

## Project Risk Register

Project Title	1		SDGZ					Document Owner	Matt Morrell						Last Updated	23/02/2021			Today's date	01/0:	12/2022
Risk ID	Area	Category	Risk Title	Risk. There is a risk that.	Cause. This is because	Consequences. This will effect	Ownership	Date Raised	Probability	Probability Score	Impact	Impact Score	Project Risk	Mitigation Response	Mitigation Measures	Assumptions	Consequence Assumption	Mitigated Probability	Mitigated Impact	Mitigated Risk	Status
SCP001	Business Case	Scope	The scope is not definitive. High level scope agreed but there are uncertainty on the details.	Additional scope that might be included dependant on funder	The scope has not been consolidated	The cost of the works and the duration	Client	03/02/2021	5 Current	5	4 High	4	20	Mitigate	Development of the OBC will refine the scope	Assume it can be delivered and is approved by all districts involved	-	4	4	16	Closed
SCP002	Business Case	Scope	Scope changes late in the project	Unforeseen complexities and unforeseen engineering work could arise when onsite.	The scope has not been consolidated	The cost of the works and the duration	Client	03/02/2021	5 Current	5	4 High	4	20	Mitigate	Design freeze to organise the design process, control changes, and force the completion of design stages on time.	Assume it can be delivered and is approved by all districts involved		4	3	12	Open
SCP003	Business Case	Scope	Brexit/COVID-19 external influences on cost and investment appetite	County Council appetite and the impact of the backing for the project		The cost of the works and the duration	Client	03/02/2021	4 Almost Certain	4	3 Moderate	3	12	Accept Risk	Continue with current models and monitor DFT guidelines for potential changes	Assume that models are in line with current policies		3	2	6	Open
SCP004	Business Case	Scope	Local potential freeport impacting capacity	Pressures on network and development	The freeport development may impact on the capacity of the network. Planning conditions may be revised to account for this		Client	11/02/2021	4 Almost Certain	4	3 Moderate	3	12	Accept Risk	Monitor the bid and include any outcome into the project plan	Deemed to be relatively small. The assumptions that they are very different uses. If modelling only needs sensitivity then 2 weeks		2	2	4	Open
Funding																					
FND001	Business Case	Funding	Cost exceed funding - until the design is developed	The cost of the project, exceeds funding available. Design to be developed.		The project is complex and extensive	Client	03/02/2021	4 Almost Certain	4	5 Severe	5	20	Mitigate	Regular reviews of forecast outturn cost of the project. Regular monitoring and review of the previously reported forecasts with timely			3	4	12	Open
FND002	Business Case	Funding	Funding not secured - HIF unsuccessful. High risk high probability	HIF bid unsuccessful - other opportunities required		Catastrophic impact project will not proceed	Client	03/02/2021	3 Likely	3	5 Severe	5	15	Mitigate	adjustments Not catastrophic. Assessing other funding source to bring the project forward			3	5	15	Closed
FND003	Business Case	Funding	Secondary school not funded (wave 14) - Private developer funding via S106 for the link roads and junction	Viability of the private sector under the \$106 agreement.		The cost of the works and the duration	Client	03/02/2021	3 Likely	3	5 Severe	5	15	Mitigate	Funding has been acquired			0	0	0	Closed
FND004	Business Case	Funding	Delay to funding agreement	Project may objectively fall short	Risk of undefined clawback value	The cost of the works and the duration	Client	03/02/2021	3 Likely	3	5 Severe	5	15	Mitigate	Ensure project deliverables are aligned with funding			2	5	10	Open
FND005	Business Case	Funding	High maintenance costs for reservoirs	Planning conditions will determine the final costs		The cost of the works	Client	03/02/2021	5 Current	5	4 High	4	20	Mitigate	Ensure whole life costs are included in design philosophy	Lump sum risk £1 m		3	3	9	Open
FND006	Business Case	Funding	Onerous conditions	Conditions are being worked in parallel with the other local authorities and consistent. Unknown requirements.		The cost of the works and the duration	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Accept Risk	Early engagement with planners and stakeholders	Still to be agreed. No major issues predicted		3	3	9	Open
FND007	Business Case	Funding	Inflation	The costs of the project exceeds funding due to inflation	An inflation from planning phases to construction phase	The cost of the works	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Accept Risk	Include realistic forecast from BCIS and BOE	Assumed 3 years between planning approval and construction		3	3	9	Open
FND008	Business Case	Funding	Funding for the management and maintenance of green infrastructure/highway/flood storage areas once scheme has been constructed.	No defined responsibility for the management between the local authorities.	Split of responsibility between local authorities	Split of responsibility between local authorities	Client	03/02/2021	4 Almost Certain	4	3 Moderate	3	12	Transfer	Early development agreement of ownership and maintenance strategies	Construction		3	3	9	Open
FND009	Business Case	Funding	Private sector funding doesn't come forward	Public Sector could be liable for additional spend		Cost increase	Client	11/02/2021	4 Almost Certain	4	5 Severe	5	20	Mitigate	Business and project plan need to reflect the various probabilities. If risk happens change the scope and business plan			3	4	12	Open
FND010	Business Case	Funding		I	The bulk of the funding is to me met by		Client	25/01/2021	2 Possibly	2	5 Severe	5	10	Mitigate	Progress the design and surveys sufficiently to allow greater confidence in OBC.			3	4	12	Open
Political			OBC is not approved and LUF funding is withdrawn	The project will not be funded	the LUF	be sought.						L				<u> </u>					
PO001	Business Case	Political	Change in political party	Changes to the local plans	Lack of support for the project if the political orientation changes	The cost of the works and the duration	Client	03/02/2021	2 Possibly	2	2 Low	2	4	Accept Risk	Strong business case and sign off from cabinet			I	2	2	Open
PO002	Business Case	Political	Purdah period	Purdah prevents critical decision making	Derby has a short election cycle	The cost of the works and the duration	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Accept Risk	Include in the project programme			2	3	6	Open
