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Appendix G

ENVIRONMENTAL APPRAISAL

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Metrowest Phase 2

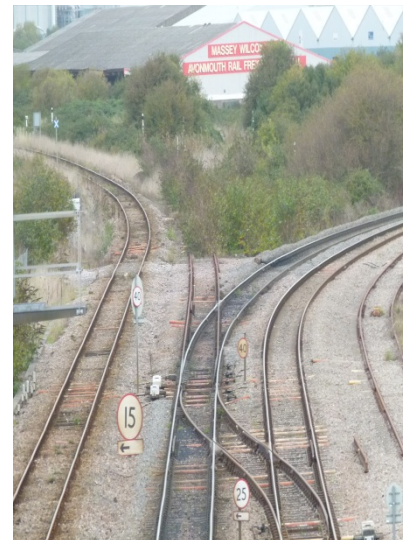
Environmental Appraisal -
Hallen Marsh Junction

February 2015

47072043

Prepared for: Network Rail

UNITED
KINGDOM &
IRELAND



REVISION SCHEDULE

Rev	Date	Details	Prepared by	Reviewed by	Approved by
A01	December 2014	Initial Draft Issue	J Skinner Environmental Manager	L Hemsley Project Manager	S Turner CEM
A02	February 2015	Final Issue	J Skinner Environmental Manager	L Hemsley Project Manager	S Turner CEM

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Unless otherwise stated in this Report, the assessments made assume that the sites and facilities will continue to be used for their current purpose without significant changes.

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1 PURPOSE

This document has been produced during GRIP Stage 2, and identifies potential environmental issues and risks that may arise during the design / construction and the associated access arrangements.

2 PROJECT DESCRIPTION

The potential loop operating scenario serving Henbury and North Filton via the Severn Beach line places additional routings of passenger services over Hallen Marsh Jn. The capability of this junction is restricted by the need for reverse line running for both Up Avonmouth and Up LPG terminal services from Hallen Moor East Jn. Given the increased service level of the loop service it is recommended that Hallen Marsh Jn. is remodelled to remove constraints and enhance flexibility. Two additional crossovers, one from the Severn Beach single line to the Bristol Bulk Handling Departure (BBHT) Road and one from the BBHT Departure Road to the BBHT Arrival Road offers a good solution to the removal of the constraints. However the signalling and trackwork costs associated with this junction remodelling are likely to be disproportionate and other options, led by the Network Rail Operational Modelling team, may have to be considered.

3 SITE DETAILS

The site lies at the end of the A403 St Andrew's Road at Avonmouth. This road is heavily trafficked with HGVs accessing the docks and the industrial units and distribution warehouses that proliferate the area. The railway site could be accessed by road from Smoke lane at the junction with Poplar Way West, where there is currently open ground or via the dock road which crossed the railway. Alternatively access could be sought via the route to the docks.

A location plan is shown in Section 7.

4 MAIN ENVIRONMENTAL ISSUES

An ecological survey will be required and there is vegetation that will need to be cleared for access, equipment installation and operation of the route. This area of the Severn Estuary is sensitive and details of conservation and ecological designations can be found in the following document:-

- <http://www.severnestuary.net/sep/pdfs/sephabitatsandspecies.pdf>

However it is not anticipated that these works will have significant effects on the designations of the Severn Estuary.

Given the nature of land use in the area and the historic railway environment there may be contamination of the ground and ground water.

Consideration should be given to the risk of flooding in the Metrowest EIA. The site is in Flood Zone 2/3, See Environment Agency flood map below (Section 7).

It is assumed the works will be consented and carried out under NWR permitted development.

The contractor will be required to produce a Waste Management Plan (WMP) for Network Rail approval. The WMP should consider as a minimum, the recovery of the existing ballast, spoil, and recovered track and all other mechanical and electrical components.

There are no residences in this area.

5 ENVIRONMENTAL APPRAISAL

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.0 GENERAL RISKS							
1.1	Project Description, Town Planning/ Infrastructure Liabilities/ Operational Surveyor Teams, GI PORTAL	Does land or land rights (easements/way leaves/permanent – temporary site compounds, etc.) need to be purchased? Note: even if works are within permitted development (PD) rights there may be restrictions as to what activities are allowed (e.g vegetation clearance during nesting season).		?		<ul style="list-style-type: none"> Seek advice from Town Planning/ Property/ Environment/ Community Relations Teams and consult with external stakeholders/ local authorities (LA) where necessary Site investigation/ surveys Design aspects: include in/modify design/relocate to avoid the need to address these issues/ incorporate mitigation measures Develop a Consent/ Environment/ Communication Strategy Plan(s) as required Obtain consent (TWA Order/ planning permission/ area land rights) if required Specify protective measures in design/contract/constructi on requirements 	Road access may need to be taken across third party land from Smoke Lane. It is assumed the consents will be via NWR permitted development.
1.2	Project Description, Town Planning/ Infrastructure Liabilities/ Operational Surveyor Teams, GI PORTAL, RAR, Utility Diagrams	Is the land leased out or are there 3rd party interests or onsite utilities, telecommunication, etc.)?		?			Site access may affect third parties.
1.3	Town Planning Team	Does the acquisition or lease of the land change the status of the land			No		
1.4	Project Description, GI PORTAL, Town Planning Team	Is land that may need to be purchased/leased contaminated or a licensed waste facility?		?			Contamination may be present given historic railway use and adjacent land uses.
1.5	Town Planning Team	Does the project require Transport and Works Act (TWA) order/planning permission or similar?	Yes				It is assumed the consents will be via NWR permitted development.

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.6	Town Planning/ Environment/ Community Relations Teams	Has the Local Planning Authority or any other Statutory Body expressed concern over the project or similar projects?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/ Community Relations Teams • Consult with external stakeholders/ LA Consult with external stakeholders/LA 	
1.7	Town Planning/ Community Relations/ Environment Teams	Have residents or any other interest group indicated concern over the project or similar projects? Note: even if the works are within PD rights and are common activities, e.g. vegetation/tree clearance, this may still be sensitivity for stakeholders.			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/Community Relations Teams • Consult with external stakeholders /LA 	
1.8	Town Planning Team/local authority	Are there any local plans/development proposals of land adjacent to/near the project that may have future ramifications on the project?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/ Community Relations Teams 	
1.9	Project Description	Are there new or unusual features associated with the project that may become an issue with internal/external stakeholders e.g. tall masts, incompatible features with existing Network Rail structures?			No	<ul style="list-style-type: none"> • Consult internal Network Rail stakeholders • Design aspects: include modify design/ incorporate mitigation measures 	
1.10	Guidance from Asset steward/ other Network Rail departments,	Any relevant Network Rail policies (such as TWA/planning process)/conditions that may require derogation (e.g. issues: inc placing substations next to telecommunication masts) or adjacent to other Network Rail projects?			No	<ul style="list-style-type: none"> • Consult internal Network Rail stakeholders • Design aspects: include modify design/ incorporate mitigation measures 	

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
2.0	ENVIRONMENTAL CONSTRAINTS						
2.1	Project Description, GI PORTAL, RAR, site investigation	Does the local environment constrain the project e.g:				<ul style="list-style-type: none"> Consult internal Network Rail stakeholders Design aspects: include modify design/ incorporate mitigation measures Consult with/obtain consent if required (e.g. building on a flood plain/change to coastal defences) 	
		Flood plain?	Y				EA flood map shows flood zone 2/3 in this area.
		Flooding?	Y				Consider drainage requirements to ensure continuous train service operations.
		Landslide?			No		
		Difficult access (e.g. steep embankment)?			No		
		Other (specify e.g. pests such as rabbits)?			?		TBC by ecology survey
3.0	AGRICULTURE /FORESTRY/VEGETATION MANAGEMENT						
3.1	GI PORTAL, BAP, Site survey	Does the project require taking good quality agricultural land, or affect any agriculture holding (e.g. severance)?			No	<ul style="list-style-type: none"> Site investigation Consult with external stakeholders (particularly if noticeable amounts of vegetation/trees/ habitat are affected) Design aspects: include in/ modify design/incorporate mitigation measures Obtain consent (LA permission, etc.) if required Specify protective measures 	
3.2		Does the project need to clear vegetation or trees on railway land or access routes?			No		Some vegetation will need to be cleared for access, equipment installation and operation of the route.
3.3		Does the project need to remove hedgerows?			No		
3.4	GI PORTAL, BAP, HERITAGE, Town Planning/ Environment Teams	Will the project need to remove, trim, cut trees under Tree Preservation Order (TPO) or in local planning conservation areas?			No		

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
4	AIR QUALITY						
4.1	Project Description, GI PORTAL, Town Planning Team/ LA – (Environmental Health Officers)	Will there be significant project activity that could generate large quantities of dust/noxious fumes or change the local air quality?			No	<ul style="list-style-type: none"> • Modify design/ incorporate mitigation measures • Consult with local authorities • Specify protective measures 	
4.2		Are there adjacent/nearby receptors: residences, businesses, schools, medical facilities, etc.?			No		
4.3		Are there any local authority policy constraints (e.g. within/close to an Air Quality Management Area (AQMA), breaching of government air quality objectives or limit values)?			No		
5	BUILDING, STRUCTURES, HISTORIC ASSOCIATION						
5.1	GI PORTAL, RAR, HERITAGE, LA, Town Planning Team	Does the project affect a Listed Building, structure and/or Scheduled Ancient Monument; e.g. from piling, excavation, demolition, change of use, visual obstruction, potential for subsidence, cable attachments, bridge platforms?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning • Consult with LA/Heritage Agencies • Design aspects: include in/ modify design/ incorporate mitigation measures • Obtain local authority/ heritage consent if required 	
5.2		Does the project affect a local planning Conservation Area, historic landscape features or similar designated area?			No		
5.3		Does the project affect any other historical or man made feature likely to be of value?			No		

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
6	CONTAMINATED LAND						
6.1	GI PORTAL, RAR, Contaminated land reports/ database, Railway Estates/ Environment team	Will the project disturb contaminated land?		?		<ul style="list-style-type: none"> • Site investigation • Seek advice from Environment Team • Consult with LA if remediation required • Specify protective measures 	There is a history of railway use here together with adjacent industrial activities which suggests that any excavated material could be contaminated and should be treated accordingly (see Item 6.4).
6.2	GI PORTAL, RAR Contaminated land reports/ database, site survey, Railway Estates/ Environment team	Is the project site located adjacent to/near an externally owned (e.g. landfill/industrial site) or Network Rail potentially contaminated site or sidings?	Yes			<ul style="list-style-type: none"> • Seek advice from Environment Team • Seek alternative site • Site investigation • Specify protective measures, including possible remediation 	This area has a history of heavy industry and historic railway use so contamination is likely.
6.3	Project Description, GI PORTAL, RAR	Will the project activities open up pathways (e.g. channels) from contaminated areas to environment/stakeholder receptors; e.g. SSSIs			No	<ul style="list-style-type: none"> • Site investigation • Seek advice from Environment Team • Design aspects: include in/modify design/ incorporate mitigation measures • Specify protective measures 	

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
6.4	Project Description	Will produced wastes/spent ballast likely to be contaminated?	Yes			<ul style="list-style-type: none"> Seek advice from Environment Team Site investigation/ sampling Follow NR/SP/ENV/044 for used ballast and/or hazardous/special waste requirements 	It is assumed that the existing ballast is contaminated and will require removal from site. Disposal to be managed in accordance with the agreed WMP.
7	ECOLOGY (protected species/areas and invasive species)						
7.1	GI PORTAL, BAP, RAR, HERITAGE, Town Planning/ Environment Teams, site survey, LA BAP local conservation organisations	Is the project site/access/staging areas/ compounds on/adjacent/nearby a statutory nature conservation site (e.g. SSSI, RAMSAR, SPA/SAC/cSAC/pSPA site) or other ecological designations?			No	<ul style="list-style-type: none"> Seek advice from Environment Team Site survey Consult with local Conservation Agencies/LA Design aspects: include in/ modify design/ incorporate mitigation measures Obtain protected species license if required Specify protective measures/follow site management plan (SMS) if SSSI Train staff Continue monitoring if required 	
7.2		Will the activity (e.g. working in a culvert, drainage works) and/or materials used have the potential to indirectly affect the designation and/or a protected area (e.g. downstream SSSI water quality)?			No		
7.3		Are there any protected species and/or habitats e.g. bats, badgers, newts etc. at or near the project site?		?			Ecological surveys to be carried out as part of the EIA. Low risk due to the nature of the proposed works.

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
7.4	BAP, RAR, Site survey	Are there any invasive vegetation species (Japanese knotweed, Giant hogweed, etc.) at or near the project site?		?		<ul style="list-style-type: none"> • Site investigation • Enabling works for removal • Specify protective measures 	TBC by ecological survey.
8	LANDSCAPE/TOWNSCAPE/VISUAL						
8.1	Project Description, Town Planning/ Environment	Is the site at/near or can be seen from a National Park/World Heritage Site/Area of Outstanding Natural Beauty (AONB)/local landscape/coastal/townscape designation?			No	<ul style="list-style-type: none"> • Site investigation • Consult with local Heritage/ Conservation Agencies • Design aspects: include in/ modify design/incorporate mitigation measures (e.g. restoration plan) • Specify protective measures 	
8.2	Teams, LA/ Heritage/ Conservation Agencies	Will the visual amenity of lineside residents be affected; e.g. removing vegetation, erecting new/taller structures than existing surroundings, demolition in Conservation Areas?			No		
8.3		Will new structures/project components obstruct visual amenity of dwellings/recreational areas/cultural heritage/conservation areas?			No		
8.4		Will grading and vegetation removal with subsequent landscaping be required?			No		
9.0 NUISANCE: NOISE, VIBRATION AND LIGHT							
9.1	Project Description, GI PORTAL	Will noise/vibration likely to increase from existing levels at site during construction?			No	<ul style="list-style-type: none"> • Site noise investigation • Consult with local authorities (EHO) • Design aspects: include in/ modify design/incorporate mitigation measures • Neighbour letter drops/ consultation 	
9.2		Will it affect?					
		Adjacent/nearby residences?			No		
		Adjacent/nearby businesses, worship, schools, hospitals, hotels etc.?			No		

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
		Adjacent/nearby SPA/SAC, nesting birds, seasonal constraints?			No	<ul style="list-style-type: none"> • Obtain Section 61 consent if required • Specify protective measures • Train staff • Continue monitoring 	
9.3		Will the project occur at night/weekend or public holiday (use of lights/noise)		?			Night time possessions TBC
9.4	Project Description/ Noise Insulation Regulations	Will noise/vibration likely to increase from existing levels at site during operation?			No	<ul style="list-style-type: none"> • Site noise investigation • Seek advice from Environment Team/Other Network Rail departments • Design aspects: include in/ modify design/incorporate mitigation measures 	
10	TRAFFIC GENERATION AND ACCESS						
10.1	Project Description	Will significant traffic (vehicular/heavy loads) particularly through villages and along farm/country roads be generated (Public Rights of Way)?			No	<ul style="list-style-type: none"> • Consult local authorities/highways dept. • Design aspects: include in/ modify design • Obtain Highways consent if required • Specify protective measures 	
10.2		Will the scheme result in new vehicular traffic flows? (Before and/or after)			No		
10.3		Will it cause new pedestrian movements? (Before and/or after)			No		
10.4	As above	Any footpath, road closures/diversions required during construction?			No	<ul style="list-style-type: none"> • As above 	
10.5	Project Description	Will parking outside railway land be required (e.g. on streets, on/near lineside neighbour's land)			No	<ul style="list-style-type: none"> • Specify protective measures • Train staff 	
10.6		Are access points near adjacent properties (nuisance including noise)			No		
11	WATER RESOURCES, POLLUTION (including Silt) AND DRAINAGE						

