treated sewage effluent with nutrient removal via Outlet 1	Effluent monitoring / UWWTR effluent monitoring	NZ 27924 52015	UWWT Final effluent sample point Monitoring point to be appropriately labelled.
A1 Secondary treated sewage effluent with nutrient removal via Outlet 1	Flow monitoring	NZ 27907 51794	MCERTS Summated flow meter display Monitoring point to be appropriately labelled.
A2 Settled storm sewage via Outlet 2	Effluent monitoring	NZ 27954 51705	Settled Storm Sample Point Monitoring point to be appropriately labelled.
A3 Storm sewage via Outlet 2	Effluent monitoring	NZ 27900 51610	Storm overflow sample point Monitoring point to be appropriately labelled.
A4 Sewage in an emergency (high level) via Outlet 2	Effluent monitoring	NZ 2790 5161	Sewage in an emergency high level sample point Monitoring point to be appropriately labelled.
A6 Sewage in an emergency – River Flooding scenario via Outlet 2	Effluent monitoring	NZ 2798 5170	Flooding situation sample point Monitoring point to be appropriately labelled.
A5 Sewage in an emergency (low level) via Outlet 3	Effluent monitoring	NZ 27782 51534	Sewage in an emergency low level sample point Monitoring point to be appropriately labelled.

Table S3.4b Monitoring points Effective from 01/04/2019			
Effluent(s) and discharge point(s)	Monitoring type	Monitoring point NGR	Monitoring point reference
A1 Secondary treated sewage effluent with nutrient removal via Outlet 1	UWWTR inlet monitoring	NZ 27916 51622	UWWT Raw Sample Point Monitoring point to be appropriately labelled.
A1 Secondary treated sewage effluent with nutrient removal via Outlet 1	Effluent monitoring / UWWTR effluent monitoring	NZ 27924 52015	UWWT Final effluent sample point Monitoring point to be appropriately labelled.
A1 Secondary treated sewage effluent with nutrient removal via Outlet 1	Flow monitoring	NZ 27907 51794	MCERTS Summated flow meter display Monitoring point to be appropriately labelled.
A2 Settled storm sewage via Outlet 2	Effluent monitoring	NZ 27954 51705	Settled Storm Sample Point Monitoring point to be appropriately labelled.
A2 Settled storm sewage via Outlet 2	Event duration monitoring	As specified in table S1.3	Settled storm sewage event duration monitoring point
A3 Storm sewage via Outlet 2	Effluent monitoring	NZ 27900 51610	Storm overflow sample point Monitoring point to be appropriately labelled.
A3 Storm sewage via Outlet 2	Event duration monitoring	As specified in table S1.3	Storm sewage event duration monitoring point
A4 Sewage in an emergency (high level) via Outlet 2	Effluent monitoring	NZ 2790 5161	Sewage in an emergency high level sample point Monitoring point to be appropriately labelled.
A6 Sewage in an emergency – River Flooding scenario via Outlet 2	Effluent monitoring	NZ 2798 5170	Flooding situation sample point Monitoring point to be appropriately labelled.
A5 Sewage in an emergency (low level) via Outlet 3	Effluent monitoring	NZ 27782 51534	Sewage in an emergency low level sample point Monitoring point to be appropriately labelled.

Schedule 3A - Look up table

Look up table	
Number of samples taken in any period of 12 months	Maximum number of samples permitted to exceed limit for given parameter
4–7	1
8–16	2
17–28	3
29–40	4
41–53	5
54–67	6
68–81	7
82–95	8
96–110	9
111–125	10
126–140	11
141–155	12
156–171	13
172–187	14
188–203	15
204–219	16
220–235	17
236–251	18
252–268	19
269–284	20
285–300	21
301–317	22
318–334	23
335–350	24
351–365	25

