Post Adoption Statement

Severn Trent
Water Resources Management Plan 2019

Report for Severn Trent Water Ltd

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Customer:

Severn Trent Water Ltd

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1 Introduction

1.1 Background to the Water Resource Management Plan

Water companies in England and Wales are required to produce a Water Resources Management Plan (WRMP) every five years. Severn Trent's Final WRMP 2019 (WRMP19) sets out how the company intends to maintain the balance between supply and demand for water over the long-term planning horizon in order to ensure security of supply in each of the water resource zones making up its supply area. The process includes calculating and forecasting how much water customers will need over the planning period (assessing demand) and how best to provide it (assessing options to reduce or constrain demand growth and/or augment reliable supplies of water) in an efficient, timely manner (programme appraisal). Companies seek to identify the preferred, 'best value' programme of demand management and water supply options to maintain a balance between reliable supply and demand in each Water Resource Zone (WRZ) and for their supply area as whole (the WRMP).

Severn Trent's draft WRMP19 was published for public consultation in February 2018, accompanied by an Environmental Report to document the Strategic Environmental Assessment (SEA) of the draft WRMP. Following comments on the draft WRMP19 and SEA Environmental Report, a Statement of Response was prepared by Severn Trent Water, setting out how it intended to take account of the comments received in producing a Final WRMP for the Secretary of State's approval. The Statement of Response was published in September 2018.

In developing its WRMP19, Severn Trent Water examined the future forecast water supply/demand balance and determined how any deficits between forecast demand and reliable water supplies should be addressed over the long-term planning period.

The Final WRMP was published in August 2019 following receipt of approval from the Secretary of State in July 2019. The SEA Environmental Report was also updated to align with the Final WRMP19. This SEA Post Adoption Statement refers to the Final WRMP19.

1.2 The SEA Process

The WRMP has been subject to SEA in compliance with the SEA Directive[1], as transposed in England by the SEA Regulations[2]. This SEA Post Adoption Statement was produced in accordance with the provisions of Regulation 16.

Engagement with government, regulators, other licensed water suppliers and water companies, customers and a wide range of stakeholders is key to the WRMP process. Severn Trent's WRMP19 consultation programme commenced in 2016 and included a wide range of stakeholders and the regulators. The SEA process for Severn Trent's WRMP started early in 2017 and ran in parallel with the development of the WRMP. An Environmental Report was produced with the draft WRMP and published for consultation.

The assessment stage of the SEA process was repeated for each revision of the WRMP up to and including the Final WRMP19 to ensure that the findings of the Environmental Report remained relevant to the plan. This is in accordance with the Government's SEA Guidance[3] which states:

'It is important to keep the implications for the Environmental Report under review to ensure that it remains consistent with the plan or programme on which opinions are being sought.'

The SEA has been undertaken in parallel with the Habitats Regulations Assessment (HRA) and Water Framework Directive (WFD) assessment to ensure an integrated approach to environmental assessment of the WRMP19.

[1] 1 Directive 2001/42/EC of the European Parliament and of the Council on the Assessment of the Effects of Certain Plans and Programmes on the Environment

[2] The Environmental Assessment of Plans and Programmes Regulations, 2004 (2001/42/EC)

1.3 Purpose of the SEA Statement

The SEA Statement must describe:

- How environmental considerations have been integrated into the Final WRMP (Section 2)
- How the Environmental Report has been taken into account (Section 3)
- How responses to consultation have been taken into account (Section 4)
- Reasons for choosing the Final WRMP as adopted, and why other reasonable alternatives were rejected (Section 5)
- The measures that are to be taken to monitor the significant environmental effects of implementation of the Final WRMP (Section 6).

Appendix A sets out the post-adoption requirements of the SEA Regulations.

2 How Environmental Considerations Have Been Integrated into the Final WRMP

WRMPs are developed to ensure a reliable, secure water supply over the long-term and that the measures proposed to maintain the balance between supply and demand for water provide value for money to Severn Trent's customers, whilst taking account of environmental and social effects. The SEA, along with the findings of the HRA and WFD assessments, have been used to help inform the development of the WRMP19.

