

Mitigation Technical Note

Installation of a 9.4km below-ground water
pipeline - Hallgates to Elms Farm

Prepared by Fisher German LLP on behalf of
Severn Trent Water Limited

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Document Author	Version	Date	Approved by	Date
Jabu Phiri MRTPI	B	18/02/2026	Maxwell Griffin MRTPI	20/02/2026

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Introduction

This Technical Note summarises the key environmental considerations associated with the installation of a 9.4km below-ground potable water pipeline in Leicestershire and sets out the specific mitigation measures that will be implemented to ensure no significant environmental effects arise. The Note is intended to support the Environmental Impact Assessment (EIA) Screening Opinions to be issued by the relevant Local Planning Authorities (LPAs), providing assurance and formal commitment that Severn Trent will adhere to the mitigation measures identified.

The proposed pipeline will be installed between land north of Roecliffe Road, where it will connect to the Hallgates Distribution Service Reservoir (DSR) outlet main (Grid Ref: SK 54145 11582) and extend southwards to the Brickyard (Grid Ref: SK 52657 05963), where it will tie into the existing network. The scheme also includes a 0.2km cross-connection between existing pipelines located just south of Ratby (Grid Ref: SK 52219 05473).

Since the submission of the original EIA Screening Opinion Request in September 2025, Severn Trent has incorporated consultation feedback and amended the route to remove the previously considered 'Option B' in the northern section. This change avoids potential impact on the Swithland Wood and The Brand SSSI, areas of Ancient Woodland and land subject to Tree Preservation Orders (TPOs). The current route has therefore been designed to avoid areas with the highest potential for the likelihood of significant environmental effects, with the mitigation measures in this document tailored to the refined alignment.

This report is structured by environmental discipline. For each topic it identifies:

- the key environmental considerations;
- design changes or refinements made in response;
- the associated technical documents; and
- the bespoke mitigation measures that will ensure the project does not give rise to significant environmental effects.

The EIA Regulations (Part 2, Regulation 5, Paragraph 5(b)) explicitly allow LPAs to conclude that a proposal is not EIA development where the likelihood of **significant environmental effects** can be avoided through embedded design features or the implementation of specified mitigation measures. Accordingly, a Screening Opinion may be issued *conditionally*, referencing the plans, documents and mitigation upon which the LPA has relied in reaching its conclusion. This Technical Note therefore provides the mitigation framework that can be conditioned as part of the Screening Opinion, ensuring a clear mechanism for securing the measures necessary to avoid significant effects.

Where permitted development rights apply because the LPA has decided that a proposal is not EIA Development, that decision can rely on the applicant implementing specific mitigation measures. In such cases, those measures must be adhered to; if they are not, the LPA's determination that a proposal is not EIA Development would no longer be valid.

A full list of supporting technical documents that we expect to be referenced in the Screening Opinion is provided at the end of this Note.

Ecology

Key Considerations

- Protected / Designated Sites
- Protected and Notable Species
- Habitats

Design Considerations

The Environment Partnership ("TEP") Ltd were commissioned by Severn Trent Water in 2024 to undertake a series of ecological assessments to inform the proposed pipeline route. Collectively, these assessments have identified

the key ecological receptors, constraints and opportunities along the alignment and have shaped both the final route selection and the proposed mitigation strategy to avoid the likelihood of significant environmental effects.

To manage biodiversity impacts during construction, a detailed Construction Ecological Management Plan (CEMP) will be prepared prior to commencement. Further details of what this bespoke document will include are detailed below. The CEMP will identify site-specific measures necessary to avoid impacts on designated sites and other sensitive ecological features. All construction personnel will be required to follow the CEMP throughout the works.

Specific Technical Supporting Evidence

- Preliminary Ecological Assessment (Ref. A8W14241-TEP-XX-XX-T-EN-0001) (July 2024)
- Preliminary Ecological Assessment – Section 2, Revised Alignment (Ref. A8W14241-TEP-XX-XX-T-EN-0006)(October 2024)
- Protected Species Report: Great Crested Newt (Ref. 10480.004) (August 2024)
- Protected Species Report: Badgers (Ref. 10480.013) (October 2024)
- Protected Species Report: Otter and Water Voles (Ref. 10480.009) (October 2024)
- Winter Bird Habitat Assessment (Ref. 10480.010) (October 2024)
- Protected Species Report: Crayfish (Ref. 10480.014) (November 2024)
- Ecological Technical Note (Ref. 10480.016 2.0) (September 2025)
- Ecology Technical Note: EIA Screening Opinion Addendum (Ref. 10480.031 1.0) (November 2025)

Proposed Bespoke Mitigation

Badger

The route has been designed in close consultation with TEP ecologists to avoid all identified active badger setts where possible, incorporating a precautionary 30m buffer to prevent disturbance. Where impacts are unavoidable, due to other non-ecological constraints, a Natural England badger licence will be obtained prior to setts being closed.

Pre-commencement checks will be undertaken by a qualified ecologist. If a previously unrecorded sett is identified, works will pause immediately and further advice obtained. A 30m exclusion zone will be implemented around any active sett, and works will only resume once monitoring confirms inactivity or, where required, an appropriate licence has been granted.