Schedule 3B - Opra tier 3 sampling frequency

Parameter	'Normal frequency' of samples per year	Reduced Sampling frequency after 12 consecutive months of numeric permit compliance, samples per year or pro rata over the remainder of a year	On numeric permit failure return to normal frequency as soon as reasonably practicable, samples per 12 months	Out of hours samples
Sanitary	24	12	24	For 24 samples 2 out of hours samples per annum
Non sanitary	12	12	12	For 12 samples 1 out of hours sample per annum

Schedule 3C – Urban Waste Water Treatment Regulations sampling frequency

Population equivalent	Samples per year	Reduced sampling frequency after a year of compliance with the UWWTR numeric limits, samples per year	On UWWTR numeric limit failure return to the higher frequency in the year that follows, samples per year
2,000 to 9,999	12	4	12
10,000 to 49,999	12	N/A	N/A
50,000 or over	24	N/A	N/A

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Monitoring point reference	Reporting period	Period begins
Dry Weather Flow (daily flows total)	MCERTS Summated flow meter display	Annually Report to be submitted within 2 months of the end of the calendar year	1 January
15-minute flow	MCERTS Summated flow meter display	Reports to be provided to the Environment Agency upon request Report to be submitted within 28 days unless otherwise specified in writing by the Environment Agency	Upon request by the Environment Agency
UWWTR - ATU-BOD as O ₂ , COD as O ₂ , total phosphorus as P	UWWT Raw Sample Point UWWT Final effluent sample point	Monthly Report to be submitted within 28 days	1st of month
Operator Self Monitoring - ATU-BOD as O ₂ , ammoniacal nitrogen (expressed as N), suspended solids (measured after drying at 105°C), total iron as Fe	Final effluent sample point	Quarterly Report to be submitted within 28 days	1st of month
Operator Self Monitoring summary report - ATU-BOD as O ₂ , ammoniacal nitrogen (expressed as N), suspended solids (measured after drying at 105°C), total iron as Fe	Final effluent sample point	Annually Report to be submitted within 2 months of the end of the calendar year	1 January
Settled storm sewage discharge start and end times	Settled storm sewage event duration monitoring point	Reports to be provided to the Environment Agency upon request Report to be submitted within 28 days unless otherwise specified in writing by the Environment Agency	Upon request by the Environment Agency

Table S4.1 Reporting of monitoring data			
Parameter	Monitoring point reference	Reporting period	Period begins
Settled storm sewage discharge start and end times	Settled storm sewage event duration monitoring point	Annually Report to be submitted within 2 months	1 January
Settled storm sewage discharge event duration monitoring status (operational / not operational)	Settled storm sewage event duration monitoring point	Annually Report to be submitted within 2 months	1 January
Storm sewage discharge start and end times	Storm sewage event duration monitoring point	Reports to be provided to the Environment Agency upon request Report to be submitted within 28 days unless otherwise specified in writing by the Environment Agency	Upon request by the Environment Agency
Storm sewage discharge start and end times	Storm sewage event duration monitoring point	Annually Report to be submitted within 2 months	1 January
Storm sewage discharge event duration monitoring status (operational / not operational)	Storm sewage event duration monitoring point	Annually Report to be submitted within 2 months	1 January

Table S4.2 Reporting forms	
Parameter	Reporting format
Dry Weather Flow (daily flows total)	WISKI electronic format specified by the Environment Agency
15-minute flow	WISKI electronic format specified by the Environment Agency
UWWTR – ATU-BOD as O ₂ , COD as O ₂ , total phosphorus as P	Electronic format specified by the Environment Agency
OSM - ATU-BOD as O ₂ , ammoniacal nitrogen (expressed as N), suspended solids (measured after drying at 105°C), total iron as Fe	Quarterly - Electronic format specified by the Environment Agency
OSM - ATU-BOD as O ₂ , ammoniacal nitrogen (expressed as N), suspended solids (measured after drying at 105°C), total iron as Fe	Annually - Summary report of compliance with the monitoring programme specified in Table 3.1 and Schedule 3B in a format specified by the Environment Agency
Settled storm sewage discharge start and end times	Form as agreed in writing by the Environment Agency
Settled storm sewage discharge start and end times	Annual summary report or other form as agreed in writing by the Environment Agency Number of and total duration of counted spills for all spills.
Settled storm sewage discharge event duration monitoring status (operational / not operational)	Annual summary report or other form as agreed in writing by the Environment Agency Percentage of time in the reporting period that the event duration monitoring equipment was operational.
Storm sewage discharge start and end times	Form as agreed in writing by the Environment Agency
Storm sewage discharge start and end times	Annual summary report or other form as agreed in writing by the Environment Agency Number of and total duration of counted spills for all spills.
Storm sewage discharge event duration monitoring status (operational / not operational)	Annual summary report or other form as agreed in writing by the Environment Agency Percentage of time in the reporting period that the event duration monitoring equipment was operational.

