

Non-Technical Summary

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PLANNING & SUSTAINABILITY.

Report for – Rother Valley Railway Limited **Track Reinstatement between Northbridge Street and Junction Road** **Environmental Statement - Volume 1** **Final**



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Report for: **David Slack**
Rother Valley Railway Ltd.

Main Contributors: **Emma Devenport**
Tess Murray

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Overview

An Environmental Impact Assessment (EIA) has been undertaken for the proposed Rother Valley Railway Track Reinstatement Project. This Scheme would comprise the reinstatement of approximately 3.4km of the former Kent and East Sussex Railway between the B2244 Junction Road and Northbridge Street, Robertsbridge.

The assessment work has been constrained by lack of access to much of the site due to landowner concerns; however, the assessment methods employed have been developed to accommodate this constraint to ensure the conclusions made are suitably robust. The scope of the EIA was agreed with Rother District Council through submission of a Scope and Methodology Report in October 2013 and a formal Scoping Opinion was published by the council in January 2014.

Detailed assessments for each of the agreed environmental topic areas have been undertaken to identify any potentially significant effects arising from the construction and operational phase of the Scheme.

Mitigation measures have been proposed and committed to by Rother Valley Railway to reduce the effects to acceptable levels.

The noise and vibration assessment concluded that there would be no significant effects as a consequence of the construction or operation of the railway.

The air quality assessment concluded that there would be a potential generation of dust during the construction phase, which would reduce the local air quality. However, through the implementation of best practice construction methods (e.g. minimise exposed earthworks and dampening down areas during dry periods), the impacts to air quality would be reduced to acceptable levels. There are not predicted to be any significant air quality impacts as a result of the operation of the railway.

The landscape and visual assessment concluded that the construction phase of the Scheme would have a significant effect on several viewpoints along the dismantled railway. However, these would be temporary in nature. Visual effects during operation of the railway would be more notable at the western end of the route where there are more residential properties (in Robertsbridge, Northbridge Street and Salehurst). Mitigation planting and new hedgerows will be incorporated within the landscape to mitigate these effects. However, it is predicted that landscape impacts will remain, although the level of impact will reduce over time as new planting becomes established and the Scheme blends into the landscape.

The ecology assessment concluded that construction of the railway in the absence of mitigation could result in both a temporary and permanent loss of habitats and impacts on a number of protected species. Despite proposed mitigation measures, including woodland planting and the reinstatement of temporary habitat loss, it is anticipated that impacts will remain due to displacement and disturbance to bats and birds and the loss of mature trees. There are not anticipated to be any ecological impacts during the operational phase of the Scheme.

Through the use of best practice construction methods, outlined in the Environment Agency Pollution Prevention Guidelines, potential impacts due to the accidental pollution of watercourses and groundwater would be minimised. Therefore, there are not predicted to be any significant effects on river water quality and flood risk during construction of the Scheme. However, during the

operational phase of the Scheme, the Flood Risk Assessment concluded that there would be significant flood risk effects due to an increase in flood water levels (including increased flows due to climate change) as a consequence of the small loss of floodplain and restriction of flood water flows. Planned mitigation measures to minimise these impacts include raising the existing flood defence levels to protect properties against the effects of the Scheme and future climate change. Raising the flood defences would have significant beneficial impacts to residents at Robertsbridge who are not currently defended against the impacts of climate change. Rother Valley Railway is working closely with the Environment Agency to deliver the enhancement to the flood defences at Robertsbridge. However, at present these mitigation works are not yet a committed part of the Scheme and as such have not been taken into account as incorporated mitigation for the Scheme.

While there are not predicted to be any significant impacts to archaeology or cultural heritage during construction of the Scheme, it is anticipated that the built scheme would affect the setting of Robertsbridge Abbey (a Scheduled Monument). Although landscape mitigation planting will be implemented, the impacts to the setting will remain significant albeit declining over time.

The transport and access assessment concluded that there would be no significant impacts resulting from the construction of the proposed Scheme on the basis that appropriate local traffic management measures can be agreed with the highway authorities (Highways Agency and East Sussex County Council). There would be no significant impacts once the railway is operational, with delays due to barrier down time at the level-crossings being minimal as a result of the limited number of trains crossing on any given day.

Based on a wide-ranging assessment of the socio-economic impacts of the Scheme, the socio-economics assessment concluded that there may be some beneficial effects during the construction phase due to increased spend at local shops and suppliers by construction workers. The assessment identified that the Scheme could also generate an additional 14 full time equivalent jobs as a result of improved connectivity for inward tourism that the link to the mainline rail network could provide. It is acknowledged that there is the potential for wider regional economic and social benefits, although analysis of this fell outside of the scope of the EIA.

The land use and agriculture assessment concluded that there would be no significant effects as a result of the construction or operation of the railway, although discussions are ongoing with the affected landowners to agree appropriate mitigation and compensation measures.

An assessment of the cumulative effects of the proposed Scheme identified no cumulative effects as a result of the construction or operation of the Scheme in isolation or in combination with other unrelated proposed developments.