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
11.1	Project Description, GI PORTAL, RAR, Surface water risk assessment model, Site investigation	Is the project on/near/adjacent to a watercourse and drainage channels?	Yes			<ul style="list-style-type: none"> • Site investigation • Consult with local Environment Agency/DEFRA for coastal/ marine/estuary areas • Design aspects: include in/ modify/design to remove the need for a consent • Obtain work near watercourses, obstruction to watercourse, discharge to controlled waters and/or sewerage system, etc. consents if required • Specify protective measures (e.g. Site Drainage Plan, Emergency Incident Plan) • Continue monitoring 	There are drainage channels in the area
11.2		Will the works occur within 8-m of the bank and/or in a designated main river			No		
11.3		Will the project need to remove vegetation close to/on or in a riverbank?			No		
11.4		Is it likely to affect the flow of watercourses?			No		
11.5		Will works occur around a water source protection area or require abstraction of water from a well?			No		
11.6		Will works occur near marine waters, on coastal areas below mean high tide or affecting navigation?			No		
11.7		Will it generate a discharge either directly to a watercourse or to soakaway/ground; e.g. dewatering operation/discharge from a bund?			No		
11.8		Will it generate a discharge to a foul sewer?			No		
11.9	Project Description, GI PORTAL, RAR, Site investigation	Will waste/spoil be stockpiled, materials/chemicals/fuels/oils stored at site that could enter a watercourse, major aquifer underneath or on a flood plain?			No	<ul style="list-style-type: none"> • Establish protective measures • Train staff 	Excavated spoil and ballast will be removed from site in accordance with the WMP.
12	WASTE MANAGEMENT						

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
12.1	Project Description, NDS/ Town Planning/ Environment Teams	<p>Network Rail requires all projects to develop and implement a Site Waste Management Plan.</p> <p>Key questions to consider in this plan include, but are not limited to:</p> <p>Will onsite disposal or land purchase be required?</p> <p>Will it generate large quantities of surplus material; i.e. spoil, sleepers?</p> <p>Can surplus material be reused (spares, spoil, etc.)?</p> <p>Will it generate hazardous wastes; e.g. oil, paint cans, contaminated land?</p>			No	<ul style="list-style-type: none"> • Design aspects: include in/ modify design: reuse, recover, recycle • Consult with and obtain consent from local authorities/Environmental Agencies for storage/ management concerns • Obtain environmental permit if necessary • Specify protective measures in the WMP 	<p>Waste management plan to include electrical equipment, sleepers, track, and ballast. All of which are to be removed from site.</p> <p>Consider re-using / cascading S&C components.</p> <p>Spoil may be contaminated. All waste to be managed in accordance with the Contractors WMP.</p>

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments	
13	SUSTAINABILITY: ENVIRONMENTAL OPPORTUNITIES							
13.1	Project Description/ Environment Team	Can recycled/reclaimed materials such as sleepers/ballast/spoil/cables be used instead of raw materials?		?		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities • Build into WMP 	Network Rail to confirm.	
13.2		Can the project help meet the requirements of sustainable consumption; can sustainable materials be incorporated into the design?			No		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	N/A
13.3		Can the project demonstrate a reduction in the reliance on fossil fuels; can renewable energy be incorporated into the design? Has whole life embedded carbon been considered?			No			N/A
13.4		Can energy/water efficiency be gained through building design/supply chain?			No			N/A
13.5	Project Description/ Environment Team	Can work be performed in parallel with another project reducing wastage, duplication and redundancy of materials, timing and resources?		?		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	Network Rail to confirm.	
13.6		Can effluents and discharges be minimised?			No		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	N/A
13.7	Project Description/ Environment Team	Can potentially polluting materials be replaced with less harmful materials (e.g. biodegradable oils)?			No	N/A		
13.8		Are there other areas where environmental and sustainable benefits can be gained; such as						
13.9		Positive communication/interactive consultation with lineside neighbours/other stakeholders?	Yes					Network Rail communications team.
13.10		Innovative environmental designs/methods of work?			No			

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
13.11		Positive contribution to habitats/protected species?			No		
13.12		Other (specify on action log)?			No		
13.13		Are there any other possible environmental effects specific to this project? If so list them: e.g. electro-magnetic effects, settlement, local issues/policies			No		
OTHER							
14.1		None.			No		

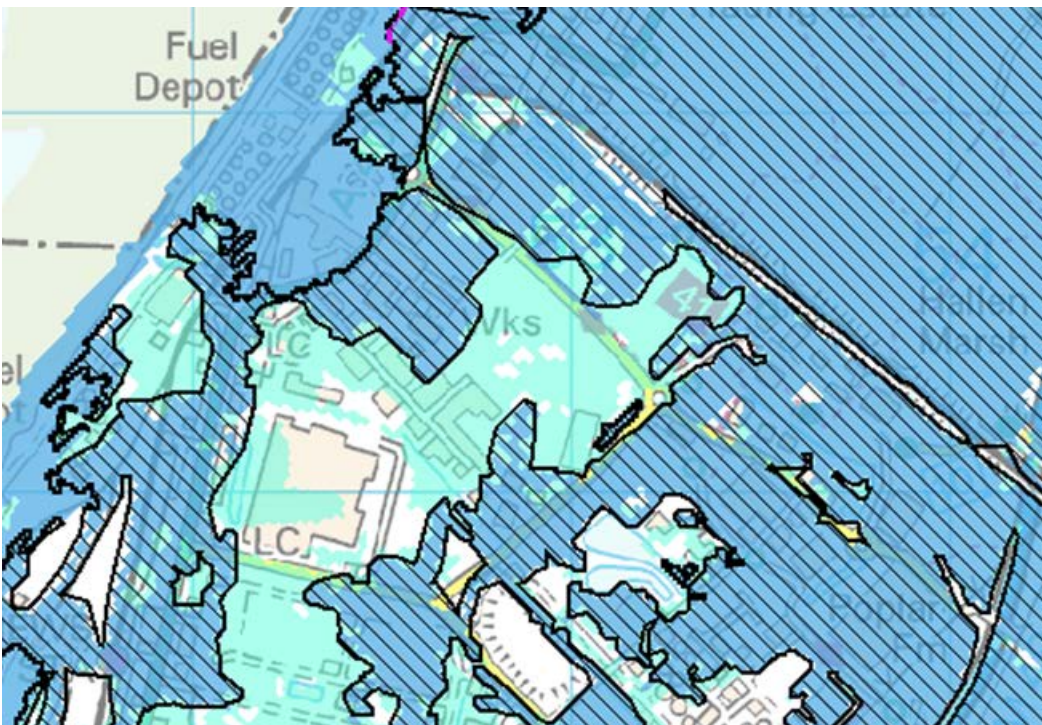
6 POSSIBLE CONSENTS NEEDED

It is assumed consent for the works will be via a NWR permitted development. No other consents have been identified at this GRIP 2 stage.






7 SITE LOCATION



Junction indicated with red arrow (Source - Google Earth)



Environment Agency Flood Map

-  Flood Zone 3
-  Flood Zone 2
-  Flood defences
(Not all may be shown*)
-  Areas benefiting from
flood defences
(Not all may be shown*)
-  Main rivers

8 SITE PHOTOGRAPHS



Photograph 8.1: View from Smoke Lane Bridge to junction.



Photograph 8.2: View from Smoke Lane Bridge, possible access from the left. Vegetation to be cleared.



Photograph 8.2: View NE from port access road bridge, off St Andrew's Rd.



Metrowest Phase 2

Environmental Appraisal -

Henbury Station -

(Eastern Option)

February 2015

47072043

Prepared for: Network Rail

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1 PURPOSE

This document has been produced during GRIP Stage 3, and identifies potential environmental issues and risks that may arise during the design / construction and the associated access arrangements.

2 PROJECT DESCRIPTION

The proposed station site is located in at the edge of the existing urban area off the A4018 dual carriageway. There are two options for this location, a loop service and a spur service. The loop service will require platforms to both sides of the existing alignment with access to the south from Tranmere Avenue. The spur service will have a turnback siding with a single platform to the North of the existing lines.

3 SITE DETAILS

A small car park, bus stop and cycle parking will be provided. Access to the station will primarily be to the A4018 via the Cribbs Patchway New Neighbourhood [CPNN], a major re-development site, construction of which is anticipated to start in 2016/17. There are houses to the south in Tranmere Avenue, Wolfridge Gardens and Barnwell Close. There is also an area of open space to the south adjacent to the houses and the dual carriageway. The A4018 dual carriageway runs to the east and is a major access road becoming Cribbs Causeway to the north. There are flats with views to the site on the eastern side of the A4018.

A location plan is shown in Section 7.

4 MAIN ENVIRONMENTAL ISSUES

Whilst the site is currently at the edge of the urban area, the area to the north will be developed as part of the CPNN (Land At Wyck Beck Road And Fishpool Hill); hence, existing fields and hedgerows adjacent to the road and railway will not only be affected by the proposed station, but also by the development. Details can be found on the South Gloucestershire Council website (ref PT12/1930/O):-

<http://www.southglos.gov.uk/environment-and-planning/search-planning-applications/>

The outline planning application has been approved, subject to approval of the Section 106 agreement.

The station design and access (pedestrian, public transport and cars) should be carried out in accord with the CPNN SPD and the planning consent(s). A full Traffic and transportation assessment will be required, starting at GRIP 3 to inform the options and station design and to ensure full integration with the consents.

The site is within flood Zone 2 and the drainage design will need to be developed to take into account the station and access roads during GRIP 4.

The site lies in the Forest of Avon Policy Area.

In combination with the station and access design development at GRIP 4, a traffic impact assessment will be required to assess both the construction and operational impacts on the existing highway network and revised requirements for highways, including pedestrians and buses during operation.

The residences to the south will be sensitive to noise (eg the station PA) and trains during operation as well as construction impacts like dusts, noise, construction lorries etc. These impacts need to be scoped and assessed during GRIP 4. The impacts on the residents and the community of introducing new station access, platform and facilities will also require careful design and assessment to ensure the best options are chosen and significant effects mitigated during construction and for the operational station.

The requirements for utilities at the station and the proximity of existing utilities need to be taken into account during GRIP 4 to ensure they are assessed and the necessary consents and wayleaves identified.

5 ENVIRONMENTAL APPRAISAL

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.0 GENERAL RISKS							
1.1	Project Description, Town Planning/ Infrastructure Liabilities/ Operational Surveyor Teams, GI PORTAL	Does land or land rights (easements/way leaves/permanent – temporary site compounds, etc.) need to be purchased? Note: even if works are within permitted development (PD) rights there may be restrictions as to what activities are allowed (e.g vegetation clearance during nesting season).	Yes			<ul style="list-style-type: none"> • Seek advice from Town Planning/ Property/ Environment/ Community Relations Teams and consult with external stakeholders/ local authorities (LA) where necessary • Site investigation/ surveys • Design aspects: include in/modify design/relocate to avoid the need to address these issues/ incorporate mitigation measures • Develop a Consent/ Environment/ Communication Strategy Plan(s) as required • Obtain consent (TWA Order/ planning permission/ area land rights) if required • Specify protective measures in design/contract/constructi on requirements 	It is assumed the works will be consented via combination of planning application and NWR permitted development
1.2	Project Description, Town Planning/ Infrastructure Liabilities/ Operational Surveyor Teams, GI PORTAL, RAR, Utility Diagrams	Is the land leased out or are there 3rd party interests or onsite utilities, telecommunication, etc.)?	Yes				Consent strategy required
1.3	Town Planning Team	Does the acquisition or lease of the land change the status of the land	Yes				
1.4	Project Description, GI PORTAL, Town Planning Team	Is land that may need to be purchased/leased contaminated or a licensed waste facility?			No		
1.5	Town Planning Team	Does the project require Transport and Works Act (TWA) order/planning permission or similar?	Yes				It is assumed the works will be consented via combination of planning application and NWR permitted development

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.6	Town Planning/ Environment/ Community Relations Teams	Has the Local Planning Authority or any other Statutory Body expressed concern over the project or similar projects?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/ Community Relations Teams • Consult with external stakeholders/ LA Consult with external stakeholders/LA 	
1.7	Town Planning/ Community Relations/ Environment Teams	<p>Have residents or any other interest group indicated concern over the project or similar projects?</p> <p>Note: even if the works are within PD rights and are common activities, e.g. vegetation/tree clearance, this may still be sensitivity for stakeholders.</p>			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/Community Relations Teams • Consult with external stakeholders /LA 	The scheme is supported by local authorities' Core Strategies and, in the case of the Henbury Line, the CPNN SPD, all of which have been subject to extensive public consultation. Consultation being done by others, but critical to inform future design development (GRIP4) phase.
1.8	Town Planning Team/local authority	Are there any local plans/development proposals of land adjacent to/near the project that may have future ramifications on the project?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/ Community Relations Teams 	CPNN SPD (see below)
1.9	Project Description	Are there new or unusual features associated with the project that may become an issue with internal/external stakeholders e.g. tall masts, incompatible features with existing Network Rail structures?			No	<ul style="list-style-type: none"> • Consult internal Network Rail stakeholders • Design aspects: include modify design/ incorporate mitigation measures 	

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.10	Guidance from Asset steward/ other Network Rail departments,	Any relevant Network Rail policies (such as TWA/planning process)/conditions that may require derogation (e.g. issues: inc placing substations next to telecommunication masts) or adjacent to other Network Rail projects?		?		<ul style="list-style-type: none"> Consult internal Network Rail stakeholders Design aspects: include modify design/ incorporate mitigation measures 	Design development required to confirm and address issues.
2.0	ENVIRONMENTAL CONSTRAINTS						
2.1	Project Description, GI PORTAL, RAR, site investigation	Does the local environment constrain the project e.g:				<ul style="list-style-type: none"> Consult internal Network Rail stakeholders Design aspects: include modify design/ incorporate mitigation measures Consult with/obtain consent if required (e.g. building on a flood plain/change to coastal defences) 	
		Flood plain?	Yes				Flood Risk Assessment Required
		Flooding?		?			Flood Risk Assessment Required
		Landslide?			No		
		Difficult access (e.g. steep embankment)?			No		
		Other (specify e.g. pests such as rabbits)?		?			TBC
3.0	AGRICULTURE /FORESTRY/VEGETATION MANAGEMENT						
3.1	GI PORTAL, BAP, Site survey	Does the project require taking good quality agricultural land, or affect any agriculture holding (e.g. severance)?	Yes			<ul style="list-style-type: none"> Site investigation Consult with external stakeholders (particularly if noticeable amounts of vegetation/trees/ habitat are affected) 	Agricultural land is required for the station and access. However we expect these areas to have disappeared under development before 2020.
3.2		Does the project need to clear vegetation or trees on railway land or access routes?	Yes			<ul style="list-style-type: none"> Design aspects: include in/ modify design/incorporate mitigation measures Obtain consent (LA permission, etc.) if required 	Hedges and mature trees surround the site along the field boundaries, the dual carriageway and the railway.
3.3		Does the project need to remove hedgerows?	Yes				See site location plan

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
3.4	GI PORTAL, BAP, HERITAGE, Town Planning/ Environment Teams	Will the project need to remove, trim, cut trees under Tree Preservation Order (TPO) or in local planning conservation areas?		TB C		<ul style="list-style-type: none"> Specify protective measures 	Survey required
4	AIR QUALITY						
4.1	Project Description, GI PORTAL, Town Planning Team/ LA – (Environmental Health Officers)	Will there be significant project activity that could generate large quantities of dust/noxious fumes or change the local air quality?		?		<ul style="list-style-type: none"> Modify design/ incorporate mitigation measures Consult with local authorities Specify protective measures 	Site clearance particularly from could adversely affect air quality but should be mitigable.
4.2		Are there adjacent/nearby receptors: residences, businesses, schools, medical facilities, etc.?	Yes				Receptors – residents to the south off Tranmere Avenue.
4.3		Are there any local authority policy constraints (e.g. within/close to an Air Quality Management Area (AQMA), breaching of government air quality objectives or limit values)?	Yes				Forest of Avon policy area. Public open space
5	BUILDING, STRUCTURES, HISTORIC ASSOCIATION						
5.1	GI PORTAL, RAR, HERITAGE, LA, Town Planning Team	Does the project affect a Listed Building, structure and/or Scheduled Ancient Monument; e.g. from piling, excavation, demolition, change of use, visual obstruction, potential for subsidence, cable attachments, bridge platforms?			No	<ul style="list-style-type: none"> Seek advice from Town Planning Consult with LA/Heritage Agencies Design aspects: include in/ modify design/ incorporate mitigation measures Obtain local authority/ heritage consent if required 	
5.2		Does the project affect a local planning Conservation Area, historic landscape features or similar designated area?			No		
5.3		Does the project affect any other historical or man made feature likely to be of value?			No		

