

					Undefended				
Map Reference	Model Node Reference	Easting	Northing	Data	4 % AEP (1 in 25 year)	1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year) + 35% increase in flow	1 % AEP (1 in 100 year) + 70% increase in flow	0.1 % AEP (1 in 1000 year)
1	GTSB_R_0044	382991	397636	Modelled Water Level (m aodN)	25.52	25.69	25.91	26.19	26.34
				Modelled Flow (cumecs)	8.83	9.10	9.48	11.77	20.12
2	MEDZ01_0322	382825	397631	Modelled Water Level (m aodN)	23.79	23.87	23.98	24.06	24.37
				Modelled Flow (cumecs)	30.18	31.45	33.26	34.58	39.69
3	BRGW01_0293	382800	397470	Modelled Water Level (m aodN)	25.41	25.51	25.67	25.82	25.94
				Modelled Flow (cumecs)	21.40	28.28	36.08	42.24	49.76
4	MEDZ01_0000	382686	397495	Modelled Water Level (m aodN)	23.46	23.54	23.65	23.73	24.04
				Modelled Flow (cumecs)	30.17	31.46	33.25	34.58	39.69
5	BRGW01_0091	382648	397343	Modelled Water Level (m aodN)	25.32	25.37	25.44	25.52	25.63
				Modelled Flow (cumecs)	21.39	28.28	36.10	42.32	49.76

Model data taken from River Medlock 2011

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

cumecs - cubic metres per second

Notes: *Climate Change Scenario - 35% and 70% increases in flow calculated for the 2080's (2070 - 2115). Please see <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances> for more information regarding the new climate change guidance. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment.

					Model run is representative of present condions and all gates are operational as per the agreed automated protocol. Maximum gate opening height is set to 3.05m. This run is the same as used in the flood map products.											Model run is representative of a single gate failure at Latchford gate C.	Model run is representative of a single gate failure on every set of sluice structures at Latchford .	
Map Reference	Model Node Reference	Easting	Northing	Data	20 % AEP (1 in 5 year)	10 % AEP (1 in 10 year)	4 % AEP (1 in 25 year)	2 % AEP (1 in 50 year)	1.33 % AEP (1 in 75 year)	1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year) + 30% increase in flow	1 % AEP (1 in 100 year) + 35% increase in flow	1 % AEP (1 in 100 year) + 70% increase in flow	0.5 % AEP (1 in 200 year)	0.1 % AEP (1 in 1000 year)	1 % AEP (1 in 100 year)	1 % AEP (1 in 100 year)	0.1 % AEP (1 in 1000 year)
6	ea013_0251_IRWZ01_0479	382653	397800	Modelled Water Level (m aodN)	22.80	23.01	23.33	23.53	23.64	23.79	24.18	24.26	25.20	24.09	25.52	23.79	23.79	25.55
				Modelled Flow (cumecs)	310.44	351.53	411.54	445.58	466.87	496.02	573.75	589.52	738.97	553.41	753.26	496.02	496.02	748.33
7	ea013_0251_IRWZ01_0354	382614	397681	Modelled Water Level (m aodN)	22.80	23.01	23.32	23.52	23.63	23.77	24.15	24.23	25.12	24.07	25.39	23.77	23.77	25.41
				Modelled Flow (cumecs)	310.48	351.56	411.59	445.63	466.92	496.08	573.81	589.58	744.72	553.48	774.00	496.08	496.08	770.42
8	ea013_0251_IRWZ01_0173	382589	397522	Modelled Water Level (m aodN)	22.62	22.80	23.08	23.25	23.36	23.49	23.84	23.92	24.83	23.77	25.12	23.49	23.49	25.14
				Modelled Flow (cumecs)	310.54	351.63	411.68	445.74	467.02	496.21	573.94	589.72	741.83	553.64	769.97	496.21	496.21	765.88
9	ea013_0251_MSCC07_1377	382497	397381	Modelled Water Level (m aodN)	22.50	22.66	22.91	23.06	23.15	23.27	23.59	23.65	24.57	23.52	24.83	23.27	23.27	24.85
				Modelled Flow (cumecs)	334.24	377.69	441.98	481.46	505.87	537.80	622.05	639.33	806.00	604.33	855.33	537.80	537.80	851.93

Model data taken from Manchester Ship Canal 2018 Study

AEP - Annual Exceedence Probability

m aodN - metres above ordnance datum Newlyn

cumecs - cubic metres per second

Notes: *Climate Change Scenario - 30%, 35% and 70% increases in flow calculated for the 2080's (2070 - 2115). Please see <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances> for more information regarding the new climate change guidance. The location of the site and the type (vulnerability) of development determine the climate change allowances to consider in any flood risk assessment.

For the Manchester Ship Canal Model, we provide the following three scenarios:

1. Normal Operation: All sluice gates operate automatically to maintain a navigable ponded water level upstream of each set of sluice gates. During times of high flow the gates are opened automatically to allow excess water pass downstream. During extreme conditions the sluice gates can be manually overridden to extend the opening heights.
2. Normal Operation plus Climate Change Scenarios: Please see the additional Climate Change caveat for information on these scenarios.
3. Latchford 3 Gates Closed Scenario: This scenario has been defined as the removal of operational rules at all three sluice gates at Latchford Locks, thus, all gates are fixed in the closed position resulting in no regulation of upstream water levels. The model setup removes each of the gates from PID controller setup and an IED file is used to define sluice gates fixed in the closed position.