Otter, Water Vole and White-clawed Crayfish

The proposed mitigation to watercourses will include the use of Horizontal Directional Drilling (HDD) to avoid direct impacts and sensitive vegetation-clearance techniques undertaken under the supervision of a qualified ecologist.

If disturbance to a protected species or its habitat is found to be unavoidable, the necessary licence from Natural England will be obtained prior to works commencing.

Bats and Birds

Following the Ground Level Tree Assessment (GLTA), any trees to be impacted which are classified as PRF-I will not require any further surveys but will be soft-felled under the supervision of a licensed bat ecologist during removal. Trees to be impacted with PRF-M suitability for roosting bats will need additional surveys, which may include aerial inspections or nocturnal emergence surveys. If any trees are confirmed to support bat roosts, a Natural England bat licence will be obtained prior to their removal.

All other vegetation clearance will be timed to avoid the bird nesting season or preceded by nesting bird checks completed by a qualified ecologist. Exclusion zones and compensatory habitat creation will be implemented where necessary.

With respect to wintering birds, there is the potential for disturbance to birds where the pipeline passes in close proximity to the eastern extent of the reservoir. Mitigation will take the form of sensitive timings of works and a watching brief.

Amphibians and Reptiles

As great crested newts (GCN) are confirmed to be breeding in ponds within 250m of the route, a licence from Natural England will be obtained. Mitigation for GCN will comprise District Level Licensing or traditional licensing, which would include fencing, trapping, translocation, and identification of receptor sites, where required, as advised by a suitable qualified ecologist. Mitigation will also comprise precautionary working measures, which should be undertaken following a sensitive and staged approach under the supervision of a suitably qualified ecologist to avoid harm to amphibians and reptiles.

Other Flora and Fauna

To avoid harm to brown hare, hedgehog and polecat, site clearance works will be undertaken following a sensitive and staged approach under the supervision of an ecologist.

If large areas of habitats supporting native bluebell are to be removed, it is recommended that a bluebell translocation be undertaken prior to their removal. This is best undertaken when bluebells are visible between April and May.

Construction Ecological Management Plan (CEMP)

Severn Trent Water has confirmed that, prior to commencement of works on-site, a CEMP will be prepared. The purpose of a CEMP is to set out a practical working strategy to be implemented during the pre-construction and construction phases of the development, to ensure that features of ecological interest are not compromised. The CEMP is a bespoke document, specific to the scheme which is informed by all of the survey work completed, specific site constraints and construction methodology to be used to install the pipeline. The document will be produced following collaborative working with the different technicalities of the applicant team to ensure it is fit for purpose. This will include the following:

- A risk assessment of biodiversity features, relevant legislation and location on-site
- Measures to be followed prior to construction works commencing, which can include:
 - the appointment of an Ecological Clerk of Works and Environmental Champion;
 - the delivery of toolbox talks;
 - the creation of biodiversity protection zones (e.g. fencing off areas where the works abut ponds, or creating bunds between these features); and
 - the completion of pre-construction surveys/checks for protected/notable/invasive non-native species.
- Measures to be followed during the construction phase of works, which may include:
 - ECoW supervision of vegetation clearance works;
 - checks of the biodiversity protection zones;
 - implementation of best-practice pollution prevention measures; implementation of biosecurity measures;
 - measures to be followed on site (e.g. covering excavations at the end of each working day;
 - storing materials appropriately);
 - timing of works (e.g. no overnight working);
 - lighting requirements (e.g. sensitive use of task lighting);
 - management of vegetation throughout construction;
 - implementation of root protection zones.
- For each species, baseline ecological information will be summarised (including survey findings and any ecological records); relevant legislation will be detailed; potential impacts will be identified; and Precautionary Working Measures will be outlined. The measures may include the completion of pre-commencement surveys; the attendance of an ECoW / watching brief to supervise works; staged vegetation clearance; and timing vegetation to be cleared at certain times of year.

The CEMP is a live document and will be updated as necessary to reflect on-site findings or refinements to construction methodology.

Arboriculture

Key Considerations

- Ancient Woodland
- Tree Preservation Orders
- Veteran Trees / High Quality Trees

Design Considerations

The proposed route has been designed to minimise impacts on trees where possible, with a particular emphasis on retaining ancient woodland, veteran trees and all Category A features. However, given the nature and scale of the scheme, some tree removal will be unavoidable. All tree and hedgerow removal will be undertaken in accordance with relevant best-practice guidance.

Overall, the scheme requires the removal of the following arboricultural features:

- Cat B – 4 trees and parts of 9 groups (comprising 0.3501ha). This includes 2 TPO trees at Bradgate Road and 6 individual trees within TPO groups at Reservoir Road.
- Cat C – 9 trees and parts of 6 groups (comprising 0.0817ha). This includes 2 TPO trees.
- Hedges – 30 hedges affected, totalling 963 linear metres

The construction of the pipeline will require a temporary working area up to 40m in width, along with several temporary construction compounds to facilitate installation. For most of the route, this working area will be centred on the pipeline, comprising a 21m soil storage zone on one side and working space, including the haul road, on the other. In certain locations, however, the width will be reduced to avoid specific constraints.