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
6	CONTAMINATED LAND						
6.1	GI PORTAL, RAR, Contaminated land reports/ database, Railway Estates/ Environment team	Will the project disturb contaminated land?		?		<ul style="list-style-type: none"> • Site investigation • Seek advice from Environment Team • Consult with LA if remediation required • Specify protective measures 	Historic railway contamination may be present close to the existing track
6.2	GI PORTAL, RAR Contaminated land reports/ database, site survey, Railway Estates/ Environment team	Is the project site located adjacent to/near an externally owned (e.g. landfill/industrial site) or Network Rail potentially contaminated site or sidings?			No	<ul style="list-style-type: none"> • Seek advice from Environment Team • Seek alternative site • Site investigation • Specify protective measures, including possible remediation 	
6.3	Project Description, GI PORTAL, RAR	Will the project activities open up pathways (e.g. channels) from contaminated areas to environment/stakeholder receptors; e.g. SSSIs		TB C		<ul style="list-style-type: none"> • Site investigation • Seek advice from Environment Team • Design aspects: include in/modify design/ incorporate mitigation measures • Specify protective measures 	

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
6.4	Project Description	Will produced wastes/spent ballast likely to be contaminated?	Yes			<ul style="list-style-type: none"> • Seek advice from Environment Team • Site investigation/ sampling • Follow NR/SP/ENV/044 for used ballast and/or hazardous/special waste requirements 	Carry out sampling for contamination as part of the GI survey
7	ECOLOGY (protected species/areas and invasive species)						
7.1	GI PORTAL, BAP, RAR, HERITAGE, Town Planning/ Environment Teams, site survey, LA BAP local conservation organisations	Is the project site/access/staging areas/ compounds on/adjacent/nearby a statutory nature conservation site (e.g. SSSI, RAMSAR, SPA/SAC/cSAC/pSPA site) or other ecological designations?			No	<ul style="list-style-type: none"> • Seek advice from Environment Team • Site survey • Consult with local Conservation Agencies/LA • Design aspects: include in/ modify design/ incorporate mitigation measures • Obtain protected species license if required • Specify protective measures/follow site management plan (SMS) if SSSI • Train staff • Continue monitoring if required 	
7.2		Will the activity (e.g. working in a culvert, drainage works) and/or materials used have the potential to indirectly affect the designation and/or a protected area (e.g. downstream SSSI water quality)?			No		
7.3		Are there any protected species and/or habitats e.g. bats, badgers, newts etc. at or near the project site?		?			Ecological survey required to confirm

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
7.4	BAP, RAR, Site survey	Are there any invasive vegetation species (Japanese knotweed, Giant hogweed, etc.) at or near the project site?		?		<ul style="list-style-type: none"> Site investigation Enabling works for removal Specify protective measures 	Ecological survey required to confirm
8	LANDSCAPE/TOWNSCAPE/VISUAL						
8.1	Project Description, Town Planning/ Environment	Is the site at/near or can be seen from a National Park/World Heritage Site/Area of Outstanding Natural Beauty (AONB)/local landscape/coastal/townscape designation?			No	<ul style="list-style-type: none"> Site investigation Consult with local Heritage/ Conservation Agencies 	
8.2	Teams, LA/ Heritage/ Conservation Agencies	Will the visual amenity of lineside residents be affected; e.g. removing vegetation, erecting new/taller structures than existing surroundings, demolition in Conservation Areas?	Yes			<ul style="list-style-type: none"> Design aspects: include in/ modify design/incorporate mitigation measures (e.g. restoration plan) 	Design required to minimise visual impact and incorporate mitigation.
8.3		Will new structures/project components obstruct visual amenity of dwellings/recreational areas/cultural heritage/conservation areas?	Yes			<ul style="list-style-type: none"> Specify protective measures 	Design required to minimise visual impact and incorporate mitigation.
8.4		Will grading and vegetation removal with subsequent landscaping be required?	Yes				
9.0 NUISANCE: NOISE, VIBRATION AND LIGHT							
9.1	Project Description, GI PORTAL	Will noise/vibration likely to increase from existing levels at site during construction?	Yes			<ul style="list-style-type: none"> Site noise investigation Consult with local authorities (EHO) Design aspects: include in/ modify design/incorporate mitigation measures 	Construction work and accessing the site may cause disturbance to residents
9.2		Will it affect?				<ul style="list-style-type: none"> Neighbour letter drops/ consultation 	
		Adjacent/nearby residences?	Yes			<ul style="list-style-type: none"> Obtain Section 61 	S61 required
		Adjacent/nearby businesses, worship, schools, hospitals, hotels etc.?	Yes				Full land use survey required

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
		Adjacent/nearby SPA/SAC, nesting birds, seasonal constraints?		?		consent if required • Specify protective measures • Train staff • Continue monitoring	Nesting birds may be present in the trees adjacent to the access road, around the worksite and either side of the railway corridor.
9.3		Will the project occur at night/weekend or public holiday (use of lights/noise)		?			
9.4	Project Description/ Noise Insulation Regulations	Will noise/vibration likely to increase from existing levels at site during operation?	Yes			• Site noise investigation • Seek advice from Environment Team/Other Network Rail departments • Design aspects: include in/ modify design/incorporate mitigation measures	Station design (PA) to include noise mitigation.
10	TRAFFIC GENERATION AND ACCESS						
10.1	Project Description	Will significant traffic (vehicular/heavy loads) particularly through villages and along farm/country roads be generated (Public Rights of Way)?	Yes			• Consult local authorities/highways dept. • Design aspects: include in/ modify design • Obtain Highways consent if required • Specify protective measures	TIA required
10.2		Will the scheme result in new vehicular traffic flows? (Before and/or after)	Yes				Construction and operational traffic generation figures required.
10.3		Will it cause new pedestrian movements? (Before and/or after)	Yes				Pedestrian flow modelling required.
10.4	As above	Any footpath, road closures/diversions required during construction?		?		• As above	TBC during GRIP 4

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
10.5	Project Description	Will parking outside railway land be required (e.g. on streets, on/near lineside neighbour's land)		?	No	<ul style="list-style-type: none"> Specify protective measures Train staff 	It should be possible to avoid this through construction planning and traffic management plans.
10.6		Are access points near adjacent properties (nuisance including noise)	Yes				Residences to the south
11	WATER RESOURCES, POLLUTION (including Silt) AND DRAINAGE						
11.1	Project Description, GI PORTAL, RAR, Surface water risk assessment model, Site investigation	Is the project on/near/adjacent to a watercourse and drainage channels?		?		<ul style="list-style-type: none"> Site investigation Consult with local Environment Agency/DEFRA for coastal/ marine/estuary areas Design aspects: include in/ modify/design to remove the need for a consent Obtain work near watercourses, obstruction to watercourse, discharge to controlled waters and/or sewerage system, etc. consents if required Specify protective measures (e.g. Site Drainage Plan, Emergency Incident Plan) Continue monitoring 	Survey required to confirm
11.2		Will the works occur within 8-m of the bank and/or in a designated main river			No		
11.3		Will the project need to remove vegetation close to/on or in a riverbank?			No		
11.4		Is it likely to affect the flow of watercourses?			No		
11.5		Will works occur around a water source protection area or require abstraction of water from a well?			No		
11.6		Will works occur near marine waters, on coastal areas below mean high tide or affecting navigation?			No		
11.7		Will it generate a discharge either directly to a watercourse or to soakaway/ground; e.g. dewatering operation/discharge from a bund?			No		
11.8		Will it generate a discharge to a foul sewer?		?			

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
11.9	Project Description, GI PORTAL, RAR, Site investigation	Will waste/spoil be stockpiled, materials/chemicals/fuels/oils stored at site that could enter a watercourse, major aquifer underneath or on a flood plain?	Yes			<ul style="list-style-type: none"> Establish protective measures Train staff 	Excavated spoil and ballast will be removed from site in accordance with the WMP.
12	WASTE MANAGEMENT						
12.1	Project Description, NDS/ Town Planning/ Environment Teams	<p>Network Rail requires all projects to develop and implement a Site Waste Management Plan.</p> <p>Key questions to consider in this plan include, but are not limited to:</p> <p>Will onsite disposal or land purchase be required?</p> <p>Will it generate large quantities of surplus material; i.e. spoil, sleepers?</p> <p>Can surplus material be reused (spares, spoil, etc.)?</p> <p>Will it generate hazardous wastes; e.g. oil, paint cans, contaminated land?</p>	Yes			<ul style="list-style-type: none"> Design aspects: include in/ modify design: reuse, recover, recycle Consult with and obtain consent from local authorities/Environmental Agencies for storage/ management concerns Obtain environmental permit if necessary Specify protective measures in the WMP 	<p>Waste management plan to include excavated material, vegetation, demolition waste etc. All of which are to be removed from site.</p> <p>Spoil may be used for landscaping</p> <p>Spoil may be contaminated, confirm via chemical analysis during GI. All waste to be managed in accordance with the Contractors WMP.</p>

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments	
13	SUSTAINABILITY: ENVIRONMENTAL OPPORTUNITIES							
13.1	Project Description/ Environment Team	Can recycled/reclaimed materials such as sleepers/ballast/spoil/cables be used instead of raw materials?		?		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities • Build into WMP 	Network Rail to confirm (GRIP5).	
13.2		Can the project help meet the requirements of sustainable consumption; can sustainable materials be incorporated into the design?	Yes				<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	Sustainability assessment required. Commence during GRIP 4.
13.3		Can the project demonstrate a reduction in the reliance on fossil fuels; can renewable energy be incorporated into the design? Has whole life embedded carbon been considered?	Yes					Energy saving measures during station design (GRIP 4)
13.4		Can energy/water efficiency be gained through building design/supply chain?	Yes					
13.5	Project Description/ Environment Team	Can work be performed in parallel with another project reducing wastage, duplication and redundancy of materials, timing and resources?		?		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	Network Rail to confirm.	
13.6		Can effluents and discharges be minimised?	Yes				<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	
13.7	Project Description/ Environment Team	Can potentially polluting materials be replaced with less harmful materials (e.g. biodegradable oils)?	Yes			Construction Management Plan		
13.8		Are there other areas where environmental and sustainable benefits can be gained; such as						

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
13.9		Positive communication/interactive consultation with lineside neighbours/other stakeholders?	Yes				Network Rail communications team. Section 61 notices to local residents.
13.10		Innovative environmental designs/methods of work?	Yes				Develop during Grip 4
13.11		Positive contribution to habitats/protected species?	Yes				Develop ecological mitigation during Grip 4/5
13.12		Other (specify on action log)?			No		
13.13		Are there any other possible environmental effects specific to this project? If so list them: e.g. electro-magnetic effects, settlement, local issues/policies	Yes				Refer to community engagement exercise and EIA.
OTHER							
14.1		None.			No		

6 POSSIBLE CONSENTS NEEDED

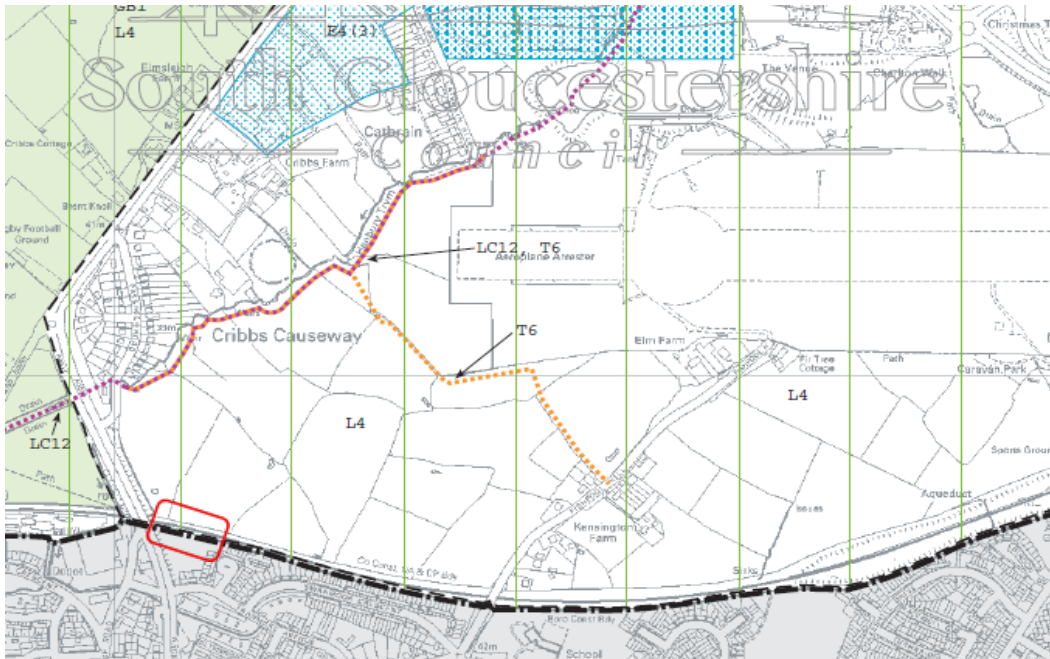
Consent Type	Responsible Agency	Consent Required
Landtake		
<ul style="list-style-type: none"> TWA Order if require compulsory purchase of land 	Planning authority	It is assumed the consents will be via a combination of a planning application and NWR permitted development.
<ul style="list-style-type: none"> Planning permission from local authorities (Town and Country Planning Act 1990) 	Local Planning Authority	TCB
<ul style="list-style-type: none"> Listed Buildings/Conservation Area (Town and Country Planning Act) 	Natural England	No
Trees and Ecology		
<ul style="list-style-type: none"> Work affecting Tree Preservation Orders, which offer legal protection to trees (Town and Country Planning (Trees) Regulations 1999) 	Local Planning Authority	TBC
<ul style="list-style-type: none"> Licence for felling timber (Forestry Act 1967) 	Local Planning Authority	No
<ul style="list-style-type: none"> Works affecting Important Hedgerows (Hedgerow Regulations 1997) 	Local Planning Authority	TBC
<ul style="list-style-type: none"> Licence for disturbance to badgers (Protection of Badgers Act 1992) 	DEFRA	TBC
<ul style="list-style-type: none"> Other wildlife consents required for works affecting protected species e.g. great crested newts, bats 	NE/SNH/CCW; DEFRA	TBC
Noise and Vibration		
<ul style="list-style-type: none"> Section 61 consent on nuisance (noise) during construction (under the Control of Pollution Act 1974) 	Local Authority – Environment Health Officer	Yes
Traffic Generation and Access		
<ul style="list-style-type: none"> Highways stopping/diversion consent (including temporary closures) Vehicle crossing consents (Highways Act 1980) 	Highways authority	Yes
Water Resources (quality and hydrology)		
<ul style="list-style-type: none"> Consent for works over, under or adjacent to designated main rivers (Land Drainage Act /Water Resources Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> Works affecting flow/structures in watercourse or navigation (Land Drainage Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> Works around water source protection area (Water Resources Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> Consent for works within 8m of a watercourse (Land Drainage bylaws) 	Local Planning Authority	No

<ul style="list-style-type: none"> • Water abstraction license (Water Resources Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Consent for dewatering/discharge of water from excavations (Land Drainage Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Consent for discharge to controlled water and/or groundwater (Water Resources Act 1991/Groundwater Regulations) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Water Authority Consent to discharge to foul sewer (Water Industries Act 1991) 	Sewerage undertaker/ Environment Agency/SEPA	TBC
<ul style="list-style-type: none"> • Consent for works in coastal areas and marine waters (Coastal Protection Act 1949/Harbours Act 1964) 	Marine Consents & Environment Unit (DEFRA)/Local Harbour Authority	No
Waste Management		
<ul style="list-style-type: none"> • Duty of Care Regulations Environmental Protection Act 1990 as amended (hazardous, non-hazardous, inert) 	Environment Agency	TBC
<ul style="list-style-type: none"> • Waste Framework Directive 2009 (waste hierarchy) 	Environment Agency	Compliance required
<ul style="list-style-type: none"> • CL:AIRE Code of Practice (management and processing) Code of Practice 	Local Authority / Environment Agency	Yes
<ul style="list-style-type: none"> • Contaminated Land Regulations 	Environment Agency /Local Authority	Yes
<ul style="list-style-type: none"> • Site Waste Management Plan 	Local Authority	Yes