1.0 Introduction

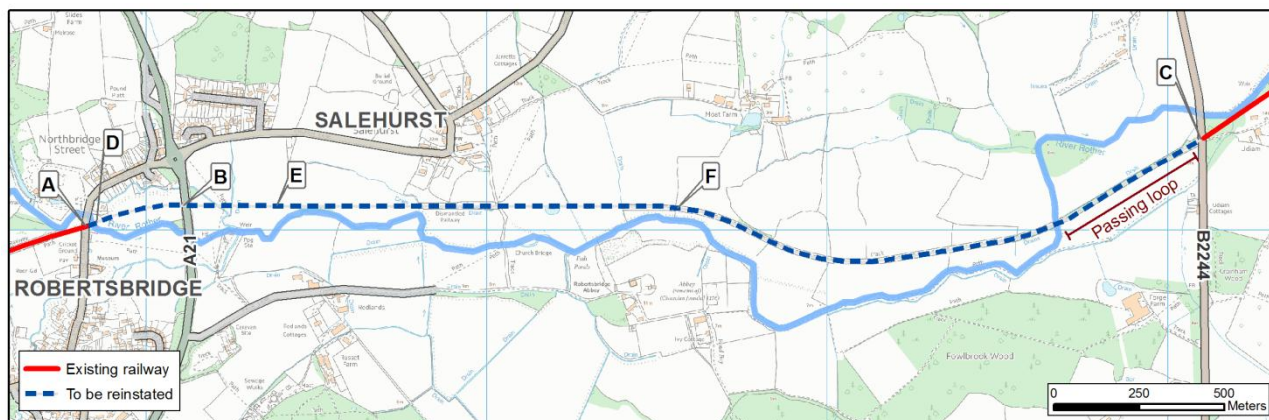
1.1 Purpose of the Document

- 1.1.1 This Non-Technical Summary (NTS) summarises the key findings of the assessment of likely significant environmental effects, both beneficial and adverse, of the Rother Valley Railway Track Reinstatement Project (hereafter referred to as “the Scheme”) and the proposed mitigation measures to reduce those effects as far as practicable. The NTS forms Volume 1 of an Environmental Statement (ES), which describes the Environmental Impact Assessment (EIA) undertaken for the Scheme. The ES also includes three further volumes:
- Volume 2 - Main Statement (the main EIA report);
 - Volume 3 - Technical and supporting reports; and
 - Volume 4 - Figures used to support the Main Statement.
- 1.1.2 The Scheme comprises the reconstruction of a section of the former Kent and East Sussex Railway (KESR) in order to reinstate the historic link between the main line railway network and the currently restored and operating KESR. Completion of the link will allow visitors to access the railway by rail as an alternative to road which is the only way at present. The main line rail connection will also provide operational flexibility for the railway in relation to the delivery of materials and rolling stock via the railway instead of by road. A consequence of the provision of the main line rail connection is the improved connectivity for inward tourism to the area and this is predicted to generate local jobs in the tourism sector.
- 1.1.3 EIA is a process to identify the likely environmental impacts and effects of development projects. Undertaking an EIA is required under European and UK law for projects of a certain scale or those likely to result in adverse environmental effects.
- 1.1.4 This ES has been prepared to support a planning application under the Town and Country Planning Act 1990, on behalf of Rother Valley Railway Ltd (RVR), and submitted to Rother District Council.
- 1.1.5 The ES has been prepared based on the topic assessments agreed with the District Council during the scoping stage and confirmed in their formal Scoping Opinion.

1.2 Scheme Description

- 1.2.1 The Scheme comprises the construction of approximately 3.4km of single track railway line on the alignment of the former railway between Northbridge Street, Robertsbridge and the B2244 Junction Road near Bodiam. The section of track is the “missing link” that will enable trains on the KESR to run the full distance between Tenterden in Kent to Robertsbridge in East Sussex. Approximately 2km of the former railway corridor in this area is still largely intact, with the remainder of the route having been reclaimed as agricultural land.
- 1.2.2 In addition to the reconstructed railway line, there would also be additional associated works required including three level-crossings on Northbridge Street (Figure 1 – Point A), the A21 (Figure 1- Point B) and the B2244 Junction Road (Figure 1 - Point C), one footpath and one combined footpath and bridleway crossing, two new bridge crossings of watercourses (Figure 1 – Points D and E) and operational track infrastructure, such as signalling.

Figure 1: Scheme overview



1.2.3 A new halt (Figure 1- Point F), which is a minor stopping place, is proposed to be built alongside the railway which would serve the village of Salehurst. There will also be a short section of double track railway that would serve as a passing loop for trains travelling in opposite directions, this would be located adjacent west of the B2244 (as shown in Figure 1). Existing flood defences in Robertsbridge would be raised to ensure the required level of flood protection is maintained.

1.2.4 The current Rother District Local Plan (adopted in 2006) includes considerations for the proposed Scheme. Policy EM8 indicates that an extension to the Kent & East Sussex Steam Railway from Bodiam to Robertsbridge, along the route identified on the Proposals Map, will be supported, subject to any proposal meeting the following criteria:

- *it must not compromise the integrity of the floodplain and the flood protection measures at Robertsbridge;*
- *it has an acceptable impact on the High Weald Area of Outstanding Natural Beauty; and*
- *it incorporates appropriate arrangements for crossing the A21, B2244 at Udiam, Northbridge Street and the River Rother.*

