

CLIENT:	Severn Trent Connect Chilmington Green
PROJECT:	Chilmington Green Water Recycling Centre (WRC)
SUBJECT:	Non-Technical Summary
JOB NO.:	ST21140
DATE:	July 2024
PREPARED BY:	Ethan Adams, Environmental Scientist
REVIEWED BY:	Craig Speed, Technical Director

1 INTRODUCTION

- 1.1.1 Wardell Armstrong have been appointed by Severn Trent Connect (the Client) to prepare a Non-Technical Summary for Chilmington Green Waste Recycling Centre (WRC) located 300m southeast of the tributary to the River Beult known as “Upper Beult - High Halden and Bethersden Streams” (referred to as River Beult tributary) at National Grid Reference (NGR) TQ 98338 39263 (centre of WRC).
- 1.1.2 This Non-Technical Summary document is in support of an application for an Environmental Permit under the Environmental Permitting Regulations 2016 (‘EPR’) for the discharge of treated sewage effluent to surface water.
- 1.1.3 The management and operational procedures that will be implemented during the installation, operation and maintenance of the WRC will ensure that comprehensive environmental protection is provided. The Site will be operated in accordance with the manufacturers recommendations (Te-Tech), the Environmental Management System ISO-14001 accredited to Severn Trent Connect, relevant Environment Agency guidance, and best practice.
- 1.1.4 The documents that comprise the permit application are detailed in Section 2.
- 1.1.5 Further details on the site location and setting are provided in Section 3.
- 1.1.6 Details relating to the proposed activity and discharge to the River Beult tributary are provided in Section 4.
- 1.1.7 Measures will be implemented to ensure that the environment remains protected. Further details are provided in Section 5.

2 ENVIRONMENTAL PERMIT APPLICATION

2.1.1 This application comprises the following:

- Application forms;
 - Part A;
 - Part B2;
 - Part B6;
 - Part F1;
- Non-Technical Summary (this document);
- Habitats Risk Assessment;
- Environmental Risk Assessment;
- Other Supporting Documents
 - 03 - Te-Tech WRC Process Description (Hoplands)
 - 05 - Ecological Assessment 21139_Wastewater Strategy_R Beult SSSI Summary Issues_2023-01-23
 - 06 - Water Environment Hydrological Assessment 22074-NUT-TN-03-C02
 - 07 - Planning Application Response - PA20230715
 - 08 - LOA STS (W&S)
 - 09 - ST Connect ISO14001 certification
 - 10 - Environmental policy (STC)
 - 11 - EMS Manual Summary
 - 12 - Effluent Quality for Chilmington Green WRC
 - 13 - EA Previous advice letter
- Drawings:
 - 04 - Chilmington Green WRC Site Plan

2.1.2 Pre-application consultation will be undertaken with the Environment Agency whilst the application is in the queue for duly making and determination.

- 2.1.3 The assessments encapsulated in these documents demonstrate that the proposed discharge activity will not pose an adverse risk to the environment. The treatment and discharge activity will be operated and maintained in accordance with the Environmental Management System ISO-14001 accreditation held by Severn Trent Connect, and comprehensive management procedures will be implemented to ensure that any risks to the environment are monitored and controlled.

3 SITE SETTING

- 3.1.1 The proposed site is located at Chilmington Green Rd, Kingsnorth, Ashford, TN26 1HH, approximately 1km south of the hamlet Chilmington Green. The Site is currently an agricultural field. However, this Site is being developed into a Water Recycling Centre (WRC) that will treat wastewater, in the form of foul effluent load only, from 2700 proposed dwellings for Phase 1 of the Chilmington Green Development by Hudson Developments. The WRC will treat sewage effluent to treated effluent standards as outlined by the manufacturer (Te-Tech) before discharging into the River Beult tributary.

4 PROPOSED ACTIVITIES

- 4.1.1 The WRC will be installed, operated and maintained by Severn Trent Connect (OFWAT approved/regulated company), which will treat all foul sewage from the Chilmington Green Development comprising 2700 dwellings for Phase 1, with a peak attenuated flow of 10.73 l/s.
- 4.1.2 Due to Natural England and Environment Agency concern with regards to the WRC discharge on the River Beult SSSI located 12km downstream of the WRC discharge point. It has been agreed that the final effluent discharge will meet the treated final effluent quality standards set out by the manufacturer and water quality monitoring will take place at the sampling location specified in the Drawing 04 - Chilmington Green WRC Site Plan to ensure Common Standards Monitoring Guidance (CSMG) water quality targets are met.
- 4.1.3 Determination of the permit includes consultation with Natural England, who following a review of a Hydrological Assessment on treated wastewater discharge to the River Beult (see 06 - Water Environment Hydrological Assessment 22074-NUT-TN-03-C02), has agreed that a discharge rate no greater than 3 l/s will have no adverse impact on the River Beult SSSI. The assessment showed that the 3 l/s discharge will cause a daily flow rate variation at the River Beult SSSI no greater than 12.6% in dry

weather conditions (Q95), which was deemed as an acceptable change in flow rate at the SSSI by Natural England and rules out any likely significant effect from the discharge activity.

