



70056211 Shrewsbury North West Relief Road Risk Register FBC model

Risk ID	Date Identified	Category	Record Type	Technical Discipline	Summary /Group	Risk Name	Status	Cause	Risk Summary	Consequence	Risk owner	Organisation	Proximity	Mitigation	Justification - Probability and impact assessment	Pre-Mit. Probability %	Post-Mit. Probability %
313	01/08/2024	Stakeholder	Threat	Client /PM	Parent Risk	Public Inquiry or Judicial Review driven by CPO process (professional services/legal costs only)	Open	<p>- We are advised by Town Council officers that they may object to the application for a Section 19 Certificate. If they do, this may influence the Secretary of State in whether or not to hold a public local inquiry but only if a CPO/SRO inquiry is not called-in. The amount of land required has been reduced to a minimum and this will help to make the case to the Secretary of State that a public local inquiry is not necessary.</p> <p>- There are similar, risks from other landowners in relation to the CPO process - plus in relation to the Protective Provisions Agreement with National Grid Electricity Distribution, that could lead to delays of the completion of the CPO statutory process.</p> <p>A further risk remains, which could lead to a Judicial Review, if the T&T model is shared with 3rd parties; although the risk has been lowered by SC's response to an FOI request that has been supported by the ICO.</p>	Objections to CPO process could lead to a public inquiry or judicial review	This would potentially lead to a 12 to 18 month delay on the start of works, inflation could impact land prices based on the current indexation rate which would delay the programme with additional legal costs, but only if a CPO/SRO inquiry is not called.			CPO agreed with landowners	<p>- Regular calls between ██████████ and Shropshire Council to progress the CPO brief</p> <p>- Ensure a robust CPO submission.</p> <p>██████████ have confirmed that reducing the area of land taken is the most effective mitigation measure to minimise the risk of Public Inquiry. An application for the Section 19 certificate cannot be made before planning permission is granted, however WSP Land Reference team will prepare the application to submit as soon as possible. The procurement timetable is now determining the critical path rather than CPO/SRO enquiries.</p>	12-18 month delay, significant uplift to consultation costs across all disciplines.	50%	50%
311	09/08/2024	Programme	Threat	Utilities	Stats/diversions	Delayed start of construction works (parent risk)	Open	<p>This is a parent risk that summarises the cause and impact of the following risks</p> <p>- 25C: ██████████ delaying utility diversions and construction of the Holyhead Roundabout</p> <p>- 244: Alternative Severn Trent Water diversion route</p> <p>- 282 Drainage design may need to be adjusted to add provision for replacing private drainage or irrigation</p> <p>Delayed agreement of S106 licenses resulting in delayed approval of the planning notice.</p> <p>The purpose of this entry in the risk register is to avoid overstating the prolongation element of risks that may delay the start of construction works.</p>	The various risks listed under "cause" may delay the start of the main works on site.	The project team do not anticipate that any of the risks to commencement of construction works will exceed the length of delay identified in respect of Risk 25C (9 months) which is driven by missing the seasonal window to remove the ██████████		Shropshire Council	Decision notice	<p>- ██████████ sent above information to continue working on the proposals</p> <p>- C4 proposals were received from Severn Trent Water on 14.07.23 who were happy with settlement rates in the area and no clashes with band drains have been identified</p> <p>- Await confirmation of Severn Trent Water proposals</p> <p>- 01.24: Severn Trent Water have requested the installation of a wash-out pipe for the proposed reservoir extension, with no regard/relationship with the proposed diversions of the existing pipes</p> <p>- 01.24: ██████████ GPR survey results should reduce this risk further. One of the two mains has been picked up by the GPR survey, but the location/depth of the other is yet to be verified</p> <p>- Contractor to inform design team and suitable remedial measures to be provided</p>	Impact ranges based on contractual indexation rates. We have missed the reasonable window to undertake the ██████████	80%	80%
314	21/08/2024	Technical	Threat	Structures		ECI Design Assumptions may not be realisable	Open	<p>ECI engagement took place with the initial contractor ██████████ however WSP have had to progress this design with no supplier on board to validate design progression</p> <p>'- Designs have been largely influenced by ██████████ preferences and plant availability, e.g. use of CMC's/pencol columns in earthworks designs, river bluff earthworks designs and use of 1m cased CFA piles for the viaduct design.</p>	The Main Works Contractor, once appointed, may identify that a number of the assumptions identified in collaboration with the ECI contractor and their supply chain may not be realisable in construction	If there was significant design change once the Main Works Contractor was brought on board and reviewed the detailed design this would result in significant delay		Shropshire Council	Contractor appointment	<p>WSP senior staff engaged during design to ensure that assumptions made are reasonable.</p> <p>Client was advised of the risk associated with this item</p> <p>- Independent ECI advice was obtained to give additional confidence in the approach. the sooner the preferred bidder is chosen, the sooner these discussions take place.</p>	██████████ based CFA capabilities are not anticipated to be vastly different to other contractors, however if new contractor does not have correct equipment there will be high cost and schedule impact. Works package sent out in March to tenderers. Contractors have not highlighted any issues, therefore post mitigation is probably reduced	60%	50%
251e	30/07/2024	Technical	Threat	Client /PM		Legal Review of CPO, SRO and Land Referencing plans	Open	<p>CPO and SRO processes are ongoing and we may not be able to agree private land acquisition through voluntary negotiation, and may not be able to achieve SRO agreement in line with programme requirements.</p>	We may need to acquire private land access via CPO process, and the SROs may not be agreed in line with programme requirements.	Programme delay, with associated cost escalation		Shropshire Council	CPO agreed with landowners	<p>Land Referencing are due to discuss with ██████████ to clarify the situation and ultimately agree whatever checks need to be done and who does them. This can now be done in the revised timescale if Shropshire Council cabinet approve CPO process on 15th July 2024</p> <p>██████████ have confirmed barrister approval of a number of Compulsory Purchase Order (CPO), Side Roads Order (SRO) and Land Referencing documents have been approved and which still require a legal sign-off. WP2 data has not been reviewed/approved. This has not been received as at August 2024</p> <p>Changes to the data for WP2 have led to delay of plot by plot review, as there was uncertainty around completeness of the data. This review is being rescheduled..</p>	Changes to the data for WP2 have led to delay of plot by plot review, as there was uncertainty around completeness of the data.	80%	40%
2A	12/06/2023	Project Capital Cost	Threat	Client /PM		Construction materials (including structural steel) cost inflation may exceed cost rises above the construction inflation included in the FBC (though not in the constructors' cost plan).	Open	<p>Construction inflation costs exceed the standard rate of inflation.</p>	There is a risk that there will be an increase in the real cost of scheme & variation in material costs. For example, the £3.4m allowance for structural steel may not be sufficient.	May result in increases on project with potential delays awaiting approval of increased cost.		Shropshire Council	Contractor appointment	<p>Engagement with contractors and maintenance of up to date cost estimates by experienced QS team. Additional funding from Shropshire Council corporate resources plus ongoing discussions with DIT.</p>	Reputation and stakeholder is based on the impact of the risk and cost (spending)	60%	40%
