

Method Statement: Environmental Assessment

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Executive Summary

Water Resources South East (WRSE) is developing a multi-sector, regional resilience plan to secure water supplies for the South East until 2100.

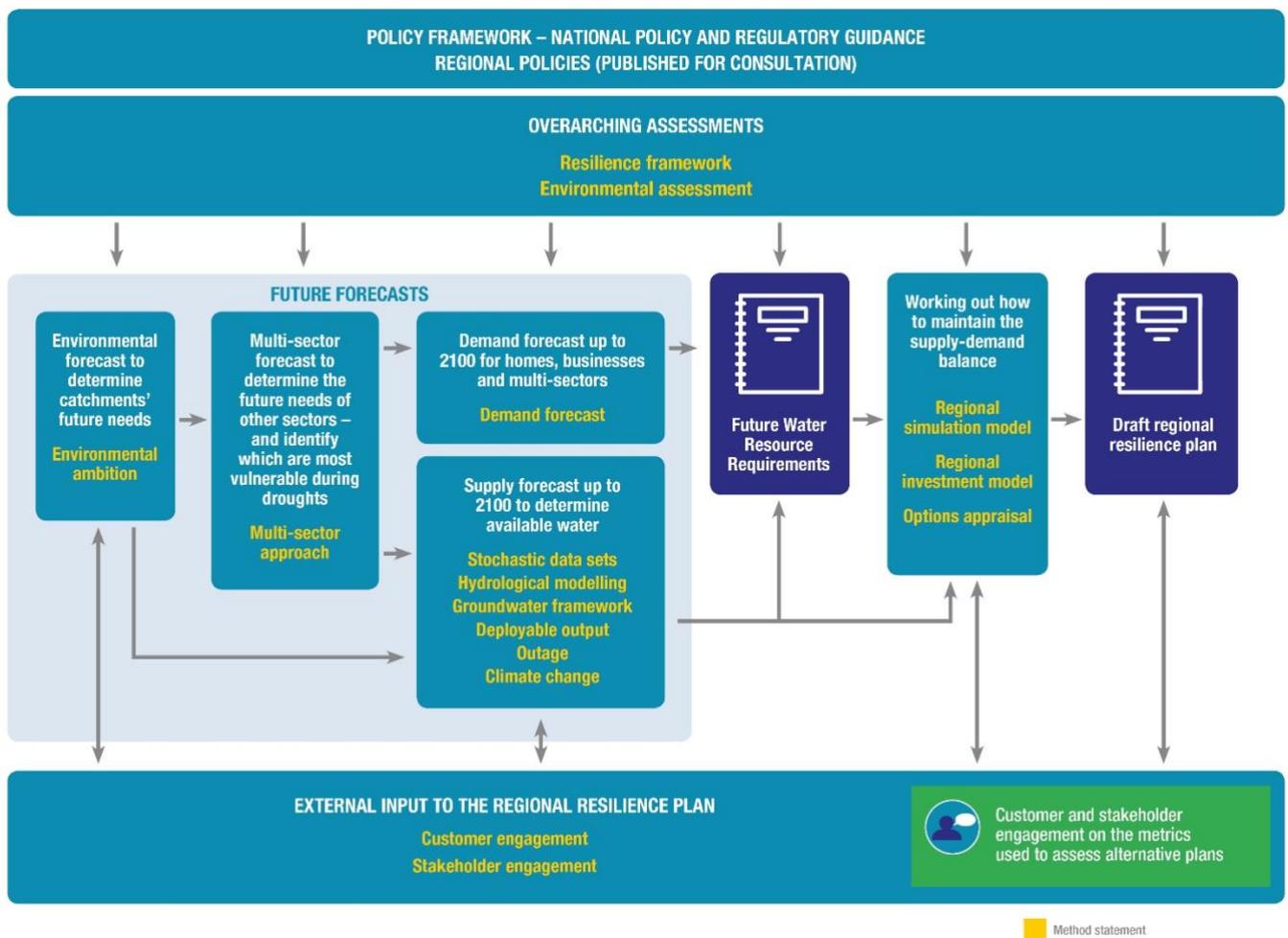
We have prepared method statements setting out the processes and procedures we will follow when preparing all the technical elements for our regional resilience plan. We are consulting on these early in the plan preparation process to ensure that our methods are transparent and, as far as possible, reflect the views and requirements of customers and stakeholders.