PO003	Business Case	Political	Failure in effective cross LPA boundary cooperation	Issues around the extent of new development.	Communicating the benefits of growth the project offers to the region	The cost of the works and the duration	Client	03/02/2021	4 Almost Certain	4	3 Moderate	3	12	Mitigate	Set up cross boundary steering group with LPAs to develop a clear strategic planning context			2	3	6	Open
PO004	Business Case																	2			
PO005		Political	Delays in local plans preparation	Difficulties in achieving sufficient discussions of plan led growth and provision of infrastructure cross boundary discussions.	Programme delay due to site specific local plan allocation through the local plan and review process.	The cost of the works and the duration	Client	03/02/2021	3 Likely	3	5 Severe	5	15	Mitigate	Inclusion of the projects within the next local plan period			1	5	5	Closed
	Business Case	Political Political	Delays in local plans preparation	plan led growth and provision of infrastructure	Programme delay due to site specific local plan allocation through the local		Client	03/02/2021	3 Likely 4 Almost Certain	3	5 Severe 3 Moderate	5	15	Mitigate Accept Risk				1	5	5	Closed Open
Third Parti				plan led growth and provision of infrastructure cross boundary discussions. National government changes and local	Programme delay due to site specific local plan allocation through the local plan and review process. Lack of support for the project if the	duration The cost of the works and the				3		5	15		local plan period Strong business case and sign off from			I	5 3	5	Closed Open
Third Parti TP001				plan led growth and provision of infrastructure cross boundary discussions. National government changes and local	Programme delay due to site specific local plan allocation through the local plan and review process. Lack of support for the project if the	duration The cost of the works and the				3 4 5		5 3 4	15 12 20		local plan period Strong business case and sign off from			I	5 3 4	5 6 16	Closed Open Open
	es	Political	Local government devolution	plan led growth and provision of infrastructure cross boundary discussions. National government changes and local government operations	Programme delay due to site specific local plan allociton through the local plan and review process. Lack of support for the project if the political orientation changes	duration The cost of the works and the duration The cost of the works and the	Client	03/02/2021	4 Almost Certain	3 4 5 5 5	3 Moderate	5 3 4 4	15 12 20 20	Accept Risk	local plan period Strong business case and sign off from government			1	5 3 4 4	5 6 16 16	
TPOOI	es Business Case	Political Third Parties	Local government devolution Highways England	plan led growth and provision of infrastructure cross boundary discussions. National government changes and local government operations Difficulties communicating through technical design process.	Programme delay due to site specific local plan allocation through the local plan and review process. Lack of support for the project if the political orientation changes Technical approval process and sign off	duration The cost of the works and the duration The cost of the works and the duration The cost of the works and the	Client	03/02/2021	4 Almost Certain 5 Current	3 4 5 5 5 5	3 Moderate 4 High			Accept Risk Mitigate	local plan period Strong business case and sign off from government Early engagement with stakeholders			1 2 4	5 3 4 4 4	5 6 16 16	Open
TP001 TP002	es Business Case Business Case	Political Third Parties Third Parties	Local government devolution Highways England Environment agency	plan led growth and provision of infrastructure cross boundary discussions. National government changes and local government operations Difficulties communicating through technical design process. Scope creep affects output and S/O	Programme delay due to site specific local plan and review process. Lack of support for the project if the political orientation changes Technical approval process and sign off Engagement/consultations stop	duration The cost of the works and the	Client Client Client	03/02/2021 03/02/2021 03/02/2021	4 Almost Certain 5 Current 5 Current	3 4 5 5 5 4 4	3 Moderate 4 High 4 High	4	20	Accept Risk Mitigate Mitigate	local plan period Strong business case and sign off from government Early engagement with stakeholders Early engagement with stakeholders			1 2 4 4	5 3 4 4 4 4 3	5 6 16 16 16 9	Open Open
TP001 TP002 TP003	es Business Case Business Case Business Case	Political Third Parties Third Parties Third Parties	Local government devolution Local government devolution Highways England Environment agency Rolls Royce	plan led growth and provision of infrastructure cross boundary discussions. National government changes and local government operations Difficulties communicating through technical design process. Scope creep affects output and S/O Key landowner which unlocks the development	Programme delay due to site specific local plan and review process. Lack of support for the project if the political orientation changes Technical approval process and sign off Engagement/consultations stop Project delayed Absence of early engagement and	duration The cost of the works and the	Client Client Client Client	03/02/2021 03/02/2021 03/02/2021 03/02/2021	4 Almost Certain 5 Current 5 Current 5 Current	3 4 5 5 5 5 4 5	3 Moderate 4 High 4 High 4 High	4	20	Accept Risk Mitigate Mitigate Mitigate	local plan period Strong business case and sign off from government Early engagement with stakeholders Early engagement with stakeholders Early engagement with stakeholders			1 2 4 4	5 3 4 4 4 4 3 3 4	5 6 16 16 16 9 16	Open Open Open