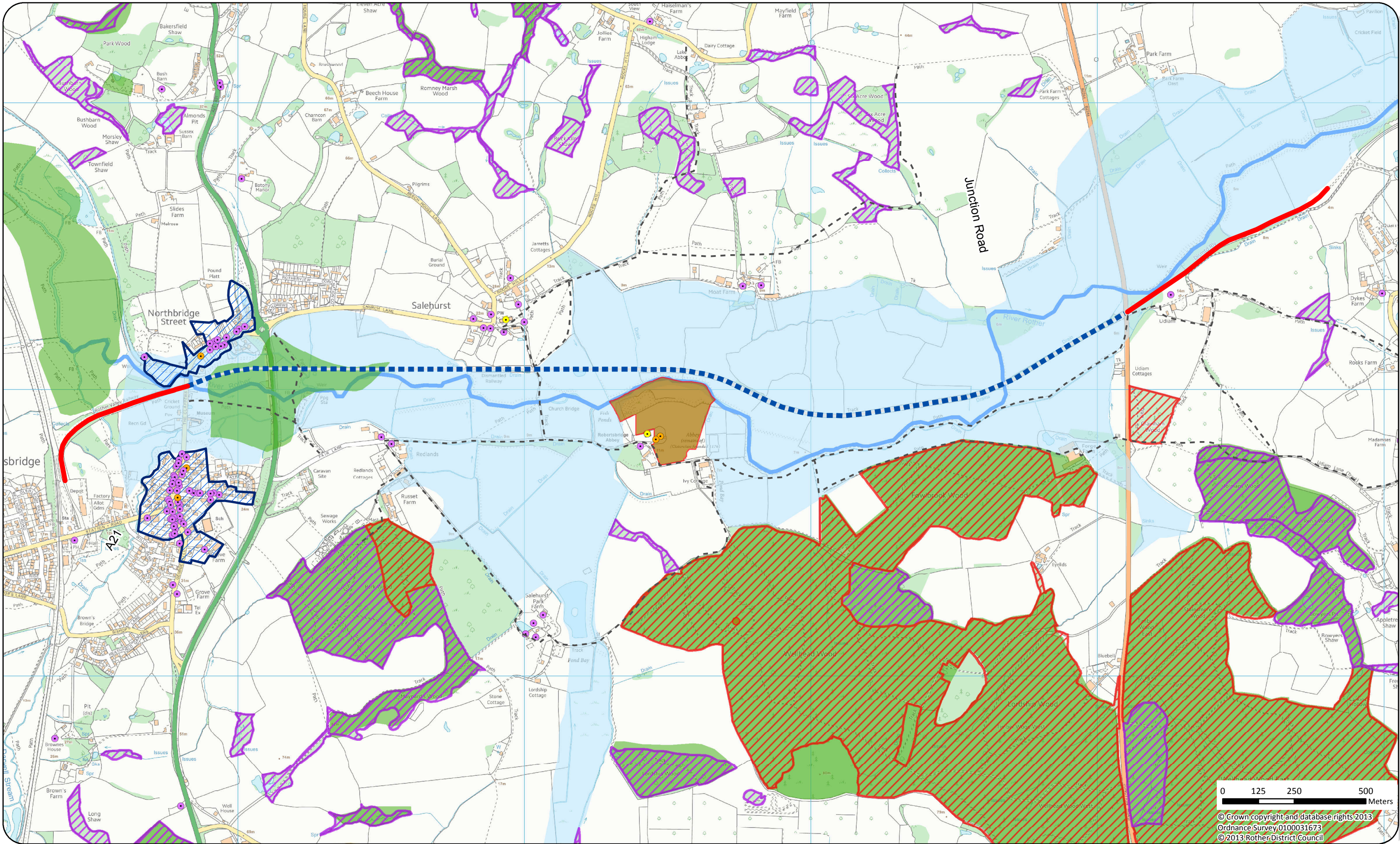
1.3 Site Description

1.3.1 The proposed Scheme is located south of the village of Salehurst between Northbridge Street, Robertsbridge and Junction Road near Bodiam in East Sussex. The entire line of route lies within the High Weald Area of Outstanding Natural Beauty (AONB). Figure 2 shows key environmental features of the surrounding area.

1.3.2 The surrounding area is predominately a mixture of arable and pastoral agricultural land, with areas of woodland to the south of the proposed route. Residential areas within the vicinity of the scheme include the villages of Salehurst and Robertsbridge, which are all located at the western end of the Scheme and Bodiam to the east.

1.3.3 The site includes one main watercourse, the River Rother, which runs broadly parallel with the proposed route, and is crossed by the proposed railway at two locations (see Figure 1).

1.3.4 The proposed permanent and temporary land take is shown in Figure 3.



Project: Rother Valley Railway EIA
Client: Rother Valley Railway
Drawing Title:
Figure 2 Environmental Features

Legend

Existing railway

Line of route reinstatement

Listed buildings

Grade I

Grade II*

Grade II

Scheduled monument

Conservation area

Public right of way

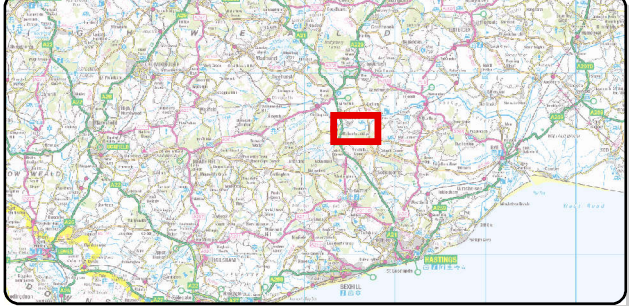
Ancient & semi-natural woodland

Ancient replanted woodland

BAP habitat

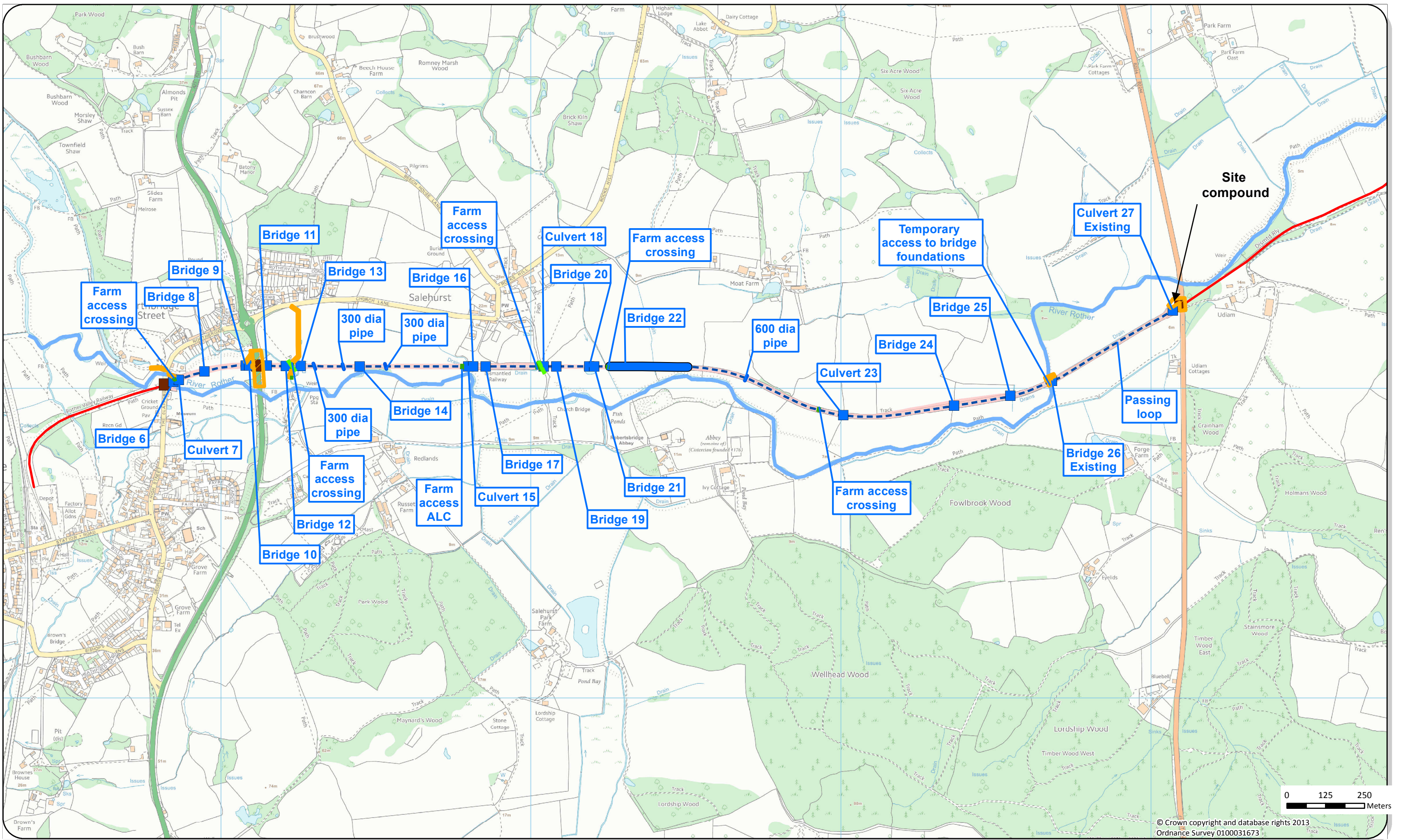
River

Floodplain



Map Number: 01

Drawing Number: T2073-RV-TGP-SUS-1



Project: Rother Valley Railway EIA
Client: Rother Valley Railway
Drawing Title:
Figure 3 Permanent and Temporary Land Take