233c	09/10/2023	Technical	Threat	Client /PM		Severn Trent Water and the Environment Agency may change their requirements for planning containment	Open	<p>- Severn Trent Water and Environment Agency change their requirements for parapet containment</p> <p>- Driven by need to protect local watercourse and supply for three neighbouring counties.</p>	Parapet metal and N2/H2 containment level assumed. Affects cantilever slab, girder arrangement and N verge width.	If the current design assumptions are revised then this would lead to fundamental redesign.		Shropshire Council	Contractor appointment	<p>PM team to liaise with Severn Trent Water.</p>	0	13%	3%
316		Environmental	Threat	Environmental		Unforeseen clashes with newly identified ██████████ locations	Open	<p>New ██████████ locations have been identified in the Summer following the implementation.</p>	Additional surveys will be required in the Spring next year to apply for an endangered species relocation license. If new ██████████ are in critical areas for site works said works could be delayed while we apply for the license and look to get the ██████████ closed.	This could have multiple impacts on the construction programme.				<p>Environmental survey to be undertaken in Spring next year once Decision Notice is agreed.</p> <p>Licenses to be in place by the end of June and the season for closing and moving ██████████ commences in July.</p>	██████████ locations mostly covered in cost plan and programme, this risk only covers minor unforeseen exceptions.	13%	13%
283	11/07/2019	Technical	Threat	Drainage		Infiltration testing may identify variance in drainage capacity assumed following GI surveys - Basin 8 only	Open	<p>- Current design is based on local information based on GI surveys. The design takes a conservative approach and makes significant allowances</p> <p>- Infiltration testing is due to commence in September 2024</p>	Infiltration rates are not as good as expected, where infiltration features have been proposed. If this were to occur, then sections of the current drainage proposals would need to be redesigned. If the infiltration rates are significantly better than we have allowed for then we may be able to realise efficiencies and downsize some of the infiltration features	Sections of the current drainage proposals would need to be redesigned		Shropshire Council	Issue for construction	<p>Further infiltration testing is required in the areas and at the depths which are being proposed to infiltrate to. The results of this testing could either validate the design or lead to design changes being required</p>		40%	20%

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297	28/06/2019	Programme	Threat	Highways		Wider signing review	Open	<ul style="list-style-type: none">- Introduction of the new NWRR impacts signage beyond the NWRR on the wider Shropshire MRN- This review is ongoing and a report is being drafted. As this report progresses additional changes could be required- Interface with National Highways on review of emergency diversion routes has been identified. National Highways have completed their initial review, but their review is ongoing and could be impacted by interfacing National Highways schemes- The wider signing review report and strategy need to be approved by the LPA as part of the scheme planning conditions.	Wider signing review could have an impact on Advanced Direction Signs (ADS) and Direction Signs (DS) signs, resulting in updates being required to existing signs on the wider highway network. If the wider signing strategy is not agreed or accepted this could require changes the current design of signs within the scheme boundary. Similar risk to risks 173 & 175 relating to the classification of Welshpool Road.	Resulting in possible further work that will have programme prolongation impact and cost impact, specifically to the completion date for the scheme.		WSP	Issue for construction	<ul style="list-style-type: none">- Initial site visits for Wider Signage Review complete. The initial findings have been incorporated into the current scheme traffic sign design. This could change as the design matures and this may not be complete until the Main Works Contractor is on board- WSP have liaised with National Highways on National Highways emergency diversion routes and they have agreed to WSP's proposed emergency diversion routes symbols to be put on signs, however they are still reviewing and updating their routes so the routes could change (increase or decrease)- Current signs in scope. Some of the ADS and DS signs have larger dimensions to allow additional symbols	<p>This feeds into one of the planning conditions to submit a strategy report which could result in comments that drive cost escalation beyond the tender process.</p> <p>Wider signs review will set out the wider signs strategy that has been adopted for the scheme design within the scheme limits.</p> <p>Comments may drive change to the scheme limits</p> <p>Comments may also drive risk around the impact to the wider network.</p> <p>Impacts engagement with NH e.g. around emergency diversion routes which could also impact scheme signage within scheme limits because NH are reviewing and updating that on a regional level which could drive additional requests and comments.</p> <p>Comments on this scheme will be minimal because the design is fairly mature. the main impact is the integration with the wider road networks</p>	70%	70%
295	11/07/2019	Programme	Threat	Drainage		Outstanding Drainage and Sewage RFIs	Open	There are currently information requests outstanding from the drainage team (sewer surveys and infiltration testing).	Infiltration taking place in September 2024, by which point we are meant to have issued Package 2 drainage design information.	<ul style="list-style-type: none">- Delays in receiving this information could delay the programme- Surveys could be delayed by land access issues		WSP	Issue for construction	Regularly follow up with PM team who acknowledge that there is outstanding information . The design should proceed at risk whilst this information is being obtained		60%	30%
262	09/02/2022	Technical	Threat	Geotech		EWN05 (Shelton)	Open	Due to presence of cable stays.	There may be a need to redesign EW05 (Shelton) to incorporate a retaining structure.	Potential to effect temporary works access to the viaduct western abutment - delaying schedule and increase design costs. CAT3 check may need to be updated too (send design to another consultant to check design)		Shropshire Council	Issue for construction	<ul style="list-style-type: none">- Confirmation of National Grid Electricity Distribution requirements and remodelling of highway earthworks- Geotech to provide initial sketch for National Grid Electricity Distribution approval before progressing the detailed design	<p>No mitigation- currently trying to understand Western Power Distribution's (WPD) requirements as power cable is their asset.</p> <p>Low probability due to engagement with NGED, however if we need to construct a retaining wall NW of the Viaduct the cost impact would be significant</p>	60%	13%
28	12/07/2019	Project Capital Cost	Threat	Client /PM	Pubic Inquiry/Judicial Review	Severn Trent Water may object to acquisition of sensitive land parcels under CPO	Open	<ul style="list-style-type: none">- Integrated design review taking place on 22.07.24 to confirm whether land take is permanent or temporary land take- CPO documents are all in draft at present- This is operational land so permanent acquisition may be a key issue- Objections may be left in for public enquiry	Severn Trent Water may object regarding land Compulsory Purchase Order, leading to opposition from statutory consultees at Public Inquiry.	Additional work to rebut and the potential for increased costs due to requiring an alternative solution		Shropshire Council	CPO agreed with landowners	<ul style="list-style-type: none">- Working Paper on alternatives plus minimising works through Severn Trent Water land at Shelton- Senior level discussions with Severn Trent Water		40%	13%
