





























Date and time of image	Image reference	Thumbnail (tracing)	Wind speed (ms-1)	Wind direction (degrees)	Tide gauge level (m) at Old Quay Lock	Main Channel Location and Activity	Secondary Channel Location and Activity	Change in sinuosity of dominant channel (increase/decrease)	Change in morphology from previous date (e.g. no. or location of low flow channels or bars; infilling, cut-off and decay)	Migration	Avulsion/ Switching	Other (bank failure; scour; channel widening; siltation)	Nature of tides between current and preceding image	Above/below average fluvial flows between current and preceding image (average mean daily flow 30.34 m3/sec)
20/06/07 14:14 BST	V3_0706_ZM6P2968		5.4	166.4	0.5	The ebb flow has been equally distributed between two channels as the main channel bifurcates at the upstream end of the reach, one following the northern bank and the other, the southern bank.	No secondary channel visible.	-	-	-	-	Relict low flow channels visible across the main bar.	-	
24/07/07 17:25 BST	V3_0707_ZM6P3299		4.3	261.8	0.4	The inlet of the southern branch has accreted notably, as three low flow channels cutting across the point bar of the upstream meander and the upstream apex of the main bar now connect the southern channel branch to the main channel at the upstream end of the reach.	No change.	No change.	Three flood levees visible on the main bar, on its northern, southern and upstream edges.	None.	None.	No change.	Neap 22/07/07 Spring 30/07/07 Neap 07/07/07 Spring 14/07/07 Neap 22/07/07	
28/08/07 10:14 BST	V3_0708_ZM6P4592		2.9	334.1	0.6	The inlet of the southern channel has widened notably as the low flow channel closest to the southern bank has developed into a main inflow channel to the southern branch.	No change.	No change.	The flood levee across the upstream end of the main bar has been eroded.	None.	None.	No change.	Spring 30/08/07 Neap 05/08/07 Spring 13/08/07 Neap 21/08/07 Spring 28/08/07	
26/09/07 09:50 BST	V3_0709_ZM6P5988		6.0	3.1	0.6	The southern channel is now connected to ebb flow at the upstream end of the reach via one channel, which meanders around the point bar of the southern meander.	No change.	Increased.	A new point bar has developed off the southern meander at the upstream end of the reach.	None.	None.	No change.	Neap 04/09/07 Spring 11/09/07 Neap 19/09/07 Spring 26/09/07	






29/10/07 11:03 GMT	V3_0710_ZM6P6898		5.7	285.2	0.7	New low flow channels have developed across the upstream end of the main bar and the southern bank's point bar, thus creating a multi channel inlet to the southern branch.	No change.	Decreased.	A new flood levee has been deposited at the upstream edge of the main bar.	None.	None.	No change.	Neap 03/10/07 Spring 11/10/07 Neap 19/10/07 Spring 26/10/07