Figure ES1 illustrates how this environmental assessment method statement will contribute to the preparation process for the regional resilience plan.

This method statement sets out the approach to how environmental impacts and benefits will be evaluated and used to inform an environmentally compliant and best value regional plan. The approach outlined within the method statement is also designed so it can be undertaken at the scale of the regional plan but then also applied to individual water company water resources management plans.

A separate method statement sets out how the regional plan will achieve environmental enhancements in the long term (our environmental ambition) for the benefit of everyone.

Figure ES1: Overview of the method statements and their role in the development of the WRSE regional resilience plan



1 Method Statement

Background and purpose of statement

- 1.1 The Water Resources South East (WRSE) group is developing a regional resilience plan for the South East of England which will set out the long term water needs for the region and the interventions required to address these needs. The need for regional plans is set out in the Environment Agency's Water Resources National Framework which explores the long-term needs of all sectors that depend on a secure supply of water. We have produced a series of method statements to explain the approach we are taking to develop the regional plan.
- 1.2 This environmental assessment method statement describes the approach to be taken to assess environmental effects in the development of the Water Resources South East (WRSE) Regional Plan. The approach to environmental assessment is closely linked to two other environmental work streams in the WRSE work programme which are key to the development of the regional plan as shown in Figure 1 below – the environmental ambition and environmental engagement work streams - these are covered in more detail in a separate [WRSE environmental ambition method statement](#).

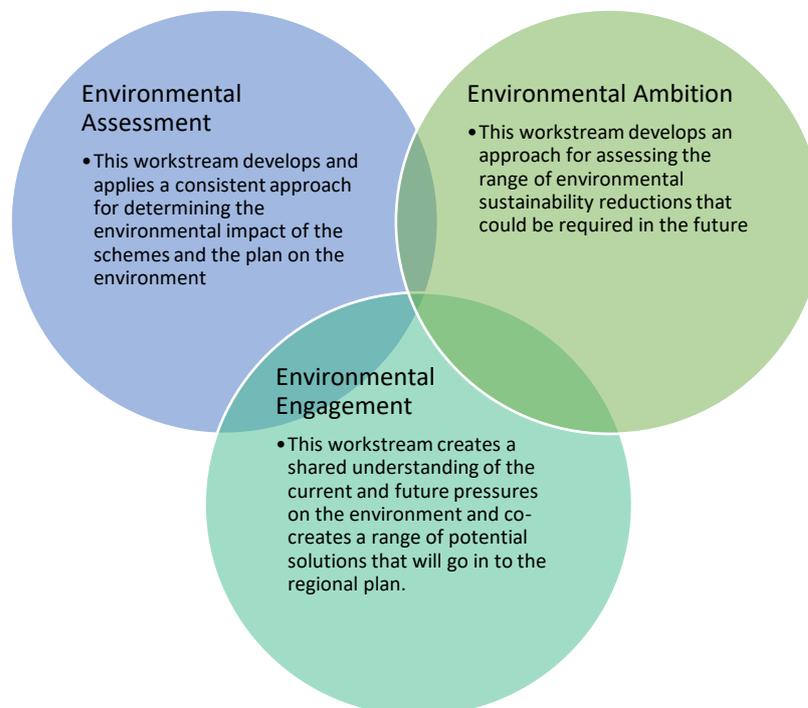
Development of methodology

- 1.3 Previously environmental evaluation has predominantly been undertaken through the Strategic Environmental Assessment (SEA) process both at the level of individual water company water resources management plans (WRMPs) and through a combined and cumulative assessment undertaken on the regional plan. In addition Water Framework Directive (WFD) assessments and Habitats Regulation Assessments (HRA), where necessary, have been undertaken by water companies as part of their options appraisal and selection processes for their plans and to ensure compliance with environmental legislation.
- 1.4 It was recognised that the development of an integrated resilience plan for the South East to meet the requirements of the [Environment Agency's Water Resources National Framework](#) would need to be informed through a bespoke environmental assessment approach that identifies both environmental impacts and opportunities. Recent government and regulatory publications have made it clear that companies are expected to maximise the wider social and environmental values delivered through provision of their services and therefore the approach needs to identify the opportunities afforded in this area through different alternative strategies.
- 1.5 Initially a scoping study [WRSE Environmental Appraisal Framework Scoping Report](#) was commissioned by WRSE to review best practice in terms of understanding of SEA, Ecosystem Services and Natural Capital assessments in order to propose an initial environmental assessment framework. A review of available mechanisms for evaluating environmental and social value using literature searches was undertaken and in total 29 tools and approaches to environmental appraisal and valuation were reviewed. In addition, 13 organisations were interviewed to gather views on existing approaches and options for a new framework