29	30/01/2020	Programme	Threat	Client /PM		Trackside access to Network Rail railway bridge	Open	Rules of routes possession access could be lost or delayed.	Delays experienced due to requirement for track side access to the Network Rail railway bridge.	Project delays and cost increases		Shropshire Council / Contractor	Issue for construction	<p>Close liaison with Network Rail throughout design period</p> <p>Discussions with Network Rail have indicated that we could take possessions under rules of route so would not need disruptive possessions.</p> <p>Two main contractors have confirmed possession requirements and rules of route.</p> <p>To be reviewed off the back of the tendering process, of the 2 main contractors under review one includes this in their price and one considers it a compensation event</p>	<p>The impacts of missing key dates if staff were off sick or not available</p> <p>So long as rail bridge works do not fall on critical path delay would be minimal impact because we would be using rules of routes possession.</p>	40%	50%
77	11/07/2019	Environmental	Threat	Environment		Maintaining the buffer zone between the red line boundary and ancient woodland to the west of the railway crossing	Open	The ancient woodland is extremely close to the red line boundary. An area of ancient woodland to the west of the railway crossing needs to be avoided with a circa 25m buffer zone, given that National Planning Policy Framework only permits the loss of ancient woodland in 'wholly exceptional' circumstances (note that this is a recent change to National Planning Policy Framework and substantially increases protection afforded to ancient woodlands)	The Main Works Contractor's method statement and construction exclusion zones may not be compliant with the Environmental Statement assessment conclusions	Reputational impact and possible legal challenge, along with possible delay due to protestor action	Contractor	Contractor	Construction	<ul style="list-style-type: none">- Highways team advised 10.07.24 of implications of encroachment so that the final design can avoid impacting this area- Exclusion zones to be identified on constraints and mitigation plans		13%	13%
154	31/05/2022	Client	Threat	Client /PM		Increase in costs in relation to the Technical Approval Process with National Highways.	Open	Inflation would be the main driver of these costs	<ul style="list-style-type: none">- Estimated costs have been provided as part of the technical approval process. Main Works Contractor ideally needs to be in place to feed in to these.- Estimate to be provided to National Highways (at the appropriate Gateway stage) to obtain their approval to build on their network; price likely to increase if the project is delayed or stopped.	<ul style="list-style-type: none">- Cost escalation- Review cost plan with commercial lead- Increased project cost from National Highways		Shropshire Council	Issue for construction	WSP to begin TAP discussions with National Highways as soon as reasonably practicable		13%	13%
18	31/05/2022	Programme	Threat	Traffic & Transport		Traffic modelling requires additional sensitivity testing	Open	Levelling Up Fund scope and the introduction of the 50 mile per hour scheme has not been considered in the model.	Additional traffic modelling may be required by DfT to undertake additional sensitivity testing of alternative options, e.g. LUF 2 and the restriction of the scheme to 50mph/.	<p>Additional sensitivity testing could cause minor delays to the programme.</p> <p>Cost escalation for additional sensitivity testing.</p>		Shropshire Council	Full Business Case	<ul style="list-style-type: none">- Liaise with DfT and National Highways to create common requirements and agree with all parties- Discussions ongoing with Shropshire Council around potential sensitivity tests	<p>Worse case if something went wrong during construction.</p>	10%	10%
10	11/07/2019	Programme	Threat	Client /PM		Staff resource levels	Open	Market demands on resources across multiple projects and programmes.	WSP unable to maintain resource levels to deliver to programme	Could result in programme slips and statutory processed bring delayed		WSP	Issue for construction	<p>Close project management through design period and bringing resources from other offices.</p> <p>Ongoing dialogue across WSP</p>	<p>Probability is based on the fact that getting to end of Detailed Design, but this could fluctuate. Based on volume of construction that will be taking place at the same time.</p>	13%	3%
31	09/07/2019	Programme	Threat	Client /PM		Possible change to L153 (CDM Regulations)	Open	<ul style="list-style-type: none">- Change in powers and attitude of HSE- Possible change to L153 (CDM Regulations)	Regulatory change may impose additional resource requirements or change to site working methodology.	Could increase cost and programme duration due to additional Health and Safety requests		Shropshire Council	Issue for construction	Awareness of HSE requirements through WSP Health and Safety Teams	Tolerated risk	3%	3%
37C	11/07/2019	Environmental	Threat	Environment		Risk of contamination into the aquifer	Open	Boreholes may create a pathway to the aquifer and risk contamination.	- Risk of creating a preferential pathway or mobilisation of contamination into the aquifer during construction, impacting the abstraction source	Programme delay with associated cost escalation.	Contractor	Shropshire Council / Contractor	Construction	<ul style="list-style-type: none">- Routine monitoring to include testing for microbial species in groundwater to understand baseline conditions and consideration of risks included within the PWRA- Use of temporary casing for piling to the west of the River where aquifer is most sensitive (within SPZ)- Construction of any new boreholes and decommissioning of existing boreholes shall be undertaken with direct input from both the Environment Agency and Severn Trent Water- Planning determination still awaited. Severn Trent Water have agreed to a conditional approach. Environment Agency position still to be discussed and agreed.- Borehole locations have been included in the Constraints Plan		3%	3%
233z	11/07/2019	Technical	Threat	Geotech		Temporary works sheet piles for the cofferdam at the pier pile cap locations	Open	Restriction in pile length due to 10m standoff from bedrock	Temporary works sheet piles expected to be required to support excavation for viaduct pier pile caps. Risk that the sheet piles extend into the 10m standoff zone.	Severn Trent Water involvement and potential to delay works while alternative solution is agreed,	Contractor	Contractor	Contractor appointment	Contractor to design temporary works so that sheet piles do not extend into 10m standoff (i.e. through use of temporary propping)		13%	10%
274	02/06/2021	Programme	Threat	Environment		Flood Risk Activity Permit application approvals could take longer than usual	Open	<ul style="list-style-type: none">- We are engaging with the Environment Agency flood team around the FRAP. This will be required for advanced works and main works on a site by site basis for different sites on the flood plain	<ul style="list-style-type: none">- Flood Risk Activity Permit (FRAP) application approvals could take longer than usual, if there are complications with the Environment Agency application- Development directly on the embankment impacting discharge on the water course- Currently engaging with the Environment Agency	Would need redesign to find an alternative that the Environment Agency find acceptable, with a possible need for further land acquisition		Shropshire Council	Decision notice	We will continue to seek and hold dialogue with the Environment Agency to keep the approval period as short as possible and will apply for permits as soon as possible following the issue of the planning notice	Value v low as the delay costs are wrapped up in programme risk.	30%	30%