27/11/07 10:47 GMT	V3_0711_ZM6P7721		2.0	211.4	0.7	The main ebb flow has been restricted to the previous northern branch as the inlet of the southern branch has accreted notably.	The previous southern branch has formed a secondary channel.	No change.	The point bar of the southern meander and the upstream apex of the main bar have started to combine.	None.	None.	No change.	Neap 01/11/07 Spring 09/11/07 Neap 17/11/07 Spring 24/11/07
13/12/07 11:09 GMT	V3_0712_ZM6P8005		6.2	172.8	0.5	No change.	No change.	No change.	No change.	None.	None.	No change.	Neap 01/12/07 Spring 09/12/07
27/01/08 12:27 GMT	V3_0801_ZM6P8339		5.3	261.5	0.5	No change.	No change.	No change.	No change.	None.	None.	There is a breach on the southern flood levee created by a relict low flow channel. A shallow channel is cutting across the upstream apex of the main bar.	Neap 17/12/07 Spring 24/12/07 Neap 31/12/07 Spring 08/01/08 Neap 15/01/08 Spring 22/01/08
27/02/08 12:46 GMT	V3_0802_ZM6P9281		4.1	265.3	0.4	No change.	No change.	No change.	No change.	None	None	Breach on the southern levee has been sealed off.	Neap 30/01/09 Spring 07/02/08 Neap 14/02/08 Spring 21/02/08
23/03/08 10:25 GMT	V3_0803_ZM6P0947		6.7	4.5	0.5	No change.	No change.	No change.	A number of low flow channels are eroding across the main bar. In addition, a flood channel has intruded into downstream apex of the main channel.	None	None	A new breach on the southern levee has been created by a low flow channel.	Neap 29/02/08 Spring 07/02/08 Neap 14/03/08 Spring 21/03/08





21/04/08 10:55 BST	V3_0804_a_ZM6P1100		4.2	55.4	0.5	No change.	The upstream reach of the secondary channel has almost entirely accreted.	No change.	Relict low flow channels visible on the main bar. The flood intrusion channel at the downstream apex of the main bar has increased significantly and eroded away a large part of the main bar.	None	None	Breach on the southern levee has been sealed off.	Neap 29/03/08 Spring 06/04/08 Neap 12/04/08 Spring 20/04/08	
21/05/08 10:54 BST	V3_0805_ZM6P1899		4.7	116.7	0.5	No change.	The upstream reach of the secondary channel has accreted even further.	No change.	High tide erosion lines visible on the main bar. A number of relict low flow channels visible on the main bar.	None	None	No change.	Neap 28/04/08 Spring 05/05/08 Neap 12/05/08 Spring 20/05/08	
23/06/08 13:07 BST	V3_0806_ZM6P2271		2.9	307.9	0.5	No change.	No change.	No change.	A number of low flow channels visible on the main bar.	None	None	A new breach on the southern levee has been created by a low flow channel.	Neap 28/05/08 Spring 03/06/08 Neap 10/06/08 Spring 18/06/08	
22/07/08 12:52 BST	V3_0807_ZM6P2571		3.2	268.8	0.5	No change.	No change.	No change.	A shallow low flow channel has intruded the upstream apex of the main bar.	None	None	The crevasse on the southern levee has developed further.	Neap 26/06/08 Spring 03/07/08 Neap 10/07/08 Spring 18/07/08	