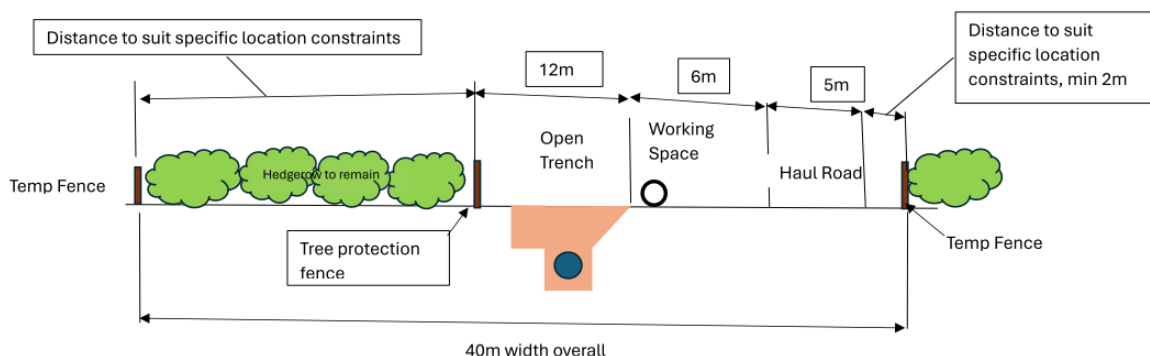
The cross-sections below illustrate the reduced-width arrangements used in constrained sections to minimise environmental impacts. The width of vegetation removal at each arboricultural crossing is identified on the Tree Effects Plans and corresponds to one of these cross-sections. In a small number of cases, the required removal width falls between two of the illustrated scenarios, but the same principles apply using the nearest comparable cross-section.

The 6-metre trench width shown originally for the 'not-constrained' section is based on the pipe being only 1.5m-2.5 m below ground level. The trench width depends on how deep the pipe is, because one side of the trench must be cut at an angle rather than vertically. This sloping face is needed so the pipe can be safely slid into place. The exact slope depends on the ground conditions, so the angle might need to be anywhere from 45° to 60° from vertical.

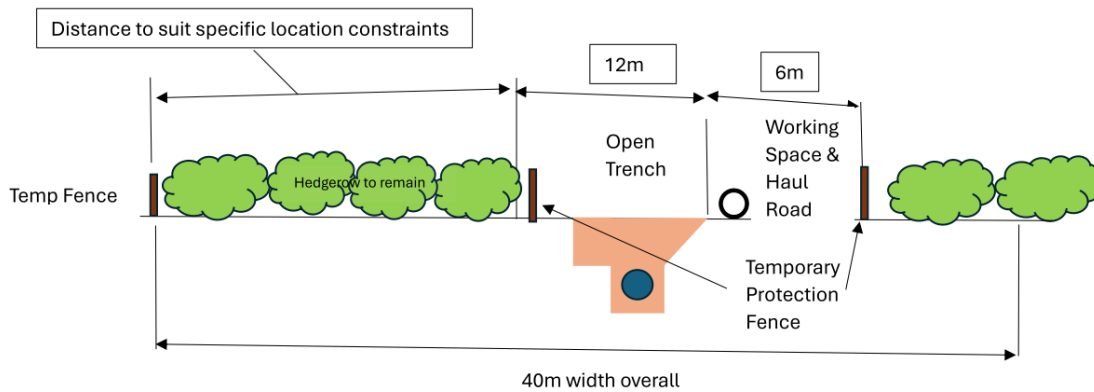
In the final design, the pipe depth increases in places to between 3.5m and 4.0m. Because the depth varies along the route and because the ground type changes, the top width of the trench could be anywhere between 6m and 10m. For arboricultural crossings, a 12-metre trench width is shown, which includes space for tree protection fencing.

Each working width has been selected to achieve a proportionate balance between the value of the affected trees or hedgerows and the operational requirements and cost of pipeline installation. In some cases, it may be necessary to remove more than 25m of hedgerow in locations where the pipeline doesn't cross the hedgerow perpendicularly.

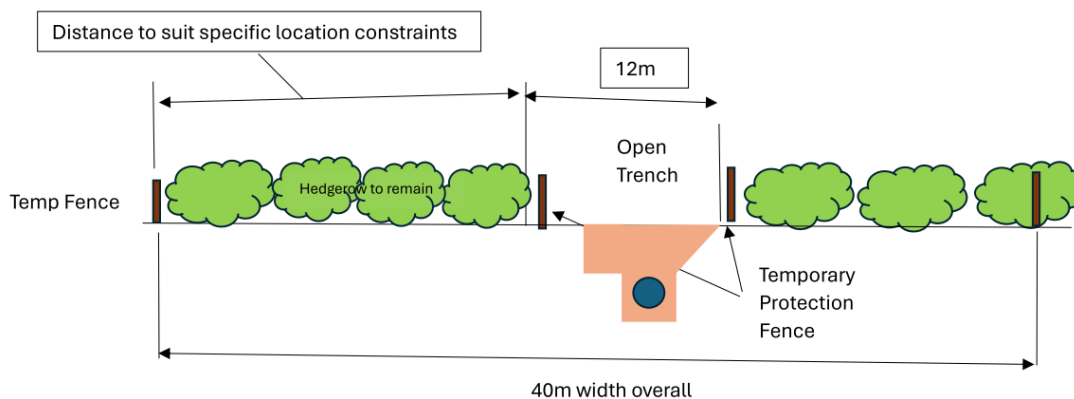
Cross Section at 25m hedgerow crossing



Cross Section at hedgerow crossing with 18m gap



Cross Section at hedgerow crossing with 12m gap



An Arboricultural Impact Assessment (AIA) and Arboricultural Method Statement (AMS) will be prepared based on the final pipeline route and associated working area. These documents will include a written assessment supported by drawings, schedules, and specifications as required. The AIA and AMS will be followed throughout construction to ensure that impacts on trees and the wider environment are minimised as far as practicable.