At the outset of developing the alternative options to be considered for the WRMP, SEA principles were used to carry out a high-level screening assessment of the options in the 'unconstrained' list. This included consideration of several key environmental and social criteria, including risks to WFD water body status and risks of any likely significant effects on European designated conservation sites under the Habitats Regulations. This screening helped identify several options that would likely lead to unacceptable adverse effects on the environment or society; these options were therefore excluded from further consideration in the planning process. A 'Feasible List' of options was subsequently arrived at through further screening stages, with options found to have substantial adverse environmental effects being rejected from inclusion in the 'Feasible' list. The process is explained in Appendix D of the Final WRMP.

The Feasible List of options (comprising of one or more components) was discussed with the Environment Agency, Natural England and other stakeholders. Following this consultation, a further number of components/options were removed from the Feasible List due to environmental concerns raised by consultees. The remaining options were taken forward into the decision-making and programme appraisal processes. All the options in the Final Feasible List were then fully assessed against a suite of SEA objectives that had been subject to prior consultation in the SEA Scoping Report.

Advanced investment modelling techniques were used to derive an optimised investment programme to meet Severn Trent's future supply/demand challenges. Severn Trent's Water Infrastructure and Supply/Demand investment Model (WiSDM) was used to optimise its water resource requirements with other water investment requirements, such as supply resilience, asset maintenance and drinking water quality improvements. The costs considered by the model were capital costs (capex), operating costs (opex), carbon costs and certain environmental and social effects which were monetised according to methods set out in the Environment Agency's Benefits Assessment Guidance. The latter drew on the findings of the SEA of each option as the starting point for assessing the effects and translating these into monetary values.

The WiSDM model generated many 'least cost programmes' that could be used to solve different potential supply/demand scenarios. Further sensitivity modelling was undertaken resulting in a number of potential long-term investment programmes which represent different ways of securing long term supply and demand objectives. The detailed assessments of each option according to the SEA framework were used to examine the mix of options in each alternative programme, both alone and in combination with each other. Using this information, Severn Trent was able to review and compare the alternative programmes in terms of their environmental performance, but taking account of those environmental effects already included in the optimisation process through monetisation (for example, carbon emissions and some traffic-related effects on air quality), so as not to "double count" the effects.

These alternative programmes were then refined taking account of the environmental and social effects identified from the SEA findings, alongside consideration of a range of other factors, including government policy, regulatory requirements, customer preferences and risk considerations (e.g. water supply resilience). This ultimately led to the development of a preferred programme of options to address the forecast supply deficit over the planning period.

With one exception, the HRA screening assessment concluded that the supply-side options included in the preferred programme would have no likely significant effects on any European site. The screening assessment could not rule out likely significant effects from implementation of the NOT04 option and consequently an Appropriate Assessment was carried out of this option. The Appropriate Assessment concluded that implementation of option NOT04 would not have any adverse effects on the integrity of

any European site. This conclusion was reflected in the assessment of the option against the SEA objectives for biodiversity, flora and fauna.

The vast majority of the options included in Severn Trent's final WRMP19 preferred programme were assessed as being compliant with WFD objectives and statutory requirements. There are two proposed options where further investigations are required to confirm a conclusion of WFD compliance: the Ladyflatte groundwater abstraction option and the Thornton Reservoir abstraction option. These investigations will be carried out, and the findings discussed with the Environment Agency, before any applications for abstraction licences or environmental permits are sought for these options. Should the additional investigations determine that WFD compliance cannot be secured, even after development of mitigation measures, there are sufficient WFD compliant alternative options available to address the forecast supply deficit.

The WFD assessment and the SEA identified the potential for some cumulative effects of several options relying on flow releases from Carsington Water reservoir that require further investigation in relation to the effects on marginal vegetation from increased water level drawdown during prolonged dry weather. Should the investigations determine that WFD compliance cannot be secured, even after development of mitigation measures, there are sufficient WFD compliant alternative options available to address the forecast supply deficit.

As part of the finalisation of the WRMP19, evidence from the SEA and WFD assessments led to a representation from the Environment Agency that resulted in a modification to Solution MEL29. The change to the option involved replacing a proposed supported abstraction (from Carsington Water) from the River Derwent with a direct abstraction from the River Trent. The SEA (and associated HRA and WFD assessment) for Solution MEL29 was updated accordingly within the final SEA Environmental Report.