7 SITE LOCATION



7.1 Site location indicated for station platforms, building and car park.



7.2 Site location shown in proximity to Green Belt (green shading) and Forest of Avon policy (L4).

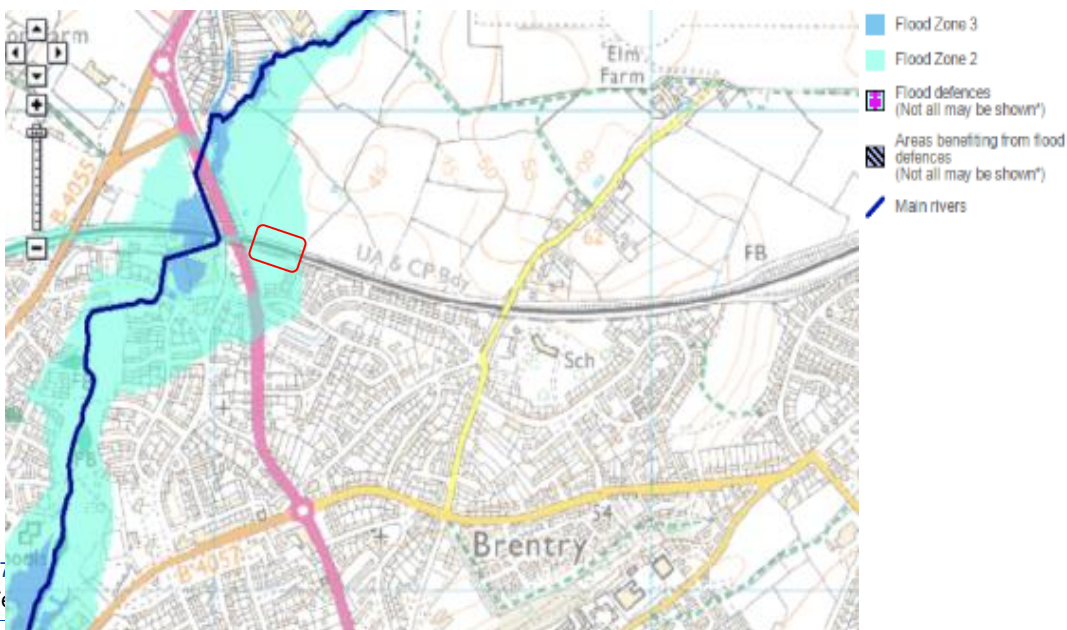
<http://www.southglos.gov.uk/environment-and-planning/planning/planning-local-plans/south-gloucestershire-local-plan-2006/>

<http://hosted.southglos.gov.uk/localplan/BN%20set/BN5.pdf>

See also Cribbs Patchway new neighbourhood:-

<http://www.southglos.gov.uk/environment-and-planning/planning/planning-policy/planning-policy-guidance/cpnn/cribbs-patchway-new-neighbourhood-spd/>

Flood Zone Map:



7.3 Site location shown in proximity to flood plain. Site is in close proximity to flood zone 3 and within flood zone 2.

Source:

http://maps.environment-agency.gov.uk/wiyby/wiybyController?lang=_e&topic=floodmap&layer=default&ep=map&layerGroups=default&scale=2&x=454756&y=170893#x=463355&y=319721&lg=1,&scale=2

8 SITE PHOTOGRAPHS



Photograph 8.1: View from Passage Road/A4018.



Photograph 8.2: Looking south down the A4018, station site lies to the left.



Photograph 8.3: View from A4018 bridge over the existing line. Open space and houses to the right.

URS

Metrowest Phase 2

Environmental Appraisal -

Henbury Station -
(Western Option)

February 2015

47072043

Prepared for: Network Rail

UNITED
KINGDOM &
IRELAND



REVISION SCHEDULE

Rev	Date	Details	Prepared by	Reviewed by	Approved by
A01	December 2014	Initial Draft Issue	J Skinner Environmental Manager	L Hemsley Project Manager	S Turner CEM
A02	February 2015	Final Issue	J Skinner Environmental Manager	L Hemsley Project Manager	S Turner CEM

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The methodology adopted and the sources of information used by URS in providing its services are outlined in this Report. The work described in this Report was undertaken between July and October 2014 and is based on the conditions encountered and the information available during the said period of time. The scope of this Report and the services are accordingly factually limited by these circumstances.

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1 PURPOSE

This document has been produced during GRIP Stage 3, and identifies potential environmental issues and risks that may arise during the design / construction and the associated access arrangements.

2 PROJECT DESCRIPTION

The proposed station site is located at the edge of the existing urban area to the east of Station Road (B4055). There are two options for this location, a loop service and a spur service. The loop service will require platforms to both sides of the existing alignment. The spur service will have a turnback siding with a single platform to the North of the existing lines.

3 SITE DETAILS

A small car park, bus stop and cycle parking will be provided. Access to the station will primarily be to the B4055 Station Road and the A4018 via the Cribbs Patchway New Neighbourhood [CPNN], a major re-development site, construction of which is anticipated to start in 2016/17. To the south is a concrete works (on the site of the former station yard), beyond which there are houses in Tormarton Crescent. There is a house (Woodlands) immediately to the west off Station Road (B4055) and adjacent to the house an old pig rearing unit that appears to be unused.

A location plan is shown in Section 7.

4 MAIN ENVIRONMENTAL ISSUES

Whilst the site is currently at the edge of the urban area, the area to the north will be developed as part of the CPNN (Land At Cribbs Causeway); hence, existing fields and hedgerows adjacent to the road and railway will not only be affected by the proposed station, but also by development as part of the CPNN. Details can be found on the South Gloucestershire Council website (ref PT14/0565/O):-

<http://www.southglos.gov.uk/environment-and-planning/search-planning-applications/>

The outline planning application for the site has been submitted to South Gloucestershire Council for determination in 2015.

The site is in the Forest of Avon policy area, and in Flood Zone 3. A flood risk assessment and drainage design will be required during GRIP 4.

There is a residence that will be affected (Woodside house) immediately to the west of the station. There are also residences to the south of the track off Tormarton Crescent which although south of the concrete works on the old station yard may be sensitive to noise (eg the station PA) and trains during operation as well as construction impacts like dusts, noise, construction lorries etc.

The B4055 crosses the railway on a bridge with limited visibility pedestrian access on the B4055 is limited to the western side of the road. A traffic impact assessment will be required to assess both the construction and operational impacts on the existing highway network and revised requirements for highways, including pedestrians and buses during operation.

The requirements for utilities at the station and the proximity of existing utilities need to be taken into account during GRIP 4 to ensure they are assessed and the necessary consents identified.

5 ENVIRONMENTAL APPRAISAL

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.0 GENERAL RISKS							
1.1	Project Description, Town Planning/ Infrastructure Liabilities/ Operational Surveyor Teams, GI PORTAL	Does land or land rights (easements/way leaves/permanent – temporary site compounds, etc.) need to be purchased? Note: even if works are within permitted development (PD) rights there may be restrictions as to what activities are allowed (e.g vegetation clearance during nesting season).	Yes			<ul style="list-style-type: none"> • Seek advice from Town Planning/ Property/ Environment/ Community Relations Teams and consult with external stakeholders/ local authorities (LA) where necessary • Site investigation/ surveys • Design aspects: include in/modify design/relocate to avoid the need to address these issues/ incorporate mitigation measures • Develop a Consent/ Environment/ Communication Strategy Plan(s) as required • Obtain consent (TWA Order/ planning permission/ area land rights) if required • Specify protective measures in design/contract/constructi on requirements 	It is assumed the consents will be via a combination of a planning application and NWR permitted development.
1.2	Project Description, Town Planning/ Infrastructure Liabilities/ Operational Surveyor Teams, GI PORTAL, RAR, Utility Diagrams	Is the land leased out or are there 3rd party interests or onsite utilities, telecommunication, etc.)?	Yes				Consent strategy required
1.3	Town Planning Team	Does the acquisition or lease of the land change the status of the land	Yes				
1.4	Project Description, GI PORTAL, Town Planning Team	Is land that may need to be purchased/leased contaminated or a licensed waste facility?			No		
1.5	Town Planning Team	Does the project require Transport and Works Act (TWA) order/planning permission or similar?	Yes				

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.6	Town Planning/ Environment/ Community Relations Teams	Has the Local Planning Authority or any other Statutory Body expressed concern over the project or similar projects?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/ Community Relations Teams • Consult with external stakeholders/ LA Consult with external stakeholders/LA 	
1.7	Town Planning/ Community Relations/ Environment Teams	Have residents or any other interest group indicated concern over the project or similar projects? Note: even if the works are within PD rights and are common activities, e.g. vegetation/tree clearance, this may still be sensitivity for stakeholders.			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/Community Relations Teams • Consult with external stakeholders /LA 	Consultation being done by others, but critical to inform future design development (GRIP4) phase. The scheme is supported by local authorities' Core Strategies and, in the case of the Henbury Line, the CPNN SPD, all of which have been subject to extensive public consultation.
1.8	Town Planning Team/local authority	Are there any local plans/development proposals of land adjacent to/near the project that may have future ramifications on the project?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/ Community Relations Teams 	Henbury Line station design should comply with the South Gloucestershire Core Strategy, CPNN SPD and be co-ordinated outline planning consent(s) for neighbouring developments
1.9	Project Description	Are there new or unusual features associated with the project that may become an issue with internal/external stakeholders e.g. tall masts, incompatible features with existing Network Rail structures?			No	<ul style="list-style-type: none"> • Consult internal Network Rail stakeholders • Design aspects: include modify design/ incorporate mitigation measures 	

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.10	Guidance from Asset steward/ other Network Rail departments,	Any relevant Network Rail policies (such as TWA/planning process)/conditions that may require derogation (e.g. issues: inc placing substations next to telecommunication masts) or adjacent to other Network Rail projects?		?		<ul style="list-style-type: none"> Consult internal Network Rail stakeholders Design aspects: include modify design/ incorporate mitigation measures 	Design development required to confirm and address issues.
2.0	ENVIRONMENTAL CONSTRAINTS						
2.1	Project Description, GI PORTAL, RAR, site investigation	Does the local environment constrain the project e.g:				<ul style="list-style-type: none"> Consult internal Network Rail stakeholders Design aspects: include modify design/ incorporate mitigation measures Consult with/obtain consent if required (e.g. building on a flood plain/change to coastal defences) 	
		Flood plain?	Yes				Flood Risk Assessment Required
		Flooding?		?			Flood Risk Assessment Required
		Landslide?			No		
		Difficult access (e.g. steep embankment)?			No		
		Other (specify e.g. pests such as rabbits)?		?			TBC
3.0	AGRICULTURE /FORESTRY/VEGETATION MANAGEMENT						
3.1	GI PORTAL, BAP, Site survey	Does the project require taking good quality agricultural land, or affect any agriculture holding (e.g. severance)?	Yes			<ul style="list-style-type: none"> Site investigation Consult with external stakeholders (particularly if noticeable amounts of vegetation/trees/ habitat are affected) 	Agricultural land is required for the station and access. However we expect this area to have disappeared under development before 2020.
3.2		Does the project need to clear vegetation or trees on railway land or access routes?	Yes			<ul style="list-style-type: none"> Design aspects: include in/ modify design/incorporate mitigation measures 	Hedges and mature trees surround the site along the road and the railway
3.3		Does the project need to remove hedgerows?	Yes		o	<ul style="list-style-type: none"> Obtain consent (LA 	

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
3.4	GI PORTAL, BAP, HERITAGE, Town Planning/ Environment Teams	Will the project need to remove, trim, cut trees under Tree Preservation Order (TPO) or in local planning conservation areas?		TB C		permission, etc.) if required • Specify protective measures	
4	AIR QUALITY						
4.1	Project Description, GI PORTAL, Town Planning Team/ LA – (Environmental Health Officers)	Will there be significant project activity that could generate large quantities of dust/noxious fumes or change the local air quality?		?		<ul style="list-style-type: none"> • Modify design/ incorporate mitigation measures • Consult with local authorities • Specify protective measures 	Site clearance particularly from could adversely affect air quality but should be mitigable.
4.2		Are there adjacent/nearby receptors: residences, businesses, schools, medical facilities, etc.?	Yes				Receptors – Woodlands house on the north side and residences off Gifford Road and Tormarton Crescent.
4.3		Are there any local authority policy constraints (e.g. within/close to an Air Quality Management Area (AQMA), breaching of government air quality objectives or limit values)?	Yes				Green Belt
5	BUILDING, STRUCTURES, HISTORIC ASSOCIATION						
5.1	GI PORTAL, RAR, HERITAGE, LA, Town Planning Team	Does the project affect a Listed Building, structure and/or Scheduled Ancient Monument; e.g. from piling, excavation, demolition, change of use, visual obstruction, potential for subsidence, cable attachments, bridge platforms?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning • Consult with LA/Heritage Agencies • Design aspects: include in/ modify design/ incorporate mitigation measures • Obtain local authority/ heritage consent if required 	
5.2		Does the project affect a local planning Conservation Area, historic landscape features or similar designated area?			No		
5.3		Does the project affect any other historical or man made feature likely to be of value?			No		

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
6	CONTAMINATED LAND						
6.1	GI PORTAL, RAR, Contaminated land reports/ database, Railway Estates/ Environment team	Will the project disturb contaminated land?		?		<ul style="list-style-type: none"> • Site investigation • Seek advice from Environment Team • Consult with LA if remediation required • Specify protective measures 	Historic railway contamination may be present close to the existing track
6.2	GI PORTAL, RAR Contaminated land reports/ database, site survey, Railway Estates/ Environment team	Is the project site located adjacent to/near an externally owned (e.g. landfill/industrial site) or Network Rail potentially contaminated site or sidings?			No	<ul style="list-style-type: none"> • Seek advice from Environment Team • Seek alternative site • Site investigation • Specify protective measures, including possible remediation 	
6.3	Project Description, GI PORTAL, RAR	Will the project activities open up pathways (e.g. channels) from contaminated areas to environment/stakeholder receptors; e.g. SSSIs		TB C		<ul style="list-style-type: none"> • Site investigation • Seek advice from Environment Team • Design aspects: include in/modify design/ incorporate mitigation measures • Specify protective measures 	

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
6.4	Project Description	Will produced wastes/spent ballast likely to be contaminated?	Yes			<ul style="list-style-type: none"> • Seek advice from Environment Team • Site investigation/ sampling • Follow NR/SP/ENV/044 for used ballast and/or hazardous/special waste requirements 	Carry out sampling for contamination as part of the GI survey
7	ECOLOGY (protected species/areas and invasive species)						
7.1	GI PORTAL, BAP, RAR, HERITAGE, Town Planning/ Environment Teams, site survey, LA BAP local conservation organisations	Is the project site/access/staging areas/ compounds on/adjacent/nearby a statutory nature conservation site (e.g. SSSI, RAMSAR, SPA/SAC/cSAC/pSPA site) or other ecological designations?			No	<ul style="list-style-type: none"> • Seek advice from Environment Team • Site survey • Consult with local Conservation Agencies/LA • Design aspects: include in/ modify design/ incorporate mitigation measures • Obtain protected species license if required • Specify protective measures/follow site management plan (SMS) if SSSI • Train staff • Continue monitoring if required 	
7.2		Will the activity (e.g. working in a culvert, drainage works) and/or materials used have the potential to indirectly affect the designation and/or a protected area (e.g. downstream SSSI water quality)?			No		
7.3		Are there any protected species and/or habitats e.g. bats, badgers, newts etc. at or near the project site?		?			Ecological survey required to confirm