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233i	16/02/2022	Technical	Threat	Structures		Unidentified utilities may be encountered during construction	Open	If we find the stats in different locations from source records and surveys - possible areas of concern are: Pier 1 & 2 columns - river banks and 8m corridors Pier 2 location - Severn Trent Water exclusion zone Pier 1 location - water main	We may encounter unforeseen buried services or utilities during construction.	Utility diversion, stopped works on site if services struck, compensation payments to utilities provider - If significant changes are required to the stats location, it would be cheaper to divert the stats		Shropshire Council	Contractor appointment	Refer to 'T443 - Project Assumptions Log_SNWRR SRRSV_v01' for actions required to manage assumptions - It is understood that the access track location is now finalised over Pier 1 (to west of the columns, adjacent to the former location of retaining structure). Pier design has been progressed on that basis	There are only three interfaces with the Highways and we are not working in city centres so very unlikely to find much in the way of buried services, that are in active use, and the GPR survey undertaken by [REDACTED] has not really identified any significant causes for concern - The ECI contractor was a specialist in steel erection and we have also been advised by one of the leading market providers so probability should be low	13%	10%
300	09/02/2022	Technical	Threat	Drainage		Overland flows mix with highways flows at Basin 6	Open	Overland flows mix with highways flows at Basin 6	- Risk that client will not accept Departure from Standard (DFS) for this (CD 522 Clause 1.2). Risk that Lead Local Flood Authority will not accept a cutoff ditch to divert overland flows. If Highways and Lead Local Flood Authority stick to these requirements we could need an additional attenuation basin at Basin 6 - Basin 6 is in a natural low point and highway runoff and water that lands naturally on the land will also drain to this point	If Highways and Lead Local Flood Authority stick to these requirements we could need an additional attenuation basin at Basin 6		WSP	Issue for construction	Seek discussion and agreement with the LLFA.		30%	30%
49	11/08/2022	Environmental	Threat	Client /PM		Property cost estimate uncertainty	Open		Cost uncertainty around land values.	May result in increased costs to the project.		Shropshire Council	Construction	WSP Land Services team to begin discussion with landowners	0	13%	13%
50	22/11/2023	Reputation	Threat	Client /PM		Site access for surveys	Open	Damage during site access for surveys	There may be a prevention of typical land usage.	Compensation events from landowners will increase costs.		Shropshire Council / Contractor	Issue for construction	Plan surveys in detail through liaison with landowners and tenants	0	13%	13%
284	12/06/2023	Technical	Threat	Drainage		Highways build up may go as deep as 780mm	Open	The current highways buildup includes for the possibility that the build up may go as deep as 780mm	- Subject to CBR testing and the Highways team do not expect this depth to be required. The Highways team may have already picked this up as a risk, but it should be noted that this risk may have a knock on effect to the Drainage team, as it could lead to a requirement to lower the edge-of-pavement (subbase) drainage - If there is no issue with groundwater (and this is verified by the Pavement Team) then we may be able to descope some elements of the sub surface drainage.	- Could have a knock-on effect on the main drainage system. If the road build up ends up deeper than 600mm this would require a detailed review to ensure that no redesign is required. If the road build up ends up deeper than 700mm, this would be likely to require redesign, which could increase costs and delay the design programme - Additional design work, circa 3 weeks to redesign, with a focus on locations that are not deep enough to manage this impact.		WSP	Issue for construction	Drainage Lead's review suggested that edge-of-pavement (subbase) drainage may not be required unless the road is considered a 'Heavily Trafficked Trunk Road' or the water table is within 300mm of the subbase. PM Team currently reviewing the designation of the road, but this might remove the need for the edge-of-pavement (subbase) drainage all together.	0	3%	3%
4A	01/08/2024	Programme	Threat	Client /PM		Land owner refusal of survey access (in red line boundary)	Open	Land owner refusal	Inability to conduct surveys.	Could result in delay whilst entry powers are obtained, resulting in loss of goodwill and potential adverse publicity.		Shropshire Council	Construction	- Land access agreements have all been issued—This has now been done - Land access agreements are only in place for 12 months, and will expire in April 2025. Mitigation in place to start the process again in January so that they will be signed prior to expiry. Therefore there should not be any gaps where refusal could be made. - Able to maintain non-intrusive surveys - Land Access Tracker is maintained by [REDACTED] working with Shropshire Council for fees and survey payments to ensure that agreements are in place for survey access - Land & Property Team liaise on a daily basis to monitor progress and identify key actions to maintain - At Berwick estate access is needed to undertake test piles - Meeting to be held 23.07.24 to discuss tree management plans relating to Section 106 agreements - Discuss adding test pile sites to the existing license and requirements to undertake the test pile work	Likelihood has been based upon residential homes are in close proximity. Schedule delay is based on stop / delay to the programme. Probability is low as land access agreements are in place, and should be renewed prior to expiry (as last for 12 months).	10%	10%
304	08/04/2021	Programme	Threat	Highways		Late changes to Highways Geometry Model (HML) due to tree remapping	Open	- Environment team are reviewing tree protection zones throughout the scheme and updating the boundaries - Any other minor changes to the scheme layout	There is the risk that changes to design constraints will lead to further changes being required to the scheme design.	- Worst case could affect the layout of the highway, but more likely /best case relates to the realignment of footpaths etc. - If you had earthworks with a footprint within the SPZ, this may have to be replaced with a retaining wall or a more expensive structure instead		WSP	Issue for construction	Ask Environment team to highlight key hotspots where significant change may be required, so that these can be prioritised for action		60%	50%
212A	23/03/2022	Programme	Threat	Environment		Bat tree surveys	Open	Bat surveys have been undertaken and reports are being drafted. If the bat licence is not submitted within the next 6 weeks, further surveys would be required.	Bat Tree Surveys - There is approximately five to six months of 'float' between the grant of the bat licence (May 2024) and the close season for roost destruction (November 2024). Therefore, at present, there is sufficient time to absorb a significant delay in the determination of the planning permission and the bat licence application without unduly compromising the Contractor's start date. However, if for whatever reason, the bat roosts cannot be destroyed before November 2024, these bat roosts could not be destroyed until March 2025.			Shropshire Council	Decision notice	- Start license application process, including the completion of bat surveys, as soon as guidance allows to identify the need for a licence - Prepare memo setting our programme and risks associated with works to be incorporated within advanced works programme - Bat tree removal planned for advanced works in Autumn 2024		13%	13%
276	08/07/2022	Technical	Threat	Drainage		Planning condition - infiltration testing BRE 365 requirements	Open	Drainage team allowed for 1 test per feature. Local Planning Authority may ask for a lot more tests to be undertaken.	- Infiltration Testing - BRE 365 requirements for linear infiltration features states trial pits of 25m for soakaways longer than 25m (NWRR longest: 350m L = 14 No. tests) - Planning Condition 44 requires infiltration testing to be completed in line with BRE Digest 365 has been submitted to and approved in writing by Local Planning Authority. There is a risk that Planning Condition 44 cannot be discharged without further testing in line with BRE 365.			Shropshire Council	Conditions	WSP to seek an amendment to the regime of testing.		60%	5%