TP001 TP002 TP003 TP004	es Business Case Business Case Business Case Business Case	Political Third Parties Third Parties Third Parties Third Parties Third Parties	Local government devolution Highways England Environment agency Rolls Royce Utility gas main	plan led growth and provision of infrastructure cross boundary discussions. National government changes and local government operations Difficulties communicating through technical design process. Scope creep affects output and S/O Key landowner which unlocks the development Assets are disturbed/damaged	Programme delay due to site specific local plan allocation through the local plan and review process. Lack of support for the project if the political orientation changes Technical approval process and sign off Engagement/consultations stop Project delayed Absence of early engagement and surveys	duration The cost of the works and the	Client Client Client Client Client	03/02/2021 03/02/2021 03/02/2021 03/02/2021 03/02/2021	4 Almost Certain 5 Current 5 Current 5 Current 4 Almost Certain	3 4 5 5 5 4 5 4 5 4	3 Moderate 4 High 4 High 4 High 4 High	4 4 4	20 20 16	Accept Risk Mitigate Mitigate Mitigate Mitigate	local plan period Strong business case and sign off from government Early engagement with stakeholders Early engagement with stakeholders Early engagement with stakeholders Early engagement with stakeholders			1           2           4           4           4           3	5 3 4 4 4 3 4 3	5 6 16 16 9 16 6	Open Open Open Open
TP001 TP002 TP003 TP004 TP005	es Business Case Business Case Business Case Business Case Business Case	Political Political Third Parties Third Parties Third Parties Third Parties Third Parties Third Parties	Local government devolution Highways England Environment agency Rolls Royce Utility gas main Christchurch	plan led growth and provision of infrastructure cross boundary discussions. National government changes and local government operations Difficulties communicating through technical design process. Scope creep affects output and S/O Key landowner which unlocks the development Assets are disturbed/damaged Key landowner which unlocks the development Change in direction of developer results in	Programme delay due to site specific local plan allocation through the local plan and review process. Lack of support for the project if the political orientation changes Technical approval process and sign off Engagement/consultations stop Project delayed Absence of early engagement and surveys Project delayed Catastrophic impact project will not	duration The cost of the works and the	Client Client Client Client Client Client	03/02/2021 03/02/2021 03/02/2021 03/02/2021 03/02/2021	4 Almost Certain 5 Current 5 Current 4 Almost Certain 5 Current	3 4 5 5 5 4 5 4 4 4	3 Moderate 4 High 4 High 4 High 4 High 4 High	4 4 4	20 20 16	Accept Risk Mitigate Mitigate Mitigate Mitigate Mitigate	Iocal plan period Strong business case and sign off from government Early engagement with stakeholders Early engagement with stakeholders Early engagement with stakeholders Early engagement with stakeholders Actively engage Actively engage			1 2 4 4 4 4 3 3 4	5 3 4 4 4 3 4 3 3	5 6 16 16 9 16 6 6	Open Open Open Open Open Open
TP001           TP002           TP003           TP004           TP005           TP006	es Business Case Business Case Business Case Business Case Business Case	Political Third Parties	Local government devolution Local government devolution Highways England Environment agency Rolls Royce Utility gas main Christchurch Hallam Land	plan led growth and provision of infrastructure cross boundary discussions. National government changes and local government operations Difficulties communicating through technical design process. Scope creep affects output and S/O Key landowner which unlocks the development Assets are disturbed/damaged Key landowner which unlocks the development Change in direction of developer results in project failure	Programme delay due to site specific local plan allocation through the local plan and review process. Lack of support for the project if the political orientation changes Technical approval process and sign off Engagement/consultations stop Project delayed Absence of early engagement and surveys Project delayed Catastrophic impact project will not proceed	duration The cost of the works and the	Client Client Client Client Client Client Client	03/02/2021 03/02/2021 03/02/2021 03/02/2021 03/02/2021 03/02/2021	4 Almost Certain 5 Current 5 Current 4 Almost Certain 5 Current 4 Almost Certain	3 4 5 5 5 4 5 4 4 4 4	3 Moderate 4 High 4 High 4 High 4 High 4 High 4 High	4 4 4	20 20 16	Accept Risk Mitigate Mitigate Mitigate Mitigate Mitigate	Iocal plan period Strong business case and sign off from government Early engagement with stakeholders Early engagement with stakeholders Early engagement with stakeholders Early engagement with stakeholders Carly engagement with stakeholders Actively engage Actively engage in the project steering groups Actively engaged in the project steering			1           2           4           4           3           4           2	5 3 4 4 4 3 4 3 3 3 3	5 6 16 16 16 16 9 16 6 6 6	Open       Open       Open       Open       Open       Open       Open       Open       Open
TP001           TP002           TP003           TP004           TP005           TP006           TP007	es Business Case Business Case Business Case Business Case Business Case Business Case	Political Political Third Parties	Local government devolution Highways England Environment agency Rolls Royce Utility gas main Christchurch Hallam Land Wilson Bowden	plan led growth and provision of infrastructure cross boundary discussions. National government changes and local government operations Difficulties communicating through technical design process. Scope creep affects output and S/O Key landowner which unlocks the development Assets are disturbed/damaged Key landowner which unlocks the development Change in direction of developer results in project failure Change in direction of developer results in project failure	Programme delay due to site specific local plan and review process.     Lack of support for the project if the political orientation changes     Technical approval process and sign off     Engagement/consultations stop     Project delayed     Absence of early engagement and surveys     Project delayed     Catastrophic impact project will not proceed     Catastrophic impact project will not	duration The cost of the works and the	Client Client Client Client Client Client Client Client	03/02/2021 03/02/2021 03/02/2021 03/02/2021 03/02/2021 03/02/2021 03/02/2021	4 Almost Certain 5 Current 5 Current 4 Almost Certain 4 Almost Certain 4 Almost Certain 4 Almost Certain	3 4 5 5 5 4 5 4 4 4 4 3	3 Moderate 4 High 4 High 4 High 4 High 4 High 4 High 4 High	4 4 4	20 20 16	Accept Risk Mitigate Mitigate Mitigate Mitigate Mitigate Mitigate	Iocal plan period Strong business case and sign off from government Early engagement with stakeholders Actively engage Actively engage Actively engaged in the project steering groups Actively engaged in the project steering groups	May require a CPO. Very critical parcel of land. Redesign.		I           I           Z           I	5 3 4 4 4 3 3 3 3 3 3 3	5 6 16 16 9 16 6 6 6 6	Open       Open
