

The content of this document is draft and relates to material [or data] which is still in the course of completion in travel to Gate 2 and should not be relied upon at this early stage of development. We continue to develop our thinking and our approach to the issues raised in the document in preparation for Gate 2.

M7															
RISK DESCRIPTION					GATE 1 - RISK ASSESSMENT										
No.	Category	Cause	Result	Hazard	Status	Likelihood Rating	Likelihood %	Severity Rating	Min %	Max %	Min (£)	Max (£)	Risk Rating	Risk Grade	Risk (£)
Treatment Works Risk Elements															
1	Treatment	Changes to quality of existing works final effluent	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	4	2.5%	5.0%					
2	Treatment	Removing discharge from Tame affects Tame status	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
3	Treatment	Process is inappropriate for required solution	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
4	Treatment	Required raw water output changes	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
5	Treatment	Lack of knowledge of power requirements and existing supply. May warrant electrical upgrade	Electrical upgrades needed	Delays and potential additional costs	Gate 1 Risk Assessment	1	10%	5	5.0%	10.0%					
6	Treatment	Land requirements	Required treatment may warrant additional land	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	3	1.0%	2.5%					
7	Treatment	EA require full EIA	Full EIA required	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	1	0.0%	0.1%					
8	Treatment	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	2	30%	2	0.1%	1.0%					
9	Treatment	Construction on live wastewater treatment plant	Existing performance may be impacted by construction work	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
Conveyance Works Risk Elements															
10	Conveyance	EA require full EIA	Full EIA required	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	1	0.0%	0.1%					
11	Conveyance	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
12	Conveyance	Wayleaves/CPO land unavailable	Objections to wayleaves/CPO	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
13	Conveyance	Laying the rising main under motorways	Highways England stipulations may be imposed upon the works (shaft locations and construction access)	Delays and potential additional costs	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
14	Conveyance	Laying the rising main in a public road	Highways England stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
15	Conveyance	Laying the rising main under railways	National Rail stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
16	Conveyance	Laying the rising main under HS2 route	HS2 stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
17	Conveyance	Laying the rising main under canals	Canal & River Trust stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
18	Conveyance	Underground Utilities	Route adjustment required.	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
Cost Estimate Risk															
												CAPITAL VALUE			
												RISK TOTAL			

M8															
RISK DESCRIPTION					GATE 1 - RISK ASSESSMENT										
No.	Category	Cause	Result	Hazard	Status	Likelihood Rating	Likelihood %	Severity Rating	Min %	Max %	Min (£)	Max (£)	Risk Rating	Risk Grade	Risk (£)
Treatment Works Risk Elements															
1	Treatment	Changes to quality of existing works final effluent	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	4	2.5%	5.0%					
2	Treatment	Removing discharge from Tame affects Tame status	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
3	Treatment	Process is inappropriate for required solution	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
4	Treatment	Required raw water output changes	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
5	Treatment	Lack of knowledge of power requirements and existing supply. May warrant electrical upgrade	Electrical upgrades needed	Delays and potential additional costs	Gate 1 Risk Assessment	1	10%	4	2.5%	5.0%					
6	Treatment	Land requirements	Required treatment may warrant additional land	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	3	1.0%	2.5%					
7	Treatment	EA require full EIA	Full EIA Required	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	1	0.0%	0.1%					
8	Treatment	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	2	30%	2	0.1%	1.0%					
9	Treatment	Construction on live wastewater treatment plant	Existing performance may be impacted by construction work	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
Conveyance Works Risk Elements															
10	Conveyance	EA require full EIA	Full EIA required	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	1	0.0%	0.1%					
11	Conveyance	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
12	Conveyance	Wayleaves/CPO (land unavailable)	Objections to wayleaves/CPO	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
13	Conveyance	Laying the rising main under motorways	Highways England stipulations may be imposed upon the works (shaft locations and construction access)	Delays and potential additional costs	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
14	Conveyance	Laying the rising main in a public road	Highways England stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
15	Conveyance	Laying the rising main under railways	National Rail stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
16	Conveyance	Laying the rising main under HS2 route	HS2 stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
17	Conveyance	Laying the rising main under canals	Canal & River Trust stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
18	Conveyance	Underground Utilities	Route adjustment required.	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
Cost Estimate Risk															
												CAPITAL VALUE			
												RISK TOTAL			