approach. The proposed framework was a step towards meeting stakeholder expectations, building on existing approaches but it presented challenges in terms of how it could be automated for the scale of assessment needed for the whole of the South East. Whilst the scoping study was being finalised in early 2020 new draft guidance emerged from the Environment Agency which also needed to be considered (see section 1.8 below).

- 1.6 It has become increasingly clear that an innovative and leading-edge environmental assessment approach is required given the emerging regulatory guidance and the significant water resources infrastructure that will be required to address the supply demand deficit in the region as set out in our publication [Future water resource requirements for South East England \(March 2020\)](#). The approach needs to be applied at a regional level but should also be flexible enough to be implemented at a sub-regional level. This will involve providing a common source of readily accessible data that all water companies can use to support their planning. The focus of the current phase of works is to develop a consistent approach for environmental assessment which incorporates environmental valuation techniques such as Biodiversity Net Gain (BNG), Natural Capital (NC) and ecosystem services assessment. The aim is to apply this across WRSE water companies so that wider environmental and social impacts and benefits can be consistently accounted for across the regional options in determining a best value resilient regional plan. In addition, it will incorporate climate change resilience through modelling of options.

Figure 1: WRSE environmental workstreams



- 1.7 WRSE subsequently commissioned the development of a new integrated environmental appraisal process to provide a consistent framework for environmental assessments for WRMP24. The method outlined in

the [WRSE Regional Plan Environmental Assessment Methodology Guidance \(June 2020\)](#) has been developed taking into account the new guidance from the Environment Agency and uses an integrated approach covering:

- Strategic Environmental Assessment (SEA)
- Habitats Regulations Assessment (HRA)
- Water Framework Directive (WFD) Assessment
- Natural Capital (NC) Assessment
- Biodiversity Net Gain (BNG)

1.8 The proposed environmental assessment process takes into account the following new and emerging guidance for water resources planning:

- [Water Resources Planning Guideline \(WRPG\): Working version for WRMP24 \(version 4.2\) \(Environment Agency, Natural Resources Wales, Ofwat\)](#)
- [A Green Future: Our 25 Year Plan to Improve the Environment, DEFRA](#)

1.9 A review of the environmental and natural capital elements of the new water resources planning guidance (section 1.8) and its alignment to the proposed environmental assessment approach for the WRSE Regional Plan has been undertaken and is presented in the Technical Note [Review of Draft WRPG – Environmental and Natural Capital Review \(May 2020\)](#).

1.10 A series of GIS tools for the environmental and ecosystem services assessments of the regional plan are being developed. The aim of these tools is to enable a more consistent and complex assessment of the individual options, improve the consistency between environmental assessment methods used by individual companies and provide a strong platform for WRSE to build on in the future. The GIS system will be designed around existing ESRI applications and software such as ARCGIS dashboard and ARC online. The GIS system development will focus on three specific areas:

- a. Enabling the environmental assessment and associated valuation of a large number of options quickly and accurately to meet the programme requirement. This will also reduce the work needed by individual water companies when undertaking their own WRMP assessments.
- b. The visualisation and analysis of individual option environmental impacts and the combined impact of the overall regional plan with the incorporation of climate change scenarios. This information will also inform the cumulative assessments of individual WRMP assessments.
- c. Improved consistency across the individual assessment workstreams and between the water companies' environmental assessment techniques and provide environmental values that can be used when undertaking options appraisal. Thereby integrating the two processes.