Specific Technical Supporting Evidence

- Arboricultural Technical Note (Ref. 10480.01.001 Version 3.0) (February 2026)
- Tree Constraints Plan (Ref. D10480.01.001-051 Rev B) (February 2026)
- Arboricultural Survey Data Sheets (D10480.01.002-051) (July 2025)
- Tree Effects Plan (D10480.01.052-080 Rev C) (February 2026)
- Temporary tree protection fencing for use on soft surfaces (TEP.ARB.FEN.0010)
- Hi-Viz Demarcation Fencing Specification (TEP.ARB.FEN.005)
- Ground Protection (Ground-Guards) Indicative Specification (TEP.ARB.GRO.001)

Proposed Bespoke Mitigation

Ancient Woodland

The submitted information confirms that the works are over 100m from any Ancient Woodland, which is well beyond the minimum 15m protective buffer and addresses the comments made by the Forestry Commission. As a result, there will be no impacts on the Ancient Woodland, with all construction activities remaining at a sufficient distance to avoid any direct or indirect effects, including dust.

Tree Preservation Orders (TPO's)

Where the removal of protected trees is required, and no feasible alternatives are available, a TPO application will be submitted to the relevant Local Planning Authority. The scheme requires the removal of a total of 10 TPO trees.

The specific replacement planting of TPO trees can be controlled through TPO applications.

Tree Protection

Temporary physical protection measures will be designed as part of the AIA and AMS process based on the proposed pipeline route and working area. Temporary barrier fencing and ground protection of different types will be used to provide an appropriate level of protection in accordance with BS5837, ranging from visual identification of protected areas to immovable barriers preventing access. It may also include ground protection and operational controls where space limitations necessitates working areas within the RPA of retained trees. Examples of these protection measures are submitted for information (references TEP.ARB.FEN.0010, TEP.ARB.FEN.005, TEP.ARB.GRO.001). Criteria will be established by which the most appropriate tree protection specification will be selected.

To ensure impacts are minimised and limited to what is necessary for the proposals to function as required, the following measures have been adopted:

- Utilisation of existing gaps in tree lines and hedgerows
- Narrowing the working corridor at tree-lined and wooded crossings. For short sections, where routing the pipeline through wooded crossings is unavoidable, the footprint of the works will be significantly reduced by not using these areas to store soil and material
- In-situ hedgerow reinstatement.
- Tree replacement based on a ratio that's proportionate to the size of those removed, keeping in mind Severn Trent Water's BNG requirement.

Replanting

Impacts that cannot be mitigated using methodological mitigation (i.e. protection measures or working restrictions detailed within a Method Statement) would be mitigated or offset by new planting. Trees and hedgerows that are removed will be replaced as close to the location they were removed from as far as is practicable to maintain the landscape, amenity, culture, and heritage benefits which trees provide.

The rate at which individual trees will be replaced will be calculated as a function of their current stem size to align with biodiversity offsetting and represent a reasonable scale for reinstatement. Replacement planting, in line with the methods set out in paragraphs 4.2 to 4.12 of the Arboricultural Advice note equate to 55 individual trees and 0.3562ha of continuous canopy cover. The replanting will take place in the first planting season following the completion of the works. Although where possible, this will be done sooner, following completion of each phase.

Archaeology / Built Heritage

Key Considerations

- Potential Impact on Buried Archaeology
- Listed Buildings
- Scheduled Monuments
- Registered Parks and Gardens
- Conservation Areas

Design Considerations

Archaeology

All archaeological works will be conducted in accordance with the Chartered Institute for Archaeologists (CIfA) standards and guidance, and the methodologies to be employed will be agreed with the relevant planning authorities and County Archaeology in the form of Written Scheme of Investigation/s (WSI) prior to the archaeological works commencing. This approach is in line with industry guidance.

Based on the evidence compiled to date, including the Archaeological Desk-Based Assessment (ADBA), the geophysical survey results, and the proposed mitigation measures outlined within the Archaeological Management Strategy (AMS) and Overarching Written Scheme of Investigation (OWSI), it is considered not likely that the project will give rise to significant adverse effects in EIA terms. Archaeological impacts can be appropriately managed and mitigated in line with recognised professional standards.

Built Heritage

In respect of built heritage, Severn Trent acknowledges the consultation comments referencing The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (Second Edition) (GPA3) and its recommended five-step approach to assessing effects on setting. GPA3 makes clear that the methodology should be applied proportionately, focusing on heritage assets where change within their setting has the potential to affect the contribution that setting makes to significance. Given the nature of the proposal, which comprises the installation of a below-ground pipeline with no above-ground permanent infrastructure, there is no potential for a permanent effect on the setting of any heritage assets.