Photo 1 – Looking south east from Church Lane, Robertsbridge towards the proposed alignment



1.4 Alternatives Considered

1.4.1 The EIA is required to assess alternatives to the proposed Scheme where these have been considered. In this instance, the aspiration of RVR has always been to reinstate the former railway alignment and, as such, options for the location and proposed alignment are limited. However, alternatives to level-crossings have been considered. The investigation of crossing options identified that, for a range of technical reasons, a level-crossing presented the most practical solution. Constraints to alternative solutions included:

- the creation of steep track gradients either side of the road that would be unacceptable from a safety perspective if the railway were to pass over or under the road;
- passing beneath the road would result in the railway being below the adjacent river level and therefore prone to frequent and significant flooding of the railway. In addition, flooding of the railway would lead to a deposit of silt and the collection of debris along the railway line which would require removal prior to the line re-opening and could cause train safety risks; and
- options to raise or lower the railway to separate it from the roads would require significant embankments or cuttings which would have a detrimental impact upon the local landscape, create unacceptable gradients for the track from a safety perspective and would require additional permanent land take. Raising the track would also require extensive construction works to widen existing bridges and culverts.

1.4.2 The 'do-nothing' option would be to leave the railway split into two parts: the main operational railway forming the existing KESR between Tenterden in Kent to just west of Bodiam, and the short section of line from Robertsbridge station to Northbridge Street. The latter has been constructed in the full expectation of completing the reinstatement of the final section of line and will house a carriage shed and stabling for rolling stock. It will also provide a key connection to the mainline rail network which will enable visiting locomotives and rolling stock and materials to be brought directly to the railway rather than by road which can be a complicated and expensive process. As such, without the final section of line the Robertsbridge station would not be viable. Consequently, the 'do-nothing' is not considered to be conducive to the railway's passenger and tourism growth plans.

1.5 Limitations

- 1.5.1 A number of limitations have influenced the EIA and the availability of data and other information to support the assessments. The limitations fall under three broad categories:
- Access;
 - Design detail; and
 - Construction detail.
- 1.5.2 There are three landowners within the Scheme footprint and to date permission to access their land has been withheld. As such access to the site, particularly for survey work, has been restricted to public rights of way only. This has presented significant constraints primarily on noise and vibration, ecology, archaeology and cultural heritage and landscape and visual impact studies. As such, a number of assumptions have had to be made and these are addressed under the relevant topics.
- 1.5.3 The Scheme is a reinstatement of a former section of railway line and when built, will closely replicate what was originally present on the site. As such, the level of design available at present is sufficient to determine all likely significant effects, given that significant sections of the original corridor and embankment are still in-situ.
- 1.5.4 The detail of construction has not been finalised at this stage and as such all construction information is indicative although largely based on standard construction methods. In order to accommodate this the assessments have sought to consider a worst case scenario for construction related effects to ensure that should any aspect of the construction methodology alter it would not result in an impact greater than that assessed within the ES.

Photo 2 – View of existing section of Track at junction with The Clappers, Robertsbridge



2.0 Consultation

2.1.1 Over the course of the last four years, RVR has engaged in a programme of consultation with key businesses, community groups, statutory and non-statutory bodies, and members of the public to disseminate information about the proposed reinstatement of the railway and the benefits it will bring to the local economy and the wider area. This has included one to one meetings with individuals, presentations to a wide range of groups, including the District Council, the three parish councils and holding events at the Robertsbridge Station site to raise awareness and answer questions from the general public.

2.1.2 A Scoping Report which describes the proposed assessment methodology for the EIA was submitted to Rother District Council in October 2013. The council published a Scoping Opinion in response which set out what they believed should be included within the Environmental Statement. In order to prepare the scoping opinion the Council consulted with the following organisations:

- East Sussex County Council;
- The Highways Agency; and
- The Environment Agency.

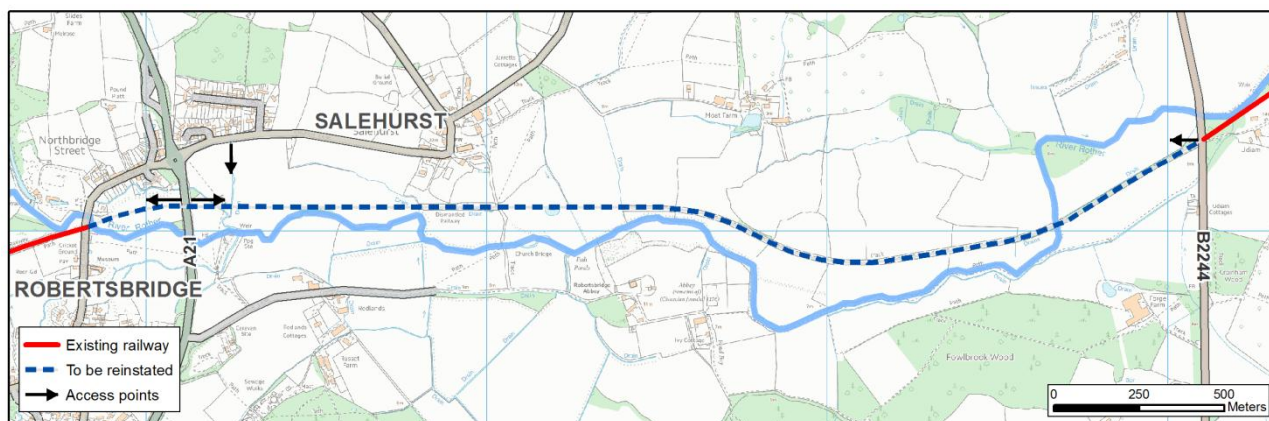
2.1.3 In preparing the Environmental Statement other organisations were consulted in order to agree details about the assessment methods employed and to obtain information to better understand the existing baseline environmental conditions in the area.

3.0 Scheme Construction

3.1 Proposed Construction Methodology

3.1.1 The Scheme would be constructed over an estimated 18 to 24 month period, commencing in July 2015 (subject to obtaining the necessary consents). Materials would be brought to site by road. There would be three primary temporary access points to the site from the highway network (see Figure 4); one at Junction Road B2244 and two off the A21 (east and west side). A secondary access point would be from Church Lane north of the site and would be used to facilitate the construction of a bridge over a watercourse (Bridge shown at point E in Figure 1).

Figure 4: Construction Access Points



3.1.2 An internal haul road would be constructed on the former track alignment. Parking for construction staff would be provided at the existing RVR compound at Robertsbridge next to the Robertsbridge train station and at the compound located adjacent to the Junction Road B2244 site access point.