- 1.11 The approach to the environmental assessment methodology is presented in Figure 2 and is aligned to the new draft guidance from the Environment Agency. The figure shows the key interactions between the environmental appraisal and the options decision-making and plan development as part of an integrated and iterative process.
- 1.12 It is anticipated that the environmental assessment methodology will be used as a framework for water companies when undertaking their WRMP24 statutory environmental appraisals. A large amount of the supporting information required for WRMP24 will be produced as part of the regional plan environmental assessments which will be available for use by the individual water companies. Figure 3 shows the interactions and information that will be available from the regional plan environmental assessment to support the water company WRMP24 development process. The approach aims to reduce the amount of work individual water companies need to undertake during WRMP24, streamline the environmental assessment process, and ensure consistency across water company environmental assessments. Further information is included within the roles and responsibilities section below.

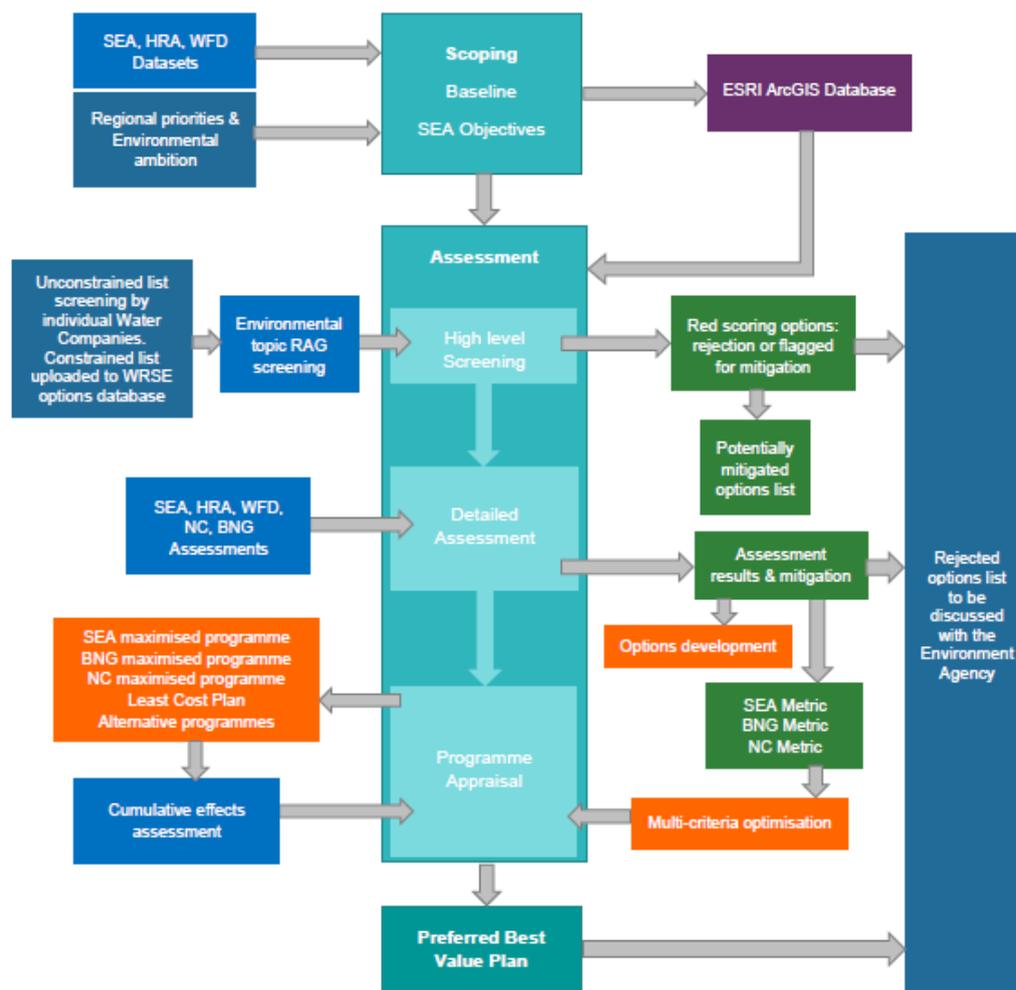
Summary of proposed methodology

- 1.13 The [WRSE Regional Plan Environmental Assessment Methodology Guidance](#) sets out the approach in more detail and should be read in conjunction with this methodology statement. The aforementioned guidance sets out the process as three steps covered as separate chapters:
- Stage 1 – Scoping
 - Stage 2 – Assessment
 - Stage 3 – Reporting and consultation

These steps build upon the established statutory SEA process by incorporating HRA, WFD assessments, Natural Capital assessments and Biodiversity Net Gain, whilst ensuring the formal requirements for an SEA are also met.