The construction works will be temporary in nature and confined to the working area, which will move progressively along the route. As such, there will be no lasting change to key views, spatial relationships, or other attributes that contribute to the heritage interest of the heritage assets and, in turn, their heritage significance.

Significant work has gone into the alignment of the proposed route, and it can be confirmed that there would be no physical impacts on designated heritage assets. The heritage significance of designated heritage assets will thus be preserved.

Several of the heritage assets identified in the Desk-Based Assessment lie at considerable distance from the working corridor, with intervening topography, vegetation, or built form further reducing any intervisibility. For these assets, there is no realistic impact pathway that would justify undertaking a full GPA3 five-step assessment. For those heritage assets located closer to the working corridor, any temporary changes during construction (such as intermittent plant activity or short-term visual disruption) would not alter the ability to appreciate their significance once reinstatement has occurred. Temporary construction-phase effects can be mitigated through good practice measures, including careful siting of construction compounds and efficient reinstatement of working areas. These measures will be secured through the Construction Environmental Management Plan (CEMP), ensuring that any short-term effects are appropriately minimised.

The mitigation and design principles set out in this Technical Note provide sufficient assurance that the construction of the below-ground pipeline will not result in any significant impacts upon the setting or significance of built heritage assets.

Specific Technical Supporting Evidence

- Archaeological Desk-Based Assessment (Ref. 294341.02) (July 2025)
- H2EF Archaeology Clarifications Letter (Ref. 294344) (November 2025)
- Overarching Written Scheme of Investigation for Post-consent Archaeological and Geoarchaeological Evaluation (Ref. 294344.04) (December 2025)
- Gradiometer Survey Report (Ref. 294343.03) (February 2026)
- Archaeological Management Strategy (Ref. 294344.03) (February 2026)

Proposed Bespoke Mitigation

Archaeological Management Strategy (AMS)

The AMS sets out a proposed archaeological management strategy for the Scheme. It is informed by previous archaeological investigations that have been undertaken on the route of the Scheme and their findings and sets out the proposed strategy for evaluating and mitigating the potential effects of the Scheme on archaeological remains, which may be present. The AMS, together with the archaeological work completed to date in addition to the work that is to be undertaken, as part of the AMS, is designed to ensure that the Scheme will be delivered without a significant effect on the historic environment.

The process set out in the AMS is based on a phased approach, whereby the results of earlier phases of archaeological work will inform design decisions where appropriate, as well as the need for, scope and extent of subsequent phases of work, whether this involves further evaluation, sampling or the implementation of agreed mitigation measures.

The approach is intended to be iterative and collaborative, with regular consultation and engagement with the County Archaeologist throughout the process.

An Archaeological Clerk of Works (ACoW) will be appointed by the Client and will be responsible for the work undertaken by the Archaeological Contractor to ensure compliance with the AMS and WSI/Site-specific archaeological Method Statements (SSAMS). They will organise and attend regular meetings with the County Archaeologist to keep them informed of progress and any significant discoveries.

Any contractors undertaking construction works will be made aware of the archaeological requirements as set out within the AMS and other documentation prior to the works commencing.

The exact scope and extent of any works is to be determined but could consist of the following options (or combination thereof): Archaeological Excavation, Strip, map and recording exercise, Geoarchaeological sampling and analysis, Archaeological Monitoring and Recording. Decisions on which technique to be applied in any given scenario or area will be agreed with the County Archaeologist as part of the process laid out in the AMS (and detailed in the relevant Phase 3 WSI and SSAMS submitted).

Flood Risk

Key Considerations

- Working within the Flood Zone
- Watercourse Crossings

Design Considerations

The majority of the proposed route is located within Flood Zone 1, meaning there is a low probability of flooding, with the majority of the route also being at very low risk of surface water flooding. However, there are sections of the route which pass through Flood Zones 2 and 3. These locations are land to the east of Cropston Reservoir (along Bradgate Road), and land adjacent to the Rothley Brook.

Technical Supporting Evidence

- CPC Civils – Construction Best Practice Statement Document

Proposed Bespoke Mitigation

Working within Flood Zone 2/3

The proposed pipeline passes through the edge of a Flood Zone 2/3, approx. 7% of the flood plain zone on the west side of Rothley Brook. It is proposed to create the main haul road and hardstanding for the weld machine and material storage out of the flood plain zone. CPC will require additional working area for this activity, which removes the number of operations within the flood risk area.

Because the proposed working area is at the edge of the Flood Zone 2/3 it is proposed to protect the works by forming an earth bund between the works and the Rothley Brook flood zone. As part of the normal process for pipeline installation, the topsoil is stripped and stockpiled adjacent to the pipe trench. It is proposed to use this topsoil stockpile as the bund, maximum of 1.0m in height (based on topographical information) with a layer of geotextile on the side of the stockpile facing Rothley Brook to prevent any erosion. This will separate the works from the flood waters.

This bund will be approximately 250m in length and will prevent inundation of the works (magenta line on layout). The works will consist of the following:

1. The installation of a new 1200mm dia PE pipe in an open trench along the dark blue line. This trench will be opened, pipe installed and backfilled within 8 days.
2. The installation of 2 no. 800mm dia PE pipes under the A50 by horizontal directional drilling. This is expected to take approximately 8 weeks. The drilling area will be within the bund protected area just to the north of the A50 i.e. HDD working area shown on the layout.