M9															
RISK DESCRIPTION					GATE 1 - RISK ASSESSMENT										
No.	Category	Cause	Result	Hazard	Status	Likelihood Rating	Likelihood %	Severity Rating	Min %	Max %	Min (£)	Max (£)	Risk Rating	Risk Grade	Risk (£)
Treatment Works Risk Elements															
1	Treatment	Changes to quality of existing works final effluent	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	4	2.5%	5.0%					
2	Treatment	Removing discharge from Tame affects Tame status	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
3	Treatment	Process is inappropriate for required solution	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
4	Treatment	Required raw water output changes	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
5	Treatment	Lack of knowledge of power requirements and existing supply. May warrant electrical upgrade	Electrical upgrades needed	Delays and potential additional costs	Gate 1 Risk Assessment	1	10%	3	1.0%	2.5%					
6	Treatment	Land requirements	Required treatment may warrant additional land	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	3	1.0%	2.5%					
7	Treatment	EA require full EIA	Full EIA Required	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	1	0.0%	0.1%					
8	Treatment	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	2	30%	2	0.1%	1.0%					
9	Treatment	Construction on live wastewater treatment plant	Existing performance may be impacted by construction work	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
Conveyance Works Risk Elements															
10	Conveyance	EA require full EIA	Full EIA required	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	1	0.0%	0.1%					
11	Conveyance	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
12	Conveyance	Wayleaves/CPO (land unavailable)	Objections to wayleaves/CPO	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
13	Conveyance	Laying the rising main under motorways	Highways England stipulations may be imposed upon the works (shaft locations and construction access)	Delays and potential additional costs	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
14	Conveyance	Laying the rising main in a public road	Highways England stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
15	Conveyance	Laying the rising main under railways	National Rail stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
16	Conveyance	Laying the rising main under HS2 route	HS2 stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
17	Conveyance	Laying the rising main under canals	Canal & River Trust stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
18	Conveyance	Underground Utilities	Route adjustment required.	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
Cost Estimate Risk															
												CAPITAL VALUE			
												RISK TOTAL			

M10															
RISK DESCRIPTION					GATE 1 - RISK ASSESSMENT										
No.	Category	Cause	Result	Hazard	Status	Likelihood Rating	Likelihood %	Severity Rating	Min %	Max %	Min (£)	Max (£)	Risk Rating	Risk Grade	Risk (£)
Treatment Works Risk Elements															
1	Treatment	Changes to quality of existing works final effluent	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	4	2.5%	5.0%					
2	Treatment	Removing discharge from Tame affects Tame status	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
3	Treatment	Process is inappropriate for required solution	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
4	Treatment	Required raw water output changes	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
5	Treatment	Lack of knowledge of power requirements and existing supply. May warrant electrical upgrade	Electrical upgrades needed	Delays and potential additional costs	Gate 1 Risk Assessment	1	10%	5	5.0%	10.0%					
6	Treatment	Land requirements	Required treatment may warrant additional land	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	3	1.0%	2.5%					
7	Treatment	EA require full EIA	Full EIA Required	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	1	0.0%	0.1%					
8	Treatment	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	2	30%	2	0.1%	1.0%					
9	Treatment	Construction on live wastewater treatment plant	Existing performance may be impacted by construction work	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
Conveyance Works Risk Elements															
10	Conveyance	EA require full EIA	Full EIA required	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	1	0.0%	0.1%					
11	Conveyance	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
12	Conveyance	Wayleaves/CPO (land unavailable)	Objections to wayleaves/CPO	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
13	Conveyance	Laying the rising main under motorways	Highways England stipulations may be imposed upon the works (shaft locations and construction access)	Delays and potential additional costs	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
14	Conveyance	Laying the rising main in a public road	Highways England stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
15	Conveyance	Laying the rising main under railways	National Rail stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
16	Conveyance	Laying the rising main under HS2 route	HS2 stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
17	Conveyance	Laying the rising main under canals	Canal & River Trust stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
18	Conveyance	Underground Utilities	Route adjustment required.	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
Cost Estimate Risk															
												CAPITAL VALUE			
												RISK TOTAL			