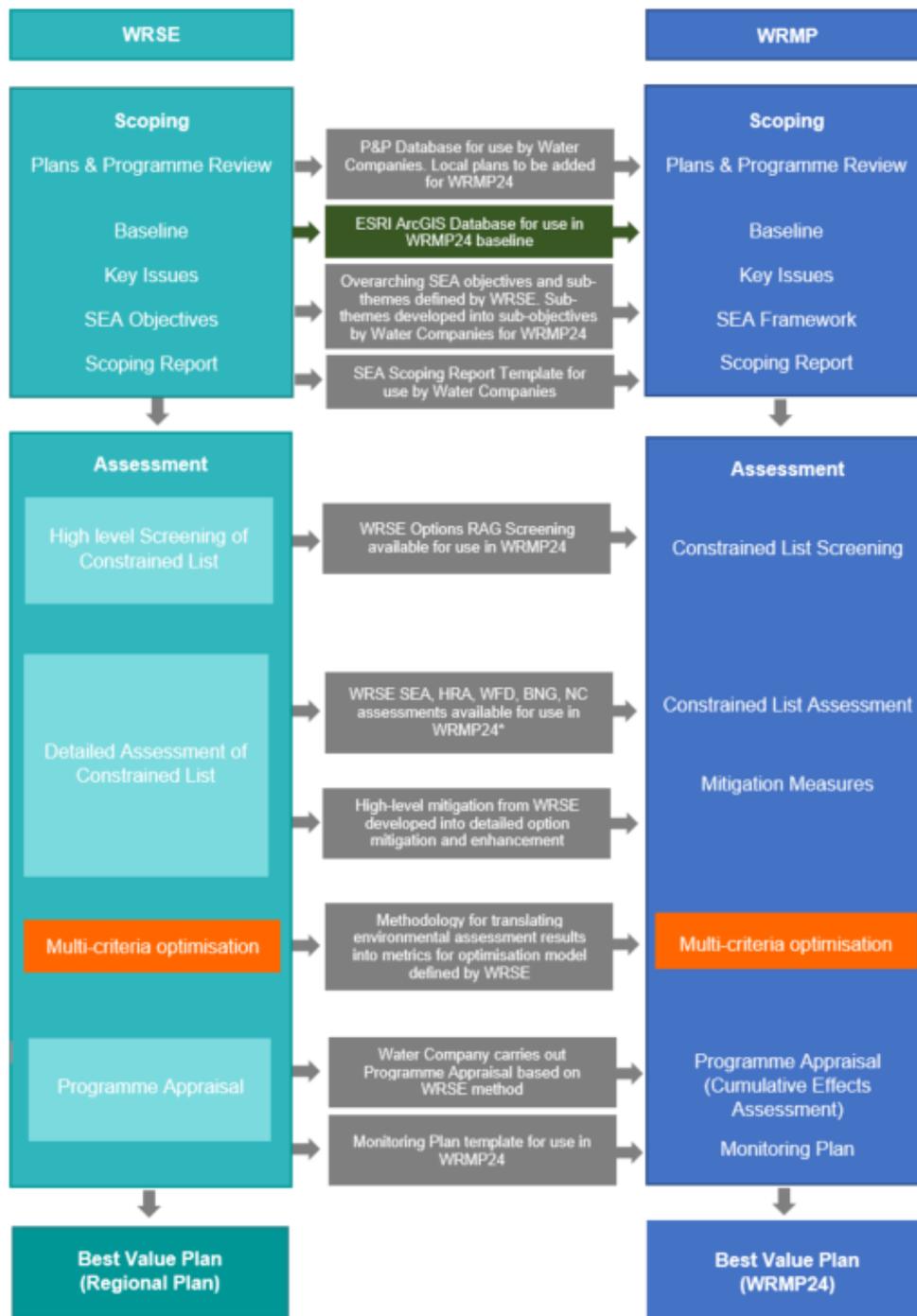
- 1.14 The scoping stage will include the review of all International, European, national, regional and local policies on the environment and sustainable development. The purpose of the plans and programme review is to ensure the WRSE environmental assessment supports wider environmental policy and objectives and legislation. A database of reviewed plans and legislation will be kept divided into policy level (e.g. International, national, local) and environmental topic (e.g. biodiversity, human health) and will be used primarily for WRSE however, it is anticipated that it could also be used by individual water companies for their WRMP24 SEA to streamline the plans and programme review process.