36	12/06/2023	Reputation	Threat	Client /PM		Public protests may delay start of construction	Open	Public protesters at start of construction.	There may be delays to start of construction.	Additional costs in resolving protests, along with adverse publicity and loss of goodwill		Shropshire Council / Contractor	Construction	- Clear communication of Shropshire Council proposals, supported where necessary by Counter Context - Liaison with potential protester organisations		13%	5%
249		Programme	Threat	Client /PM		Dispute with National Grid Electricity Distribution relating to the diversionary works	Open	National Grid Electricity Distribution have disputed that the diversionary works do not fall under NRSWA.	The contractual framework may require a Protective Provisions Agreement.	This requires legal input from Shropshire Council and National Grid Electricity Distribution to draft the agreement, which has resulted in delays to the programme. (Risk evaluated as exceeding parent risk)		Shropshire Council	Utilities	WSP to continue laising with Shropshire Council and seek legal input - 07.11.22: Legal input is now being provided by Shropshire Council's chosen legal support, [REDACTED] who are currently discussing with National Grid Electricity Distribution's solicitors to agree a Protective Provisions Agreement. Following this, diversion discussions can continue - 21.04.23: National Grid Electricity Distribution solicitors now engaging and draft Protective Provisions Agreement received on 28.04.2023 - 08.09.23: Meeting between WSP, [REDACTED] and National Grid Electricity Distribution confirmed that National Grid Electricity Distribution would not proceed with any diversion works until Protective Provisions Agreement is agreed		60%	5%
6	16/05/2024	Programme	Threat	Client /PM		Statutory process may cause delay in project delivery	Open		Statutory process	- Cumulative 12 months' delay to the construction programme in the worst case - Minimum delay may be 6 months, hard to price exactly as depends on Main Works Contractor programme. If the critical path sits on the viaduct, Severn Trent Water have said that they can engage as soon as the Main Works Contractor is on site. Other diversions could be done in parallel! - This risk could causes delay in project delivery as it could delay the start of construction and lead to increased costs to maintain completion date		Shropshire Council	Issue for construction	Close liaison with DfT re inspector's reporting period and receipt of Secretary of State decision letter	This is based on the fact that the works we will be doing shouldn't be too onerous Consider negative correlation to other prolongation risks in this register (around utilities)	100%	3%
8	03/02/2022	Project Capital Cost	Threat	Client /PM		CPO compensation severance may exceed cost plan allowance	Open		Severance	May result in requirement to purchase additional land outside the red line boundary, leading to additional costs		Shropshire Council	CPO agreed with landowners	Close liaison with Estates Department re. land swap and accommodation works. WSP has adopted role for land acquisition	Based on previous schemes, and schedule may be pushed back as more funds need to be obtained/scope may be cut. Reputation and stakeholder impact would be due to the increase of costs.	13%	3%
47	02/10/2024	Environmental	Threat	Environment		Sensitive receptors may exceed the LOAEL	Open	- This has been submitted as part of the planning application - The Environmental Health Officer has agreed the assessment and the planning application has confirmed this, but there could be further objections	The night time noise assessment has identified a small number of properties in the Hiscott and the Gravel Hill Lane area that exceed the LOAEL in the night time, hence mitigation should be considered. However, mitigation would be largely ineffective over this distance and a very long barrier would be needed. Therefore, it is not considered to be reasonable to provide mitigation in this area. This decision could, however, be subject to challenge			Shropshire Council	Issue for construction	This proposal has been shared with the EHO of Shropshire Council who provided comments which the Environment team provided a response by email to the EHO		3%	3%

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175	11/07/2019	Programme	Threat	Client /PM		Classification of NWRR	Open	Classification of NWRR: - No discussion to date has been held between PM team and DIT to inform classification of Welshpool Road and so final sign off yet to be received - Highways team asked to progress proposed signing and road markings based on NWRR being adopted as A53 - A wider sign review will need to be undertaken to adopt the NWRR as the A53 on other roads to create successful uptake of the route and validate the traffic modelling.	No decision will likely lead to abortive work and delays in detailed design	Low risk of minor prolongation, and minor changes to Shrewsbury NWRR design to accommodate the A53		Shropshire Council	Issue for construction	- Applications prepared and shared with client for changing road classifications of A53 (NWRR). Client to issue to National Highways following planning determination - Early engagement with DIT during development needed to de-risk the application - Identify the adjacent Local Authorities that may be affected and engage with them to reduce the risk of objections - PM team and Client to seek meeting with DIT to discuss and progress the adoption of the NWRR asap		13%	3%
193		Health & Safety - Design	Threat	Highways		Potential changes to at-grade crossing for Footpath 0443/96/1	Open	The closure of an existing footpath crossing the NWRR has not been accepted by the Shropshire Council PRoW team on basis of likely objection from user groups due to the length of the diversion without providing a grade separated crossing. A grade separated crossing is not considered to be financially viable, due to the very low number of users, but an at-grade crossing has been included in the design.	- The safety risk of including an at-grade crossing on a high speed road was flagged by the RSA and the highways team as a risk. - Risk that Shropshire Highways will not sign off RSA if they disagree with inclusion of the crossing. - Risk that, at a later date, the PRoW team may want more formalised crossing with pedestrian refuge which would be a departure from standards. - An alternative route via Marches Way Bridge has been provided which is a fully signed/waymarked route agreed with Shropshire Council PRoW officers. An informal crossing will be provided on the original route, but the diversion (safer) route will be waymarked, rather than the less safe, original, route.	Further comments have been raised resulting in amendment to the proposed design.		Shropshire Council	Issue for construction	- A PRoW memo has been produced for this diversion it will be forwarded to SC's PRoW officer. The memo outlines the other alternatives considered and the justification for not including these in the design. - PM team have requested note for future signing provision at detailed design to lead walkers to the diversion rather than the at-grade crossing. However risk still exists that ramblers will cross the NWRR. Low number of users expected, however good chance after initial opening of scheme it could see higher footfall. - This has also been raised this with Ajay Patel and Gemma Lawley (Shropshire Highways) to discuss with PRoW officer in order to determine the Council's position taking into account safety. - Additional warning signing has been added to the design to close out remaining comments at RSA Stage 2.		13%	5%
57		Project Capital Cost	Opportunity	Client /PM		Design change may lead to reduced cost of construction	Open		Design changes OPP may reduce the cost of delivering the scheme			Shropshire Council	Construction	- Cost saving - VE deliverables to be progressed as part of the Main Works contract.		3%	3%