- 4.1.4 To accommodate flows over 3 l/s to the River Beult tributary, more comprehensive assessments on the impact of increased discharge flow rate on the River Beult SSSI are ongoing, which will involve consultation with Natural England. **All documentation with regards to determining a higher flow rate will be submitted during the permit determination process.**
- 4.1.5 The River Beult is designated by the Environment Agency as a Main River.
- 4.1.6 The location of the WRC, WRC layout, the discharge point to the River Beult tributary and sampling points are shown in Drawing - Chilmington Green WRC Site Plan.
- 4.1.7 The WRC treatment process description and specification are provided in the “03 - Te-Tech WRC Process Description (Hoplands)” document in support of this permit application. To note, this process description is for a different WRC for Hoplands, which is the same WRC design as for Chilmington, **and will be updated for the Chilmington Green WRC during the permit determination process.**
- 4.1.8 The activity falls under Schedule 21 (Water Discharge Activities) of EPA 2016, as it involves the discharge of treated sewage effluent to the water environment.
- 4.1.9 Treated sewage effluent discharged to surface waters does not normally require a Specific Substance quantitative risk assessment such as a H1, as it is not anticipated that the discharge would contain specific substances.
- 4.1.10 The WRC will discharge to the Medway catchment via the River Beult tributary, which is not within a nutrient neutral catchment. The treated effluent standards for the WRC will meet CSMG targets to ensure no adverse effect on the River Beult SSSI downstream of the discharge (in addition to the acceptable discharge rate) and meet any Environment Agency standards and targets as set out in the Environmental Permit.
- 4.1.11 It is not considered viable to discharge flows to the sewer network due to nutrient neutrality concerns in the Stodmarsh catchment within the catchment of the local sewer network.

5 ENVIRONMENTAL RISK AND MITIGATION

5.1 General

5.1.1 Site activities will be undertaken in accordance with relevant regulatory requirements and best practice guidance. The site will be operated and maintained by Severn Trent Connect, which is an OFWAT approved/regulated company that is accredited to the Environmental Management System (EMS) ISO-14001. By operating in accordance with their EMS, this will minimise the potential for any uncontrolled emissions to water.

5.1.2 The risk of pollution is significantly reduced due to meeting regulatory requirements, through effective treatment and screening processes and meeting quality standards set out by the supplier and the Environment Agency.

5.2 Control of Emissions to Water

5.2.1 Monitoring of outfall water quality will be the responsibility of Severn Trent Connect. Samples will be tested by a UKAS accredited laboratory to MCERTS standards. Discharge monitoring frequency and sample analysis will be conducted by MCERTS labs and will take place at the sampling location specified in the Drawing 04 - Chilmington Green WRC Site Plan.

5.3 Control of Noise Emissions

5.3.1 All equipment will be maintained in accordance with the specification of the WRC as set out by Te-Tech – the manufacturer and supplier of the WRC. Site equipment will have an inspection and maintenance program in addition to remote telemetry monitoring. This will enable faulty equipment (which is usually the cause of excessive noise from vibration) to be rapidly identified and corrective action taken. Any noise complaints will be investigated and recorded. The Environment Agency will be informed if necessary.

5.4 Control of Emissions to Air

5.4.1 The amenity of the local area could be affected by emissions to air in the event of damage to the WRC. The treatment plant and equipment will be maintained in accordance with manufacturer's recommendations to ensure that it is in good condition. If any noticeable odours are discovered onsite, an investigation will be undertaken, and appropriate remedial action will be taken to determine the source of the odour from the WRC and Site.

5.4.2 If equipment sustains damage or loses function, a suitably qualified engineer will be contacted immediately to undertake repairs or replacement.

5.4.3 Failure of the WRC will require all influent to be held in site tanks and then transported to a suitable alternative treatment works, which will be documented as a part of site operational plans. This should be reduced by treatment process procedures, inspection and maintenance in accordance with EMS ISO-14001.

5.5 **Control of Odour**

5.5.1 Site operational procedures will involve odour checks and monitoring. If any noticeable odours are discovered onsite, an investigation will be undertaken, and appropriate remedial action will be taken to determine the source of the odour from the WRC and Site.

5.6 **Human Receptors/Protected Habitats**

5.6.1 As a result of the stringent environmental controls that will be implemented at the site, the risk to nearby sensitive Human Receptors (e.g. residential properties and care homes) from the discharge activity will be very low.

5.6.2 The site is located within near a number of protected habitats. A Habitats Risk Assessment has been completed to support this application, describing where these protected habitats are located and how any potential risks will be mitigated.

5.7 **Environmental Management Plan**

5.7.1 Domestic sewage will be treated at the WRC prior to discharging into the River Beult tributary in accordance with manufacturer's instructions, EMS ISO-14001, and to the treated effluent quality standards set out by the WRC supplier Te-Tech. The treated effluent discharge will meet any further treatment standards as set out by the Environment Agency within the Environmental Permit.

5.7.2 Training, monitoring, and preventative maintenance are carried out in accordance with the EMS and to the manufacturer's standards in terms of the operation and maintenance of the WRC.