TP001           TP002           TP003           TP004           TP005           TP006           TP007           TP008	es Business Case Business Case Business Case Business Case Business Case Business Case Business Case	Political Political Third Parties	Local government devolution Highways England Environment agency Rolls Royce Utility gas main Christchurch Hallam Land Wilson Bowden Harpur Crewe	plan led growth and provision of infrastructure cross boundary discussions. National government changes and local government operations Difficulties communicating through technical design process. Scope creep affects output and S/O Key landowner which unlocks the development Assets are disturbed/damaged Key landowner which unlocks the development Change in direction of developer results in project failure Change in direction of developer results in project failure	Programme delay due to site specific local plan and review process. Lack of support for the project if the political orientation changes Technical approval process and sign off Engagement/consultations stop Project delayed Absence of early engagement and surveys Project delayed Catastrophic impact project will not proceed Catastrophic impact project will not proceed The cost of the works and the	duration       The cost of the works and the duration	Client	03/02/2021 03/02/2021 03/02/2021 03/02/2021 03/02/2021 03/02/2021 03/02/2021 03/02/2021	4 Almost Certain 5 Current 5 Current 4 Almost Certain 4 Almost Certain 4 Almost Certain 4 Almost Certain 4 Almost Certain	3 4 5 5 4 5 4 4 4 4 3 5	3 Moderate 4 High 4 High 4 High 4 High 4 High 4 High 4 High 4 High	4 4 4	20 20 16	Accept Risk Mitigate Mitigate Mitigate Mitigate Mitigate Mitigate Mitigate	Iocal plan period Strong business case and sign off from government Early engagement with stakeholders Early engagement with stakeholders Early engagement with stakeholders Early engagement with stakeholders Early engaged in the project steering groups Actively engage Actively engage Actively engage	critical parcel of land.		1           2           4           4           4           4           2           2           2           2           2           2           2           2           2	5 3 4 4 3 4 3 3 3 3 3 3 2	5 6 16 16 16 9 16 6 6 6 6 6 4	Open       Open

	<u> </u>			Maintaining flood defence levels, when	Flood defence levels must be kept	The cost of the works and the									Time risk allowances to be included in	1					
CO001	Business Case	Construction	Flooding	Maintaining flood defence levels, when constructing impacts to the cost and schedule	constant throughout construction	duration	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Mitigate	programme			3	3	9	Open
CO002	Business Case	Construction	Traffic Management Constraints	Additional TM restrictions delay works	The scope is inclusive of major roads and closure would be costly	The cost of the works and the duration	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Mitigate	Early engagement with highway authorities for diversion routes			3	3	9	Open
CO003	Business Case	Construction	ECI adds little value	Difficulties defining the exact time when to bring the Contractor on board	No benefits to the scheme	The cost of the works and the duration	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Take Opportunity	Clear scope and objectives optimised as part of the Project Implementation Plan	Cost and time - Review with Matt		2	3	6	Open
CO004	Business Case	Construction	Shortage of materials	Risk that supply constraints are an issue in the medium to long term due to Covid and Brexit	The cost of the works and the duration	The cost of the works and the duration	Contractor	03/02/2021	3 Likely	3	3 Moderate	3	9	Transfer	Early planning and identification of critical materials. Lead times to be assessed within the programme of the works			2	2	4	Open
CO005	Business Case	Construction	Unforeseen ground conditions	Lack of ecology and environmental surveys	The cost of the works and the duration	The cost of the works and the duration	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Mitigate	Thorough site investigation and ground investigation to further improve the scope to de-risk the project			4	3	12	Open
CO006	Business Case	Construction	Weather	Weather affects the schedule and works	Schedule delays and associated costs	The cost of the works and the duration	Contractor	25/02/2021	5 Current	5	5 Severe	5		Mitigate	Ensure expert advise is given on contract risk allocation and risk management			4	4	16	Open
CO007	Business Case	Construction	Design ambiguity	Lack of clarity in ownership and responsibility within the scope documentation	Design changes leading to an increase in the price of the works	The cost of the works and the duration	Client	25/02/2021	5 Current	5	5 Severe	5		Mitigate	Clearly define the scope of the project and manage effective collaboration of the design using a multi disciplinary design team			3	4	12	Open
CO008	Business Case	Construction	Complex site clearance	Additional costs and programme delays associated with clearing fly tipping debris	Fly-tipping debris not cleared by others before contract start	The cost of the works and the duration	Client	03/03/2021	3 Likely	3	3 Moderate	3	9	Mitigate	Remove any fly tipping from site			2	2	4	Open
CO009	Business Case	Construction	Site security	Theft, vandalism, damage claims, insurance claims, excess fees, delays, additional security requirements	Insufficient security provisions to protect/secure entire site Vandalism/theft incidents outside site security coverage	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	4 High	4	16	Mitigate	Effective site setup and the provision security measures to mitigate including surveillance, lighting and fencing etc			3	3	9	Open
CO010	Business Case	Construction	Unexpected EA mitigation measures	Additional measures need to be taken to comply with EA requirements	EA impose unexpected and onerous conditions and mitigation measures on works within the flood plain	The cost of the works and the duration	Client	03/03/2021	5 Current	5	5 Severe	5		Mitigate	Early engagement with EA to mitigate ecology risks onsite			4	3	12	Open