Figure 2: Environmental assessment approach



- 1.15 Stage 1 scoping will also include the collection of the baseline information that is required by Schedule 2 (2) of the SEA regulations. This will be captured in an environmental database, with the spatial information held in an ESRI ArcGIS Environmental Database. The environmental database will include data required for the SEA, HRA and WFD assessments and any other data files required for other aspects of the assessment. The database is being developed for WRSE for the Regional Plan, however, it is anticipated that individual water companies will be able to use the database for their WRMP24 assessments and add additional local level data if required.

Figure 3 Relationship between WRSE and WRMP environmental appraisal processes



* Options would only need to be re-assessed by Water Companies if the option elements changed from those assessed as part of the regional plan, an unconstrained option was brought forward that wasn't on the regional plan constrained list, or additional local level baseline was included (this would only require re-assess of the relevant SEA objective)

- 1.16 The methodology recognises the importance of an evolving baseline without the implementation of the Regional Plan (as required by the SEA Directive and Regulations) and due to the long timescale of the Regional Plan period the baseline is likely to change, therefore, the future effects of the plan may change as well. One or two future time slices will be considered to cover the length of the plan period. These time slices will be agreed with WRSE and information such as climate projections and growth forecasts can be included to look at effects on the baseline.
- 1.17 It is proposed that an overarching set of SEA objectives are developed for WRSE. These will be linked to the SEA Directive topics and key priorities for WRSE and informed by the review of the six water companies' SEA objectives. These overarching objectives will be used to assess the WRSE regional plan using the environmental datasets. The overarching objectives could then be used as a framework for WRMP24 with sub-objectives chosen by each water company to reflect the issues and priorities in their areas.
- 1.18 A two-stage options assessment process is planned to comprise:
- a. A high-level environmental screening assessment
 - b. Detailed assessment (including SEA, HRA, WFD, NC, BNG)
- 1.19 The high-level screening will be undertaken on the constrained list of options provided by the water companies. The purpose of the screening will be to act as a validation for the unconstrained list screening that water companies have undertaken to ensure environmentally damaging options are not considered further and to flag options with high environmental risk, that can still be considered, but where mitigation will be needed.
- 1.20 The detailed assessment will include the SEA, HRA, WFD, NC and BNG assessments. The SEA objectives on biodiversity, flora and fauna, and on water will be informed by the results of the HRA and WFD assessments, and an environmental metric covering all three will be developed to feed into options decision-making.
- 1.21 The detailed assessment will be carried out on the options uploaded by the water companies in September 2020. Details of embedded mitigation will be included in the upload details and the detailed assessment will be based on this information. The methodology recognises that not all options will be developed to include mitigation which could lead to biases when translating results into metrics. Therefore, following the detailed assessment, the mitigation identified will be fed back to water companies to review and update their options for the March 2021 upload period.
- 1.22 The [WRSE Regional Plan Environmental Assessment Methodology Guidance](#) explains how the multi-criteria optimisation approach set out in the new Environment Agency guidance reflects the proposed approach for WRSE, where the outcomes of the environmental assessments are translated into metrics to feed into the multi-criteria optimisation for options selection and the programme appraisal. The results of the assessments will be translated into the following metrics in line with the new Environment Agency guidance:

- SEA metrics – one for positive effects and one for negative effects
- BNG metric
- Natural Capital metric

There will also be a need to include latest Environment Agency guidance on chalk rivers and invasive species.

- 1.23 A proof of concept (PoC) assessment of the environmental assessment methodology has been undertaken on four different types of options to demonstrate its applicability. [The WRSE Proof of Environmental Assessment Concept Overview Document \(June 2020\)](#) report shows how each of the five environmental assessment approaches have been applied to the four options. The assessment has successfully demonstrated how the approach can be applied and has made some recommendations for improving the approach which are currently under review.