3 How the Environmental Report Influenced the WRMP19

The Environmental Report and the WRMP19 were developed in parallel so that the SEA process could actively inform the decision-making processes involved in producing the Final WRMP19. Table 3.1 identifies the main findings and outputs of the Environmental Report which informed the development of the WRMP19.

Table 3.1 Environmental Report Findings and Consideration in the WRMP19

SEA Finding/Output	How Integrated into the WRMP19
Options and Programme Environmental Effects	
Screening of options included consideration of SEA topics as well as risks to WFD water body status and the risk of any likely significant effects on European sites designated under the Habitats Directive.	SEA objectives, along with the findings of the HRA and WFD assessments, have been used to help inform the development of the WRMP19 from the very outset. Initially, the 'Unconstrained' list of options was screened using statutory, regulatory and legal constraints (including environmental and planning risks, taking the principles of SEA into consideration at this very early stage of the planning process). A high-level SEA (and HRA and WFD) review was subsequently applied to the resulting 'Constrained' list of potential options. These assessments helped to inform the development of a Feasible List of options by screening out options where SEA (and HRA or WFD) assessment identified significant environmental effects that mitigation was unlikely to be able to reduce to an acceptable level. The screening identified that several of the 'unconstrained' list options, including some reservoir raising options, water transfer options and some groundwater abstraction options would have a wide range of major adverse environmental effects. These options were therefore screened out.
Individual option assessments were undertaken according to the SEA framework developed through consultation on the SEA Scoping Report. The findings of the SEA of the Feasible List options were initially used (alongside the HRA and WFD assessments) to evaluate the environmental and social performance of each option as well as a range of alternative programmes. The likely scale of adverse and beneficial environmental and social effects for each option was considered, both on its own and cumulatively with the other options included in each alternative programme. The SEA review of these initial programmes indicated	The SEA was used to remove certain options from the programmes which were shown to perform relatively poorly against the SEA objectives compared to other alternative options available from the Feasible List. Some 24 components of supply options were therefore manually excluded post the initial programme appraisal from the subsequent iterations of the programme appraisal process.

SEA Finding/Output	How Integrated into the WRMP19
that some programmes performed less well against the SEA objectives compared to other programmes depending on the mix of options included in the programme. A number of the programmes were found to have the potential for cumulative major adverse effects for multiple SEA objectives.	
The potential effects in combination with any other relevant projects, plans or programmes (for example, any planned major infrastructure schemes that may be constructed and/or operated at the same time and affecting the same environment and/or communities) were also assessed. The SEA appraisal of each alternative programme also included consideration of the potential for any regulatory compliance risks associated with the Habitats Regulations and the WFD, as well as other statutory obligations (including effects on SSSIs, National Parks, AONBs and heritage features).	The assessments, together with the consultation responses to the Draft WRMP19, helped to determine the preferred programme for the Final WRMP19. The decision to include a greater proportion of demand management options in the Final WRMP19 preferred programme was influenced by the mostly negligible adverse or minor beneficial effects expected with these types of options.
In preparing the Final WRMP19, Severn Trent took into consideration the findings of the SEA and also specific stakeholder concerns that were made as part of the consultation on the draft SEA Environmental Report. This included the commitment to seek to identify opportunities for achieving net biodiversity gain.	Promoting biodiversity, particularly in the aquatic ecosystem, is one of the cornerstones of Severn Trent's business objectives and - as stated in the final Environmental Report - as the WRMP is implemented, the company will seek to identify opportunities for achieving net biodiversity gain in line with government policy and the draft Environment Bill. These opportunities will likely revolve around the creation of new habitat associated with reservoir and asset storage options, but other opportunities will also be sought to support net biodiversity gain where appropriate. The final Environmental Report notes that option WTW05 will be reviewed to account for opportunities of bankside habitat creation. The importance of preserving the biodiversity in existing reservoirs is also recognised regarding reservoir options. In particular, risks to biodiversity identified in the SEA led to a commitment in the WRMP to carry out further investigations with respect to Carsington Water reservoir to fully assess the risks to flora with increased use of the stored water. Where adverse effects have been identified in the SEA, Severn Trent will work to develop appropriate mitigation measures in consultation with the Environment Agency, Natural England, local Wildlife Trusts and other relevant stakeholders.