286		Technical	Opportunity	Drainage		High capacity kerb drains	Open	The current design uses high capacity kerb drains in all locations except the BND kerbs used for 'drop kerb pedestrian crossings, where very low capacity kerbs are used	There may be an opportunity to reduce the size of most kerb drains, but there is also a risk that the BND kerbs may need to be upsized, or that another technical solution may be required in some locations (such as additional outfalls)	Opportunity to reduce the cost of constructing the kerb chain design.		WSP	Issue for construction	WSP Drainage team will review the kerb drain design and seek to find ways to reduce kerb sizes, while also ensuring that DRMB design criteria are met	Probability is low as the LLFA are saying that there has to be a cut-off to stop water leaving the site. In order to mitigate this we are looking at upsizing the combined kerb drainage features to act as cut-off for the flows off site.	40%	13%
226Q		Environmental	Opportunity	Environment		Possible reduction in agricultural land requirement to mitigate impact to Hencott Pool	Open	This may be possible following the receipt and modelling of results of ongoing ammonia monitoring and ongoing investigation of specific landowner data (linked to Risk 22D)	The area of agricultural land required to mitigate the impact to Hencott Pool may be able to be reduced and thereby save costs. However, both of these contingencies will not be ready for the December 2022 Planning Submission and there is a risk that these cannot be implemented before new guidance is realised in March 2023, which will change the critical load/level from 105kg/N/yr to 5kg/N/yr			Shropshire Council	Construction	Speak to Planning Officer whether a condition could be considered to provide final details of the agricultural land to be taken out of use.		13%	13%
315		General	Threat	Highways		Safety barriers	Open	Design finalisation may identify minor changes that require updates to Road Restraint Risk Assessment Process.	- We may not have the most up to date Road Restraint Risk Assessment Process - The Road Restraint Risk Assessment Process has been updated as design has progressed, however, design deliverables may not be finalised prior to final design and minor changes to fencing and design may not be included in the Road Restraint Risk Assessment Process for the safety barrier	Minor design re-work to the safety barrier assessment resulting in possible need to include additional barriers.		WSP	Final design	Identify list of outstanding changes and update the Road Restraint Risk Assessment Process reactively to address these changes.	One location on the A5 which is subject to NH Technical Approval.	13%	13%
250	22/11/2023	Programme	Threat	Client /PM		Barratt David Wilson Homes main development interface with NWRR	Open	The Section 106 boundary shows to be encroaching the NWRR planning application boundary, specifically parking bays by the pumping station.	Barratt David Wilson Homes (BDWH) began construction of their development adjacent to the proposed NWRR in 2022. Part of their design includes a group of parking bays that currently clash with the NWRR embankment. NWRR may need to change the drainage and highway design in this area if BDWH are unable to amend their parking bay design	- Additional design and programme delay - Might need to build retaining walls to make the area safe		Shropshire Council	Utilities	- Shropshire Council (Planning Authority) have been tasked with liaising with Barratt David Wilson Homes since shortly after Barratt David Wilson Homes were granted planning. WSP have made Shropshire Council aware of the conflict/overlap of boundaries and Shropshire Council asked WSP (at the time) not to make any changes (in the hope that it may be possible for David Wilson Homes to make alterations). - In 2023 it became clear that BDWH would not amend their swale design/works and, as a result, Shropshire Council instructed WSP to amend the NWRR design to accommodate overlaps, which included a Topological survey to identify the exact location of Barratt David Wilson Homes works. - Topological information shows that the BDWH swale does encroach into the NWRR application boundary. The largest area of overlap between the swale and NWRR earthworks is approximately 0.3m. A design is currently in progress which will reduce the size of the banks on both the NWRR cutting and Barratt David Wilson Homes swale, allowing us to install a 2.5m high fence which will become the highway boundary. - This design was complete and has been implemented into the NWRR design. Barratt David Wilson Homes have been informed of the design have stated that it is acceptable. - In 2024, a further clash with the proposed BDWH works was identified, related to their proposed parking spaces. - WSP could consider reducing the verge width in the design, and or look at alternative design options.		60%	13%
256	12/06/2023	Technical	Threat	Client /PM		Request for permanent track at Willow Pool	Open	Risk of poor maintenance of the track and pipe may compromise the operation of the scheme culvert with the potential for flooding upstream of the track.	Request for permanent track at Willow Pool north of the scheme alignment - insufficient information available on the requirements for the track and long term responsibility of the inspection and maintenance	Potential for environmental impacts (e.g. ecology - unknown impact on animals using the culvert crossing) and water impact (e.g. unknown impact of flooding)		Shropshire Council	Issue for construction	- PM team to confirm the design requirements for the track and long term maintenance responsibility. All disciplines to review the proposals and determine the risk - 23.08.23: WSP have advised the Berwick Estates that the Willow Pool crossing can not be accommodated by the NWRR design and that the post scheme access arrangements in place are considered sufficient. This was indicated initially on 23.09.22 and confirmed at the liaison meeting on 21.02.23. Berwick Estates may choose to demonstrate how their future operations will require this crossing. At the meeting it was agreed that this matter may be resolved by compensation during land negotiations.		13%	13%
269	01/08/2024	Technical	Threat	Drainage		Drainage design development may result in late changes to structures and/or earthworks design	Open	Drainage design for the scheme is ongoing - Structures design is complete Earthworks are being tweaked, but there are no proposals to change the structures design.	- Any changes to the drainage may affect earthworks around structures, which have already been submitted to the TAA - There is a specific location where watercourses may change the design - Minor amendments to culverts may not prompt resubmission and could possibly be managed as a variation.	- Minimum design shifts are required. In the worst case we might have to relocate structures, however this would likely necessitate resubmission of the planning application (particularly with regards the viaduct and other major structures). - Minor amendments to culverts may not prompt resubmission and could possibly be managed as a variation.		WSP	Issue for construction	Drainage team to consider structures designs and liaise with structures designers where necessary to mitigate against any impacts on design		40%	13%
281	08/04/2021	Construction	Threat	Drainage		Ground asbestos removal	Open	Condition 54 instructs that where any ground contamination not previously identified is found development shall cease until an approved remediation strategy has been agreed.	There may be additional sites where ground asbestos is encountered and/or the quantity of asbestos to be removed may be higher than anticipated	Works put on hold, programme delay, cost of removal. Assumed best case if the ground contamination is not in a sensitive part of the site then works would have to stop in that area but could continue in other parts of the scheme. Worst case if contamination is in a sensitive area such as the source protection zone then remediation agreement would need to be agreed with the EA and STW. Additional professional fees, additional asbestos removal costs, unforeseen programme delays.		Contractor/Shropshire Council	Construction	Contractor to undertake asbestos testing in areas of made ground and have appropriate quarantine and washdown procedures in place should any asbestos be found. If any asbestos is found it is to be removed and disposed of safely by a competent specialist contractor. Refer to T446 Design Risk Management Schedule (70056211-WSP-GHS-AS-SH-ZS-00001) for more information		40%	13%