20/08/08 12:27 BST	V3_0808_ZM6P3408		3.2	230.6	0.6	No change.	No change.	No change.	No change.	None	None	The crevasse on the southern levee has slightly accreted.	Neap 25/07/08 Spring 01/08/08 Neap 08/08/08 Spring 16/08/08	
17/09/08 11:25 BST	V3_0809_E02T5497		3.6	140.3	0.6	The main channel is now meandering from the northern bank at its upstream end across to the southern side and follows the southern bank throughout the rest of the reach.	A small secondary channel is now following the northern bank.	Increased.	High tide erosion lines visible on the main bar. A number of relict flow channels visible on the main bar.	None	The main and secondary channels have switched sides.	Flood levees on both, northern and southern sides of the main bar have been eroded.	Neap 24/08/08 Spring 30/08/08 Neap 07/09/08 Spring 15/09/08	






15/10/08 10:21 BST	V3_0810_M6P4583		3.3	277.2	0.7	Ebb flow has distributed equally between two channels, one following the northern and the other the southern bank.	No secondary channel.	Decreased	A number of low flow channels are visible on the upstream end of the main bar.	None	None	Continuous flood levees have been re-established on the northern and southern edges of the main bar.	Neap 22/09/08 Spring 29/09/08 Neap 07/10/08 Spring 14/10/08
16/11/08 10:59 GMT	V3_0811_M6P5173		4.0	340.1	0.7	No change.	No change.	No change.	No change.	None	None	No change.	Neap 21/09/08 Spring 28/09/08 Neap 06/10/08 Spring 13/10/08
17/12/08 12:34 GMT	V3_0812_M6P5548		5.0	237.5	0.6	The previous northern branch has developed into a main channel.	The previous southern branch has developed into a secondary channel. Increased sinuosity of the secondary channel.	No change.	High tide erosion lines visible on the main bar.	None	None	The northern and southern levees have been both breached by low flow channels.	Neap 19/11/08 Spring 27/11/08 Neap 05/12/08 Spring 12/12/08
14/01/09 11:34 GMT	V3_0901_M6P5779		5.7	166.1	0.6	No change.	The secondary channel has accreted notably.	No change.	No change.	None	None	No change.	Neap 19/12/08 Spring 27/12/08 Neap 04/01/09 Spring 11/01/09
16/02/09 13:42 GMT	V3_0902_M6P6686		5.3	278.1	0.4	No change.	No change.	No change.	No change.	None	None	No change.	Neap 18/01/09 Spring 26/01/09 Neap 02/02/09 Spring 09/02/09 Neap 16/02/09
15/03/09 11:58 GMT	V3_0903_M6P6686		2.8	273.4	0.5	No change.	The inlet of the secondary channel has accreted ever further.	No change.	Relict low flow channels visible on the main bar.	None	None	All breaches on flood levees have been sealed off.	Spring 25/02/09 Neap 04/03/09 Spring 11/03/09






17/04/09 14:16 BST	V3_0904_b_M6P7037		3.4	77.7	0.3	No change visible.	The secondary channel has no longer any inflow from the main channel at its upstream end.	No change visible.	High tide erosion lines visible on the main bar. A shallow low flow channel has intruded the upstream part of the main bar.	None	None	No change.	Neap 18/03/09 Spring 26/03/09 Neap 02/04/09 Spring 09/04/09 Neap 17/04/09