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
7.4	BAP, RAR, Site survey	Are there any invasive vegetation species (Japanese knotweed, Giant hogweed, etc.) at or near the project site?		?		<ul style="list-style-type: none"> • Site investigation • Enabling works for removal • Specify protective measures 	Ecological survey required to confirm
8	LANDSCAPE/TOWNSCAPE/VISUAL						
8.1	Project Description, Town Planning/ Environment	Is the site at/near or can be seen from a National Park/World Heritage Site/Area of Outstanding Natural Beauty (AONB)/local landscape/coastal/townscape designation?			No	<ul style="list-style-type: none"> • Site investigation • Consult with local Heritage/ Conservation Agencies 	
8.2	Teams, LA/ Heritage/ Conservation Agencies	Will the visual amenity of lineside residents be affected; e.g. removing vegetation, erecting new/taller structures than existing surroundings, demolition in Conservation Areas?	Yes			<ul style="list-style-type: none"> • Design aspects: include in/ modify design/incorporate mitigation measures (e.g. restoration plan) 	Design required to minimise visual impact and incorporate mitigation.
8.3		Will new structures/project components obstruct visual amenity of dwellings/recreational areas/cultural heritage/conservation areas?	Yes			<ul style="list-style-type: none"> • Specify protective measures 	Design required to minimise visual impact and incorporate mitigation.
8.4		Will grading and vegetation removal with subsequent landscaping be required?	Yes				
9.0 NUISANCE: NOISE, VIBRATION AND LIGHT							
9.1	Project Description, GI PORTAL	Will noise/vibration likely to increase from existing levels at site during construction?	Yes			<ul style="list-style-type: none"> • Site noise investigation • Consult with local authorities (EHO) • Design aspects: include in/ modify design/incorporate mitigation measures 	Construction work and accessing the site may cause disturbance to residents
9.2		Will it affect?				<ul style="list-style-type: none"> • Neighbour letter drops/ consultation • Obtain Section 61 	
		Adjacent/nearby residences?	Yes				S61 required
		Adjacent/nearby businesses, worship, schools, hospitals, hotels etc.?	Yes				Full land use survey required

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
		Adjacent/nearby SPA/SAC, nesting birds, seasonal constraints?		?		consent if required • Specify protective measures • Train staff • Continue monitoring	Nesting birds may be present in the trees adjacent to the access road, around the worksite and either side of the railway corridor.
9.3		Will the project occur at night/weekend or public holiday (use of lights/noise)		?			
9.4	Project Description/ Noise Insulation Regulations	Will noise/vibration likely to increase from existing levels at site during operation?	Yes			• Site noise investigation • Seek advice from Environment Team/Other Network Rail departments • Design aspects: include in/ modify design/incorporate mitigation measures	Station design to include noise mitigation.
10	TRAFFIC GENERATION AND ACCESS						
10.1	Project Description	Will significant traffic (vehicular/heavy loads) particularly through villages and along farm/country roads be generated (Public Rights of Way)?	Yes			• Consult local authorities/highways dept. • Design aspects: include in/ modify design • Obtain Highways consent if required • Specify protective measures	TIA required
10.2		Will the scheme result in new vehicular traffic flows? (Before and/or after)	Yes				Construction and operational traffic generation figures required.
10.3		Will it cause new pedestrian movements? (Before and/or after)	Yes				Pedestrian flow modelling required.
10.4	As above	Any footpath, road closures/diversions required during construction?		?		• As above	TBC during GRIP 4

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
10.5	Project Description	Will parking outside railway land be required (e.g. on streets, on/near lineside neighbour's land)		?	No	<ul style="list-style-type: none"> Specify protective measures Train staff 	It should be possible to avoid this through construction planning and traffic management plans.
10.6		Are access points near adjacent properties (nuisance including noise)	Yes				Woodside House
11	WATER RESOURCES, POLLUTION (including Silt) AND DRAINAGE						
11.1	Project Description, GI PORTAL, RAR, Surface water risk assessment model, Site investigation	Is the project on/near/adjacent to a watercourse and drainage channels?	Yes			<ul style="list-style-type: none"> Site investigation Consult with local Environment Agency/DEFRA for coastal/ marine/estuary areas Design aspects: include in/ modify/design to remove the need for a consent Obtain work near watercourses, obstruction to watercourse, discharge to controlled waters and/or sewerage system, etc. consents if required Specify protective measures (e.g. Site Drainage Plan, Emergency Incident Plan) Continue monitoring 	See flood plain map below
11.2		Will the works occur within 8-m of the bank and/or in a designated main river			No		
11.3		Will the project need to remove vegetation close to/on or in a riverbank?			No		
11.4		Is it likely to affect the flow of watercourses?			No		
11.5		Will works occur around a water source protection area or require abstraction of water from a well?			No		
11.6		Will works occur near marine waters, on coastal areas below mean high tide or affecting navigation?			No		
11.7		Will it generate a discharge either directly to a watercourse or to soakaway/ground; e.g. dewatering operation/discharge from a bund?			No		
11.8		Will it generate a discharge to a foul sewer?		?			

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
11.9	Project Description, GI PORTAL, RAR, Site investigation	Will waste/spoil be stockpiled, materials/chemicals/fuels/oils stored at site that could enter a watercourse, major aquifer underneath or on a flood plain?	Yes			<ul style="list-style-type: none"> Establish protective measures Train staff 	Excavated spoil and ballast will be removed from site in accordance with the WMP.
12	WASTE MANAGEMENT						
12.1	Project Description, NDS/ Town Planning/ Environment Teams	<p>Network Rail requires all projects to develop and implement a Site Waste Management Plan.</p> <p>Key questions to consider in this plan include, but are not limited to:</p> <p>Will onsite disposal or land purchase be required?</p> <p>Will it generate large quantities of surplus material; i.e. spoil, sleepers?</p> <p>Can surplus material be reused (spares, spoil, etc.)?</p> <p>Will it generate hazardous wastes; e.g. oil, paint cans, contaminated land?</p>	Yes			<ul style="list-style-type: none"> Design aspects: include in/ modify design: reuse, recover, recycle Consult with and obtain consent from local authorities/Environmental Agencies for storage/ management concerns Obtain environmental permit if necessary Specify protective measures in the WMP 	<p>Waste management plan to include excavated material, vegetation, demolition waste etc. All of which are to be removed from site.</p> <p>Spoil may be used for landscaping</p> <p>Spoil may be contaminated, confirm via chemical analysis during GI. All waste to be managed in accordance with the Contractors WMP.</p>

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments	
13	SUSTAINABILITY: ENVIRONMENTAL OPPORTUNITIES							
13.1	Project Description/ Environment Team	Can recycled/reclaimed materials such as sleepers/ballast/spoil/cables be used instead of raw materials?		?		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities • Build into WMP 	Network Rail to confirm.	
13.2		Can the project help meet the requirements of sustainable consumption; can sustainable materials be incorporated into the design?	Yes				<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	Sustainability assessment required. Commence during GRIP 4.
13.3		Can the project demonstrate a reduction in the reliance on fossil fuels; can renewable energy be incorporated into the design? Has whole life embedded carbon been considered?	Yes					Energy saving measures during station design
13.4		Can energy/water efficiency be gained through building design/supply chain?	Yes					
13.5	Project Description/ Environment Team	Can work be performed in parallel with another project reducing wastage, duplication and redundancy of materials, timing and resources?		?		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	Network Rail to confirm.	
13.6		Can effluents and discharges be minimised?	Yes				<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	
13.7	Project Description/ Environment Team	Can potentially polluting materials be replaced with less harmful materials (e.g. biodegradable oils)?	Yes					Construction Management Plan
13.8		Are there other areas where environmental and sustainable benefits can be gained; such as						

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
13.9		Positive communication/interactive consultation with lineside neighbours/other stakeholders?	Yes				Network Rail communications team. Section 61 notices to local residents.
13.10		Innovative environmental designs/methods of work?	Yes				Develop during Grip 4
13.11		Positive contribution to habitats/protected species?	Yes				Develop during Grip 4/5
13.12		Other (specify on action log)?			No		
13.13		Are there any other possible environmental effects specific to this project? If so list them: e.g. electro-magnetic effects, settlement, local issues/policies	Yes				Refer to community engagement exercise and EIA.
OTHER							
14.1		None.			No		

6 POSSIBLE CONSENTS NEEDED

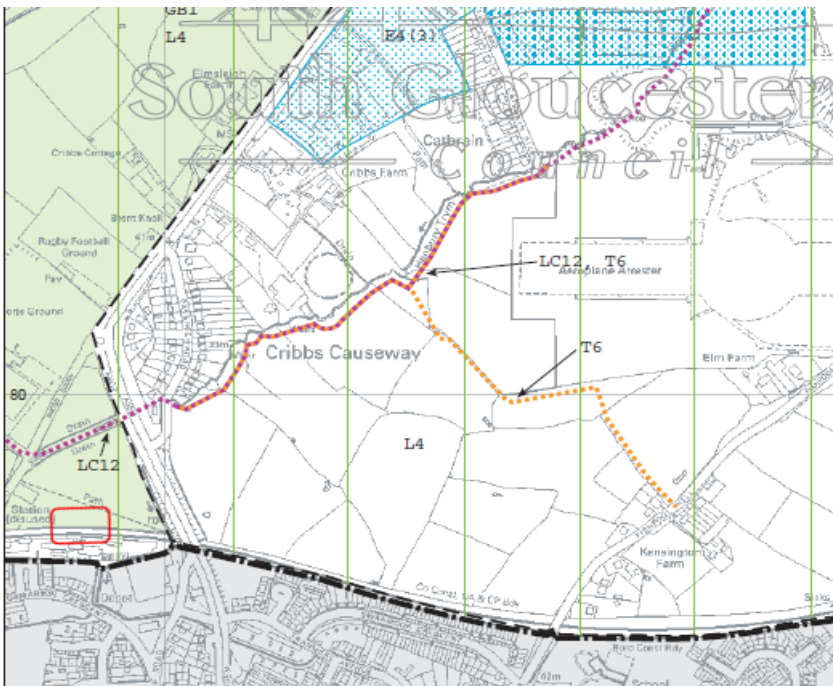
Consent Type	Responsible Agency	Consent Required
Landtake		
<ul style="list-style-type: none"> TWA Order if require compulsory purchase of land 	Planning authority	It is assumed the consents will be via a combination of a planning application and NWR permitted development.
<ul style="list-style-type: none"> Planning permission from local authorities (Town and Country Planning Act 1990) 	Local Planning Authority	TCB
<ul style="list-style-type: none"> Listed Buildings/Conservation Area (Town and Country Planning Act) 	Natural England	No
Trees and Ecology		
<ul style="list-style-type: none"> Work affecting Tree Preservation Orders, which offer legal protection to trees (Town and Country Planning (Trees) Regulations 1999) 	Local Planning Authority	TBC
<ul style="list-style-type: none"> Licence for felling timber (Forestry Act 1967) 	Local Planning Authority	No
<ul style="list-style-type: none"> Works affecting Important Hedgerows (Hedgerow Regulations 1997) 	Local Planning Authority	TBC
<ul style="list-style-type: none"> Licence for disturbance to badgers (Protection of Badgers Act 1992) 	DEFRA	TBC
<ul style="list-style-type: none"> Other wildlife consents required for works affecting protected species e.g. great crested newts, bats 	NE/SNH/CCW; DEFRA	TBC
Noise and Vibration		
<ul style="list-style-type: none"> Section 61 consent on nuisance (noise) during construction (under the Control of Pollution Act 1974) 	Local Authority – Environment Health Officer	Yes
Traffic Generation and Access		
<ul style="list-style-type: none"> Highways stopping/diversion consent (including temporary closures) Vehicle crossing consents (Highways Act 1980) 	Highways authority	Yes
Water Resources (quality and hydrology)		
<ul style="list-style-type: none"> Consent for works over, under or adjacent to designated main rivers (Land Drainage Act /Water Resources Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> Works affecting flow/structures in watercourse or navigation (Land Drainage Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> Works around water source protection area (Water Resources Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> Consent for works within 8m of a watercourse (Land Drainage bylaws) 	Local Planning Authority	No

<ul style="list-style-type: none"> • Water abstraction license (Water Resources Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Consent for dewatering/discharge of water from excavations (Land Drainage Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Consent for discharge to controlled water and/or groundwater (Water Resources Act 1991/Groundwater Regulations) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Water Authority Consent to discharge to foul sewer (Water Industries Act 1991) 	Sewerage undertaker/ Environment Agency/SEPA	TBC
<ul style="list-style-type: none"> • Consent for works in coastal areas and marine waters (Coastal Protection Act 1949/Harbours Act 1964) 	Marine Consents & Environment Unit (DEFRA)/Local Harbour Authority	No
Waste Management		
<ul style="list-style-type: none"> • Duty of Care Regulations Environmental Protection Act 1990 as amended (hazardous, non-hazardous, inert) 	Environment Agency	TBC
<ul style="list-style-type: none"> • Waste Framework Directive 2009 (waste hierarchy) 	Environment Agency	Compliance required
<ul style="list-style-type: none"> • CL:AIRE Code of Practice (management and processing) Code of Practice 	Local Authority / Environment Agency	Yes
<ul style="list-style-type: none"> • Contaminated Land Regulations 	Environment Agency /Local Authority	Yes
<ul style="list-style-type: none"> • Site Waste Management Plan 	Local Authority	Yes

7 SITE LOCATION

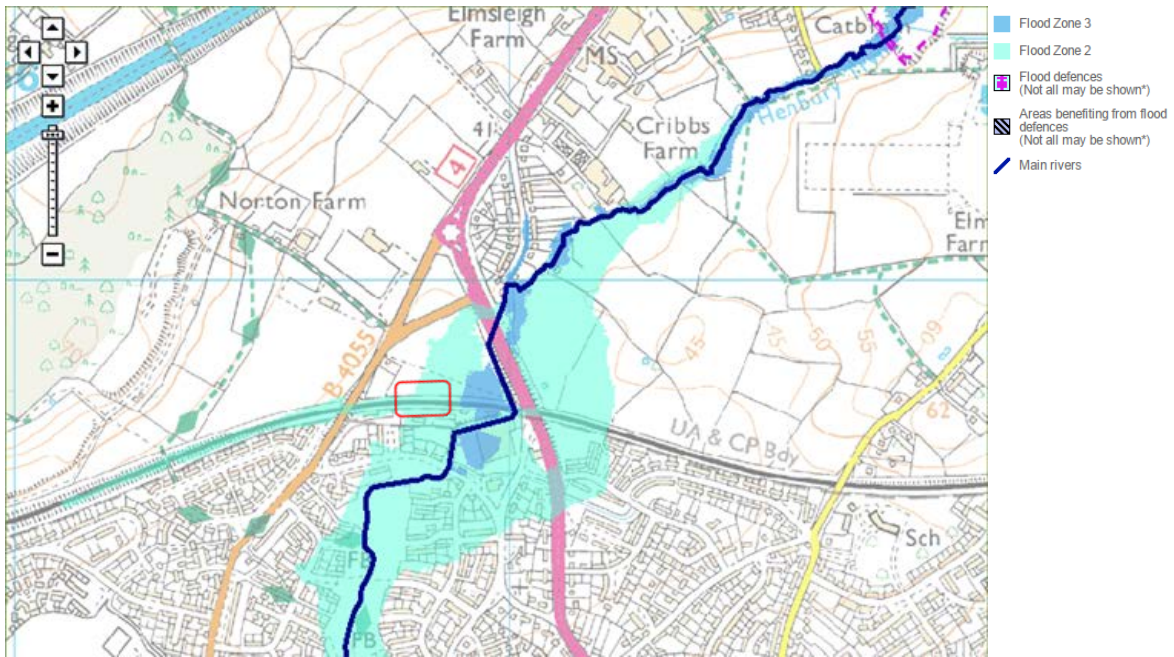


7.1 Site location indicated for station platforms, building and car park.



7.2 Site location shown in proximity to Green Belt (green shading) and Forest of Avon policy (L4).

<http://www.southglos.gov.uk/environment-and-planning/planning/planning-local-plans/south-gloucestershire-local-plan-2006/>
<http://hosted.southglos.gov.uk/localplan/BN%20set/BN5.pdf>



8 SITE PHOTOGRAPHS



Photograph 8.1: View from Station Road bridge of concrete suppliers, with residences beyond



Photograph 8.2: Woodside House and disused pig farm



Photograph 8.3: Looking south to station road bridge



Metrowest Phase 2

Environmental Appraisal –
Yate Turnback

February 2015

47072043

Prepared for: Network Rail

UNITED
KINGDOM &
IRELAND



REVISION SCHEDULE					
Rev	Date	Details	Prepared by	Reviewed by	Approved by
A01	December 2014	Initial Draft Issue	J Skinner Environmental Manager	L Hemsley Project Manager	S Turner CEM
A02	February 2015	Final Issue	J Skinner Environmental Manager	L Hemsley Project Manager	S Turner CEM

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The methodology adopted and the sources of information used by URS in providing its services are outlined in this Report. The work described in this Report was undertaken between July and October 2014 and is based on the conditions encountered and the information available during the said period of time. The scope of this Report and the services are accordingly factually limited by these circumstances.

