

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.

M1											GATE 2 - RISK ASSESSMENT				
RISK DESCRIPTION															
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	Regulation	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
2	Regulation	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
3	Regulation	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
4	Regulation	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
5	Regulation	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
6	Regulation	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
7	Regulation	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
8	Regulation	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
9	Regulation	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
10	Regulation	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
Construction Works Risk Elements															
11	Construction	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
12	Construction	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
13	Construction	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
14	Construction	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
15	Construction	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
16	Construction	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
17	Construction	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
18	Construction	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
19	Construction	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
20	Construction	Failure to meet the construction programme. Risk of delay	Construction programme delayed	High water and pollution costs	Low - Risk Assessment	3	100%	3	100%	0	1,000,000	1,000,000	3	3	1,000,000
Grand Estimate Risk											CAPITAL VALUE RISK TOTAL				

M2										GATE 1 - RISK ASSESSMENT					
RISK DESCRIPTION				Status		Likelihood Rating	Likelihood %	Severity Rating	Min %	Max %	Min IC1	Max IC1	Risk Rating	Risk Grade	Risk IC1
No.	Category	Cause	Result	Hazard	Status										
Treatment Works Risk Elements															
1	Reliability	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
2	Reliability	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
3	Reliability	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
4	Reliability	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
5	Reliability	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
6	Reliability	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
7	Reliability	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
8	Reliability	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
9	Reliability	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
10	Reliability	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
Construction Works Risk Elements															
11	Construction	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
12	Construction	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
13	Construction	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
14	Construction	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
15	Construction	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
16	Construction	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
17	Construction	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
18	Construction	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
19	Construction	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
20	Construction	Failure to meet the required level of flow volume	Performance not met	Flow rate and additional costs	Low - Risk Assessment	1	10%	2	10%	1	10%	1	10%	10%	
Cost Estimate Risk															
										CAPITAL VALUE RISK TOTAL					

M3										GATE 1 - RISK ASSESSMENT					
RISK DESCRIPTION															
No.	Category	Cause	Result	Hazard	Status	Likelihood Rating	Likelihood %	Severity Rating	Min %	Max %	Min IC1	Max IC1	Risk Rating	Risk Grade	Risk IC1
Treatment Works Risk Elements															
1	Reliability	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
2	Reliability	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
3	Reliability	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
4	Reliability	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
5	Reliability	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
6	Reliability	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
7	Reliability	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
8	Reliability	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
9	Reliability	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
10	Reliability	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
Construction Works Risk Elements															
11	Construction	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
12	Construction	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
13	Construction	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
14	Construction	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
15	Construction	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
16	Construction	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
17	Construction	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
18	Construction	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
19	Construction	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
20	Construction	Failure to install or maintain assets. Poor software	Performance degraded	High stress and additional costs	Low - Risk Assessment	3	10%	4	1.0%	2.0%	1	1.0%	1.0%		
Grand Estimate Risk															
										CAPITAL VALUE					
										RISK TOTAL					

M4										GATE 1 - RISK ASSESSMENT					
RISK DESCRIPTION															
No.	Category	Cause	Result	Hazard	Status	Likelihood Rating	Likelihood %	Severity Rating	Min %	Max %	Min ICI	Max ICI	Risk Rating	Risk Grade	Risk ICI
Treatment Works Risk Elements															
1	Treatment	Failure to install or position grade, final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
2	Treatment	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
3	Treatment	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
4	Treatment	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
5	Treatment	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
6	Treatment	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
7	Treatment	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
8	Treatment	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
9	Treatment	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
10	Treatment	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
Construction Works Risk Elements															
11	Construction	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
12	Construction	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
13	Construction	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
14	Construction	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
15	Construction	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
16	Construction	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
17	Construction	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
18	Construction	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
19	Construction	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
20	Construction	Failure to install or position final surface	Watercourse overtopped	Site slope and adjacent roads	Site 1 Risk Assessment	3	50%	3	10%	90%	1	10%	10%	10%	10%
Cost Estimate Risk															
											CAPITAL VALUE RISK TOTAL				

MS						GATE 1 - RISK ASSESSMENT								
No.	Category	Cause	Risk	Hazard	Station	Likelihood Rating	Likelihood %	Severity Rating	Expo. %	Expo. \$	Expo. (k)	Risk Rating	Risk Grade	Risk ID
Treatment Works Risk Elements														
1	Treatment	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	1	
2	Treatment	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	2	
3	Treatment	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	3	
4	Treatment	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	4	
5	Treatment	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	5	
6	Treatment	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	6	
7	Treatment	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	7	
8	Treatment	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	8	
9	Treatment	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	9	
10	Treatment	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	10	
Collection Works Risk Elements														
11	Collection	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	11	
12	Collection	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	12	
13	Collection	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	13	
14	Collection	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	14	
15	Collection	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	15	
16	Collection	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	16	
17	Collection	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	17	
18	Collection	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	18	
19	Collection	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	19	
20	Collection	Dependence on quality of contractor work that off-site	Performance/contractor control	Off-site	Off-site	3	10%	4	10%	100	100	High	20	
Gate 1 Summary Risk														
CAPITAL VALUE														
RISK TOTAL														

M6										GATE 6 RISK ASSESSMENT					
No.	Category	Cause	Risk	Hazard	Station	Likelihood Rating	Likelihood %	Severity Rating	Expo. %	Expo. \$	Expo. (k)	Risk Rating	Risk Grade	Risk ID	
Estimate Works Risk Elements															
1	Training	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
2	Training	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
3	Training	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
4	Training	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
5	Training	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
6	Training	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
7	Training	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
8	Training	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
9	Training	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
10	Training	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
Construction Works Risk Elements															
11	Construction	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
12	Construction	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
13	Construction	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
14	Construction	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
15	Construction	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
16	Construction	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
17	Construction	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
18	Construction	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
19	Construction	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
20	Construction	Depends on quality of contractor work that off-site	Information not available	Off-site	Off-site	3	10%	4	1	1.0%	1.0%	Low	Low		
Gate 6 Estimate Risk															
										CAPITAL VALUE					
										RISK TOTAL					