3.1.3 Construction would be during the day, however some night-time work may be required in relation to the construction of the level-crossings in order to minimise the impact on the highway network.

3.1.4 Table 3.1 shows the indicative construction programme for the Scheme. Typical construction activities would include:

- Enabling works (site preparation);
- Flood defence enhancements;
- Earthworks (embankment construction);
- Structures (construction of bridges and culverts);
- Level-crossing construction; and
- Installation of rails and signalling.

Table 3.1 Outline Construction Programme (Subject to the timely granting of the necessary consents)

Date	Activity
July / August 2015	Establish site compound and access points
July / December 2015	Construction of bridges over the watercourse
September/ October 2015	Flood defence enhancement works
October 2015	Start of embankment earthworks
September 2016	Junction Road level-crossing construction
September / December 2016	Installation of signalling equipment
September / December 2016	Installation of track
October 2016	Bridleway level-crossing construction
November 2016	A21 level-crossing construction
December 2016	Northbridge Street level-crossing construction
January 2017	Early estimate completion date
July 2017	Late estimate completion date

3.2 Land Use Requirements

- 3.2.1 The Scheme will require approximately 6.2 hectares (ha) of permanent landtake. Approximately 3.4 ha of the land required (54% of the total area required) consists of the former railway corridor, which has remained largely intact since the line was decommissioned.
- 3.2.2 An additional 0.7 ha will be required on a temporary basis in order to facilitate construction. Permanent and temporary land take is shown in Figure 3.

3.3 Construction Management

- 3.3.1 The construction works would be managed through a Construction Environmental Management Plan (CEMP), a draft of which has been prepared and included in Volume 2, Appendix 4 of the Environmental Statement.
- 3.3.2 The CEMP would be developed by the construction project manager or contractor in more detail prior to construction, as more detail of the construction process is finalised and mitigation measures can be made more specific to the activities to be undertaken.

4.0 Environmental effects

4.1 Introduction

4.1.1 This section describes the impacts that have been identified and assessed as part of the EIA. The identified effects that are predicted would result from both the construction and operational phases of the Scheme.

4.1.2 A description of the measures to be implemented in order to avoid or reduce significant effects is provided in the summary for each discipline area. An impact summary table is provided in the section 5.

4.2 Noise and Vibration

4.2.1 Noise and vibration levels can increase during construction due to an increase in vehicle traffic on local highways and as a result of construction activities. Operational noise and vibration levels could increase due to the reintroduction of train services on the reinstated section of track.

4.2.2 Noise levels around the site have been measured to understand the current conditions in and around the Scheme. Assessment methods were then used to predict the levels of noise generated by construction and the operation of the Scheme and the potential effects on sensitive locations, including local residents.

Construction Effects

4.2.3 The assessment has concluded that there would be no significant off-site noise effects from construction traffic. Construction activities related to the Scheme are also not expected to result in significant noise and vibration effects during either day or night time periods.

4.2.4 A range of measures to reduce noise levels beyond those predicted in the assessment have been identified and these are included in the CEMP. These measures will include:

- the selection and use of well-maintained low noise equipment and methods of working and screening of construction works where necessary;
- the proper maintenance of plant and equipment;
- the avoidance of unnecessary revving of engines and percussive piling as far as possible in noise sensitive areas;
- turning off of equipment when not in use; and
- the use of screening e.g. noise barriers and blinds where appropriate.

4.2.5 The study has identified that there will be some temporary construction noise experienced at local residential properties. However it should be recognised that this will be for very brief periods of time and at levels not considered to be significant.

4.2.6 No vibration effects would be experienced at local residential properties.

Operational Effects

- 4.2.7 The operation of the railway is not predicted to result in any significant noise and vibration effects, as such no mitigation measures are considered necessary.

4.3 Air Quality

- 4.3.1 Air quality effects can occur during construction from road vehicle and equipment emissions, and the generation of dust from construction of new embankment, stockpiling of soils and excavations for the foundations of new bridge structures.
- 4.3.2 The assessment has used existing local air quality data to predict the potential change from the construction and operation of the Scheme. No baseline monitoring has been undertaken, as this was not considered necessary, and was agreed with the Environmental Health Officer of Rother District Council.

Construction Effects

- 4.3.3 Traffic generation over the entire construction period will be very small (around 450 HGV vehicle movements) which is well below the threshold of 200 additional daily HGV movements above which potential air quality impacts are considered likely to occur. Construction traffic would therefore have no significant effect on local air quality.
- 4.3.4 There would be potential for the generation of dust, which can be a nuisance, during the construction phase, including from the construction of the new embankment and excavations for the foundation of new bridge structures. Best practice measures would be used on site to reduce the risk of nuisance impacts, such as minimising exposed earthwork surfaces and material stockpiles and dampening down areas during dry periods. If necessary, wheel wash facilities will be provided at site entrances to prevent soil and mud being deposited on the road network.

Operational Effects

- 4.3.5 As with construction traffic, the number of vehicles resulting from the operation of the railway once opened will be very small and well below the threshold of 1,000 additional daily vehicle movements above which potential air quality impacts are considered likely to occur. Indeed, it is RVR's aspiration that the majority of passengers and visitors to the railway at Robertsbridge will arrive by public transport, including train, as the station is immediately adjacent to the existing mainline railway station. Operational traffic would therefore have no significant effect on local air quality.
- 4.3.6 It is anticipated that due to the low number of locomotives operating per day and the existing low levels of air pollution there would be no significant effect on local air quality due to the operation of the railway itself.

4.4 Landscape and Visual

- 4.4.1 The landscape assessment has considered the existing quality of the landscape within which the Scheme is located and the potential change to the quality of the landscape as a result of the construction and operation of the Scheme. This includes the potential beneficial

effects from the historic value of the restored railway. The assessment has also considered the visual effects of the Scheme on the views of nearby residential properties and historic structures.

- 4.4.2 A further key consideration of the assessment is the potential landscape and visual effects of the Scheme on the landscape character and natural beauty of the High Weald Area of Outstanding Natural Beauty.

Construction Effects

- 4.4.3 The construction phase of the Scheme is predicted to have significant effects on several viewpoints along the dismantled railway. In particular, visual effects are broadly more notable towards the western end of the route where there are more properties in Robertsbridge, Northbridge Street and Salehurst. However, the visual effects of the construction would be temporary in nature.

Operational Effects

- 4.4.4 During the operational phase, visual impacts will come from the presence of the completed scheme in the landscape. As with the construction phase, visual effects are broadly more notable towards the western end of the Scheme where there are more properties.
- 4.4.5 It is proposed to plant trees and hedgerows along the railway line as mitigation for landscape impacts. This will be done in close collaboration with the ecology mitigation works. However despite the planting, it is predicted that landscape impacts will remain and these are considered a residual significant effect, although the level of impact will reduce over time as planting develops and the Scheme blends into the landscape.