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1 PURPOSE

This document has been produced during GRIP Stage 3, and identifies potential environmental issues and risks that may arise during the design / construction and the associated access arrangements.

2 PROJECT DESCRIPTION

The arrangements for a potential new turnback siding to the north of Yate station are shown on URS drawing No. 47072043-SW-PW-DRG-7005.

It is proposed to provide a new turnback siding to the Downside of the existing twin tracks to the north of Yate station. The siding would be of sufficient length to accommodate 4 car units and passive provision for extension to 5 car units would be available. The switch toes of the new turnout would be at 119m 44ch on the Down Charfield line of the BGL2 route. The location of these toes is approximately 190m north of the existing Downside (No. 1) platform at Yate. This distance will allow existing signalling equipment, which facilitates freight operations at the site, to be retained.

3 SITE DETAILS

The proposed turnback sidings are located north of Yate station in the vicinity of Plover Crescent. The houses in Plover Crescent back onto the railway with gardens along the railway boundary.

The river Frome runs to the north east about 100m away.

The Indesit factory site is to the south, on the other side of the alignment to the new sidings are industrial units.

A location plan is shown in Section 7.

4 MAIN ENVIRONMENTAL ISSUES

There are mature trees on both sides of the alignment, their removal to make way for the new turnback facility will have an effect on the views from houses and the industrial units.

The houses in Plover Crescent will be sensitive to noise, dust and the loss of the mature trees along their boundary, during construction. Nesting birds may be present in the trees and an ecology survey will be required to identify all protected species prior to commencement of construction. The new operating regime will increase the level of noise due to trains idling in the turnback siding close to residents in Plover Crescent. The effects of this and any mitigation that may be required may need to be considered in later design phases.

A review of construction strategy, access etc and drainage design will be required at GRIP 4.

5 ENVIRONMENTAL APPRAISAL

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.0 GENERAL RISKS							
1.1	Project Description, Town Planning/ Infrastructure Liabilities/ Operational Surveyor Teams, GI PORTAL	Does land or land rights (easements/way leaves/permanent – temporary site compounds, etc.) need to be purchased? Note: even if works are within permitted development (PD) rights there may be restrictions as to what activities are allowed (e.g vegetation clearance during nesting season).	Yes			<ul style="list-style-type: none"> • Seek advice from Town Planning/ Property/ Environment/ Community Relations Teams and consult with external stakeholders/ local authorities (LA) where necessary • Site investigation/ surveys • Design aspects: include in/modify design/relocate to avoid the need to address these issues/ incorporate mitigation measures • Develop a Consent/ Environment/ Communication Strategy Plan(s) as required • Obtain consent (TWA Order/ planning permission/ area land rights) if required • Specify protective measures in design/contract/constructi on requirements 	It is assumed the works will be consented via a NWR Permitted Development
1.2	Project Description, Town Planning/ Infrastructure Liabilities/ Operational Surveyor Teams, GI PORTAL, RAR, Utility Diagrams	Is the land leased out or are there 3rd party interests or onsite utilities, telecommunication, etc.)?			No		Construction access TBC
1.3	Town Planning Team	Does the acquisition or lease of the land change the status of the land			No		
1.4	Project Description, GI PORTAL, Town Planning Team	Is land that may need to be purchased/leased contaminated or a licensed waste facility?			No		
1.5	Town Planning Team	Does the project require Transport and Works Act (TWA) order/planning permission or similar?	Yes				It is assumed the works will be consented via NWR Permitted Development

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.6	Town Planning/ Environment/ Community Relations Teams	Has the Local Planning Authority or any other Statutory Body expressed concern over the project or similar projects?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/ Community Relations Teams • Consult with external stakeholders/ LA Consult with external stakeholders/LA 	
1.7	Town Planning/ Community Relations/ Environment Teams	Have residents or any other interest group indicated concern over the project or similar projects? Note: even if the works are within PD rights and are common activities, e.g. vegetation/tree clearance, this may still be sensitivity for stakeholders.		?		<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/Community Relations Teams • Consult with external stakeholders /LA 	Consultation being done by others, but critical to inform future design development (GRIP4) phase.
1.8	Town Planning Team/local authority	Are there any local plans/development proposals of land adjacent to/near the project that may have future ramifications on the project?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/ Community Relations Teams 	
1.9	Project Description	Are there new or unusual features associated with the project that may become an issue with internal/external stakeholders e.g. tall masts, incompatible features with existing Network Rail structures?			No	<ul style="list-style-type: none"> • Consult internal Network Rail stakeholders • Design aspects: include modify design/ incorporate mitigation measures 	
1.10	Guidance from Asset steward/ other Network Rail departments,	Any relevant Network Rail policies (such as TWA/planning process)/conditions that may require derogation (e.g. issues: inc placing substations next to telecommunication masts) or adjacent to other Network Rail projects?		?		<ul style="list-style-type: none"> • Consult internal Network Rail stakeholders • Design aspects: include modify design/ incorporate mitigation measures 	Design development required to confirm and address issues.

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
2.0	ENVIRONMENTAL CONSTRAINTS						
2.1	Project Description, GI PORTAL, RAR, site investigation	Does the local environment constrain the project e.g:				<ul style="list-style-type: none"> Consult internal Network Rail stakeholders Design aspects: include modify design/ incorporate mitigation measures Consult with/obtain consent if required (e.g. building on a flood plain/change to coastal defences) 	
		Flood plain?	Yes				
		Flooding?		?			Risk of flooding, see below
		Landslide?			No		
		Difficult access (e.g. steep embankment)?			No		
		Other (specify e.g. pests such as rabbits)?			?		TBC
3.0	AGRICULTURE /FORESTRY/VEGETATION MANAGEMENT						
3.1	GI PORTAL, BAP, Site survey	Does the project require taking good quality agricultural land, or affect any agriculture holding (e.g. severance)?			No	<ul style="list-style-type: none"> Site investigation Consult with external stakeholders (particularly if noticeable amounts of vegetation/trees/ habitat are affected) Design aspects: include in/ modify design/incorporate mitigation measures Obtain consent (LA permission, etc.) if required Specify protective measures 	
3.2		Does the project need to clear vegetation or trees on railway land or access routes?	Yes				Mature trees may need to be felled. See location plan
3.3		Does the project need to remove hedgerows?			No		
3.4	GI PORTAL, BAP, HERITAGE, Town Planning/ Environment Teams	Will the project need to remove, trim, cut trees under Tree Preservation Order (TPO) or in local planning conservation areas?		TB C			Survey required

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
4	AIR QUALITY						
4.1	Project Description, GI PORTAL, Town Planning Team/ LA – (Environmental Health Officers)	Will there be significant project activity that could generate large quantities of dust/noxious fumes or change the local air quality?		?		<ul style="list-style-type: none"> • Modify design/ incorporate mitigation measures • Consult with local authorities • Specify protective measures 	Site clearance particularly from could adversely affect air quality but should be mitigable.
4.2		Are there adjacent/nearby receptors: residences, businesses, schools, medical facilities, etc.?	Yes				Receptors – residents in Plover Close
4.3		Are there any local authority policy constraints (e.g. within/close to an Air Quality Management Area (AQMA), breaching of government air quality objectives or limit values)?			No		
5	BUILDING, STRUCTURES, HISTORIC ASSOCIATION						
5.1	GI PORTAL, RAR, HERITAGE, LA, Town Planning Team	Does the project affect a Listed Building, structure and/or Scheduled Ancient Monument; e.g. from piling, excavation, demolition, change of use, visual obstruction, potential for subsidence, cable attachments, bridge platforms?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning • Consult with LA/Heritage Agencies • Design aspects: include in/ modify design/ incorporate mitigation measures • Obtain local authority/ heritage consent if required 	
5.2		Does the project affect a local planning Conservation Area, historic landscape features or similar designated area?			No		
5.3		Does the project affect any other historical or man made feature likely to be of value?			No		

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
6	CONTAMINATED LAND						
6.1	GI PORTAL, RAR, Contaminated land reports/ database, Railway Estates/ Environment team	Will the project disturb contaminated land?		?		<ul style="list-style-type: none"> • Site investigation • Seek advice from Environment Team • Consult with LA if remediation required • Specify protective measures 	Historic railway contamination may be present on the existing formation.
6.2	GI PORTAL, RAR Contaminated land reports/ database, site survey, Railway Estates/ Environment team	Is the project site located adjacent to/near an externally owned (e.g. landfill/industrial site) or Network Rail potentially contaminated site or sidings?			No	<ul style="list-style-type: none"> • Seek advice from Environment Team • Seek alternative site • Site investigation • Specify protective measures, including possible remediation 	
6.3	Project Description, GI PORTAL, RAR	Will the project activities open up pathways (e.g. channels) from contaminated areas to environment/stakeholder receptors; e.g. SSSIs		TB C		<ul style="list-style-type: none"> • Site investigation • Seek advice from Environment Team • Design aspects: include in/modify design/ incorporate mitigation measures • Specify protective measures 	

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
6.4	Project Description	Will produced wastes/spent ballast likely to be contaminated?	Yes			<ul style="list-style-type: none"> • Seek advice from Environment Team • Site investigation/ sampling • Follow NR/SP/ENV/044 for used ballast and/or hazardous/special waste requirements 	Carry out sampling for contamination as part of the GI survey
7	ECOLOGY (protected species/areas and invasive species)						
7.1	GI PORTAL, BAP, RAR, HERITAGE, Town Planning/ Environment Teams, site survey, LA BAP local conservation organisations	Is the project site/access/staging areas/ compounds on/adjacent/nearby a statutory nature conservation site (e.g. SSSI, RAMSAR, SPA/SAC/cSAC/pSPA site) or other ecological designations?			No	<ul style="list-style-type: none"> • Seek advice from Environment Team • Site survey • Consult with local Conservation Agencies/LA • Design aspects: include in/ modify design/ incorporate mitigation measures • Obtain protected species license if required • Specify protective measures/follow site management plan (SMS) if SSSI • Train staff • Continue monitoring if required 	
7.2		Will the activity (e.g. working in a culvert, drainage works) and/or materials used have the potential to indirectly affect the designation and/or a protected area (e.g. downstream SSSI water quality)?		?			Drainage survey required
7.3		Are there any protected species and/or habitats e.g. bats, badgers, newts etc. at or near the project site?		?			Ecological survey required to confirm

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
7.4	BAP, RAR, Site survey	Are there any invasive vegetation species (Japanese knotweed, Giant hogweed, etc.) at or near the project site?		?		<ul style="list-style-type: none"> Site investigation Enabling works for removal Specify protective measures 	Ecological survey required to confirm
8	LANDSCAPE/TOWNSCAPE/VISUAL						
8.1	Project Description, Town Planning/ Environment	Is the site at/near or can be seen from a National Park/World Heritage Site/Area of Outstanding Natural Beauty (AONB)/local landscape/coastal/townscape designation?			No	<ul style="list-style-type: none"> Site investigation Consult with local Heritage/ Conservation Agencies 	
8.2	Teams, LA/ Heritage/ Conservation Agencies	Will the visual amenity of lineside residents be affected; e.g. removing vegetation, erecting new/taller structures than existing surroundings, demolition in Conservation Areas?	Yes			<ul style="list-style-type: none"> Design aspects: include in/ modify design/incorporate mitigation measures (e.g. restoration plan) 	Design required to minimise visual impact and incorporate mitigation if possible.
8.3		Will new structures/project components obstruct visual amenity of dwellings/recreational areas/cultural heritage/conservation areas?			No	<ul style="list-style-type: none"> Specify protective measures 	
8.4		Will grading and vegetation removal with subsequent landscaping be required?		?			Consider during Grip4/5
9.0	NUISANCE: NOISE, VIBRATION AND LIGHT						
9.1	Project Description, GI PORTAL	Will noise/vibration likely to increase from existing levels at site during construction?	Yes			<ul style="list-style-type: none"> Site noise investigation Consult with local authorities (EHO) Design aspects: include in/ modify design/incorporate mitigation measures 	Construction work and accessing the site may cause disturbance to residents
9.2		Will it affect?				<ul style="list-style-type: none"> Neighbour letter drops/ consultation Obtain Section 61 	
		Adjacent/nearby residences?	Yes				S61 required
		Adjacent/nearby businesses, worship, schools, hospitals, hotels etc.?	Yes				Full land use survey required

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
		Adjacent/nearby SPA/SAC, nesting birds, seasonal constraints?		?		consent if required • Specify protective measures • Train staff • Continue monitoring	Nesting birds may be present in the trees adjacent to the access road, around the worksite and either side of the railway corridor.
9.3		Will the project occur at night/weekend or public holiday (use of lights/noise)		?			
9.4	Project Description/ Noise Insulation Regulations	Will noise/vibration likely to increase from existing levels at site during operation?	Yes			• Site noise investigation • Seek advice from Environment Team/Other Network Rail departments • Design aspects: include in/ modify design/incorporate mitigation measures	Assessment required at GRIP 4.
10	TRAFFIC GENERATION AND ACCESS						
10.1	Project Description	Will significant traffic (vehicular/heavy loads) particularly through villages and along farm/country roads be generated (Public Rights of Way)?			No	• Consult local authorities/highways dept. • Design aspects: include in/ modify design • Obtain Highways consent if required • Specify protective measures	
10.2		Will the scheme result in new vehicular traffic flows? (Before and/or after)			No		
10.3		Will it cause new pedestrian movements? (Before and/or after)			No		
10.4	As above	Any footpath, road closures/diversions required during construction?		?		• As above	TBC during GRIP 4

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
10.5	Project Description	Will parking outside railway land be required (e.g. on streets, on/near lineside neighbour's land)		?	No	<ul style="list-style-type: none"> Specify protective measures Train staff 	It should be possible to avoid this through construction planning and traffic management plans.
10.6		Are access points near adjacent properties (nuisance including noise)	Yes				Residences to the south
11	WATER RESOURCES, POLLUTION (including Silt) AND DRAINAGE						
11.1	Project Description, GI PORTAL, RAR, Surface water risk assessment model, Site investigation	Is the project on/near/adjacent to a watercourse and drainage channels?		?		<ul style="list-style-type: none"> Site investigation Consult with local Environment Agency/DEFRA for coastal/ marine/estuary areas Design aspects: include in/ modify/design to remove the need for a consent Obtain work near watercourses, obstruction to watercourse, discharge to controlled waters and/or sewerage system, etc. consents if required Specify protective measures (e.g. Site Drainage Plan, Emergency Incident Plan) Continue monitoring 	Survey required to confirm
11.2		Will the works occur within 8-m of the bank and/or in a designated main river			No		
11.3		Will the project need to remove vegetation close to/on or in a riverbank?			No		
11.4		Is it likely to affect the flow of watercourses?			No		
11.5		Will works occur around a water source protection area or require abstraction of water from a well?			No		
11.6		Will works occur near marine waters, on coastal areas below mean high tide or affecting navigation?			No		
11.7		Will it generate a discharge either directly to a watercourse or to soakaway/ground; e.g. dewatering operation/discharge from a bund?			No		
11.8		Will it generate a discharge to a foul sewer?			No		

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
11.9	Project Description, GI PORTAL, RAR, Site investigation	Will waste/spoil be stockpiled, materials/chemicals/fuels/oils stored at site that could enter a watercourse, major aquifer underneath or on a flood plain?	Yes			<ul style="list-style-type: none"> Establish protective measures Train staff 	Excavated spoil and ballast will be removed from site in accordance with the WMP.
12	WASTE MANAGEMENT						
12.1	Project Description, NDS/ Town Planning/ Environment Teams	<p>Network Rail requires all projects to develop and implement a Site Waste Management Plan.</p> <p>Key questions to consider in this plan include, but are not limited to:</p> <p>Will onsite disposal or land purchase be required?</p> <p>Will it generate large quantities of surplus material; i.e. spoil, sleepers?</p> <p>Can surplus material be reused (spares, spoil, etc.)?</p> <p>Will it generate hazardous wastes; e.g. oil, paint cans, contaminated land?</p>	Yes			<ul style="list-style-type: none"> Design aspects: include in/ modify design: reuse, recover, recycle Consult with and obtain consent from local authorities/Environmental Agencies for storage/ management concerns Obtain environmental permit if necessary Specify protective measures in the WMP 	<p>Waste management plan to include excavated material, vegetation, demolition waste etc. All of which are to be removed from site.</p> <p>Spoil may be used for landscaping</p> <p>Spoil may be contaminated, confirm via chemical analysis during GI. All waste to be managed in accordance with the Contractors WMP.</p>