16/05/09 13:46 BST	V3_0905_M6P7407		7.0	191.0	0.4	No change.	The secondary channel has accreted notably around the central part of its reach.	No change.	Relict low flow channels visible on the main bar.	None	None	No change.	Spring 25/04/09 Neap 01/05/09 Spring 09/05/09
19/06/09 18:18 BST	V3_0906_M6P7854		4.7	273.7	0.5	No change	No change	Increased sinuosity of both, main and secondary channels.	No change.	None.	None.	A low flow channel has developed a breach into the southern levee.	Neap 17/05/09 Spring 24/05/09 Neap 31/05/09 Spring 07/06/09 Neap 15/06/09
27/07/09 13:16 BST	V3_0907_M6P8646		4.6	256.2	0.6	No change	No change	No change	No change.	None.	None.	No change.	Spring 22/06/09 Neap 29/06/09 Spring 07/07/09 Neap 15/07/09 Spring 22/07/09
21/08/09 10:58 BST	V3_0908_M6P8954		5.2	238.0	0.7	Ebb flow has distributed equally between two channels, one following the northern and the other the southern bank.	No secondary channel.	Decreased	Low flow channels visible on the main bar.	None.	None.	Crevasse on the southern levee has been sealed off.	Neap 28/07/09 Spring 06/08/09 Neap 13/08/09 Spring 20/08/09
21/09/09 11:54 BST	V3_0909_M6P9531		3.9	212.8	0.7	No change visible.	No change visible.	Increased.	Point bar off an upstream meander on the southern bank has increased notably.	None.	None.	No change.	Neap 27/08/09 Spring 04/09/09 Neap 12/09/09 Spring 18/09/09

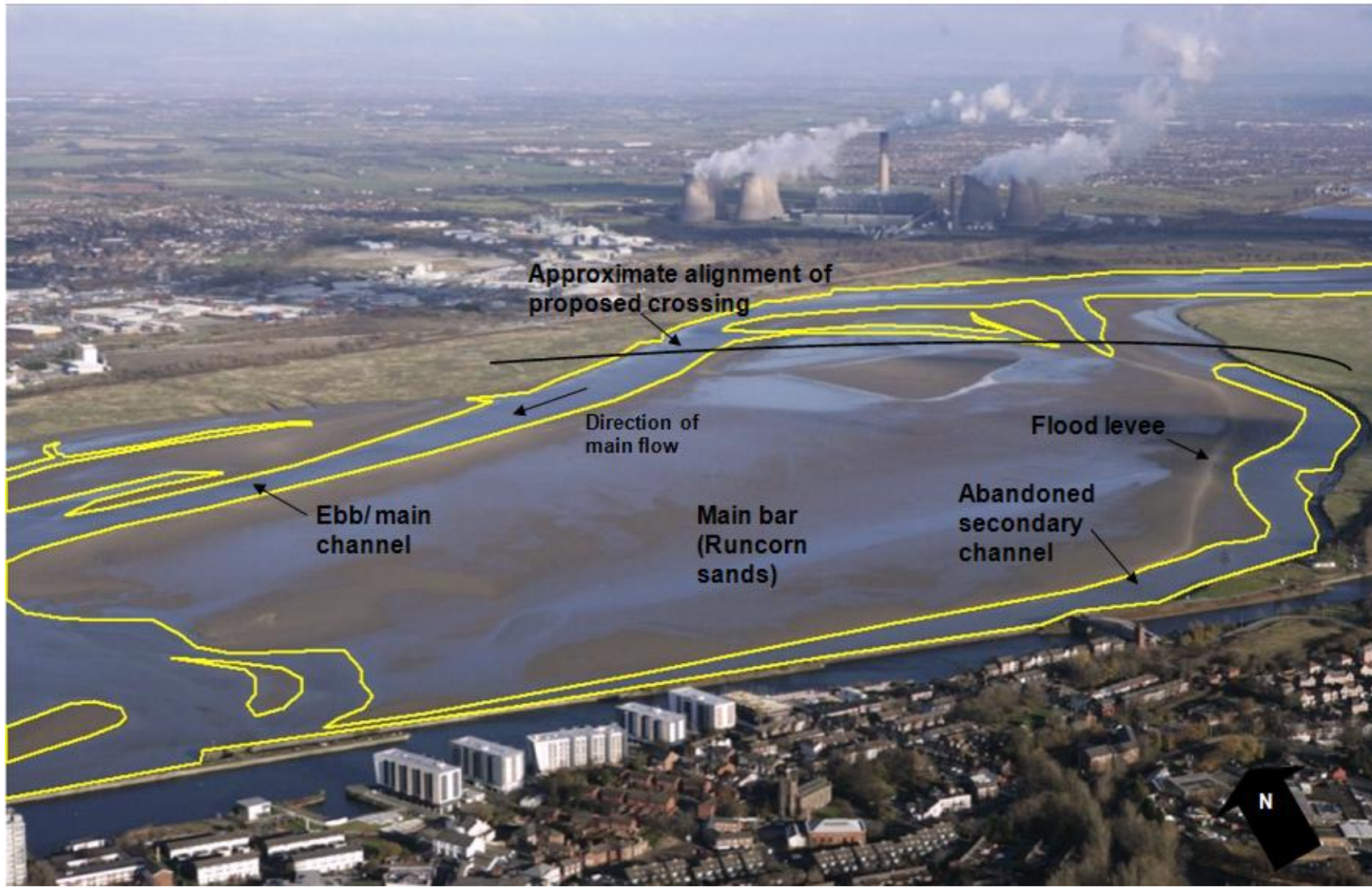
25/10/09 13:19 GMT	V3_0910_b_M6P0114		8.2	245.4	0.4	No change visible.	No change visible.	Increased.	The point bar off the southern bank at the upstream end has continued to develop.	None.	None.	A new breach on the southern flood levee has been created by a shallow low flow channel.	Neap 26/09/09 Spring 04/10/09 Neap 11/10/09 Spring 18/10/09	
23/11/09 12:52 GMT	V3_0911_M6P0407		5.5	280.7	0.5	No change	No change	Decreased	A new channel has branched off the northern main channel at its upstream end and eroded across the main bar, providing a new connection to the southern main channel while the developing point bar of the southern bank has started to combine with the upstream apex of the cut off sediment bar.	None.	None.	No crevasses visible on the flood levees.	Neap 26/10/09 Spring 02/11/09 Neap 09/11/09 Spring 16/11/09	
20/12/09 11:07 GMT	V3_0912_M6P0776		7.8	271.6	0.5	No change	No change	No change	The sediment bar at the upstream end of the reach previously cut off by a channel branching off the northern main channel has re-combined with the main bar, while the abandoned channel is still visible. The point bar of the southern bank at the upstream meander has notably reduced in size.	None.	None.	No change.	Neap 24/11/09 Spring 02/12/09 Neap 09/12/09 Spring 16/12/09	