4.5 Ecology and Nature Conservation

- 4.5.1 The ecology assessment has considered the temporary construction and longer term operational effects on ecological resources. Desk studies and limited field surveys have established the general ecological characteristics of the site, as well as the presence of particular protected species.
- 4.5.2 A major limitation of the EIA has been the refusal of the three directly affected landowners to allow access to their land to undertake any surveys to fully establish the ecological baseline. Therefore, the assessment has had to be based primarily on a desk based review of publicly available data, observations made from public footpaths and roads, and professional judgement on the likelihood of habitats and protected species being present on the site. On the basis of this review it has been assumed that great crested newts, reptiles, birds, bats, dormice, water vole, otter and badgers are likely to be present on the site and the assessment has considered the potential impacts on them and the necessity for mitigation measures to be implemented.
- 4.5.3 The assessments are provided on the understanding that the ecology chapter will be re-drafted once further land access has been secured and all ecological surveys have been completed.

Construction Effects

- 4.5.4 Construction of the railway will result in both temporary and permanent loss of habitats including the loss of 1.55ha of broadleaved woodland, 0.46ha of scrub, 100m of hedgerows, 3 ponds and 0.4ha of floodplain grazing marsh.
- 4.5.5 It is anticipated that a number of protected species including the European Protected Species bats, dormouse and great crested newts as well as other species, namely badger, birds, water vole and invertebrate fauna that could be affected.
- 4.5.6 Given the limitations listed in Section 1.5, particularly the access constraints, a comprehensive package of mitigation measures has been developed to minimise the impacts on the habitats and species mentioned above. These include:
- Planting 1.5ha of native broadleaved woodland alongside the railway and an additional 1.5ha as a single block;
 - A minimum 1 ha of scrub habitat will be planted alongside the railway line;
 - Construction of three new ponds to replace each of the ponds lost. These will be located close to existing ponds used by great crested newts; and
 - All temporary habitat loss will be re-instated and suitable measures put in place during the construction period to ensure the survival of great crested newts (if their presence is confirmed).
- 4.5.7 Despite the proposed mitigation measures it is anticipated that there will be displacement of/disturbance to bats and birds within the construction corridor and the loss of limited numbers of mature trees. Despite planting new woodland, this would take time to establish which would result in an adverse effect upon dormice during this period. All of these effects are assessed as significant.

Operational Effects

- 4.5.8 The main impacts of the Scheme are associated with the construction phase. Once operational, no significant additional impacts are considered likely to occur. The mitigation proposed for the construction phase is considered sufficient to minimise the risk of impacts once the railway is operational such that these are not considered a significant effect.

4.6 Water Quality, Hydrology and Hydrogeology

- 4.6.1 The water assessment has considered the construction and operational effects of the Scheme on water quality, flood risk and groundwater resources. The new railway line would pass over the River Rother and Mill Stream and a number of drainage channels in the River Rother floodplain. The route would require two new bridge crossings across the River Rother and a number of culverts for the drainage channels.
- 4.6.2 A detailed Flood Risk Assessment (FRA) has been undertaken for the Scheme including modelling of river flows and the predicted extent of flooding of the new railway as well as the potential effects from the construction of new embankments and structures in the floodplain on flood risk upstream and downstream, including to properties in the vicinity. Consideration has also been given to the potential impacts on water quality in the watercourses as a result of the construction and operation of the new railway, including the provision of new drainage on bridges and embankments.

Construction Effects

- 4.6.3 There would be no significant effects on the water environment during construction. However, precautions would need to be taken to ensure construction works can pass flood water without obstruction.
- 4.6.4 With appropriate mitigation to ensure flood flows are not obstructed it is not anticipated that the construction works would have an impact upon flood risk.
- 4.6.5 Best practice construction methods, as outlined in the Environment Agency Pollution Prevention Guidelines, would be implemented through the CEMP and would ensure pathways for pollutants would be minimised and therefore reduce the risks of pollution to groundwater and surface water bodies.
- 4.6.6 Relevant guidance would be adhered to including but not limited to the following:
- PPG1: Introducing pollution prevention;
 - PPG5: Works and maintenance in or near water;
 - PPG6: Working at construction and demolition sites;
 - PPG21: Pollution incident response planning; and
 - PPG22: Dealing with spills.
- 4.6.7 With the above mitigation measures implemented, the construction phase of the Scheme is predicted to have no significant effects on river water quality and flood risk.

Operational Effects

- 4.6.8 The new track will be mostly on embankment. Embankment levels have been designed as near to existing ground levels as possible and to connect into levels on the existing disused sections of the original railway embankment. The assessment has shown that the proposed Scheme will be at risk of flooding during the 1 in 20 year flood event in the area upstream of Udiam. As outlined in the FRA, this can be managed through restricting operation during times of severe flood.
- 4.6.9 The presence of the new railway embankment will result in a loss of floodplain storage and the bridge crossings will impact flooding by obstructing flood flows. Despite the new bridges being considerably wider, the FRA has concluded that the flood defences at Northbridge Street, North of Robertsbridge and Station Road would need to be raised by 0.3m in order to mitigate the increase in flood risk caused by the proposed Scheme.
- 4.6.10 At present, there are properties in and around Robertsbridge that are undefended, these properties include the museum, pavilion (both west of The Clappers), a commercial building on the undefended side of the Environment Agency defences on Station Road, properties at Robertsbridge Abbey, Udiam Cottages, Forge Farm and Park Farm. These properties are at risk of fluvial flooding at present, and there are no plans by RVR or the Environment Agency to defend these properties.
- 4.6.11 RVR have undertaken detailed consultation with the Environment Agency with regards to raising the existing flood defences for Robertsbridge and further consultation with the Environment Agency is still ongoing. RVR have agreed to part fund the works which would

not only mitigate the effects of the Scheme but also mitigate against increased flood levels attributable to climate change, for which there is currently deficient protection. The Environment Agency are supportive of this approach and intend to seek funding for these works in their future budgets. As these works are not yet committed they have not been included as mitigation in our assessment and as such there would remain a significant flood effect at the following locations: Northbridge Street, North of Robertsbridge and Station Road. If the defences were to be implemented there would be a significant beneficial effect for a large number of properties in Robertsbridge.

4.6.12 However, for an electrical substation west of the High Street and a pumping station/electrical substation east of Robertsbridge, there would be an increased risk of flooding which is considered a significant effect. All other receptors have an increased risk of flooding post development of the railway however none are considered a significant effect.