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments	
13	SUSTAINABILITY: ENVIRONMENTAL OPPORTUNITIES							
13.1	Project Description/ Environment Team	Can recycled/reclaimed materials such as sleepers/ballast/spoil/cables be used instead of raw materials?		?		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities • Build into WMP 	Network Rail to confirm (GRIP5).	
13.2		Can the project help meet the requirements of sustainable consumption; can sustainable materials be incorporated into the design?			No		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	
13.3		Can the project demonstrate a reduction in the reliance on fossil fuels; can renewable energy be incorporated into the design? Has whole life embedded carbon been considered?			No			
13.4		Can energy/water efficiency be gained through building design/supply chain?			No			
13.5	Project Description/ Environment Team	Can work be performed in parallel with another project reducing wastage, duplication and redundancy of materials, timing and resources?		?		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	Network Rail to confirm.	
13.6		Can effluents and discharges be minimised?			No		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	
13.7	Project Description/ Environment Team	Can potentially polluting materials be replaced with less harmful materials (e.g. biodegradable oils)?			No			Construction Management Plan
13.8		Are there other areas where environmental and sustainable benefits can be gained; such as			No			

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
13.9		Positive communication/interactive consultation with lineside neighbours/other stakeholders?	Yes				Network Rail communications team. Section 61 notices to local residents.
13.10		Innovative environmental designs/methods of work?	Yes				Develop during Grip 4
13.11		Positive contribution to habitats/protected species?			No		
13.12		Other (specify on action log)?			No		
13.13		Are there any other possible environmental effects specific to this project? If so list them: e.g. electro-magnetic effects, settlement, local issues/policies	Yes				Refer to community engagement exercise and EIA.
OTHER							
14.1		None.			No		

6 POSSIBLE CONSENTS NEEDED

Consent Type	Responsible Agency	Consent Required
Landtake		
<ul style="list-style-type: none"> TWA Order if require compulsory purchase of land 	Planning authority	It is assumed the works will be consented NWR Permitted Development
<ul style="list-style-type: none"> Planning permission from local authorities (Town and Country Planning Act 1990) 	Local Planning Authority	TCB
<ul style="list-style-type: none"> Listed Buildings/Conservation Area (Town and Country Planning Act) 	Natural England	No
Trees and Ecology		
<ul style="list-style-type: none"> Work affecting Tree Preservation Orders, which offer legal protection to trees (Town and Country Planning (Trees) Regulations 1999) 	Local Planning Authority	TBC
<ul style="list-style-type: none"> Licence for felling timber (Forestry Act 1967) 	Local Planning Authority	No
<ul style="list-style-type: none"> Works affecting Important Hedgerows (Hedgerow Regulations 1997) 	Local Planning Authority	No
<ul style="list-style-type: none"> Licence for disturbance to badgers (Protection of Badgers Act 1992) 	DEFRA	TBC
<ul style="list-style-type: none"> Other wildlife consents required for works affecting protected species e.g. great crested newts, bats 	NE/SNH/CCW; DEFRA	TBC
Noise and Vibration		
<ul style="list-style-type: none"> Section 61 consent on nuisance (noise) during construction (under the Control of Pollution Act 1974) 	Local Authority – Environment Health Officer	Yes
Traffic Generation and Access		
<ul style="list-style-type: none"> Highways stopping/diversion consent (including temporary closures) Vehicle crossing consents (Highways Act 1980) 	Highways authority	No
Water Resources (quality and hydrology)		
<ul style="list-style-type: none"> Consent for works over, under or adjacent to designated main rivers (Land Drainage Act /Water Resources Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> Works affecting flow/structures in watercourse or navigation (Land Drainage Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> Works around water source protection area (Water Resources Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> Consent for works within 8m of a watercourse (Land Drainage bylaws) 	Local Planning Authority	No

<ul style="list-style-type: none"> • Water abstraction license (Water Resources Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Consent for dewatering/discharge of water from excavations (Land Drainage Act 1991) 	Environment Agency/SEPA	TBC
<ul style="list-style-type: none"> • Consent for discharge to controlled water and/or groundwater (Water Resources Act 1991/Groundwater Regulations) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Water Authority Consent to discharge to foul sewer (Water Industries Act 1991) 	Sewerage undertaker/ Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Consent for works in coastal areas and marine waters (Coastal Protection Act 1949/Harbours Act 1964) 	Marine Consents & Environment Unit (DEFRA)/Local Harbour Authority	No
Waste Management		
<ul style="list-style-type: none"> • Duty of Care Regulations Environmental Protection Act 1990 as amended (hazardous, non-hazardous, inert) 	Environment Agency	TBC
<ul style="list-style-type: none"> • Waste Framework Directive 2009 (waste hierarchy) 	Environment Agency	Compliance required
<ul style="list-style-type: none"> • CL:AIRE Code of Practice (management and processing) Code of Practice 	Local Authority / Environment Agency	Yes
<ul style="list-style-type: none"> • Contaminated Land Regulations 	Environment Agency /Local Authority	Yes
<ul style="list-style-type: none"> • Site Waste Management Plan 	Local Authority	Yes

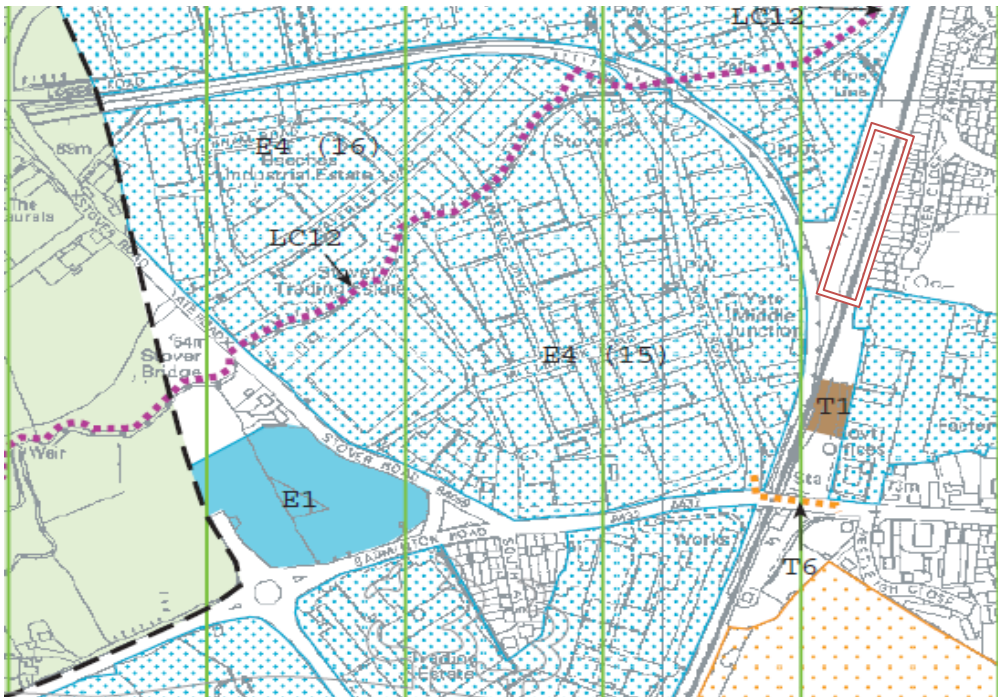
7 SITE LOCATION



7.1 Site location indicated for turnback sidings

47072043 ENV001 REV. A02

February 2015



7.2 Local Plan Map - <http://hosted.southglos.gov.uk/localplan/CS&Yate%20set/CS8.pdf>
<http://www.southglos.gov.uk/environment-and-planning/planning/planning-local-plans/south-gloucestershire-local-plan-2006/>

<http://hosted.southglos.gov.uk/localplan/BN%20set/BN5.pdf>

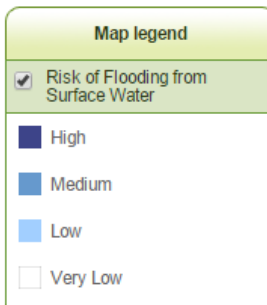
Flood Zone Map:

Map of BS37 7PA at scale 1:10,000

Data search



7.3 Site location shown in proximity to flood plain.



Source:

http://watermaps.environment-agency.gov.uk/wiyby/wiyby.aspx?lang=_e&topic=ufmfsw&layer=0&x=370083&y=182687&scale=10&location=BS37+7PA#x=370160&y=182747&scale=11



Metrowest Phase 2

Environmental Appraisal –
North Filton

February 2015

47072043

Prepared for: Network Rail

UNITED
KINGDOM &
IRELAND



REVISION SCHEDULE

Rev	Date	Details	Prepared by	Reviewed by	Approved by
A01	December 2014	Initial Draft Issue	J Skinner Environmental Manager	L Hemsley Project Manager	S Turner CEM
A02	February 2015	Final Issue	J Skinner Environmental Manager	L Hemsley Project Manager	S Turner CEM

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The methodology adopted and the sources of information used by URS in providing its services are outlined in this Report. The work described in this Report was undertaken between July and October 2014 and is based on the conditions encountered and the information available during the said period of time. The scope of this Report and the services are accordingly factually limited by these circumstances.

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1 PURPOSE

This document has been produced during GRIP Stage 2, and identifies potential environmental issues and risks that may arise during the design / construction and the associated access arrangements.

2 PROJECT DESCRIPTION

The proposed new station is located at the south east corner of the disused Filton Airfield. There is one option for this location; platforms to both sides of the existing alignment, which would be served by a loop service or a spur service.

3 SITE DETAILS

A small car park, bus stop and cycle parking will be provided. Access to the station will primarily be to the A38 via the Cribbs Patchway New Neighbourhood [CPNN], a major re-development site, construction of which is anticipated to start in 2016/17. To the south is Airbus works, whilst the nearest residences are currently on the east side of the A38 in Cleve Road and would not be affected.

A location plan is shown in Section 7.

4 MAIN ENVIRONMENTAL ISSUES

The land to the north (Filton Airfield) is currently owned by BAE Systems, and proposals for a new station are included in the developer's outline planning application, which can be found on the South Gloucestershire Council website (ref PT14/3867/O):-

<http://www.southglos.gov.uk/environment-and-planning/search-planning-applications/>

The outline planning application for the site has been submitted to South Gloucestershire Council for determination in 2015.

The station design and access (pedestrian, public transport and cars) should be carried out in accord with the CPNN SPD and the Filton Airfield planning consent(s). A full Traffic and transportation assessment will be required, starting at GRIP 3 to inform the options and station design and to ensure full integration with the consents.

There is an area of mature trees and scrub that would need to be removed for the station to be constructed and it is assumed an ecological assessment will be carried out as part of the EIA. Based on the site visit there are no obvious other sensitive environment receptors close by. Station design and landscaping should take into account the master plan proposals and incorporate design principals and proposed environmental mitigation.

The requirements for utilities at the station and the proximity of existing utilities need to be taken into account during GRIP 4 to ensure they are assessed and the necessary consents and wayleaves identified.

5 ENVIRONMENTAL APPRAISAL

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.0 GENERAL RISKS							
1.1	Project Description, Town Planning/ Infrastructure Liabilities/ Operational Surveyor Teams, GI PORTAL	Does land or land rights (easements/way leaves/permanent – temporary site compounds, etc.) need to be purchased? Note: even if works are within permitted development (PD) rights there may be restrictions as to what activities are allowed (e.g vegetation clearance during nesting season).	Yes			<ul style="list-style-type: none"> • Seek advice from Town Planning/ Property/ Environment/ Community Relations Teams and consult with external stakeholders/ local authorities (LA) where necessary • Site investigation/ surveys • Design aspects: include in/modify design/relocate to avoid the need to address these issues/ incorporate mitigation measures • Develop a Consent/ Environment/ Communication Strategy Plan(s) as required • Obtain consent (TWA Order/ planning permission/ area land rights) if required • Specify protective measures in design/contract/constructi on requirements 	It is assumed the consents will be via a combination of a planning application and NWR permitted development.
1.2	Project Description, Town Planning/ Infrastructure Liabilities/ Operational Surveyor Teams, GI PORTAL, RAR, Utility Diagrams	Is the land leased out or are there 3rd party interests or onsite utilities, telecommunication, etc.)?	Yes				The land is currently owned by BAE systems
1.3	Town Planning Team	Does the acquisition or lease of the land change the status of the land			No		
1.4	Project Description, GI PORTAL, Town Planning Team	Is land that may need to be purchased/leased contaminated or a licensed waste facility?		?			Contamination may be present given historic land use in the area
1.5	Town Planning Team	Does the project require Transport and Works Act (TWA) order/planning permission or similar?	Yes				It is assumed the consents will be via a combination of a planning application and NWR permitted development.

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.6	Town Planning/ Environment/ Community Relations Teams	Has the Local Planning Authority or any other Statutory Body expressed concern over the project or similar projects?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/ Community Relations Teams • Consult with external stakeholders/ LA Consult with external stakeholders/LA 	Part of current site master plan
1.7	Town Planning/ Community Relations/ Environment Teams	Have residents or any other interest group indicated concern over the project or similar projects? Note: even if the works are within PD rights and are common activities, e.g. vegetation/tree clearance, this may still be sensitivity for stakeholders.			No	<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/Community Relations Teams • Consult with external stakeholders /LA 	Master plan consultation has been carried out and the scheme is supported by local authorities' Core Strategies and, in the case of the Henbury Line, the CPNN SPD, all of which have been subject to extensive public consultation.
1.8	Town Planning Team/local authority	Are there any local plans/development proposals of land adjacent to/near the project that may have future ramifications on the project?	Yes			<ul style="list-style-type: none"> • Seek advice from Town Planning/Property/ Environment/ Community Relations Teams 	Henbury Line station design should comply with the South Gloucestershire Core Strategy, CPNN SPD and be co-ordinated outline planning consent(s) for neighbouring developments Filton Master Plan and CPNN SPD (see below).
1.9	Project Description	Are there new or unusual features associated with the project that may become an issue with internal/external stakeholders e.g. tall masts, incompatible features with existing Network Rail structures?			No	<ul style="list-style-type: none"> • Consult internal Network Rail stakeholders • Design aspects: include modify design/ incorporate mitigation measures 	

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
1.10	Guidance from Asset steward/ other Network Rail departments,	Any relevant Network Rail policies (such as TWA/planning process)/conditions that may require derogation (e.g. issues: inc placing substations next to telecommunication masts) or adjacent to other Network Rail projects?			No	<ul style="list-style-type: none"> Consult internal Network Rail stakeholders Design aspects: include modify design/ incorporate mitigation measures 	
2.0	ENVIRONMENTAL CONSTRAINTS						
2.1	Project Description, GI PORTAL, RAR, site investigation	Does the local environment constrain the project e.g:				<ul style="list-style-type: none"> Consult internal Network Rail stakeholders Design aspects: include modify design/ incorporate mitigation measures Consult with/obtain consent if required (e.g. building on a flood plain/change to coastal defences) 	
		Flood plain?			No		
		Flooding?			No		
		Landslide?			No		
		Difficult access (e.g. steep embankment)?			No		
Other (specify e.g. pests such as rabbits)?			?		TBC		
3.0	AGRICULTURE /FORESTRY/VEGETATION MANAGEMENT						
3.1	GI PORTAL, BAP, Site survey	Does the project require taking good quality agricultural land, or affect any agriculture holding (e.g. severance)?			No	<ul style="list-style-type: none"> Site investigation Consult with external stakeholders (particularly if noticeable amounts of vegetation/trees/ habitat are affected) Design aspects: include in/ modify design/incorporate mitigation measures Obtain consent (LA permission, etc.) if required Specify protective measures 	
3.2		Does the project need to clear vegetation or trees on railway land or access routes?	Yes				There is significant vegetation on the site that will need to be cleared.
3.3		Does the project need to remove hedgerows?			No		
3.4	GI PORTAL, BAP, HERITAGE, Town Planning/ Environment Teams	Will the project need to remove, trim, cut trees under Tree Preservation Order (TPO) or in local planning conservation areas?			No		

