



# **Tibberton to Newent Pipeline**

Project Design for an Archaeological Desk-Based Assessment

5 April 2019

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### Issue and revision record

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#### 1

### **Executive summary**

This project design sets out proposals for an archaeological desk-based assessment for a proposed new rising main between the Tibberton and Newent Sewage Treatment Works, Gloucestershire. The desk-based assessment will focus on the archaeological potential and significance of the area of the proposed route alignment, as well as the potential impacts of the planned works. This is being undertaken on behalf of Severn Trent Water.

The location of the proposed works lies within an area of known settlement activity dating from the prehistoric and Roman periods, particularly the potentially nationally significant remains in the vicinity of the Newent Business Park, at the northern end of the scheme. Known nearby archaeological features from later periods include the scheduled medieval defended site of Taynton Parva, at the southern end of the scheme, as well as the medieval or post-medieval farmstead or settlement remains at Malswick, on the northern side of the B4215.

All work will be undertaken in accordance with the principles of the Chartered Institute for Archaeologist's *Standard and guidance for historic environment desk-based assessment* (2017), and the Gloucestershire County Council Archaeology Service *Brief for a desk-based archaeological assessment* (2017).

### 1 Introduction

This document sets out the proposals for the archaeological desk-based assessment (DBA) of the route of a proposed new rising main between two sewage treatment works (STW) at Tibberton and Newent, Gloucestershire. This work would be undertaken under permitted development rights. The DBA will provide an appraisal of the potential effects of the construction of the new rising main. This is being undertaken on behalf of Severn Trent Water.

### 1.1 Proposed route

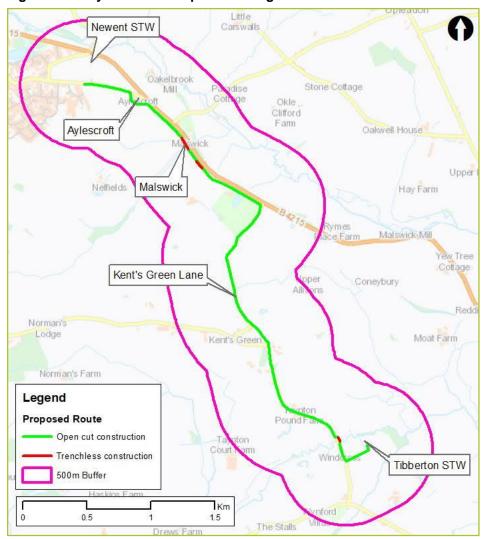


Figure 1: Study Area and Proposed Rising Main Route

Source: Contains OS data © Crown Copyright and database right 2018

Construction of the initial section is proposed within the carriageway of Kent's Green Road, leading from the Tibberton STW northwards to the point where this joins the B4215. The proposed route would then lie within fields to the south of and parallel to the B4215 leading westwards to Newent. A previous route option across fields on the northern side of the B4215

has been discounted due to a range of constraints there, some of which relate to heritage assets.

At Aylescroft the route would transition to lie within the public highway for the final 360m (Gloucester Street, leading westwards into Newent), where it would join an existing main which crosses beneath this carriageway and runs northwards to the Newent STW.

In addition to the new rising main, a new pumping station will be installed within the existing Tibberton STW, at the southern end of the scheme.

### 1.2 Construction methodology

The rising main would be laid mainly in open cut excavation at a nominal depth of approximately 1.2m. The anticipated width of the excavation is 0.7m, with a 20m wide strip of temporary topsoil removal (also described as the easement) to allow construction within fields. There would also be several short sections of trenchless construction, as indicated in Figure 1.

The main construction compound would be located within the existing Tibberton STW. The locations of potential satellite compounds and access tracks are to be confirmed.

#### 1.3 Consultation

The proposed route outlined in Section 1.1 was developed in consultation with Mr Charles Parry, Planning Archaeologist at Gloucestershire County Council (GCC) during early 2019. Although initially designed to lie largely within agricultural fields in order to minimise road closures during construction, substantial sections of the proposed route were consequently revised to lie within the public highway (Kent's Green Road and Gloucester Street) in order to minimise contact with areas of known archaeological potential.

The locations of planned ground investigation (GI) works to confirm ground conditions and to take samples for contamination testing were also discussed. These are likely to comprise six trial pits (1.5m deep, approximately 0.5m by 0.5m across) within fields along the route, as well as eight boreholes (percussive and rotary drilling). Mr Parry confirmed that archaeological monitoring of these GI works will not be necessary.

Mr Parry's recommendations in an email of 7<sup>th</sup> February 2019 were as follows:

- An initial desk-based assessment, to review the available information relating to the archaeology of the proposed development site and its locality.
- Detailed geophysical survey of the proposed easement.
- Trial-trenching, which should target ground anomalies located by geophysical survey and also areas where no geophysical responses were obtained.

Mr Parry later confirmed in an email of 27<sup>th</sup> February 2019, following the revision of the proposed route alignment, that the recommendations for assessment and evaluation still apply to those areas of the route within the fields to the north and south of the B4215.

## 2 Objectives and methodology

### 2.1 Aims and objectives

The aim of the archaeological desk-based assessment will be to assess the archaeological potential and significance of the area of the route of the proposed new rising main, as well as the potential impact of the planned works. Specific research aims for the assessment are as follows:

- Identify archaeological potential within the vicinity of the planned works, with reference to the sources outlined in Section 2.2, below;
- Collate the results of any previous archaeological surveys undertaken within the study area (aerial survey, geophysical, trial trenching), in order to characterise, as fully as possible, the location, nature and extent of archaeological remains;
- Identify areas of previous disturbance or truncation of archaeological deposits; and
- Assess the potential impact of the construction of the proposed new rising main.