4.6.13 All other operational effects can be mitigated such that the Scheme would have either a neutral or no adverse effect on water supply, water resources, water quality, groundwater and surface water.

4.7 Archaeology and Cultural Heritage

4.7.1 The archaeology and cultural heritage assessment has considered the potential for the Scheme to directly affect previously unidentified items of archaeological interest buried on site. It has also considered the potential for the completed Scheme to affect the setting of features designated for their cultural heritage value. In agreement with the East Sussex County Archaeologist, desk based studies and a site visit have been used to inform the assessment.

4.7.2 There are two Scheduled Ancient Monuments (Site of Robertsbridge Abbey and Bowl Barrow in Wellhead Wood) located within the immediate study area, although the site visit confirmed that only the setting of one, the remains of Robertsbridge Abbey, is likely to be affected the Scheme.

4.7.3 The presence of a significant number of local archaeological designation areas highlights the fact that the site is one of increased archaeological potential.

Construction Effects

4.7.4 Construction of the new embankment and related earthworks would potentially result in the permanent loss of as yet unknown archaeological assets, but compensated for by archaeological work and potential gains in knowledge about the local area and the wider area of the Weald. However, there would be limited construction activity on previously undisturbed ground and therefore the impact on archaeological remains is not considered to be significant.

Operational Effects

4.7.5 The reinstated railway embankment would likely generate a significant impact on the setting of Robertsbridge Abbey, although this setting impact could reduce over time and the area would eventually return to the state when trains last ran in the 1970s.

4.8 Transport and Access

- 4.8.1 The transport and access assessment has considered the effects of the Scheme construction on the local highway network including the A21 which is part of the national trunk road network. It has also considered the effect on local rights of way that would require the construction of crossings of the railway to maintain access.

Construction Effects

- 4.8.2 The construction phase assessment considered the following elements:

- the operation and safety of construction site access points on to the road network;
- level-crossing construction; and
- traffic impacts due to construction vehicles, delivery of equipment to/ from site and construction staff travelling to site.

- 4.8.3 The assessment concluded that there would be no significant impacts resulting from the construction of the proposed Scheme on the basis that appropriate measures can be agreed with the highway authorities (Highways Agency and East Sussex County Council) and implemented.

- 4.8.4 Proposed mitigation measures include:

- implementation of permanent speed management measures;
- B2244 Junction Road access, consideration of additional traffic management measures at site access to account for limited road width, presence of bridges / localised narrowings and manoeuvrability of large vehicles access / egressing construction site; and
- encouragement of car sharing between construction workers, where practicable, to reduce localised impacts.

Operational Effects

- 4.8.5 The main operational factors that have been taken into account are as follows:

- impacts of the operation of the extended heritage rail service between Bodiam and Robertsbridge in terms of additional passengers generated and impacts on the wider transport network;
- impacts of the new vehicle level crossings on the road network at A21, B2244 Junction Road and Northbridge Road; and
- impacts of the pedestrian level crossings at the 4 PROW crossing points (3 No footpath, 1 No Bridleway).

- 4.8.6 The assessment concluded that there would be no significant impacts once operational, with delays due to barrier down time at the level-crossings being minimal due to the limited number of trains crossing. RVR's aspiration is for visitors to Robertsbridge to use public transport (primarily the mainline railway) to get to the station. However, there is ample car

parking in the adjacent station car park for those that do arrive by car. Therefore no further mitigation measures are considered necessary.

4.9 Socio-Economics

- 4.9.1 Two major studies of the potential local economic impact of the Scheme have been undertaken by the International Centre for Research and Consultancy, Manchester Metropolitan University (MMU). These studies provide a wide-ranging assessment of the socio-economic impacts of the Scheme based on economic modelling, desk research of similar projects, fieldwork and an analysis of the local economy.

Construction Effects

- 4.9.2 Due to the limited nature of construction proposed, there will be minimal land-take and no requirement for property demolition. Any disruption resulting from construction activities would not only be minimal but also temporary and of short duration. There is also not expected to be any significant disruptions to commuting, shopping trips and leisure trips by local residents. As a result, there are not considered to be any significant adverse impacts on the local economy.
- 4.9.3 There may be some beneficial effects as a consequence of increased spend in local shops and at suppliers by workers associated with the construction work. However, with an anticipated workforce of no more than 25, this is likely to be only a minor benefit.

Operational Effects

- 4.9.4 The existing Kent & East Sussex Railway timetable has been used as a basis for the assumed operational timetable as it is not proposed to significantly alter the intensity of service from that currently operated.
- 4.9.5 Based on the fact that the intensity of service will not increase, whilst some limited road journey time impacts associated with delays at the level-crossings may arise to local travellers these are unlikely to result in any significant reduction in access to local places of work and services. The economic impact of the level-crossing delays have been calculated to be negligible and off-set by the benefits of increased local employment opportunities in the tourism sector. The first MMU study identified that the Scheme could generate an additional 14 full time equivalent jobs as a result of improved connectivity for inward tourism that the link to the main line rail network would provide.

4.10 Land Use and Agriculture

4.10.1 The assessment has focused upon the physical characteristics of land for use by agriculture, the manner in which the land is currently being used and the effect the Scheme would have upon the agricultural enterprises which would suffer a loss of land. There are three agricultural landholdings that would be directly affected by the construction and operation of the Scheme. To date, only limited discussions have been possible with the individual landowners to fully understand the nature of their landholding and operations. The assessment has therefore necessarily been based on available information and desk based studies.

4.10.2 No soil surveys have been carried out to confirm the agricultural land quality, however a desk based assessment has been undertaken based on:

- the Soil Survey of England and Wales soil association maps (1:250,000 scale);
- aerial photography of the site.

4.10.3 The agricultural land classification (ALC) is based on an assessment of the extent to which physical or chemical characteristics impose long term limitations on the use of land. The main groups of factors being climatic (primarily rainfall and temperature); site (gradient, microrelief and flood risk); soil (texture, structure, depth and stoniness); and chemical limitations.

4.10.4 The desk assessment has concluded that the likely agricultural land classification is subgrade 3b or worse, due to a combination of restricted drainage and clayey topsoil textures which together produce a limitation to soil workability. There is little possibility that any of the agricultural land along the route is of best and most versatile quality.

Construction Effects

4.10.5 For two of the landholdings (including Moat Farm) the former railway corridor remains as a vegetated embankment. There would be very limited additional land take during construction and potentially only minor disturbance; although overall these are considered to have a negligible impact upon these landholdings and are not considered significant.