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 7 days of detection unless otherwise agreed in writing by the Environment Agency	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released/type or nature of sewage released	
Best estimate of the quantity or rate of release of substances and/or duration of discharge	
Best estimate of the environmental impact of the discharge	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit specified in schedule 3 table S3.1 (including individual exceedances of limits which are covered by condition 3.1.2)	
The information specified below is to be notified to the Environment Agency as soon as reasonably practicable following detection.	
Monitoring point reference/ source	
Self monitoring regime (where relevant)	e.g. OSM/UWWTR
Type of failure	e.g. LUT failure/LUT exceedance/upper tier/other
Date of sample/event	
Parameter	
Result and units	
Limit and units	

Part B – to be submitted as soon as reasonably practicable unless otherwise agreed in writing by the Environment Agency

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident/breach/exceedance	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“abnormal operating conditions” include but are not limited to, the circumstances described in Regulation 40(1) of, or paragraph 6(5) of Schedule 21 to, the Environmental Permitting Regulations 2016 (illegal discharge to sewer), unusual weather, or during a defined period where the permit authorising the permitted activity has been varied for reasons such as capital works construction.

“accident” means an accident that may result in pollution.

“annually” means once every year.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

For the activity A1 referenced in schedule 1, table S1.1 “appropriate measures” for the purposes of the emission of substances not controlled by emission limits condition (condition 3.2.1) do not require the operator to undertake treatment to a level beyond that specified in schedule 1 table S1.1, or to carry out routine monitoring for substances not controlled by emission limits.

“ATU-BOD as O₂” means the biochemical oxygen demand (measured after 5 days at 20°C with nitrification suppressed by the addition of allylthiourea).

“COD as O₂” means the chemical oxygen demand (measured using the standard dichromate procedure).

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the permitted activities, which are not controlled by an emission limit.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“minimum screen capacity flow” means the minimum flow passed through the screens to the outfall when the screen bypass operates.

“overflow” for the purposes of schedule 7, means any weir or orifice or other means via which flow in excess of its overflow setting is diverted from the continuation sewer when it is caused by rainfall and or snowmelt.

“overflow setting” means the minimum flow passed forward to the continuation flow when the overflow operates.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“significant pollution” means a category 1 or category 2 incident indicated by the Common Incident Classification Scheme (CICS).

“spill” one or more overflow events within a period of 12 hours or less will be considered to be one spill, one or more overflow events extending over a period of greater than 12 hours up to 36 hours will be considered to be 2 spills. Each subsequent 24 hour duration counts as 1 additional spill and the whole of the 24 hour block is included.