CO011	Business Case	Construction	TM approvals	Disruption to construction sequence Programme delays	Difficulty in gaining approvals from HE / DCC (TTRO's, Road Space Bookings, Highway Permits etc)	The cost of the works and the duration	Contractor	03/03/2021	3 Likely	3	3 Moderate	3	9	Mitigate	Early engagement to plan the network viability			2	3	6	Open
CO012	Business Case	Construction	Unable to remove vegetation and trees as required by programme	Onerous tree protection order (TPO restrictions)	Protected trees within the schemes remit	The cost of the works and the duration	Client	03/03/2021	3 Likely	3	5 Severe	4	12	Mitigate	Build works effectively into the programme			2	3	6	Open
CO013	Business Case	Construction	Invasive weeds are format not identified in initial surveys	Delays and additional costs during the additional clearance	Surveys do not capture all invasive weeds	The cost of the works and the duration	Client	03/03/2021	2 Possibly	2	3 Moderate	3	6	Mitigate	Undertake through site investigations and engage with EA to mitigate			2	3	6	Open
CO014	Business Case	Construction	Change to design standards	Delay and disruption to programme	Changes to national design standards result in additional project costs	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	2 Low	2	8	Mitigate	Early engagement with local authority to incorporate changes into the scope documentation			3	I	3	Open
CO015	Business Case	Construction	Developer interface	Additional cost and programme implications	Interface issues with adjacent house builder development works	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	2 Low	2	8	Mitigate	Early engagement with developers			2	2	4	Open
CO016	Business Case	Construction	Statutory Undertakers - Clashes with uncharted services	Additional diversion costs and disruptive costs to the works	Services not identified by the desk top survey clash with the works	The cost of the works and the duration	Client	03/03/2021	3 Likely	3	4 High	4	12	Mitigate	Early engagement with asset owners			3	3	9	Open
CO017	Business Case	Construction	Statutory Undertakers - Clashes with known services	Additional diversion costs and disruptive costs to the works	Identified services not due to be diverted clashing with the permanent works design Services not in expected locations	The cost of the works and the duration	Client	03/03/2021	3 Likely	3	4 High	4	12	Mitigate	Early engagement with asset owners			3	3	9	Open
CO018	Business Case	Construction	Unforeseen archaeology issues	Programme delays and cost increases	Archaeology identified on site requiring on-site input from archaeologist	The cost of the works and the duration	Client	03/03/2021	3 Likely	3	3 Moderate	3	9	Mitigate	Early engagement with archaeologist			2	2	4	Open
CO019	Business Case	Construction	Earthworks volumes exceed scope	Surplus material required to be processed	The cost of the works and the duration	The cost of the works and the duration	Client	03/03/2021	5 Current	5	5 Severe	5	25	Mitigate	Thorough site investigation and ground investigation to further improve the scope to de-risk the project			4	3	12	Open
CO020	Business Case	Construction	Uncharted Services dirversion	large scale unplanned service diversions	Additional costs to the developments which may impact viability of the sites design	The cost of the works and the duration	Client	03/03/2021		5	5 Severe	5	25	Mitigate	Early engagement with utility companies and book network requirements in advance			4	4	16	Open
CO021	Business Case	Construction	Utility diversion/trenches	Additional diversion costs and disruptive costs to the works	Additional diversions not captured in site investigations leading to additional diversion works. Increase costs and potential programme impacts if utility companies are not able to achieve the required works programme.	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	4 High	4	16	Mitigate	Thorough site investigation and early engagement with utility providers to coordinate diversions			3	3	9	Open
CO022	Business Case	Construction	Drainage diversions	Additional costs for diversions not considered in the masterplan	The cost of the works and the duration	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	3 Moderate	3	12	Mitigate	Drainage design should be undertaken holistically with other aspects of design (e.g., the site's topography, geology, street layout, the location of any public open space, soil remediation and ecological considerations) in an integrated manner			3	3	9	Open
CO023	Business Case	Construction	Contamination to ground water	Impacts to aquifers during the construction works	The cost of the works and the duration	The cost of the works and the duration	Contractor	03/03/2021	3 Likely	3	4 High	4	12	Mitigate	Thorough site investigation and ground investigation to further improve the scope to de-risk the project			3	3	9	Open
CO024	Business Case	Construction	Water course construction issues	Design changes/additional requirements leading to an increase in the price of the contract works	The cost of the works and the duration	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	4 High	4	16	Mitigate	Early engagement and negotiations with EA to manage all the correct consents			3	3	9	Open
CO025	Business Case	Construction	Difficulty in discharging planning conditions starting onsite	Additional costs to comply Programme delays	Planning conditions are more difficult to discharge than initially thought	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	4 High	4	16	Mitigate	Early engagement with LPA			3	2	6	Open
CO026	Business Case	Construction	Delays to land acquisitions delay works onsite	Programme delays and cost increases	Delays to agreeing land purchases with affected parties. Impacting start dates and programme	The cost of the works and the duration	Client	03/03/2021	5 Current	5	4 High	5		Mitigate	Early engagement with LPA and stakeholders			3	2	6	Open
CO027	Business Case	Construction	Remediation works	Increase in geotechnical requirements	Unsuitable ground conditions increasing requiring engineering	The cost of the works and the duration	Client	03/03/2021	5 Current	5	4 High	5	25	Mitigate	Early engagement with geo-technical engineer to obtain remediation solutions.			4	3	12	Open
CO028	Business Case	Construction	Commuted sums beyond allowances	Commuted sum requirement exceeds allowances	Increase cost of project	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	3 Moderate	3	12	Mitigate	Early engagement with the highways authority to allow budgeting for the commuted sums			3	2	6	Open