SEA Finding/Output	How Integrated into the WRMP19
Mitigation of the Final WRMP19 schemes	
The SEA identified that the construction activities required to deliver options CRO05 and WTW05 have the potential for major adverse effects on biodiversity, flora and fauna. This is due to the potential risk of the loss/fragmentation of Ancient Woodland, and the risk of adverse effects on two SSSIs. Option WIL05 was identified as having the potential for major adverse effects on biodiversity, flora and fauna due to the risk of habitat loss/fragmentation in one SSSI and one Local Nature Reserve (LNR) as a result of the construction phase. Potential for adverse effects to SSSIs and LNRs were also identified regarding some other options, e.g. NOT01. The SEA identified the potential for major adverse effects for landscape and visual amenity for option NOT04 mainly due to the fact that the associated pipeline intersects the Peak District National Park. These findings, together with specific stakeholder concerns that were made as part of the consultation on the draft SEA Environmental Report, resulted in the recognition of the need for appropriate mitigation measures to be developed during the detailed design of these options to reduce the magnitude of these construction effects, such as through optimising pipeline routes, as well as thorough consultation with the relevant regulatory and local authorities and interested stakeholders.	In addition to standard best practice mitigation measures (and ahead of any additional mitigation measures that would be implemented through Environmental Impact Assessment, planning processes or environmental permitting processes) further mitigation measures were identified in the SEA as being necessary to address the risks of major adverse effects identified for biodiversity, flora and fauna and landscape and visual amenity. These adverse effects are mainly associated with the construction of new pipelines which have currently only been designed at an outline level. As detailed design of these pipelines proceeds, optimisation of the pipeline routes will take place to, wherever feasible, avoid designated sites and sensitive features to reduce the magnitude of environmental effects. Similarly, construction activities associated with other options will need to be carefully planned, with detailed mitigation measures developed to address the environmental risks identified by the SEA.

4 Consultation on the SEA

4.1 Introduction

The SEA Regulations require consultation at the scoping stage and on the assessments as documented in the SEA Environmental Report that accompanies the WRMP. Consultation with the statutory bodies defined by the Regulations is mandatory at both stages, whilst consultation with the public is only mandatory at the Environmental Report stage. The SEA Regulations define the statutory consultation bodies according to the spatial extent of the plan. The Scoping Report was issued on 20th January 2017 to the Environment Agency, Natural England, Historic England, Natural Resources Wales and Cadw as the WRMP19 had the potential to affect parts of both England and Wales. The Scoping Report was also made available to the public and stakeholders on the Severn Trent website.

The Environmental Report was published and issued for consultation with the statutory consultees and the public between February and April 2018. It provided a useful reference point for consultees to express their views on Severn Trent's draft WRMP19. Comments relating to the Environmental Report and the SEA process, as well as wider comments on the draft WRMP19, were formally responded to by Severn Trent in its Statement of Response submitted to Defra in September 2018, published on the Severn Trent website and sent to all respondees to the consultation. Updates to the SEA, HRA and WFD assessment were made to reflect the responses to the consultation comments. In February 2019, Defra wrote to Severn Trent asking for further information in support of the WRMP. The requested additional information was submitted in April 2019, shared with stakeholders and published on the Severn Trent website.

Following approval by the Secretary of State in July 2019, the Final WRMP19 was published in August 2019 on the Severn Trent website, accompanied by an updated version of the SEA Environmental Report.

This SEA 'Post Adoption' Statement sets out how the SEA and any views expressed by the statutory consultation bodies or the public have influenced the Final WRMP19.

Table 4.1 lists the main documents relating to the WRMP19 environmental assessments and provides their publication dates.

Table 4.1 Summary of WRMP19, SEA, HRA and WFD Documentation

Document	Date of Publication	Purpose
SEA Scoping Report	January 2017	Issued to public and statutory bodies as vehicle for consultation on scope and approach for SEA
Draft Water Resources Management Plan 2019 (WRMP19)	February 2018	Issued for formal consultation to understand the views and priorities of customers and stakeholders
SEA Environmental Report for the draft WRMP19	February 2018	Issued with the Draft WRMP19 to document the environmental assessments supporting the Draft WRMP19.
HRA Report for Draft WRMP19	February 2018	Issued to fulfil Habitats Directive requirements for the draft WRMP19
WFD Compliance Assessment Report for Draft WRMP19	February 2018	Issued to fulfil WFD objectives and statutory requirements for the draft WRMP19
Statement of Response (SoR)	September 2018	Responded to the comments received from consultation on the Draft WRMP19, including those relating to SEA, HRA and WFD assessments. The SoR described the changes to the plan and also confirmed that the changes made did not materially alter the recommendations made in the draft WRMP.