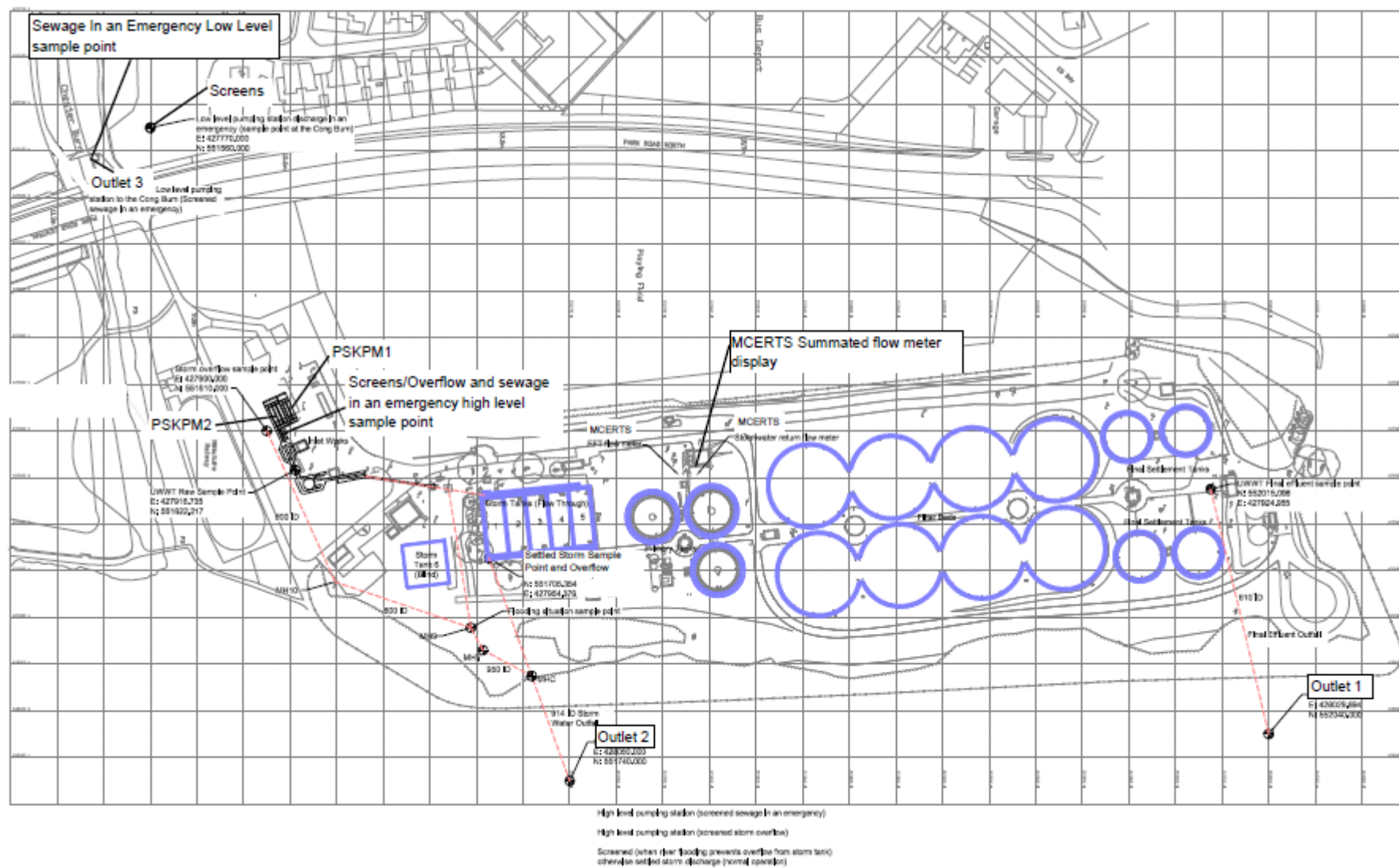
“unusual weather conditions” includes, but is not limited to:

- low ambient temperatures, or the freezing of mechanical equipment in the works;
- significant snow deposits;
- tidal or fluvial flooding;
- weather conditions causing unforeseen loss of power supply to the sewage treatment that could not be ameliorated by the reasonable provision and operation of standby generation facilities.

“Urban Waste Water Treatment (England and Wales) Regulations 1994” means Urban Waste Water Treatment (England and Wales) Regulations 1994 SI 2841 and the words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“year” means calendar year ending 31 December.

Schedule 7 – Site plan



REPRODUCED WITH PERMISSION OF NORTHUMBRIAN WATER LIMITED. END OF PERMIT