CO029	Business Case	Construction	Commuted sums for Derbyshire County Council elements on Junction 3A and Link Road	Commuted sum requirement exceeds DCC allowances	Increase cost of project	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	3 Moderate	3	12	Mitigate	Early engagement with the highways authority to allow budgeting for the commuted sums			3	2	6	Open
CO030	Business Case	Construction	Legal costs	Duration of project extends increasing legal cost	Increase cost of project	The cost of the works and the duration	Client	03/03/2021	3 Likely	4	3 Moderate	4	16	Mitigate	Ensure that a robust estimates are included in the budget cost			3	3	9	Open
CO031	Business Case	Construction	Works to existing ponds and swales	Additional works required to incorporate into the design affecting the drainage strategy and flood modelling	The cost of the works and the duration	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	4 High	4	16	Mitigate	Clear and defined drainage strategy that incorporates the current site constraints.			3	3	9	Open
CO032	Business Case	Construction	Traffic signals required to any junctions i.e. roundabouts	Additional off site infrastructure works that impacts costs and schedule of works	The cost of the works and the duration	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	3 Moderate	3	12	Mitigate	and signage designer to make allowance for improvements to the existing highway			3	3	9	Open
CO033	Business Case	Construction	Specific infrastructure requirements for adjacent developments	Potential scope changes during construction phases	The cost of the works and the duration	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	4 High	4	16	Mitigate	Early engagement with master planners to understand the phasing and infrastructure requirements for the wider scheme			3	3	9	Open
CO034	Business Case	Construction	Unchartered drainage	Unchartered land drainage is discovered	Incomplete land records of land drainage held.	The cost of the works and the duration	Client	03/03/2021	5 Current	5	4 High	4	20	Mitigate	Ensure a detailed site investigation and flood risk is carried out to define locations of land drains across the site			4	3	12	Open
CO035	Business Case	Construction	Highway England Bond	Value of bond exceeds the budget	The cost of the works and the duration	The cost of the works and the duration	Client	03/03/2021	4 Almost Certain	4	4 High	4	16	Mitigate	Early engagement with HE to derive budget costs for the highway bond and incorporate into budget costs			3	3	9	Open
L	. I			8	ıl		1				· 1						1	I	1		

10 10.10 <	CO036	Puria and Gara	Commission	Commission and a	Additional Highway Authority and Client fees are	Increase cost of project	The cost of the works and the	Client	03/03/2021			4.154		1K	Misimu	Ensure that a robust estimates are included			,	2	,	0
Image     No.	0036	Business Case	Construction	supervision costs	delayed			Client	03/03/2021	4 Aimost Certain	7	4 Fign	4	15	-	carry engagement with master planners to			3	2	0	Open
N       N	CO037	Business Case	Construction	Overhead Gantry to new Junction				Client	03/03/2021	4 Almost Certain	5	3 Moderate	5	25	Mitigate				4	4	16	Closed
No. <td>CO038</td> <td>Business Case</td> <td>Construction</td> <td>Upgraded works to existing bridge</td> <td></td> <td></td> <td></td> <td>Client</td> <td>03/03/2021</td> <td>4 Almost Certain</td> <td>5</td> <td>5 Severe</td> <td>5</td> <td>25</td> <td>Mitigate</td> <td></td> <td></td> <td></td> <td>4</td> <td>4</td> <td></td> <td>Open</td>	CO038	Business Case	Construction	Upgraded works to existing bridge				Client	03/03/2021	4 Almost Certain	5	5 Severe	5	25	Mitigate				4	4		Open
No <td>Programme</td> <td>2</td> <td></td>	Programme	2																				
No.       No.       Mache and and any	PRG001	Business Case	Programme	Not enough time to develop the project	support required for additional infrastructure	Scope not developed in time		Client	03/02/2021	5 Current	5	4 High	4	20	Mitigate				4	3	12	Open
Norme       Norme <t< td=""><td>PRG002</td><td>Business Case</td><td>Programme</td><td></td><td></td><td></td><td>The cost of the works and the</td><td>Client</td><td>03/02/2021</td><td>5 Current</td><td>5</td><td>4 High</td><td>4</td><td>20</td><td>Mitigate</td><td>Build CPO into programme assessing the</td><td></td><td></td><td>4</td><td>3</td><td>12</td><td>Open</td></t<>	PRG002	Business Case	Programme				The cost of the works and the	Client	03/02/2021	5 Current	5	4 High	4	20	Mitigate	Build CPO into programme assessing the			4	3	12	Open
Image       Mark				funding has to be spent by March 2025)		required when called upon														-		
No <td>PRG003</td> <td>Business Case</td> <td>Programme</td> <td>Slippage</td> <td>Length of programme affecting delivery of project</td> <td></td> <td>duration</td> <td>Client</td> <td>03/02/2021</td> <td>5 Current</td> <td>5</td> <td>5 Severe</td> <td>5</td> <td>25</td> <td>Mitigate</td> <td>key activities progress and resourcing</td> <td></td> <td></td> <td>4</td> <td>4</td> <td>16</td> <td>Open</td>	PRG003	Business Case	Programme	Slippage	Length of programme affecting delivery of project		duration	Client	03/02/2021	5 Current	5	5 Severe	5	25	Mitigate	key activities progress and resourcing			4	4	16	Open
Normal And Antion And Antion And Antion And Antion And Antion And Antion Antio Antio Antio Antion Antion Antion Antio Antion Antion Antion	PRG004	Business Case	Programme	Personnel staff changes	Absence of succession planning and intake issues	Project delivery compromised		Client	03/02/2021	4 Almost Certain	4	3 Moderate	3	12	Mitigate	capacity required. Resilience within project team			3	2	6	Open
Normal And Antion Antio Antion Antion Antion Antion Antion Antion Antion Ant	PRG005	Business Case	Programme	Planning permission expiry	time frame even with the additional provision of	Project delivery compromised		Client	11/02/2021	5 Current	5	4 High	4	20	Mitigate	Clear project delivery programme with key milestones and resource tracking	New planning application	1	3	2	6	Open
NoteNo	Land & Leg	al			years extension				1			1 1						ł	1 1	I		
No <td>LL001</td> <td>Business Case</td> <td>Land &amp; Legal</td> <td>S6 agreement</td> <td>Long time to formally agree</td> <td>Lack of early engagement</td> <td>Delay to project</td> <td>Client</td> <td>03/02/2021</td> <td>5 Current</td> <td>5</td> <td>5 Severe</td> <td>5</td> <td>25</td> <td>Mitigate</td> <td></td> <td></td> <td></td> <td>4</td> <td>4</td> <td>16</td> <td>Open</td>	LL001	Business Case	Land & Legal	S6 agreement	Long time to formally agree	Lack of early engagement	Delay to project	Client	03/02/2021	5 Current	5	5 Severe	5	25	Mitigate				4	4	16	Open