17/01/10 10:21 GMT	V3_1001_M6P1016		3.9	253.0	0.5	The previous northern branch has developed into a new main channel.	The previous southern branch has developed into a secondary channel.	No change.	An elongated sediment bar has developed off the southern bank at the upstream end of the reach and thus, narrowed the inlet of the southern channel.	None.	None.	A low flow channel has developed a breach into the flood levee on the southern edge of the main bar.	Neap 24/12/09 Spring 31/12/09 Neap 07/01/10 Spring 15/01/10	
19/02/10 12:09 GMT	V3_1002_M6P1461		4.2	279.9	0.4	No change.	Increased sinuosity of the secondary channel	No change visible.	High tide erosion lines visible on the main bar.	None.	None.	No change.	Neap 23/01/10 Spring 30/01/10 Neap 05/02/10 Spring 14/02/10	

23/03/10 14:04 GMT	V3_1003_M6P1961		4.0	182.9	0.3	No change	The previous inlet of the secondary channel has accreted notably.	No change	A number of low flow channels visible on the main bar.	None.	None.	No change.	Neap 22/02/10 Spring 28/02/10 Neap 07/03/10 Spring 15/03/10 Neap 23/03/10	
20/04/10 14:00 BST	V3_1004_M6P2257		3.2	285.8	0.5	No change.	No change.	No change.	No change.	None.	None.	No change.	Spring 03/04/10 Neap 06/04/10 Spring 14/04/10	
26/05/10 05:55 BST	V3_1005_a_M6P2820		2.9	68.4	0.7	No change.	No change.	No change.	High tide erosion lines visible on the main bar.	None.	None.	No change.	Neap 21/04/10 Spring 06/05/10 Neap 14/05/10 Spring 21/05/10	
17/06/10 14:02 BST	V3_1006_M6P3108		2.7	21.2	0.6	No change.	The inlet of the secondary channel has opened up, creating a pointed apex at the upstream end of the main bar.	No change.	Relict flow channels visible on the main bar.	None.	None.	Continuous flood levee on the southern edge of the main bar with no crevasses.	Neap 28/05/10 Spring 04/06/10 Neap 12/06/10	
12/09/10 12:55 BST	V3_1009_12_M6P4049		4.4	292.1	0.6	The previous main and secondary channel are now of comparable size.	No secondary channel.	No change.	The point bar of the southern bank at the upstream meander has reduced notably.	The pointed apex of the main bar has migrated closer to the northern bank, hence opening up a bigger inlet for the southern channel.	None.	No change.	Spring 19/06/10 Neap 26/06/10 Spring 04/07/10 Neap 11/07/10 Spring 18/07/10 Neap 26/07/10 Spring 03/08/10 Neap 10/08/10 Spring 16/08/10 Neap 24/08/10 Spring 01/09/10 Neap 08/09/10	

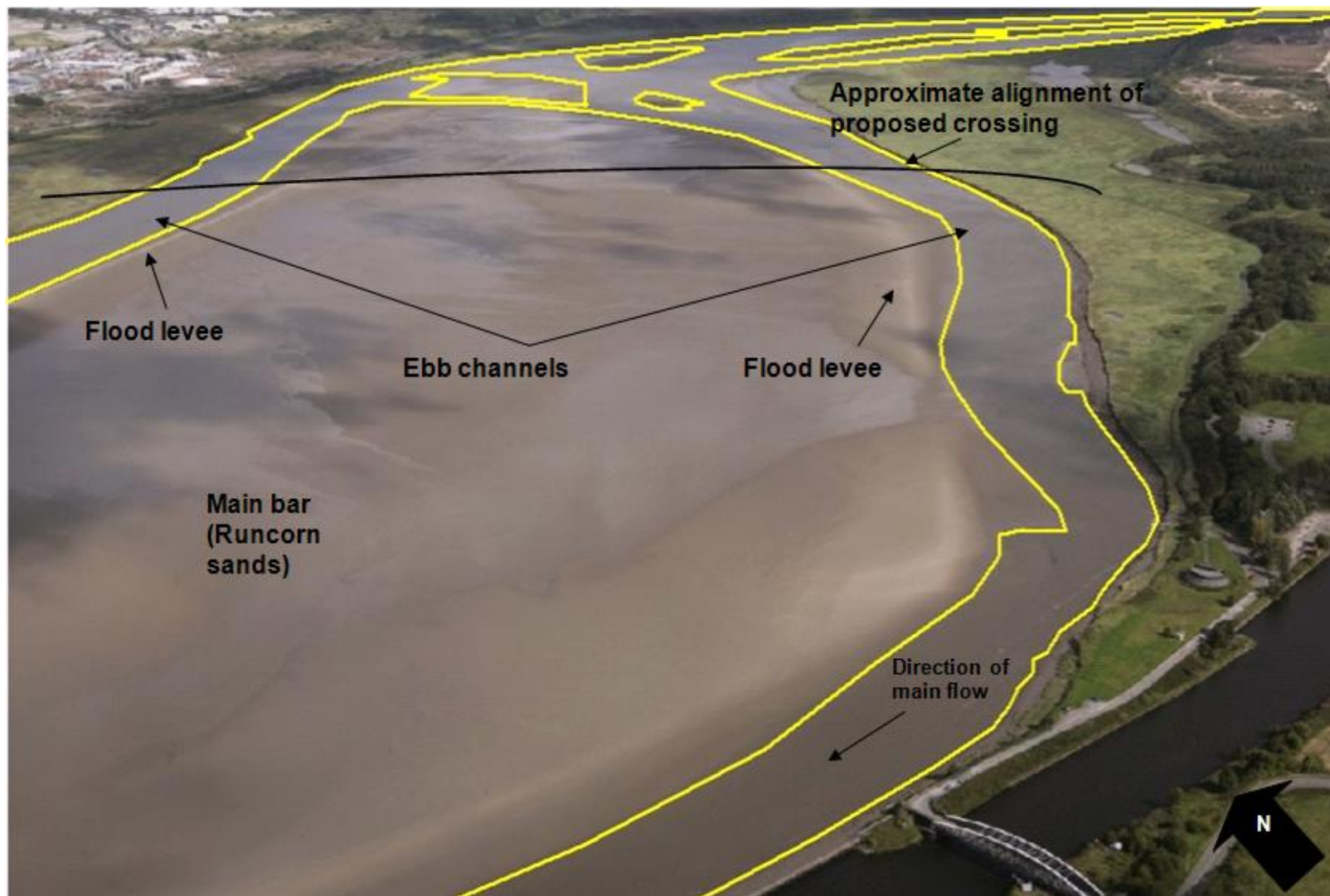
26/09/10 11:38 BST	V3_1009_26_M6P4177		4.8	345.1	0.5	The inlets of both northern and southern channels have accreted notably with the main channel following a central pathway at its upstream end before branching into the northern and southern channel.	No change.	No change.	A number of low channels are visible on the main bar.	The point bar of the southern bank at the upstream end of the reach has migrated to the centre of the channel, now forming a separate moon shaped sediment bar only connected to the southern bank by its upstream apex.	None.	A breach has been eroded into the southern levee at the upstream end of the reach by the new inlet of the southern channel	Spring 15/09/10 Neap 23/09/10	