Roles and responsibilities

- 1.24 The WRSE Programme Management Board (PMB) has nominated technical leads for each work stream which makes up the programme of work to develop the regional resilience plan. The PMB technical lead for the environmental aspects of the plan is responsible for ensuring the work stream delivers against the regional plan work programme. The PMB technical lead is also responsible for ensuring PMB is kept informed of progress through liaison with the programme manager (section 1.25) and the WRSE PMB environment subgroup (section 1.26).
- 1.25 A programme manager for the environment work stream has been appointed to manage the various tasks within the work stream and ensure it is integrated with other work streams within the overall regional plan work programme. The programme manager will liaise directly with suppliers who are delivering each task in the work stream.
- 1.26 A WRSE PMB environment subgroup has been formed to report to the WRSE PMB via the WRSE PMB environment technical lead (section 1.24). This subgroup consists of environmental specialists and managers in each water company and the Environment Agency to ensure environmental technical specialists are contributing their expertise to the development and application of the environmental assessment approach.
- 1.27 In order to support the environmental assessment aspects of the regional plan and their own water resources management plans, water companies will be responsible for:
- a. Collection, analysis and presentation of locally relevant plans and programmes to supplement the WRSE plans and programmes database;
 - b. Collection, analysis and presentation of local baseline information to supplement the environmental datasets defined under the SEA topics;

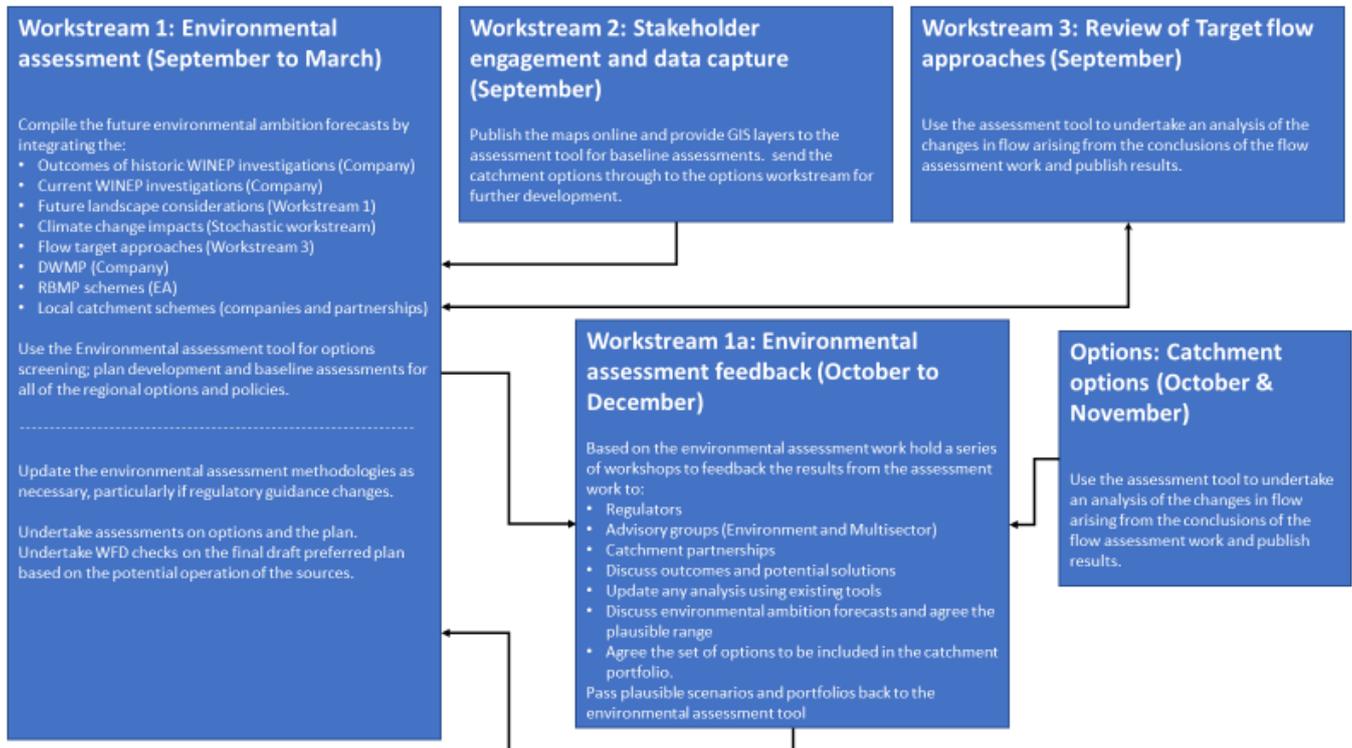
- c. Identify, develop and/or select local relevant assessment sub-objectives to provide a tailored assessment;
- d. Complete a SEA Scoping Report for consultation on the scope of the SEA for the WRMP24;
- e. Complete a separate HRA assessment of the WRMP24, as it will be the responsibility of the water company, as the plan author, to ensure Habitat Regulation requirements have been met, when publishing the final plan;
- f. Complete a separate WFD assessment of the WRMP24, as it will be the responsibility of the water company, as the plan author, to ensure WFD requirements have been met, when publishing the final plan;
- g. Complete a separate NCA of the WRMP24 options, in order to meet the requirements of the EA guidance.