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
4	AIR QUALITY						
4.1	Project Description, GI PORTAL, Town Planning Team/ LA – (Environmental Health Officers)	Will there be significant project activity that could generate large quantities of dust/noxious fumes or change the local air quality?			No	<ul style="list-style-type: none"> • Modify design/ incorporate mitigation measures • Consult with local authorities • Specify protective measures 	The nearest houses are in Cleve Road on the east side of the Gloucester Road (A38). They would not be affected.
4.2		Are there adjacent/nearby receptors: residences, businesses, schools, medical facilities, etc.?			No		
4.3		Are there any local authority policy constraints (e.g. within/close to an Air Quality Management Area (AQMA), breaching of government air quality objectives or limit values)?			No		
5	BUILDING, STRUCTURES, HISTORIC ASSOCIATION						
5.1	GI PORTAL, RAR, HERITAGE, LA, Town Planning Team	Does the project affect a Listed Building, structure and/or Scheduled Ancient Monument; e.g. from piling, excavation, demolition, change of use, visual obstruction, potential for subsidence, cable attachments, bridge platforms?			No	<ul style="list-style-type: none"> • Seek advice from Town Planning • Consult with LA/Heritage Agencies • Design aspects: include in/ modify design/ incorporate mitigation measures • Obtain local authority/ heritage consent if required 	
5.2		Does the project affect a local planning Conservation Area, historic landscape features or similar designated area?			No		
5.3		Does the project affect any other historical or man made feature likely to be of value?			No		

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
6	CONTAMINATED LAND						
6.1	GI PORTAL, RAR, Contaminated land reports/ database, Railway Estates/ Environment team	Will the project disturb contaminated land?		?		<ul style="list-style-type: none"> • Site investigation • Seek advice from Environment Team • Consult with LA if remediation required • Specify protective measures 	Given the historic airfield and rail uses contamination may be encountered.
6.2	GI PORTAL, RAR Contaminated land reports/ database, site survey, Railway Estates/ Environment team	Is the project site located adjacent to/near an externally owned (e.g. landfill/industrial site) or Network Rail potentially contaminated site or sidings?			No	<ul style="list-style-type: none"> • Seek advice from Environment Team • Seek alternative site • Site investigation • Specify protective measures, including possible remediation 	
6.3	Project Description, GI PORTAL, RAR	Will the project activities open up pathways (e.g. channels) from contaminated areas to environment/stakeholder receptors; e.g. SSSIs			No	<ul style="list-style-type: none"> • Site investigation • Seek advice from Environment Team • Design aspects: include in/modify design/ incorporate mitigation measures • Specify protective measures 	

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
6.4	Project Description	Will produced wastes/spent ballast likely to be contaminated?	Yes			<ul style="list-style-type: none"> • Seek advice from Environment Team • Site investigation/ sampling • Follow NR/SP/ENV/044 for used ballast and/or hazardous/special waste requirements 	It is assumed that the existing ballast is contaminated and will require removal from site. Disposal to be managed in accordance with the agreed WMP.
7	ECOLOGY (protected species/areas and invasive species)						
7.1	GI PORTAL, BAP, RAR, HERITAGE, Town Planning/ Environment Teams, site survey, LA BAP local conservation organisations	Is the project site/access/staging areas/ compounds on/adjacent/nearby a statutory nature conservation site (e.g. SSSI, RAMSAR, SPA/SAC/cSAC/pSPA site) or other ecological designations?			No	<ul style="list-style-type: none"> • Seek advice from Environment Team • Site survey • Consult with local Conservation Agencies/LA • Design aspects: include in/ modify design/ incorporate mitigation measures • Obtain protected species license if required • Specify protective measures/follow site management plan (SMS) if SSSI • Train staff • Continue monitoring if required 	
7.2		Will the activity (e.g. working in a culvert, drainage works) and/or materials used have the potential to indirectly affect the designation and/or a protected area (e.g. downstream SSSI water quality)?			No		
7.3		Are there any protected species and/or habitats e.g. bats, badgers, newts etc. at or near the project site?			?		

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
7.4	BAP, RAR, Site survey	Are there any invasive vegetation species (Japanese knotweed, Giant hogweed, etc.) at or near the project site?		?		<ul style="list-style-type: none"> Site investigation Enabling works for removal Specify protective measures 	Ecological survey required
8	LANDSCAPE/TOWNSCAPE/VISUAL						
8.1	Project Description, Town Planning/ Environment	Is the site at/near or can be seen from a National Park/World Heritage Site/Area of Outstanding Natural Beauty (AONB)/local landscape/coastal/townscape designation?			No	<ul style="list-style-type: none"> Site investigation Consult with local Heritage/ Conservation Agencies Design aspects: include in/ modify design/incorporate mitigation measures (e.g. restoration plan) Specify protective measures 	
8.2	Teams, LA/ Heritage/ Conservation Agencies	Will the visual amenity of lineside residents be affected; e.g. removing vegetation, erecting new/taller structures than existing surroundings, demolition in Conservation Areas?			No		
8.3		Will new structures/project components obstruct visual amenity of dwellings/recreational areas/cultural heritage/conservation areas?			No		
8.4		Will grading and vegetation removal with subsequent landscaping be required?	Yes				There may be a requirement for landscaping in keeping with the Filton Master Plan Proposals
9.0 NUISANCE: NOISE, VIBRATION AND LIGHT							
9.1	Project Description, GI PORTAL	Will noise/vibration likely to increase from existing levels at site during construction?	Yes			<ul style="list-style-type: none"> Site noise investigation Consult with local authorities (EHO) Design aspects: include in/ modify design/incorporate mitigation measures Neighbour letter drops/ 	Station operations and PA design should be developed in accordance with the master plan proposal.
9.2		Will it affect?					
		Adjacent/nearby residences?		?			

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
		Adjacent/nearby businesses, worship, schools, hospitals, hotels etc.?			No	<ul style="list-style-type: none"> consultation Obtain Section 61 consent if required Specify protective measures Train staff Continue monitoring 	
		Adjacent/nearby SPA/SAC, nesting birds, seasonal constraints?			No		
9.3		Will the project occur at night/weekend or public holiday (use of lights/noise)			No		
9.4	Project Description/ Noise Insulation Regulations	Will noise/vibration likely to increase from existing levels at site during operation?			No	<ul style="list-style-type: none"> Site noise investigation Seek advice from Environment Team/Other Network Rail departments Design aspects: include in/ modify design/incorporate mitigation measures 	
10	TRAFFIC GENERATION AND ACCESS						
10.1	Project Description	Will significant traffic (vehicular/heavy loads) particularly through villages and along farm/country roads be generated (Public Rights of Way)?		?		<ul style="list-style-type: none"> Consult local authorities/highways dept. Design aspects: include in/ modify design Obtain Highways consent if required Specify protective measures 	Traffic assessment required as part of the EIA and DCO.
10.2		Will the scheme result in new vehicular traffic flows? (Before and/or after)	Yes				Access to the station needs modelling. Highways design and consent required
10.3		Will it cause new pedestrian movements? (Before and/or after)	Yes				Pedestrian modelling required
10.4	As above	Any footpath, road closures/diversions required during construction?			No	<ul style="list-style-type: none"> As above 	

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
10.5	Project Description	Will parking outside railway land be required (e.g. on streets, on/near lineside neighbour's land)			No	<ul style="list-style-type: none"> Specify protective measures Train staff 	
10.6		Are access points near adjacent properties (nuisance including noise)			No		
11	WATER RESOURCES, POLLUTION (including Silt) AND DRAINAGE						
11.1	Project Description, GI PORTAL, RAR, Surface water risk assessment model, Site investigation	Is the project on/near/adjacent to a watercourse and drainage channels?			No	<ul style="list-style-type: none"> Site investigation Consult with local Environment Agency/DEFRA for coastal/ marine/estuary areas Design aspects: include in/ modify/design to remove the need for a consent Obtain work near watercourses, obstruction to watercourse, discharge to controlled waters and/or sewerage system, etc. consents if required Specify protective measures (e.g. Site Drainage Plan, Emergency Incident Plan) Continue monitoring 	
11.2		Will the works occur within 8-m of the bank and/or in a designated main river			No		
11.3		Will the project need to remove vegetation close to/on or in a riverbank?			No		
11.4		Is it likely to affect the flow of watercourses?			No		
11.5		Will works occur around a water source protection area or require abstraction of water from a well?			No		
11.6		Will works occur near marine waters, on coastal areas below mean high tide or affecting navigation?			No		
11.7		Will it generate a discharge either directly to a watercourse or to soakaway/ground; e.g. dewatering operation/discharge from a bund?			No		
11.8		Will it generate a discharge to a foul sewer?			?		
11.9	Project Description, GI PORTAL, RAR, Site investigation	Will waste/spoil be stockpiled, materials/chemicals/fuels/oils stored at site that could enter a watercourse, major aquifer underneath or on a flood plain?			No	<ul style="list-style-type: none"> Establish protective measures Train staff 	Excavated spoil and ballast will be removed from site in accordance with the WMP.
12	WASTE MANAGEMENT						

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
12.1	Project Description, NDS/ Town Planning/ Environment Teams	<p>Network Rail requires all projects to develop and implement a Site Waste Management Plan.</p> <p>Key questions to consider in this plan include, but are not limited to:</p> <p>Will onsite disposal or land purchase be required?</p> <p>Will it generate large quantities of surplus material; i.e. spoil, sleepers?</p> <p>Can surplus material be reused (spares, spoil, etc.)?</p> <p>Will it generate hazardous wastes; e.g. oil, paint cans, contaminated land?</p>	Yes	?	No	<ul style="list-style-type: none"> • Design aspects: include in/ modify design: reuse, recover, recycle • Consult with and obtain consent from local authorities/Environmental Agencies for storage/ management concerns • Obtain environmental permit if necessary • Specify protective measures in the WMP 	<p>Waste management plan to include all materials to be removed from site.</p> <p>Spoil and vegetation</p> <p>Spoil may be used in landscaping.</p> <p>All waste to be managed in accordance with the Contractors WMP.</p>

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments	
13	SUSTAINABILITY: ENVIRONMENTAL OPPORTUNITIES							
13.1	Project Description/ Environment Team	Can recycled/reclaimed materials such as sleepers/ballast/spoil/cables be used instead of raw materials?			N/A	<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities • Build into WMP 		
13.2		Can the project help meet the requirements of sustainable consumption; can sustainable materials be incorporated into the design?	Yes				<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	Sustainable station design
13.3		Can the project demonstrate a reduction in the reliance on fossil fuels; can renewable energy be incorporated into the design? Has whole life embedded carbon been considered?	Yes					Station design should include sustainability measures commencing at GRIP 4
13.4		Can energy/water efficiency be gained through building design/supply chain?	Yes					Apply BREEAM principals
13.5	Project Description/ Environment Team	Can work be performed in parallel with another project reducing wastage, duplication and redundancy of materials, timing and resources?		?		<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	Network Rail to confirm.	
13.6		Can effluents and discharges be minimised?			No		N/A	
13.7	Project Description/ Environment Team	Can potentially polluting materials be replaced with less harmful materials (e.g. biodegradable oils)?			No	<ul style="list-style-type: none"> • Modify design/contract/ construction strategy to capitalise on opportunities 	N/A	
13.8		Are there other areas where environmental and sustainable benefits can be gained; such as						
13.9		Positive communication/interactive consultation with lineside neighbours/other stakeholders?	Yes					Network Rail and design team action

	Information Sources	Environmental Considerations and Risks	Yes	?	No	Possible action (but not limited to)	Comments
13.10		Innovative environmental designs/methods of work?	Yes				Integration with the other master plan elements (energy, BIM, transport etc)
13.11		Positive contribution to habitats/protected species?	Yes				Landscape design
13.12		Other (specify on action log)?			No		
13.13		Are there any other possible environmental effects specific to this project? If so list them: e.g. electro-magnetic effects, settlement, local issues/policies			No		Interface with other master plan development elements
OTHER							
14.1		None.			No		

6 POSSIBLE CONSENTS NEEDED

Consent Type	Responsible Agency	Consent Required
Landtake		
<ul style="list-style-type: none"> TWA Order if require compulsory purchase of land 	Planning authority	It is assumed the consents will be via a combination of a planning application and NWR permitted development.
<ul style="list-style-type: none"> Planning permission from local authorities (Town and Country Planning Act 1990) 	Local Planning Authority	TCB
<ul style="list-style-type: none"> Listed Buildings/Conservation Area (Town and Country Planning Act) 	Natural England	No
Trees and Ecology		
<ul style="list-style-type: none"> Work affecting Tree Preservation Orders, which offer legal protection to trees (Town and Country Planning (Trees) Regulations 1999) 	Local Planning Authority	No
<ul style="list-style-type: none"> Licence for felling timber (Forestry Act 1967) 	Local Planning Authority	No
<ul style="list-style-type: none"> Works affecting Important Hedgerows (Hedgerow Regulations 1997) 	Local Planning Authority	No
<ul style="list-style-type: none"> Licence for disturbance to badgers (Protection of Badgers Act 1992) 	DEFRA	TBC
<ul style="list-style-type: none"> Other wildlife consents required for works affecting protected species e.g. great crested newts, bats 	NE/SNH/CCW; DEFRA	TBC
Noise and Vibration		
<ul style="list-style-type: none"> Section 61 consent on nuisance (noise) during construction (under the Control of Pollution Act 1974) 	Local Authority – Environment Health Officer	Unlikely to be required
Traffic Generation and Access		
<ul style="list-style-type: none"> Highways stopping/diversion consent (including temporary closures) Vehicle crossing consents (Highways Act 1980) 	Highways authority	TBC
Water Resources (quality and hydrology)		
<ul style="list-style-type: none"> Consent for works over, under or adjacent to designated main rivers (Land Drainage Act /Water Resources Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> Works affecting flow/structures in watercourse or navigation (Land Drainage Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> Works around water source protection area (Water Resources Act 1991) 	Environment Agency/SEPA	No

<ul style="list-style-type: none"> • Consent for works within 8m of a watercourse (Land Drainage bylaws) 	Local Planning Authority	No
<ul style="list-style-type: none"> • Water abstraction license (Water Resources Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Consent for dewatering/discharge of water from excavations (Land Drainage Act 1991) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Consent for discharge to controlled water and/or groundwater (Water Resources Act 1991/Groundwater Regulations) 	Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Water Authority Consent to discharge to foul sewer (Water Industries Act 1991) 	Sewerage undertaker/ Environment Agency/SEPA	No
<ul style="list-style-type: none"> • Consent for works in coastal areas and marine waters (Coastal Protection Act 1949/Harbours Act 1964) 	Marine Consents & Environment Unit (DEFRA)/Local Harbour Authority	No
Waste Management		
<ul style="list-style-type: none"> • Duty of Care Regulations Environmental Protection Act 1990 as amended (hazardous, non-hazardous, inert) 	Environment Agency	TBC
<ul style="list-style-type: none"> • Waste Framework Directive 2009 (waste hierarchy) 	Environment Agency	Compliance required
<ul style="list-style-type: none"> • CL:AIRE Code of Practice (management and processing) Code of Practice 	Local Authority / Environment Agency	Yes
<ul style="list-style-type: none"> • Contaminated Land Regulations 	Environment Agency /Local Authority	Yes
<ul style="list-style-type: none"> • Site Waste Management Plan 	Local Authority	Yes

7 SITE LOCATION



Approximate site location indicated with a red box (Source: Google Maps).



Approximate site location indicated with a red box (Source: Google Maps).

See also Cribbs Patchway new neighbourhood:-

<http://www.southglos.gov.uk/environment-and-planning/planning/planning-policy/planning-policy-guidance/cpnn/cribbs-patchway-new-neighbourhood-spd/>

8 SITE PHOTOGRAPHS



Photograph 8.1: View to new station from A38 Gloucester Road bridge



Photograph 8.2: View of Filton Airfield access road from the A38. Looking towards new station.



Photograph 8.3: Looking south on A38 Gloucester Road (dual carriageway), building to be demolished on right, residences on left.