No No No No 	LL002	Business Case	Land & Legal	S8 agreement	Long time to formally agree	Lack of early engagement	Delay to project	Client	03/02/2021	5 Current	5	5 Severe	5	25	Mitigate	Early engagement with stakeholders to			4	4	16	Open
NoteNo	LL003	Business Case	Land & Legal	Side Roads Order required	The scheme will impact upon side roads	Lack of early engagement		Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Mitigate				2	3	6	Open
100 1010<		Business Case	-								4	4 High	4	16	-	provide resolution			3	3	9	Open
NoteNo										1 1	4 r	4 11:	3	12					2	3	6	Open
Na <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td>duration</td> <td></td> <td></td> <td></td> <td>5</td> <td></td> <td>7</td> <td>20</td> <td>-</td> <td>parallel</td> <td><b>N</b></td> <td></td> <td>3</td> <td></td> <td>0</td> <td>Open</td>			-				duration				5		7	20	-	parallel	<b>N</b>		3		0	Open
10       10 </td <td>LL007</td> <td>Business Case</td> <td>Land &amp; Legal</td> <td></td> <td>-</td> <td>Impacts to project funding</td> <td>duration</td> <td>Client</td> <td>11/02/2021</td> <td>5 Current</td> <td>5</td> <td>4 High</td> <td>4</td> <td>20</td> <td>Mitigate</td> <td>some point</td> <td>Repeated</td> <td></td> <td>0</td> <td>0</td> <td>0</td> <td>Closed</td>	LL007	Business Case	Land & Legal		-	Impacts to project funding	duration	Client	11/02/2021	5 Current	5	4 High	4	20	Mitigate	some point	Repeated		0	0	0	Closed
VI-V	LL008	Business Case	Land & Legal	and contract conditions of the various partners	sectors control over procurement strategy due	Lack of early engagement		Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Mitigate	procurement strategy. To be reviewed once			3	2	6	Open
No       Norw       Norw      N	Planning																					
VVV <th< td=""><td>PLOOL</td><td>Buringer Caro</td><td>Physing</td><td>Lower form not allocated</td><td>Statut to be acquired</td><td>Lack of early opgramment</td><td>Change to group</td><td>Climat</td><td>03/02/2021</td><td>A Almort Cortain</td><td>4</td><td>3 Moderate</td><td>3</td><td>21</td><td>Mitirato</td><td></td><td></td><td></td><td>2</td><td>2</td><td>4</td><td>Clored</td></th<>	PLOOL	Buringer Caro	Physing	Lower form not allocated	Statut to be acquired	Lack of early opgramment	Change to group	Climat	03/02/2021	A Almort Cortain	4	3 Moderate	3	21	Mitirato				2	2	4	Clored
No.	12001	Dusiness Case	T anning			Lack of early engagement	Change to scope	Cienc	05/02/2021	4 Amost Certain	-	STIDUEIALE		12	Thugate	the benefit analysis			-	2	-	Closed
1         1 <th1< th="">         1         <th1< th="">         1</th1<></th1<>	PL002	Business Case	Planning				The cost of the works and the duration	Client	11/02/2021	5 Current	5	3 Moderate	3	15	Mitigate	Not enough time in programme			3	2	6	Closed
N         N	PL003	Business Case	Planning		Testing requirements for the development from HE.	surrounding development. Impacts	The cost of the works and the duration	Client	03/02/2021	3 Likely	3	3 Moderate	3	9	Mitigate	Early engagement with HE.	Redesign the work		2	3	6	Open
100       1010       1010       1010       1010       1010       100      100      <																Dedicated planning resource to monitor the						
Image: bit imag	PL004	Business Case	Planning	Delays to discharging planning conditions	Issues with technical discharge of conditions.	Lack of early engagement	The cost of the works and the duration	Client	03/02/2021	5 Current	5	4 High	4	20	Mitigate	the application to meet planning authorities			3	3	9	Open
Normal     Normal <td></td> <td></td> <td></td> <td>Phasing e.g. which element will be delivered first.</td> <td>Control of the development measured being</td> <td></td> <td>Conditions</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>				Phasing e.g. which element will be delivered first.	Control of the development measured being											Conditions						
Name	PL005	Business Case	Planning	being delivered as a single scheme. Potential for legal			The cost of the works and the duration	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Mitigate	Addendum to EIA statements.	Section 73		2	2		Closed
Normal No	PL006	Business Case	Planning	improvements - reworking of the other DCC projects	futureproofing of the project to align the projects in		The cost of the works and the duration	Client	03/02/2021	5 Current	5	4 High	4	20	Take Opportunity	Reworking of other highway authority projects	Design work		2	4	8	Open
NumberNumb	PL007	Business Case	Planning	Viability deliverability of the proposed mitigation			The cost of the works and the duration	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Mitigate		Design work		2	3	6	Open
III <th< td=""><td>PLOOR</td><td>Buringer Caro</td><td>Phoneing</td><td></td><td>Additional conditions inserted. And issues with</td><td></td><td>The cost of the works and the duration</td><td>Climat</td><td>03/02/2021</td><td>3 Likoly</td><td>3</td><td>3 Moderate</td><td>3</td><td>9</td><td></td><td>Dedicated planning resource with cross</td><td>Time ment with phonem</td><td></td><td>2</td><td>2</td><td>4</td><td>Clored</td></th<>	PLOOR	Buringer Caro	Phoneing		Additional conditions inserted. And issues with		The cost of the works and the duration	Climat	03/02/2021	3 Likoly	3	3 Moderate	3	9		Dedicated planning resource with cross	Time ment with phonem		2	2	4	Clored
no	_	Business Case		Lack of considerey occircal planning consents	technical discharge of conditions.			Cicht	03/02/2021	5 Bircly	-	STIDUCIAL		, i	1 million	planning conditions	Time spelle wiel planters		-	-		
normal basis	Design								1	1 1		, ,				Following Skillshow do Stored						
Normal         Open         Manages         Open         Manages         Mana	D001	Business Case	Design				Increased duration of the works	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Mitigate	approvals to be included in programme			3	3	9	Open
bit in the line of the line line of the line of the line of the line o	D002	Business Case	Design		Conditions/buildability will take time to fully		The cost of the works and the duration	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Mitigate	investigation to further improve the scope to de-	Assume geo - redesign		3	3	9	Open
Image: border prime	D003	Business Case	Design	in place to review. Deep Dale lane 6 months monitoring	Design changes and mitigation to be remodelled		The cost of the works and the duration	Client	03/02/2021	3 Likely	3	3 Moderate	3	9	Mitigate				3	2	6	Open