4.10.6 On the remaining landholding (Parsonage Farm) the former railway embankment was removed after the original line was closed and is now used as arable land. Permanent and temporary land take (see Figure 3) will be required from the farm in order to accommodate the reinstated railway and to enable construction. The amount of land take when compared to the overall size of the holding is small and the viability of the holding is not materially affected, therefore the impact is not considered to be significant.

Operational Effects

4.10.7 There will be some longer term impacts on the operation of the individual landholdings - primarily associated with Parsonage Farm - and will arise due to the permanent loss of land. Discussions are required to fully understand the potential impacts and to identify appropriate mitigation measures that can be put in place to minimise or offset them. However, no farming business will be rendered non-viable as a result of the Scheme and therefore there will be no significant operational effects.

4.11 Cumulative Effects

- 4.11.1 Cumulative effects can be a combination of different effects resulting from one project, for example, the effects of noise, loss of visual amenity and construction traffic all being experienced by the same receptor, such as a cluster (group) of local residents.
- 4.11.2 Cumulative effects can also be the result of effects from different, unrelated, projects acting in combination and producing a longer-lasting, larger or more intense effect overall. These may be the result of construction activities occurring simultaneously on the Scheme site and another project site. Operational effects could, for example, be the result of operational noise from different sites.
- 4.11.3 Rother District Council was consulted in order to identify any potential sites or developments that should be considered in the cumulative effects assessment. Such sites include those where developments are currently under construction or those projects not yet built but with planning permission from the council.
- 4.11.4 Although two sites/developments have been identified, neither are considered to give rise to impacts that would result in any cumulative effects with the Scheme.

5.0 Conclusions

- 5.1.1 An Environmental Impact Assessment of the proposed reinstatement of 3.4km of the former Kent & East Sussex Railway has been undertaken, in accordance with the *Town and Country Planning (Environmental Impact Assessment) Regulations 2011* ("the EIA Regulations"), to support a planning application to Rother District Council by Rother Valley Railway Limited.
- 5.1.2 The scope of the EIA was agreed with Rother District Council through submission of a Scope and Methodology Report in October 2013 and a formal Scoping Opinion published by the council in January 2014.
- 5.1.3 Detailed assessments for each of the agreed environmental topics have been undertaken to identify any potentially significant effects arising from the construction and operational phases of the Scheme.
- 5.1.4 Mitigation measures have been proposed and committed to by Rother Valley Railway to reduce the effects to acceptable levels (see Table 5.1 and 5.2).
- 5.1.5 Whilst there are no defined criteria for the acceptability of development proposals, the nature of the proposed Scheme is such that, given the predicted impacts and the mitigation measures being proposed, the potential adverse residual effects identified are very limited in nature and extent and are not considered to be of such significance locally, regionally or nationally as to preclude the Scheme from being constructed
- 5.1.6 Moreover, the assessment has identified that the Scheme does not conflict with the requirements of Policy EM8 of the Rother District Local Plan (Adopted 2006) (see 1.2.4):
- The proposed Scheme will seek to raise existing flood protection structures in Robertsbridge to improve their level of effectiveness;
 - The Landscape and Visual assessment concluded that the Scheme has an acceptable impact on the High Weald Area of Outstanding Natural Beauty; and
 - The Scheme incorporates three level crossings. Previous studies undertaken by Mott MacDonald identified there would be no significant impacts as a result of their operation. The Transport and Access assessment concluded there would be no significant impacts as a consequence of their construction.

Table 5.1 – Summary of impacts during construction

Topic	Potential Impacts	Mitigation	Impacts after mitigation
Noise and Vibration	Noise and vibration effects on local residential and commercial properties due to construction activity.	Use of best practice construction methods (e.g. screening of works, use of low noise, well maintained equipment, turning off equipment when not in use).	None
Air Quality	Construction dust reducing local air quality.	Use of best practice construction methods (e.g. minimise exposed earthworks, dampen down areas during dry periods).	None
Landscape and Visual	Temporary visual impact as a consequence of construction activities in the landscape.	None	Temporary visual impacts most notably to the western end of the route near residential properties.
Ecology and Nature Conservation	Temporary and permanent habitat loss.	Reinstatement, replacement and enhancement of habitat.	Displacement/ disturbance of bats and birds. Loss of mature trees.
Water Quality, Hydrology and Hydrogeology	Accidental pollution of watercourses and groundwater.	Use of best practice Environment Agency Pollution Prevention Guidelines during construction.	None
Archaeology and Cultural Heritage	None	None	None
Transport and Access	Disruption of the local highway network due to construction traffic and activities.	Agreement of appropriate local traffic management measures with the Highways Agency and County Council.	None
Socio-economics	None	None	None

Table 5.2 – Summary of impacts during operation

Topic	Potential Impacts	Mitigation	Impacts after mitigation
Noise and Vibration	None	None	None
Air Quality	None	None	None
Landscape and Visual	Visual impact due to the presence of the completed scheme in the landscape.	Landscape mitigation planting in conjunction with ecology habitat mitigation.	Visual impacts on residential properties and local footpaths reducing overtime as mitigation planting develops.
Ecology and Nature Conservation	None	None	None
Water Quality, Hydrology and Hydrogeology	Increase in flood water levels as a consequence of loss of flood plain and restriction of flood water flows.	Raising the existing flood defence levels to protect against the effects of the scheme and future climate change. (agreement to be finalised	Raising of the flood defence levels not currently committed and as such significant flood impacts remain. Should the defences be raised there

Topic	Potential Impacts	Mitigation	Impacts after mitigation
		with the Environment Agency)	would be significant benefit for many properties (but not all) in Robertsbridge.
Archaeology and Cultural Heritage	The built scheme affecting the setting of Robertsbridge Abbey.	Landscape mitigation planting.	Setting effects remain significant but will decline overtime.
Transport and Access	Delays to the road network due to level-crossing downtime.	None	None
Socio-economics	None	None	Potential generation of 14 full time equivalent jobs

6.0 Next Steps

- 6.1.1 RVR will continue dialogue with the relevant statutory authorities and affected landowners prior to and during construction (consent permitting) in order to ensure the Scheme can be constructed and operated with minimal adverse impacts. Should land access be granted, further surveys will be undertaken to enhance the understanding of the environmental receptors on site in order to develop detailed mitigation measures. This relates primarily to ecology and protected species.
- 6.1.2 Subsequent to a successful planning application RVR will seek a Transport and Works Act Order (TWAO) from the Department for Transport to authorise the construction, (and if necessary the compulsory purchase of land required for the Scheme) and for consent to operate trains on the new section of railway and the new level-crossings.

Temple Group Ltd
Devon House
58-60 St Katharine's Way
London E1W 1LB

Tel: +44 (0) 20 7394 3700
Fax: +44 (0) 20 7394 7871

www.templegroup.co.uk



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