Flood Risk Activity Permits (FRAPs) will be prepared and submitted, based on the above, for both the pipe installation and the HDD operations. This will provide details on the flood protection measures outlined above,

method statements for the works incorporated risk associated with flood plain working, programme of works, details of materials to be used etc.

A FRAP is a legal requirement under the Environmental Permitting (England and Wales) Regulations 2016 for any works that take place in, over, under or within 8 metres of a Main River, or its floodplain. As the proposed pipeline works fall partly within Flood Zone 2/3 associated with the Rothley Brook, a designated Main River, a FRAP is mandatory regardless of scale or perceived level of impact.

The purpose of the FRAP is specifically to ensure that the works do not increase flood risk either on-site or elsewhere. The Environment Agency will only issue the permit once it is satisfied that the proposed methods, temporary works (including the protective bund), materials, sequencing and flood resilience measures will avoid any displacement of floodwater or changes to floodplain storage. In this way, the FRAP process itself acts as the primary environmental safeguard: it requires detailed technical assessment of flood risk, ensures that alternative flood pathways and off-site impacts are fully evaluated, and mandates changes to the design or working methods where necessary. Because the works cannot proceed without a FRAP, and because the permit directly regulates and controls any potential flood-related effects, this regulatory process provides the assurance that the development will not give rise to significant environmental impacts from a flooding perspective.

It is noted that due to the length of the drill shot for the HDD there will be no working within the flood zone 2/3 south of the A50, as the drill will exit the ground well beyond the perimeter of the flood zone 2/3.

Watercourse Crossing

The proposed pipeline route crosses the watercourse originating from Cropston Reservoir just east of the Cropston Pumping Station (GR 455339, 311435). To install the new 1050mm diameter pipe underneath the watercourse at this location a temporary flume arrangement will be proposed. The following details from CPC have been provided:

- The temporary crossing will consist of several large-diameter flume pipes, each approximately 1,000mm in diameter and 12m in length being placed directly on the bed to maintain the flow and also allow for increased volumes during possible flood events. Temporary head walls will be built at both the upstream and downstream ends of the flume, using prefilled sandbags to direct the flow into the pipes and to reduce erosion at these locations.
- Once this temporary arrangement has been installed then the trench for new pipe will be dug underneath the flume pipes from either side. The trench will be approximately 1.5 wide with the top of the new pipe approximately 1.2m below the bed of the watercourse. Once the new pipe has been placed in the trench, a concrete slab will be constructed directly above the main to protect it and then the rest of the trench it will be backfilled with clay up to the level of the watercourse bed. This will create an impermeable layer between the pipe and watercourse.
- After completion of the pipe installation, the temporary flume arrangement will be removed from the watercourse so that no construction materials remain in the channel. The above method will minimise the silt disturbance in the watercourse plus straw bales could be deployed downstream, during both the installation and removal process, to further reduce the impact of any silt disturbance.

These measures ensure the works can proceed without altering flow conditions, increasing flood risk, or generating sustained turbidity within the watercourse. By maintaining uninterrupted flow through the temporary flumes, minimising silt mobilisation, and reinstating the channel to its original condition, the potential for significant adverse environmental effects is effectively avoided.

As this watercourse is not a Main River, a Flood Risk Activity Permit (FRAP) is not required. Flood-risk control instead falls under the Land Drainage Consent process administered by Leicestershire County Council as Lead Local Flood Authority, which regulates works affecting ordinary watercourses. Compliance with this regime, together with the contractor's environmental management procedures, ensures appropriate control of floodplain working. The temporary flume system, silt-management measures, impermeable backfill above the new pipe, and full reinstatement of the watercourse collectively prevent any alteration of floodplain storage, off-site flood impacts, or pollution pathways. These established best-practice measures therefore provide proportionate and effective mitigation to ensure no significant environmental effects arise.

Highways

Key Considerations

- Construction impacts on the highway network
- Construction access to the working area

Design Considerations and Proposed Bespoke Mitigation

Significant road closures have been avoided where possible by the careful design of the proposed route. Where parts of the route simply cross highways, short road closures are required to facilitate the safe installation of the pipe and reinstatement works. The roads requiring temporary closures are Bradgate Road, Cropston; Reservoir Road, Cropston; Bradgate Road, Anstey and Anstey Lane, Anstey.

These closures and associated traffic management will be designed and agreed with the relevant LHA prior to the works in these areas commencing. Draft road closure and diversion plans were submitted as part of this EIA Screening Opinion Request (refs RHTM/RJA/5299/001, RHTM/RJA/5299/002, RHTM/RJA/5299/003 and RHTM/RJA/5299/010). The Leicester Western Bypass (A46) (x2 crossing) and Groby Road will be crossed using trenchless methods to avoid the need for road closures.

Access points into the construction area have been located away from village centres and visitor attractions, e.g. Bradgate Park, to reduce the impact of the additional vehicles delivering materials to the site. Construction access will be via existing field entrances along the pipeline route. A construction traffic management plan (CTMP) will be developed and implemented, which, for example, will reduce construction vehicle movements through the village of Cropston.