310	02/06/2021	Technical	Threat	Highways		Non-approval of departures from standard	Open	As a result of departures still to be submitted to the approving authority	There is a risk of non-approval of departures from standard	Non-approval of departures may result in possible further rework that will have programme prolongation impact and cost impact, specifically to the technical assurance process		Shropshire Council	Issue for construction	- To submit departures as soon as possible - currently planned for August 2024 - Undertake conversations with technical specialists within the approving authorities to seek provisional agreement - ongoing	Early engagement with technical specialists has been ongoing to seek provisional agreement. However any rejection of departures has a direct impact on critical path. (Technical Assurance Process)	40%	13%

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209A	23/03/2022	Environmental	Threat	Environment		Turbidity during construction works	Open	Piling trials to ascertain risks of increased turbidity in groundwater associated with viaduct piling – proposed to be conducted on eastern floodplain where aquifer sensitivity is lower.	If trials demonstrate increased turbidity associated with piling, then suitable controls need to be formulated for piling to the west of the River where aquifer sensitivity is greatest	- Potential impact on construction program if a suitable control can not be implemented - Risk of turbidity during construction works, potentially halting or delaying works and also being accused by Severn Trent Water of causing a spike in turbidity that may not be a result of our works Proposed mitigation to be agreed as part of the planning conditions. Environmental Agency consultation will be required and additional levels of effort and delay could be required to achieve sign off.		Shropshire Council / Contractor	Conditions	- A robust monitoring/trigger/action plan, referred to as the turbidity monitoring protocol, needs to be developed. An outline to be presented within Feb 23 SEI submission. A final revision will be submitted as part of a suitably worded planning condition, post determination (Aug-Sept 23). Furthermore, we need to obtain evidence as to why turbidity spikes may happen naturally at this location (i.e. informed by baseline data). (Completed as part of the SEI submission) - Suitable mitigation and control measures to be developed, in association with relevant stakeholders (Severn Trent Water, Environment Agency, Contractor, SC, etc), prior to works (likely to be specified as a pre-commencement planning condition). Sentinel monitoring wells (MW1-MW4) have been drilled as part of P4 & P4A GI. Baseline turbidity data being collected from existing monitoring wells (awaiting formal acceptance of monitoring device and procurement of four additional devices for collection of baseline data). Further discussions ongoing regarding additional mitigation measures such as monitoring at the source, pumping regimes during construction works, and the development of appropriate trigger levels and controls during construction - Test piles to inform turbidity protocol - Note this also relates to the potential risk that well development of these sentinel wells is unsuccessful - Planning determination scheduled for December 23, discussions ongoing. Severn Trent Water have agreed to a conditional approach. Environment Agency position still to be discussed and agreed. Working up a test pile proposal to help develop the turbidity baseline monitoring - Test pile scope and spec has been sent to the Environment Agency and Severn Trent Water on 03.11.23, awaiting response	EA approval would require additional levels of effort and programme delay which would feed into these. Probability reflects progressive consultation on creating a turbidity protocol to be agreed with EA, progress is being made and the likelihood of objection is consistently reducing in line with this and this progress.	40%	13%
218B	08/07/2022	Programme	Threat	Environment		Archaeological find during construction	Open	Geophysical surveys, archaeological SMS land investigations and other investigations may uncover an issue. More surveys are scheduled during advanced works in 2024 but there is still a risk that archaeological remains could be identified.	There is a possibility that an archaeological find may be picked up at the start of construction which could result in additional mitigation requirements. This could have cost and programme implications	Potential area for archaeological find based on surveys is the Shelter Belt area, however it is not expected to be a significant impact		Shropshire Council	Construction	Trial trenching undertaken to reduce the potential of unknown features being found at the start of construction		13%	13%
218C	09/02/2022	Environmental	Threat	Environment		Planning conditions - Archaeology	Open		A stage of archaeological mitigation will be required as a condition of any planning permission granted. The scope of the archaeological mitigation will be confirmed when the WSI is agreed with the Local Planning Authority.			Shropshire Council	Advanced works	- Communicate any mitigation to the Local Planning Authority and Shropshire Council once known - Update WSI, communicate this with the Local Planning Authority - WSI to be updated in June 23 and sent to [REDACTED] for review. Not yet submitted to Local Planning Authority - Advanced works contractor have agreed with scope. Further updated WSI sent to Andy Wigley on 13.11.23 who approved the addendum on 08.12.23		80%	13%
253	28/06/2019	Programme	Threat	Highways		National Highways technical approval process - Interface with OLR scheme	Open	National Highways technical approval process allows for challenge to the design and provision of comments. External design team are used to assure the design on behalf of National Highways.	- There is a high likelihood that NH will provide comments on the design (but major comments are not expected as there has been progressive review of the design through the planning process). There is a risk that to agree responses to comments and gain assurance of the design, changes are required to be made. - NH have advised that the technical approval process would take approximately 4 months there is a risk that this could take longer than expected.	- Changes to the design may result in a increase to the construction cost for the scheme. - A delay in completing the technical approval process may delay the start of construction of Churncote and discharge of planning conditions		Shropshire Council	Issue for construction	- Ensure that we have complied with standards and allow National Highways to comment on design as it is being progressed. - National Highways have provided letter of no objection - all comments in planning stage have been adequately resolved - We have allowed 6 months (2 additional months) in the programme for completion of the technical approval process.	WP 2 looking to be issued in the next review, the risk has been mitigated through completion of earlier stages in the their assurance process. We are now due to start the detailed technical review by NH and their consultant Jacobs. Technical Review is likely to produce comments but these comments are likely to only be minor. We may need to make further design changes to address their comments, particularly where we interface with their assets. RSA comments may feed into this input. NH to sign off the RSA 2 brief, as they are waiting for design drawings and specs to enable the RSA Stage 2 audit to happen, however there are no concerns around this interface. It is highly likely that we will receive comments but the extent of change should be lower. Apart from minor signs there are no major structures interfacing with NH network. Signiant T&T modelling, high allowance for pavement curve No retaining walls, most complex engineering relates to drainage and layout of interlacing roundabout Churncote.	60%	60%