Timeline and outputs

1.28 The proposed key milestones in the environmental assessment approach are set out below and Figure 4 shows the interaction between key activities and outputs from each of the environment work streams.

- **Milestone 1:** End August 2020 – Submission of scoping report for consultation period.
- **Milestone 2:** End of 2020 - Options full environmental assessments completed and option metrics ready for upload to investment model for the test run in January 2021. Mitigation from assessments fed back to water companies.
- **Milestone 3:** March 2021 – Second upload of options information by water companies. Review of assessment scoring and translation of results into final metrics for the investment model.
- **Milestone 4:** April – July 2021 – Programme appraisal. This is dependent on the timing of the outputs of the investment model. The programmes of options from the investment model will be needed to undertake the environmental programme appraisal. Following this the chosen best value plan will undergo assessment.
- **Milestone 5:** November 2021 - Environmental Report submission for consultation period
- **Milestone 6:** June 2022 – Finalise Environmental Report
- **Milestone 7:** August 2022 - SEA Post-Adoption Statement

Figure 4: Environmental workstreams – activities and outputs



2 Summary

- 2.1 This method statement describes the approach to be taken to assess environmental effects in the development of the regional plan. The approach to environmental assessment is closely linked to two other environmental work streams in the WRSE work programme which are key to the development of the regional plan – the environmental ambition and environmental engagement work streams.
- 2.2 The approach outlined in this method statement has been developed to meet the specific requirements of emerging guidance for WRMP24 and to ensure that a consistent approach can be applied at the scale of the regional plan as well as individual company WRMPs. This method statement summarises the WRSE Regional Plan Environmental Assessment Methodology Guidance (June 2020) which takes into account the new guidance from the Environment Agency and uses an integrated approach covering Strategic Environmental Assessment (SEA), Habitats Regulations Assessment (HRA), Water Framework Directive (WFD) Assessment, Natural Capital (NC) Assessment and Biodiversity Net Gain (BNG).
- 2.3 This method statement should be read in conjunction with the [WRSE environmental ambition method statement](#) which considers the long term aims for enhancing the environment and the [WRSE options appraisal method statement](#) given the important role of environmental assessment on options appraisal and the selection of a best value resilience plan.

3 Next steps

- 3.1 We are consulting on this method statement from 1st August 2020 to 30th October 2020. Details of how you can make comments can be found here – [\(consultation website\)](#).
- 3.2 We will take into account the comments we receive during this consultation process, in updating the Method Statement. Alongside this, the Environment Agency will shortly be publishing its Water Resource Planning Guidelines (WRPG) on the preparation of regional resilience plans. We may need to update parts of our method statements in response to the WRPG. We have included a checklist in Appendix 1 of this method statement which we will use to check that our proposed methods are in line with guidance where applicable.
- 3.3 If any other relevant guidance notes or policies are issued then we will review the relevant method statement(s) and see if they need to be updated.
- 3.4 When we have finalised our Method Statement, we will ensure that we explain any changes we have made and publish an updated Method Statement on our website.

Appendix 1 Checklist of consistency with the Environment Agency WRMP24 Checklist

The Environment Agency published its WRPG on XXXXXX 2020, including the WRMP24 Checklist. The following table identifies the relevant parts of the checklist relating to this Method Statement, and provides WRSE’s assessment of its consistency with the requirements in the Checklist.

No.	Action or approach	Method Statement ref:	WRSE assessment of consistency