The main site office will be set up on an area of land adjacent to Mill Lane Industrial Estate. This will also operate as the main construction access for the majority of Section 2, so deliveries to this section of the pipeline will have considerably less impact than an alternative access nearer the A50/Glenfield Avenue, which is closer to residential properties and therefore no longer proposed.

Due to the above, no permanent adverse impacts are considered to be had on highway safety nor cause significant durations of disruptions to the local highway network, other than the unavoidable road closures to allow for safe and efficient working.

Dust / Noise / Soil Other Impacts

Key Considerations

- Construction impacts on the highway network
- Construction access to the working area

Design Considerations and Proposed Bespoke Mitigation

Soil

Topsoil will be stripped and stored in a bund to one side of the working width. Subsoil removed from the trench will be stored in a separate bund to the topsoil. Once the pipe has been laid, the removed soil will be replaced.

The installation of the pipe will inevitably create a volume of surplus subsoil which cannot be backfilled into the trench. The surplus subsoil will be spread across the immediate working area wherever possible. Where this cannot be done, for example, within Flood Zones, it will be placed in more suitable locations within the working area before the topsoil is reinstated. The differential in height created by the subsoil will be almost unnoticeable.

Uncontaminated excavated material will be reused onsite in accordance with the CL:AIRE Definition of Waste: Development Industry Code of Practice (DoWCoP). The DoWCoP sets out the nationally accepted framework for determining when excavated soils can be treated as a resource rather than a waste. Under these principles, material can be legitimately reused on a construction site, without being treated as waste, where it is demonstrated to be

suitable for use, poses no risk to human health or the environment, and is required to achieve the final design profile.

For this project, the excavated soils will be assessed as part of the design and construction process to confirm they are clean, chemically appropriate, and physically suitable for reuse. Once validated, they will be incorporated back into the works (for example, as trench backfill or in reinstatement layers). Reuse under the CL:AIRE DoWCoP avoids the need to remove material off-site, eliminates unnecessary waste movements, and reduces the overall environmental impact of the scheme. It also ensures compliance with the waste hierarchy and provides a clear audit trail demonstrating that excavated materials are handled in a responsible and environmentally sound manner.

Noise, Vibration and Dust

Due to the nature of the proposed development, any potential impacts will be temporary and only exist for the construction duration associated with that section of the pipeline. Following this period, that section of the working area will be reinstated as the work moves on to another section of the route.

Where the pipeline route runs close to residential properties, e.g. Glenfield Avenue, the layout of the working space will be changed so that topsoil and subsoil stockpiles are located adjacent to the properties to act as a temporary noise bund. These are far more effective than temporary fencing with acoustic blankets attached.

The pipeline installation will not create continuous noise due to the nature of the work. The main noise will come from excavators and stone deliveries whilst creating the haul road at the outset, and excavators when the pipe is installed and backfilled. There is no major piling operations planned as part of the works. Construction access points have been selected away from residential areas to reduce the noise impact of vehicle movements on the local population during the works. In terms of ecology and noise, Severn Trent will adhere to any mitigation measures proposed by TEP (project ecologists) for specific hotspots along the route.

Dust arising from site vehicles travelling on access tracks and haul roads within and adjacent to sites will be managed by utilising a tractor with a water bowser with spray jets to dampen the running surface in periods of dry weather. Likewise, in wetter months the contractor will use wheel wash facilities and a road sweeper, if required, to minimise the amount of soil/mud on local roads, though through the use of well-constructed haul roads on site from the outset of the work will reduce the likelihood of this occurring.

All of the above measures will be secured through a Construction Environmental Management Plan (CEMP), which will be prepared by the contractor and agreed with Severn Trent prior to works commencing. A CEMP is a practical, site-specific document that sets out how environmental risks will be controlled during construction. For a pipeline installation project, the CEMP typically includes measures for noise and vibration control, dust suppression, traffic and access management, protection of watercourses, pollution prevention, soil management and emergency procedures. It provides clear instructions for the construction team and identifies responsibilities. The CEMP will ensure that potential environmental effects are minimised throughout the works.

Phasing Plan / Document Submission Plan

The installation of the pipeline will be undertaken in sections, with each area of work reinstated as the construction team moves progressively along the route. Because of this phased approach, the detailed construction methodology and the accompanying environmental control documents will be prepared in stages, aligned with the programme for each section of pipeline. Severn Trent will share these documents with the relevant Local Planning Authorities for information purposes only at the appropriate time. As these documents are dynamic construction management tools rather than planning deliverables, Severn Trent would not expect these to be formally reviewed or approved by the LPAs.

