Our approach to the environment

This factsheet provides a background to the environmental issues and appraisals that are helping to shape the development of the proposed reservoir.

We are working with stakeholders including Natural England, Historic England and the Environment Agency to inform and agree the scope of current and future work. We will provide further environmental information during our future phases of consultation when we publish our Preliminary Environmental Information Report (PEIR).

The preferred location of the main reservoir site was presented at our first phase of consultation, following which the emerging reservoir masterplan has developed. The masterplanning team has worked in close collaboration with a wide range of environmental disciplines and stakeholders to ensure that the emerging design for the reservoir is well integrated in its environment.

A comprehensive option appraisal process has also been undertaken to identify the preferred options for the associated water infrastructure for the reservoir. This is infrastructure we need to transfer available water from rivers to the reservoir, treat the water, and then supply it to homes and businesses. The process has involved considering how the different options perform against a wide range factors, including environmental criteria, and undertaking desk-based technical appraisals to consider alternative options.

What is an Environmental Impact Assessment (EIA)?

Given the scale of the project, an EIA is to be undertaken as part of the development of our proposals. An EIA is used to assess the potential environmental consequences or impacts of proposed projects. The EIA process involves gathering and analysing data to understand current environmental conditions and to identify likely significant effects of the project on these conditions, in both positive and negative terms. The EIA process is integral to the design evolution of the project as it identifies impacts at an early stage to ensure design decisions are made which avoid or reduce impacts. The EIA will be reported in an Environmental Statement (ES) that will be submitted to the Planning Inspectorate as part of our Development Consent Order application for the project.

The ES will include the outcome of the assessment, including any likely significant effects from the project on the environment and details of any proposed mitigation. This will enable the Secretary of State to understand the likely significant effects of the project prior to making its decision on whether to grant consent. This is in the context of relevant national policy and, in particular, the National Policy Statement (NPS) for Water Resources Infrastructure[1].

The findings of the EIA feed into developing the project design. As we develop our designs, the EIA process helps us make informed choices that promote sustainable development and protect the environment.

Aspects of the environment considered as part of the environmental assessment include:

- **Historic environment**
- **Landscape and visual**
- **Biodiversity**
- **Noise and vibration**
- **Water resources**
- **Human health**
- **Public access, amenity and recreation**
- **Soils, geology, agriculture and land quality**
- **Socioeconomics and community**
- **Carbon and greenhouse gases**
- **Climate resilience**
- **Air quality**
- **Material assets and waste**
- **Traffic and transport**
- **Major accidents and disasters**

The above aspects are being assessed following established industry guidelines by experienced and qualified professionals in each of these environmental fields.

Regulators and other consultees have been engaged as we have undertaken the reservoir site selection and associated water infrastructure options appraisal for the project to date and have provided valuable input into emerging design decisions taken so far. A wider group of consultees, including non-statutory bodies, will continue to be engaged throughout the EIA process and will provide valuable input into the ongoing assessment and design of the project.

[1] https://www.gov.uk/government/publications/national-policy-statement-for-water-resources-infrastructure

Environmental Impacts and Opportunities

As part of the reservoir site selection and options appraisal for the associated infrastructure, potential impacts were identified that require further investigation. Equally, several benefits and opportunities were also identified, which have the potential to result in enhancements to the environment and community.

Important environmental considerations for the scheme include the potential effects of the sources of supply, identified delivery points into the existing supply network, and requirement for emergency drawdown upon ecological designations such as Special Protection Areas, Special Areas of conservation, Sites of Special Scientific Importance and Ramsar sites. Opportunities for habitat creation associated with any upstream open channel transfers have also been identified. Further investigation and engagement are required to refine design solutions, whilst maximising opportunities for enhancement.

Minimising the degree of impact on European Designated sites and their associated functional land was a key consideration for both the reservoir siting and the siting of associated infrastructure, aligning with the Habitats Regulation Assessment (HRA) process. Further surveys, data collection, consultation, modelling, and assessment, together with the detailed consideration of mitigation measures, will be required before it is possible to conclude that there will be an absence of effect on the integrity of designated sites. This assessment is to be undertaken in dialogue with key stakeholders, including Natural England and the Environment Agency.

The Water Framework Directive (WFD) requires all waterbodies (both surface and groundwater) to achieve 'good status or potential', and that waterbodies experience no deterioration. The ongoing work involves the assessment that the solutions will meet WFD objectives and development of plans to address any uncertainties.

The proposed reservoir is located within a valuable historic environment. Further work is required to understand the potential for impacts upon Scheduled Monuments, listed buildings, Conservation Areas and Registered Park and Gardens. During construction, there is opportunity to engage with the public with learning opportunities, interpretation boards, displays, and educational outreach throughout the programme of archaeological works.

It is anticipated that construction activities across the whole reservoir area has the potential to cause temporary increases in traffic, noise levels and potentially construction dust. Temporary landscape and visual effects on residential and commercial receptors may also occur during construction. Infrastructure will be sited, and construction methods managed as far as practicable, to best minimise these potentially adverse effects.

Consultation

Community and stakeholder engagement is crucial to the development of the project and the EIA process, so that ongoing detailed engagement and formal consultation will be required as the scheme progresses. In terms of environmental stakeholders, regular meetings have been convened jointly with the Environment Agency and Natural England. These provided the opportunity for the project team to share updates on technical work packages and discuss comments. Outside of the monthly meetings, bespoke technical workshops have been held with the environmental stakeholders to cover specific areas such as Biodiversity, Landscape, Noise, Traffic and Water Resources. Frequent meetings are also held with Historic England to discuss heritage and archaeological considerations relating to site selection.

Mitigation measures

Environmental mitigation refers to the measures taken to prevent, minimise, mitigate or compensate for the negative environmental effects of a project. Mitigation measures may include adopting technologies that minimise pollution or emissions, implementing best management practices, altering project design, footprint or location to minimise impacts, and establishing environmental monitoring and management systems. The goal of environmental mitigation is to ensure that any negative effects on the environment are reduced. It aims to strike a balance between human activities and environmental conservation, minimising harm and promoting the responsible and sustainable use of natural resources.

Next steps

We are at an early stage in our project development. The assessments that form part of the EIA and other environmental assessments will continue to be progressed, and mitigation measures will be identified and developed. You will have a chance to feedback during this process and give us your views.

You may have seen our team carrying out surveys within your local area. This will continue for the next few years. Whilst work to date has primarily been focussed on water quality and aquatic and terrestrial ecological surveys, we will also be undertaking further work to better understand the amenity, environmental condition and social value of the area.

Our next step in the planning process is to submit an EIA Scoping Report and request an EIA scoping opinion from the Planning Inspectorate on behalf of the Secretary of State. The scoping opinion will help us clarify the scope of assessment work required over the next few years and ensure our EIA is comprehensive and effective as we develop our proposals.

Once we've agreed the scope of the EIA, we'll start to undertake the EIA by assessing impacts during construction and operation of the project, including both temporary and permanent impacts, and whether they will have any likely significant effects on the environment. As part of the EIA process, we will report on any preliminary environmental information from the assessments undertaken so far during future consultation on the project. This will give consultees, during a further round of consultation, an opportunity to understand and comment on the Preliminary Environmental Information Report (PEIR) at that point in time. Your feedback on the current and future consultation will inform the ongoing design development of the project and the DCO application.