Document	Date of Publication	Purpose
		Changes proposed to the draft WRMP19 were set out in a series of documents which were published alongside the SoR on the Severn Trent website.
Secretary of State letter of approval for WRMP19 publication	July 2019	Instruction to publish Final WRMP19 in accordance with Regulation 6 of the Water Resources Management Plan Regulation 2007.
Final Water Resources Management Plan 2019 (Final WRMP19)	August 2019	Final WRMP19 published on Severn Trent website.
SEA Environmental Report for the Final WRMP19	August 2019	Issued with the Final WRMP19 to document the environmental assessments supporting the Final WRMP19. Published on Severn Trent website.
HRA Report for the Final WRMP19	August 2019	Issued to fulfil Habitats Directive requirements for the Final WRMP19. Published on Severn Trent website.
WFD Compliance Assessment Report for Final WRMP19	August 2019	Issued to fulfil WFD objectives and statutory requirements for the Final WRMP19, Published on Severn Trent website.
SEA Post Adoption Statement	September 2019	Sets out how the SEA and any views expressed by the consultation bodies or the public have influenced the Final WRMP19

4.2 Consultation on the Draft WRMP19

The responses to the consultation on the draft WRMP19 which relate to the SEA, HRA and WFD were included in the Statement of Response (SoR) and associated appendices that were published on Severn Trent Water's website:

- dWRMP Statement of Response (dWRMP SoR):
  - https://www.severntrent.com/content/dam/stw-plc/about-us-02/ST%20dWRMP%20SoR%20Public.pdf
- Appendix A: Further detail on areas of change:
  - https://www.severntrent.com/content/dam/stw-plc/about-us-02/ST%20dWRMP%20SOR%20Appendix%20A%20Public.pdf
- Appendix B: Additional Information
  - https://www.severntrent.com/content/dam/stw-plc/about-us-02/ST%20dWRMP%20SoR%20Appendix%20B%20-%20Public.pdf
- Appendix C: Consultation comments and our response:
  - https://www.severntrent.com/content/dam/stw-plc/about-us-02/ST%20dWRMP%20SoR%20Appendix%20C%20Public.pdf

The Environmental Report, HRA Report and WFD Compliance Assessment Report for the Final WRMP19 took account of the comments made by consultees and the commitments made by Severn Trent in its Statement of Response.

5 Rationale for Selection of Options for the Final WRMP19

5.1 Option Level Alternatives

All feasible list options, including both demand and supply options, were subject to assessment against the developed SEA framework. In this way, viable alternatives were assessed at the option level. This in turn informed the evaluation of alternative programmes, and the assessment of potential cumulative effects between options in each of the alternative programmes and the final WRMP19 programme.

5.2 Programme Level Alternatives

Programme appraisal is the process by which alternative programmes of options to meet the forecast supply deficit are considered using a water resource planning cost optimisation model. The process involves assessing the different programmes and using this information to determine the final Preferred Programme (explained in full in Appendix E of Severn Trent's Final WRMP19). Severn Trent's model WiSDM was used to optimise its water resource requirements with other water investment requirements, such as supply resilience, asset maintenance and drinking water quality improvements. The costs considered by the model were capital costs (capex), operating costs (opex), carbon costs and certain environmental and social effects which were monetised according to methods set out in the Environment Agency's Benefits Assessment Guidance. The latter drew on the findings of the SEA of each option as the starting point of assessing the effects and translating these into monetary values.

As described in Section 2, the WiSDM model generated many alternative programmes that could be used to solve different potential supply/demand scenarios. The outputs of the approach were a number of potential long-term investment programmes which represent different ways of securing long term supply and demand objectives. The SEA detailed option-level assessments, together with cumulative assessment of the options in each programme, were used to evaluate the environmental performance of each programme to help inform a final decision on the development of the preferred programme. The decision-making process took account of the environmental and social effects of each option and alternative programme identified by the SEA (as well as the HRA and WFD assessments), as well as other factors. In this way, a commentary on the environmental performance of each alternative programme could be provided in a consistent manner to the decision-makers.