### 2.2 Proposals for assessment methodology

The archaeological desk-based assessment will comprise a study of all known historic, cartographic and archaeological records for the site of the proposed sewer works, as well as a site visit.

### 2.2.1 General

All work will be undertaken in accordance with the principles of the Chartered Institute for Archaeologist's (ClfA) *Standard and guidance for historic environment desk-based assessment* (2017), as well as the Gloucestershire County Council Archaeology Service (GCCAS) *Brief for a desk-based archaeological assessment* (2017).

The ClfA guidance defines a desk-based assessment as a collation of existing written and graphic information to identify the likely character, extent, quality and worth of the known or potential archaeological resource of a given area or site. Desk-based assessments are primarily used in order to assess the likely impact of a proposed development on the archaeological resource and to enable appropriate mitigation strategies to be formulated in line with national and local historic environment policies.

#### 2.2.2 Sources and data

The following actions will be undertaken to gather the baseline and establish the archaeological potential of the area of the study area:

- A search of the Gloucestershire Historic Environment Record (GHER) database for archaeological sites and events within a 500m buffer of the proposed route.
- A review of the aerial survey transcription of the Leadon Valley and Forest of Dean National Mapping Programme (NMP) projects (to be obtained from the GHER).
- A review of advanced visualisation models created from Environment Agency 2m lidar data.
- A search of the NRHE database for archaeological sites and events within a 500m buffer of the proposed route.

- A review of sources held within the Gloucestershire Archives.
- A search of the Historic England National Heritage List for England (NHLE) database for designated heritage assets within 500m of the proposed route.
- A map regression exercise looking at the cartographic evidence for the land use history of the site.
- An examination of topographical and geological evidence.
- An assessment of relevant published and unpublished archaeological sources.
- An examination of local, regional and national planning policies in relation to archaeology and heritage.
- A site visit including a walkover of all areas of the proposed route where access is possible.

### 2.2.3 Assumptions and limitations

As noted above, the results of the two NMP projects which cover this area will be examined to review the archaeological features recorded from aerial photographs in the vicinity of the proposed route. For this reason, a duplicate review of aerial photographs held within the Historic England and Gloucestershire Archives will not be necessary.

Environment Agency lidar data is unfortunately only available for the study area at a resolution of 2m, which is insufficient for the identification of archaeological features. Spatial resolutions of 1m or higher are required for this purpose. The 2m resolution digital terrain model (DTM) data will however be used to provide general topographic information.

### 2.2.4 Health and safety

All relevant health and safety legislation will be adhered to for the site visit. A Health and Safety Risk Assessment (HSRA) will be read and signed by staff intending to visit the site of the proposed route.

## 3 Project team

Name	Job Title / Accreditation / Experience	Project Role	
Josephine Janik	Senior Archaeologist MCIfA 12 years' experience of professional archaeology	Research, assessment, site visit, report-writing and figure production	
Phillippa Adams	Senior Archaeologist MCIfA 12 years' experience of professional archaeology	Quality assurance of the desk-based assessment report	
Maurice Hopper	Principal Archaeologist MCIfA 19 years' experience of professional archaeology	Overall project supervision and report approval	

## 4 Report

The report will be submitted to Charles Parry, Planning Archaeologist for GCC for comment.

The report will be structured as follows:

Section	Summary
Executive summary	
Introduction	Scheme proposals, assessment methodology (including definition of study area) and details of consultation undertaken/planned.
Designation and policy	Relevant national planning policy and legislation. Applicable local planning policy. Any additional relevant standards and guidance.
Baseline conditions	<ul> <li>Site conditions: location, geology and topography. To include available GI data.</li> </ul>
	<ul> <li>Site visit: a summary of current land use and observations relating to possible historical/archaeological features, or signs of activity which may have impacted upon archaeological potential.</li> </ul>
	<ul> <li>Cartographic and pictorial evidence: summary of key cartographic evidence.</li> </ul>
	<ul> <li>Aerial photographic evidence: a summary of the results of the NMP projects covering the study area.</li> </ul>
	<ul> <li>Archaeological and historical background: a period-based discussion of all available evidence (including GHER / NRHE / NHLE data) for the study area.</li> </ul>
Archaeological and historical potential	Identification of the heritage potential of the area of the proposed works, including factors affecting survival.
Impact of proposed works	Discussion of any likely impacts of the development proposals on the heritage assets identified.
Conclusions and recommendations	Summary of heritage potential of the study area, and the likely impacts of the scheme. Recommendations for further assessment / investigation / consultation.
References	Bibliographic and cartographic sources consulted.
Appendices	Gazetteer of GHER, NRHE and NHLE heritage assets.
	<ul> <li>Figures showing distribution of heritage assets.</li> </ul>
	<ul> <li>Site visit photos, if not included in the main body of the report.</li> </ul>
	<ul> <li>Relevant cartographic extracts (licences permitting), if not included in the main body of the text.</li> </ul>
	<ul> <li>Available development proposal figures.</li> </ul>

## 5 References

Chartered Institute for Archaeologists (2017) *Standard and guidance for historic environment desk-based assessment.* 

Gloucestershire County Council Archaeology Service (GCCAS) (2017) *Brief for a desk-based archaeological assessment.* 