282		General	Threat	Drainage	Stats/diversions	Possible requirement to modify drainage design to add provision for replacing private drainage or irrigation	Open	Minimal survey/source records information	- Need to modify our design or add provision for replacing private drainage or irrigation (e.g. field drains), which have not been picked up on any utility surveys or in record drawings - Can't close out risk until get to site and start digging holes in the ground. Risk around damage to additional surveys - this would be a contractor risk	Allowing accommodation for the additional connections within our proposed drainage network or avoid clashes wherever possible		Shropshire Council	Issue for construction	Contractor to inform design team and suitable remedial measures to be provided	Not possible to fully mitigate against.	60%	60%
312		Programme	Threat	Environment	Stats/diversions	Delay to construction programme (parent risk)	Open	This is a parent risk that summarises the cause and impact of the following risks - 306: Agreement of easements/wayleaves with 3rd party land owners - 259: Severn Trent Water permanent diversion around Public Inquiry 2 - 40: Statutory body engagement may not be in line with construction programme requirements. - 41 Unknown buried services The purpose of this entry in the risk register is to avoid overstating the prolongation element of utilities/stats risks that may cause programme delay during the construction programme.	As documented in risks - 40: Statutory body engagement may not be in line with construction programme requirements - 41: Unknown buried services - 259: Severn Trent Water permanent diversion around Pier 2 - 306: Agreement of easements/wayleaves with 3rd party landowners	- Potential stand downs, programme delay, resequencing of works, additional costs associated not just with prolongation but also implementation of mitigations - Programme slip if Protective Provisions Agreement is not agreed during the construction programme. Programme impact has to exceed risk 311 - If Protective Provisions Agreement is not in place for National Grid Electricity Distribution works by the time that the Main Works Contractor is on site this would potentially cause a serious delay. - If the main is burst there would be a significant impact, we are doing a temp diversions which are outside of the crane lifting platform and permanent diversion.		WSP	Construction	As documented in risks - 40: Statutory body engagement may not be in line with construction programme requirements - 41: Unknown buried services - 259: Severn Trent Water Permanent diversion around Pier 2 - 306: Agreement of easements/wayleaves with 3rd party landowners		33%	5%
302	16/05/2024	Technical	Threat	Drainage		Lead Local Flood Authority may not allow filter drains to be used to pick up overland flows at the top of earthwork cuttings	Open	Lead Local Flood Authority may not allow filter drains to be used to pick up overland flows at the top of earthwork cuttings.	Risk that they do not accept this.	Filter drains would need to be redesigned		WSP	Issue for construction	WSP Drainage Team to discuss with the Lead Local Flood Authority	Based on talks to the client we are more comfortable that they will agree the current design.	13%	13%
233w	03/02/2022	Technical	Threat	Geotech		Preliminary pile and working pile testing	Open	Anchor pile proposal (from [REDACTED]) is for 8 anchor piles (understood to avoid entering the 10m stand off zone) which have been costed as £616k for the whole test pile works. Remaining risk is if the anchor piles do not work and more are required.	- Anchor piles required for preliminary and working pile testing may need to extend into the 10m standoff. Design of anchor piles is part of the temporary works and is the Contractors responsibility - Risk that the Contractor is unable to undertake pile testing.	- Need to revise the designs and potential for increased pile lengths or larger pile groups, resulting in increased cost and delays - Risk that redesign of pile groups has a knock on effect on other discipline designs - Changes to pile group designs will also require updated design of structural reinforcement of the piles and delay the completion of the CAT3 check of the viaduct design		Shropshire Council	Contractor appointment	- Contractor to ensure that anchor piles for the pile testing do not extend into the 10m standoff - Redesign of pile groups adopting higher partial factors, to remove the requirement for working load tests where possible - Pier 1 pile group has been increased in size and designed with higher partial factors to reduce the loading requirement on the anchor piles and the anchor piles do not need to reach their full test loading if this cannot be achieved - 03.11.23: Specification was sent to the Environment Agency and Severn Trent Water and has also been sent to Contractor for pricing and planning	Anchor piles may extend into 10m standoff. This is to be designed by Contractor	40%	20%
288	02/10/2024	Technical	Threat	Drainage		Basin 8 Infiltration	Open	Limited geotechnical understanding in this location and it is possible that current assumptions that allow for infiltration are incorrect.	Infiltration may not be possible in the location of Basin 8.	- If drainage does not work we would have to look for alternative watercourses and this may involve drainage of the network quite a long way away in order to discharge it - Main Works Contractor might have to amend design to include pumping functionality which involves ongoing maintenance and is the least preferred option		WSP	Issue for construction	Investigate further with the help of the Geotechnical and Ground Water teams and carrying out a physical infiltration test. Investigate other options if infiltration is found to be not possible	Post-mitigated probability is lower based on information gained to date prior to intrusive surveys.	50%	40%

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35A	23/08/2023	Programme	Threat	Traffic & Transport	Public Inquiry/Judicial Review	Traffic modelling may drive objections around clash between NWRR scheme and Local Plan	Open	<div>- Traffic modelling did not specifically consider the schemes within the Local Plan as they were not sufficiently mature for consideration. It does consider the recommendation from TAG and includes all of the committed developments known at the time of the FBC model preparation.</div> <div>- Planning determination for the NWRR scheme has been delayed while the Local Plan has been progressed.</div> <div>- There could be a challenge over COVID impact being captured as part of modelling.</div>	Traffic modelling may drive objections around clash between NWRR scheme and Local Plan.	<div>- There may be a requirement for further sensitivity testing leading up to public inquiry if the local plan was adopted.</div> <div>Modelling would be out of date by the time of a Public Inquiry, leading additional legal costs</div> <div>- Further modelling prior to the Public Inquiry would then be needed to test NWRR with the adopted Local Plan proposals (this would likely also mean rerunning AQ, Noise, Carbon and other assessments too)</div> <div>- This could then raise issues over the adequacy/capacity of the scheme if additional traffic is pushed onto the NWRR, due to Local Plan mitigation not being set out as part of the LTP or included in the modelling</div>		Shropshire Council	Decision notice	<div>- Traffic modelling updated to reflect the latest development assumptions by the model build cut-off date for opening year of 2027 and both the two future forecast years of 2042 and 2050. This does not include the Local Plan developments as they are still not at a confirmed status</div> <div>- Additional count data for 2022 and 2023 was collected and the model was verified against the 2022 and 2023 count data to ensure suitability and to ensure the impact of COVID was taken into account. This verification note was approved by DfT.</div> <div>This, along with the update to TEMPro will reduce the growth assumed in the model compared with that assumed in the previous Local Plan assessment</div>	<div>Impact is based mainly on schedule. Costs are minor.</div> <div>Additional sensitivity testing is the only likely outcome, DfT has signed off the modelling.</div> <div>We have undertaken all possible mitigation of this risk, and there should be very little scope for objections driven by adoption of the local plan or any other interfaces.</div>	40%	40%