Norm         Normal         Concernent         Subscience         Subscien	Procureme	ent		condition of planning			l		I						L			<b>_</b>				
Prior         Band M         Calcie M <th< td=""><td></td><td></td><td>Procurement</td><td>ECI terr and</td><td>Scope procurement and funding and a</td><td></td><td>The cost of the works and the down</td><td>Climate</td><td>03/02/2021</td><td>A Almore Course</td><td>4</td><td>Alter</td><td></td><td>14</td><td>Minister</td><td></td><td></td><td></td><td>,</td><td>,</td><td></td><td>0.00</td></th<>			Procurement	ECI terr and	Scope procurement and funding and a		The cost of the works and the down	Climate	03/02/2021	A Almore Course	4	Alter		14	Minister				,	,		0.00
Price         Series         Control         Opticability				-									4	16	-	the Project Implementation Plan Clear scope and objectives optimised as part of				3	6	Open
Notice         Number         Support         Support <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>   </td><td></td><td>   </td><td>3</td><td>9</td><td></td><td>the Project Implementation Plan Procurement and risk strategy to reflect market</td><td></td><td></td><td></td><td></td><td>4</td><td></td></th<>													3	9		the Project Implementation Plan Procurement and risk strategy to reflect market					4	
N         N					Impacts of other large scale construction schemes						4		5	20		needs Procurement and risk strategy to reflect market					9	
PROD         Procurement         Procurement         Date the comparate dramatine, the set at lease of the second data in the second				·····	limiting resources e.g. HS2					Jan Schuel			-			needs			-	-		
And the set of the set	PROOF	Device	R	Procurement of main Contractor - Traditional			The same of allowed and	Chart	27/01/2022	2 Links	,	A Hist		12	Misimum	Appoint a DAB Contractor through a		contract fixing the completion date. It is also	2	2		0
A         A	PR005	Design	Procurement	Contract		DfT scheme completion date	The cost of the works and the duration	Client	2//01/2022	3 Likely	3	4 High	-	12	Piltigate			the contractor at the earliest opportunity, the	2	2		Open
PROD       Design       Procurement       Appointment of Contractor through PMA framework       any further design appointing the contraction       Design is greenent by PMA pairs       The cost of the works and the duration       Clear       2701/202       2 Sever       5 Sever       5 Nit       Mage to finework is perf2 to pairs       Mage to the pairs       Mage to					The MHA MSF4 Framework is not in place by Apr 22.											Conduct works prior to the appointment of the						
Variability	PR006	Design	Procurement	Appointment of Contractor through MHA Framework	any further delays in appointing the contract may	Delays in agreement by MHA partners	The cost of the works and the duration	Client	27/01/2022	2 Possibly	2	5 Severe	5	10	Mitigate	framework in Apr 22, so that all elements are			2	2	4	Open
HSE00       Business Case       Heakh and Safety       TM incident       Lack of supervision, rules and regulations       The cost of the works and the duration       Shared       03102/2021       3 Likely       3       5 Seven       5       15       Mitigate       systems of work and delignated trafting and pedetarial contractions       construction       2       3       6       Open         HSE00       Business Case       Heakh and Safety       TM incident       Aerious heakh and safety incident occurs. Lack of supervision, rules and regulations       The cost of the works and the duration       Shared       03102/2021       3 Likely       3       5 Seven       5       15       Mitigate       Appoint completent contractor that utiles safe percenters       1       0	Health and	Safety																				
HSE002       Business Case       Health and Safery       Alesion to the land safery incident cocurs. Lack of supervision, rules and regulations       The cost of the works and the duration       Shared       03/02/2021       3 Likely       3       S Sever       5       HS       Alegoint competent contractor that utiless safe systems of works and findencess trong HSE principles       Competent systems of works and findences trong HSE principles       Competent systems of works and findence	HSE001	Business Case	Health and Safety	TM incident	Lack of supervision, rules and regulations		The cost of the works and the duration	Shared	03/02/2021	3 Likely	3	5 Severe	5	15	Mitigate	systems of work and designated traffic and			2	3	6	Open
Image: A construction       Image: A construction       Image: A construction       Image: A construction       A construction       C cons	HSE002	Business Case	Health and Safety	H&S Incident			The cost of the works and the duration	Shared	03/02/2021	3 Likolu	3	5 Severa	5	15	Mitigate	Appoint competent contractor that utilises safe			,	3	6	Open
HSE003 Business Case Health and Safety Health and Safety Link road as evacuation route - flooding during construction and is used as an evacuation route and part of the moart. Access to be maintained as part of the moart and part of the moa										- Lincip	2									-		
saley or the constructors ouring the constructor period	HSE003	Business Case	Health and Safety		the impact. Access to be maintained as part of the planning and is used as an evacuation route and		The cost of the works and the duration	Client	03/02/2021	3 Likely	3	5 Severe	5	15	Mitigate		the route delays	F	2	3	6	Open
Resource																	construction					
	Resource																					

REOOI	Business Case	Resource	Lack of resource during development	Planning for the future phases of the project to enable the correct levels resourcing available. Assessing the multi-disciplinary teams and consultants to drive the project		The cost of the works and the duration	Client	03/02/2021	4 Almost Certain	4	4 High	4	16	Mitigate	Project delivery to be put in place to identify resource requirements		0	0	0	Closed
RE002	Land Aquation	Resource	Resources required during land acquisition/CPO	If DCoC do not have the capacity to conduct the land acquisition exercise at the required phase of the scheme there maybe an impact on Programme.	Lack of Resources	The cost of the works and the duration	Client	27/01/2022	4 Almost Certain	4	4 High	4	16	Mitigate	The scheme engage an external Land Argent, CDL Property Partner or Framework		3	2	6	Open