To provide clarity on the sequencing, the pipeline will be delivered in the following phases (listed north–south rather than chronologically):

- Roecliffe Rd to Bradgate Rd, Cropston – Apr 2027 to Sept 2027
- Bradgate Rd to Reservoir Rd, Cropston – Aug 2027 to Dec 2027
- Reservoir Rd to Bradgate Rd, Anstey – Mar 2026 to Nov 2026
- Bradgate Rd, Anstey to Anstey Lane – May 2026 to Feb 2027

- Anstey Lane to A50 Groby Rd – Feb 2027 to Aug 2027
- A50 Groby Rd to A46 West / Sacheverell Way – Oct 2026 to May 2027
- A46 West / Sacheverell Way to Brick Yard – Mar 2026 to Oct 2026
- Ratby & Elms Farm – Sept 2027 to Feb 2028

For each of these phases, the following construction management documents will be completed prior to works commencing:

- Construction Ecological Management Plan (CEMP)
- Construction Environmental Management Plan (CEMP)
- Construction Traffic Management Plan (CTMP)
- Arboricultural Method Statement (AMS) / Tree Protection Plan (TPP)
- Written Scheme of Investigation (WSI) / Site-Specific Archaeological Method Statements (SSAMS)
- Replacement Planting Specifications

Together, these documents secure the environmental mitigation relevant to each phase, ensuring that construction is undertaken responsibly, impacts remain tightly controlled, and the project progresses transparently with LPAs and stakeholders kept informed throughout.

Summary

In summary, the mitigation measures described within this Technical Note and supporting technical documents provide a clear and robust framework to ensure that the Hallgates to Elms Farm pipeline can be constructed without giving rise to significant environmental effects. The scheme has been deliberately routed to avoid key ecological, arboricultural, heritage and flood-related constraints, with any residual risks effectively managed through established best-practice construction methods and discipline-specific strategies.

A core element of this approach is Severn Trent's commitment to preparing and implementing the phased construction management documents outlined above, at the appropriate pre-construction stage for each section of the route. These documents will ensure that noise, dust, traffic, ecology, archaeology, water management and other construction-phase risks are proactively controlled and monitored. The already-agreed Archaeological Management Strategy reinforces this by setting out a clear, phased process for managing the historic environment.

Taken together, this coordinated package of embedded design measures and construction-stage controls provides a proportionate, enforceable and effective mitigation strategy. It demonstrates that the project is capable of being delivered without significant adverse environmental effects and therefore supports the issuing of a negative EIA Screening Opinion in accordance with Regulation 5(5)(b) of the EIA Regulations. Severn Trent acknowledges that the validity of such a screening opinion depends on delivery of these measures and is committed to doing so.

Should any material changes arise to the design, methodology or proposed mitigation, Severn Trent will notify the relevant LPAs at the earliest opportunity and review the need for rescreening in accordance with the EIA Regulations and associated guidance. This ensures full transparency, continued regulatory confidence and ongoing environmental protection throughout the lifecycle of the project.

Appendix A - Overall List of Supporting Technical Mitigation Documents and Plans Submitted

1. Mitigation Technical Note (February 2026) [this document]
2. EIA Screening Opinion Request Hallgates to Elms Farm V3 (February 2026)
3. Preliminary Ecological Assessment (Ref. A8W14241-TEP-XX-XX-T-EN-0001) (July 2024)
4. Preliminary Ecological Assessment – Section 2, Revised Alignment (Ref. A8W14241-TEP-XX-XX-T-EN-0006) (October 2024)
5. Protected Species Report: Great Crested Newt (Ref. 10480.004) (August 2024)
6. Protected Species Report: Badgers (Ref. 10480.013) (October 2024)
7. Protected Species Report: Otter and Water Voles (Ref. 10480.009) (October 2024)
8. Winter Bird Habitat Assessment (Ref. 10480.010) (October 2024)
9. Protected Species Report: Crayfish (Ref. 10480.014) (November 2024)
10. Ecological Technical Note (Ref. 10480.016 2.0) (September 2025)
11. Ecology Technical Note: EIA Screening Opinion Addendum (Ref. 10480.031 1.0) (November 2025)
12. Arboricultural Technical Note (Ref. 10480.01.001 Version 3.0) (February 2026)
13. Tree Constraints Plan (Ref. D10480.01.001-051 Rev B) (February 2026)
14. Arboricultural Survey Data Sheets (D10480.01.002-051) (July 2025)
15. Tree Effects Plan (D10480.01.052-080 Rev C) (February 2026)
16. Temporary tree protection fencing for use on soft surfaces (TEP.ARB.FEN.0010)
17. Hi-Viz Demarcation Fencing Specification (TEP.ARB.FEN.005)
18. Ground Protection (Ground-Guards) Indicative Specification (TEP.ARB.GRO.001)
19. Archaeological Desk-Based Assessment (Ref. 294341.02) (July 2025)
20. H2EF Archaeology Clarifications Letter (Ref. 294344) (November 2025)
21. Overarching Written Scheme of Investigation for Post-consent Archaeological and Geoarchaeological Evaluation (Ref. 294344.04) (December 2025)
22. Gradiometer Survey Report (Ref. 294343.03) (February 2026)
23. Archaeological Management Strategy (Ref. 294344.03) (February 2026)
24. CPC Civils – Construction Best Practice Statement Document
25. Hallgates to Elms Farm Overview Plan (November 2025)
26. Hallgates to Elms Farm EIA Plan Sheet 1 (November 2025)
27. Hallgates to Elms Farm EIA Plan Sheet 2 (September 2025)
28. Hallgates to Elms Farm EIA Plan Sheet 3 (September 2025)
29. Hallgates to Elms Farm EIA Plan Sheet 4 (September 2025)
30. Hallgates to Elms Farm EIA Plan Sheet 5 (September 2025)
31. Hallgates to Elms Farm EIA Plan Sheet 6 (September 2025)