M11															
RISK DESCRIPTION					GATE 1 - RISK ASSESSMENT										
No.	Category	Cause	Result	Hazard	Status	Likelihood Rating	Likelihood %	Severity Rating	Min %	Max %	Min (£)	Max (£)	Risk Rating	Risk Grade	Risk (£)
Treatment Works Risk Elements															
1	Treatment	Changes to quality of existing works final effluent	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	4	2.5%	5.0%					
2	Treatment	Removing discharge from Tame affects Tame status	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
3	Treatment	Process is inappropriate for required solution	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
4	Treatment	Required raw water output changes	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
5	Treatment	Lack of knowledge of power requirements and existing supply. May warrant electrical upgrade.	Electrical upgrades needed	Delays and potential additional costs	Gate 1 Risk Assessment	1	10%	4	2.5%	5.0%					
6	Treatment	Land requirements	Required treatment may warrant additional land	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	3	1.0%	2.5%					
7	Treatment	EA require full EIA	Full EIA Required	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	1	0.0%	0.1%					
8	Treatment	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	2	30%	2	0.1%	1.0%					
9	Treatment	Construction on live wastewater treatment plant	Existing performance may be impacted by construction work	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
Conveyance Works Risk Elements															
10	Conveyance	EA require full EIA	Full EIA required	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	1	0.0%	0.1%					
11	Conveyance	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
12	Conveyance	Wayleaves/CPO (land unavailable)	Objections to wayleaves/CPO	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
13	Conveyance	Laying the rising main under motorways	Highways England stipulations may be imposed upon the works (shaft locations and construction access)	Delays and potential additional costs	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
14	Conveyance	Laying the rising main in a public road	Highways England stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
15	Conveyance	Laying the rising main under railways	National Rail stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
16	Conveyance	Laying the rising main under HS2 route	HS2 stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
17	Conveyance	Laying the rising main under canals	Canal & River Trust stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
18	Conveyance	Underground Utilities	Route adjustment required.	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
Cost Estimate Risks															
												CAPITAL VALUE			
												RISK TOTAL			

M12															
RISK DESCRIPTION					GATE 1 - RISK ASSESSMENT										
No.	Category	Cause	Result	Hazard	Status	Likelihood Rating	Likelihood %	Severity Rating	Min %	Max %	Min (£)	Max (£)	Risk Rating	Risk Grade	Risk (£)
Treatment Works Risk Elements															
1	Treatment	Changes to quality of existing works final effluent	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	4	2.5%	5.0%					
2	Treatment	Removing discharge from Tame affects Tame status	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
3	Treatment	Process is inappropriate for required solution	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
4	Treatment	Required raw water output changes	Additional treatment needed	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
5	Treatment	Lack of knowledge of power requirements and existing supply. May warrant electrical upgrade.	Electrical upgrades needed	Delays and potential additional costs	Gate 1 Risk Assessment	1	10%	3	1.0%	2.5%					
6	Treatment	Land requirements	Required treatment may warrant additional land	Time delay and additional costs	Gate 1 Risk Assessment	1	10%	3	1.0%	2.5%					
7	Treatment	EA require full EIA	Full EIA Required	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	1	0.0%	0.1%					
8	Treatment	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	2	30%	2	0.1%	1.0%					
9	Treatment	Construction on live wastewater treatment plant	Existing performance may be impacted by construction work	Time delay and additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
Conveyance Works Risk Elements															
10	Conveyance	EA require full EIA	Full EIA required	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	1	0.0%	0.1%					
11	Conveyance	EA require full EIA	EIA outputs warrant additional measures	Changes in design resulting in increased costs and delays	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
12	Conveyance	Wayleaves/CPO (land unavailable)	Objections to wayleaves/CPO	Time delay and additional costs	Gate 1 Risk Assessment	3	50%	3	1.0%	2.5%					
13	Conveyance	Laying the rising main under motorways	Highways England stipulations may be imposed upon the works (shaft locations and construction access)	Delays and potential additional costs	Gate 1 Risk Assessment	3	50%	4	2.5%	5.0%					
14	Conveyance	Laying the rising main in a public road	Highways England stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
15	Conveyance	Laying the rising main under railways	National Rail stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
16	Conveyance	Laying the rising main under HS2 route	HS2 stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	4	2.5%	5.0%					
17	Conveyance	Laying the rising main under canals	Canal & River Trust stipulations may be imposed upon the works	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
18	Conveyance	Underground Utilities	Route adjustment required.	Delays and potential additional costs	Gate 1 Risk Assessment	2	30%	3	1.0%	2.5%					
Cost Estimate Risks															
											CAPITAL VALUE				
											RISK TOTAL				