The SEA identified that a number of the alternative programmes would cumulatively lead to some major adverse effects for multiple SEA objectives due to the combination of options included in the programme. Where this was the case, the SEA was used to remove certain options from these programmes which were shown to perform relatively poorly against the SEA objectives compared to other alternative options available from the Feasible List.

In defining the final preferred programme, the SEA programme appraisal findings influenced decisions on the options to be included in the WRMP19. For example, a number of treated water transfers from the Strategic Grid WRZ to the Nottinghamshire WRZ were added to the WRZ programme to replace a new River Trent abstraction option in Nottinghamshire which the SEA identified had greater operational environmental effects (including WFD compliance risks) than the pipeline transfer options (which make use of existing water resources within existing abstraction licence conditions). Several options where the HRA indicated the requirement for Appropriate Assessment were also replaced with alternative options to reduce the risk of possible adverse effects on European sites.

For all WRZs, the overall beneficial effects of demand management options identified through the SEA added weight to the policy challenges from regulators to include a much greater level of leakage reduction than identified by the WiSDM optimisation modelling. The SEA was used to identify the poorest performing water supply options from an environmental perspective that were then removed from WRZ programme in favour of greater leakage reduction over the 25 year planning period. The SEA also informed further consideration of the need for additional environmental mitigation measures to help reduce identified adverse effects for several options included in the final WRMP programme.

6 Monitoring of the WRMP19

The SEA Regulations require the responsible authority (in this case, Severn Trent) to:

> *'monitor the significant environmental effects of the implementation of each plan or programme with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action.'*

Monitoring will track the residual environmental effects to show whether they arise as anticipated in the SEA, will help identify any other adverse impacts and will trigger deployment of any of the mitigation measures as required. Monitoring recommendations are based on the current understanding of the option design.

The monitoring programme will be refined through the detailed planning and environmental approvals stage. The monitoring programme includes:

- Scheme-specific monitoring requirements and targets that focus on scheme-specific risks, habitats, species and sites; and
- Strategic, regional and local monitoring requirements and targets to ensure that monitoring is conducted at a suitable spatial scale that reflects the scale and risks of each scheme and the overall plan.

The monitoring plan will be owned and implemented by Severn Trent and will be developed to reflect phasing of the WRMP delivery. The monitoring plan will be further developed beyond the SEA during the implementation of the WRMP19 in consultation with the Environment Agency, Natural England and Historic England (as the SEA statutory consultation bodies for England). The monitoring plan seeks to maximise use of available data and share existing monitoring locations. Where new monitoring sites are identified as being necessary, these should ideally not only meet scheme-specific requirements but provide additional value to existing environmental monitoring programmes.

The natural, built and human receptors potentially impacted by the development and operation of the options included in the Final WRMP19, and possible indicators of effects, are set out in Table 6.1. The proposed indicators in this table would form the core component of a monitoring programme, to assess whether the identified effects in the SEA are occurring as anticipated, or whether it is giving rise to greater or lesser effects (adverse or beneficial). In turn, the monitoring may identify changes to the mitigation measures necessary to minimise adverse effects and/or modifications to scheme design or operation to further augment beneficial effects.

Table 6.1 Proposed SEA monitoring parameters – strategic WRMP19 monitoring

Impacted Receptor	Monitoring Indicator	Information Source	Responsibility
Water resources, water quality, biodiversity	Proportion of surface waters and groundwater waterbodies at 'Good' WFD status	Environment Agency online Catchment Data Explorer for RBMP2 for the year 2015 and any updates	Environment Agency
	Protected species and habitats surveys	Site specific during detailed design stage to confirm presence/likely absence of protected species	Severn Trent
	Biological monitoring (macrophytes, macroinvertebrates, fish)	Environment Agency database, monitoring completed by Severn Trent	Environment Agency, Severn Trent
	Condition of European Sites and SSSIs according to Natural England condition assessments	Natural England favourable condition assessment tables	Natural England
	Progress against the Severn Trent's biodiversity action plan	Biological monitoring and surveys	Severn Trent
	Surface water and groundwater levels	Monitoring and comparison with historic records	Severn Trent, Environment Agency
Climate Factors	Net greenhouse gas emissions per Ml (million litres) of treated water (kg CO2 equivalent emissions per Ml)	Reported annually by Severn Trent	Severn Trent
Transport	Transport fleet fuel consumption, emissions and mileage	Routinely monitored by Severn Trent	Severn Trent
Nuisance/ Community Amenity Effects	Scheme level community disruption due to construction works / during operation (where applicable)	Monitored through an Environmental Management Plan	Severn Trent

Impacted Receptor	Monitoring Indicator	Information Source	Responsibility
	Complaints logged during construction	Compile data held by Severn Trent (and contractors) and Local Authority Environmental Health Officer	Severn Trent, Local Authority
	Customer satisfaction surveys	Responses gauged through and reported in Severn Trent's annual performance processes	Severn Trent
	Surveys of recreational and other amenities likely to be affected	Survey responses pre- and post- construction	Severn Trent
Air Quality	Scheme-specific monitoring during construction works / during operation (where applicable)	Environmental Management Plan	Severn Trent
	Changes in background air quality	Defra Automatic Urban and Rural Network, Local Authority monitoring	Defra, Local Authority data sources
Resource Use	Proportion of demolition materials sent to land fill or recycled	Part of Construction Environmental Management Plan	Severn Trent (contractors)
	Proportion of construction build materials derived from recycled materials	Part of design criteria for new builds	Severn Trent
Landscape and visual amenity	Loss of land within AONB, National Park or protected views	Landscape and Visual Impact Assessments	Complete assessments in consultation with Natural England, Local Authority and Historic England
	Changes to townscape and views	Townscape assessment	As above
Cultural Heritage	Loss or change in condition of buried archaeology	Archaeological Written Scheme of Investigation	Complete assessment in consultation with Historic England and Local Authority
		Environmental Management Plan	Severn Trent

Impacted Receptor	Monitoring Indicator	Information Source	Responsibility
	Change in condition of existing heritage assets	Monitoring of heritage assets such as Listed Buildings and Scheduled Monuments, Registered Battlefields, Registered Parks and Gardens, in particular the 'Heritage at risk' register.	Historic England

As options are brought forward for development, further specific monitoring requirements are likely to be set out in detailed designs and plans accompanying scheme development (including, where applicable, formal applications for any required environmental permits, abstraction licences or planning permission, as well as any project level HRA and WFD assessments). These will be discussed with relevant regulatory and statutory bodies and stakeholders to agree the appropriate scale and duration of such scheme-specific monitoring activities proportionate to the assessed environmental risks.

7 Availability of Documents

The adopted Final WRMP19 and accompanying final SEA Environmental Report is available on Severn Trent website at:

https://www.severntrent.com/about-us/future-plans/water-resource-management/wrmp-19-documents/

The documents are also available for inspection at Severn Trent Centre by appointment. To arrange an appointment please contact us by:

- Email to: future.consultations@severntrent.co.uk or
- Writing to: Water Resource Strategy Manager, Severn Trent Centre, 2 St John's Street, Coventry, CV1 2LZ

If you would like to request copies of the Final WRMP19 or associated documentation, please email future.consultations@severntrent.co.uk.

Appendix A – Post Adoption Procedures

Part 4 of the Environmental Assessment of Plans and Programmes Regulations 2004 requires Severn Trent 'as soon as is reasonably practicable' after the adoption of the WRMP19 to:

- Make a copy of the Final WRMP19 and SEA Environmental Report available at its principal office for inspection by the public at all reasonable times and free of charge;
- Notify the public and potentially affected parties of their availability;
- Inform the statutory consultees and other parties who responded;
- Issue a statement containing:
- How environmental considerations have been integrated into the WRMP19;
- How the environmental report has been taken into account;
- How consultation responses have been taken into account;
- The reasons for choosing the WRMP as adopted;
- Measures to monitor the significant environmental effects of the WRMP.

Requirements 1 to 3 have been fulfilled by the publication of the Final WRMP19 and SEA documents on Severn Trent's website, and informing all consultees of the publication.

The publication of this document fulfils Requirement 4.

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