27/10/10 12:28 BST	V3_1010_a_M6P4694		4.5	244.3	0.6	The previous northern branch has developed into a new main channel.	The previous southern branch has developed into a secondary channel. The inlet of the secondary channel has accreted significantly as the channel is now connected to the main flow by a number of small low flow channels which have spread across the upstream end of the main bar.	No change.	A triangular sediment bar has been built up from reworked material at the upstream end of the main bar.	None	None	No breaches in the southern levee.	Spring 01/10/10 Neap 07/10/10 Spring 14/10/10 Neap 23/10/10	
25/11/10 11:13 GMT	V3_1011_M6P4941		4.9	350.4	0.6	No change.	The small low flow channels facilitating inflow into the secondary channel have been replaced by a new inlet.	No change.	A number of relict low flow channels can be seen on the main bar.	None	None	No change.	Spring 30/10/10 Neap 06/11/10 Spring 13/11/10 Neap 21/11/10	
11/12/10 12:42 GMT	V3_1012_M6P5096		2.6	292.0	0.5	No change.	The inlet of the secondary channel has accreted notably.	No change.	A previously abandoned channel cutting across the upstream end of the main bar has been reactivated.	None	None	No change.	Spring 28/11/10 Neap 05/12/10	

23/01/11 11:39 GMT	V3_1101_M6P5254		3.7	5.6	0.6	No change.	The secondary channel has accreted further.	No change.	No change.	None	None	No change.	Spring 13/12/10 Neap 21/12/10 Spring 28/12/10 Neap 04/01/11 Spring 12/01/11 Neap 19/01/11	
23/02/11 12:42 GMT	V3_1102_M6P5511		3.6	216.9	0.5	No change.	The secondary channel has widened considerably while two inlet channels now connect it with the northern main channel.	No change.	No change.	The point bar of the southern bank at the upstream end has migrated to the centre of the channel, now forming a triangular sediment bar separate from the embankment.	None	No change.	Spring 26/01/11 Neap 03/02/11 Spring 11/02/11 Neap 18/02/11	
21/03/11 10:18 GMT	V3_1103_M6P5880		1.8	233.1	0.6	No change.	The secondary channel has accreted notably.	No change.	The triangular sediment bar at the upstream end of the reach has combined with the upstream apex of the main bar.	None.	None.	No change.	Spring 24/02/11 Neap 04/03/11 Spring 12/03/11 Neap 19/03/11	
19/04/11 10:56 BST	V3_1104_M6P6305		2.5	31.4	0.6	The previous main and secondary channel are now of comparable size.	No secondary channel.	No change.	The low flow channel across the upstream end of the main bar has been abandoned.	None.	None.	The flood levee on the southern edge of the main bar has been partially eroded.	Spring 26/03/11 Neap 03/04/11 Spring 11/04/11 Neap 18/04/11	
21/05/11 13:00 BST	V3_1105_M6P6706		5.5	195.7	0.6	No change.	No change.	No change.	No change visible.	None.	None.	No change visible.	Spring 25/04/11 Neap 03/05/11 Spring 10/05/11 Neap 17/05/11	

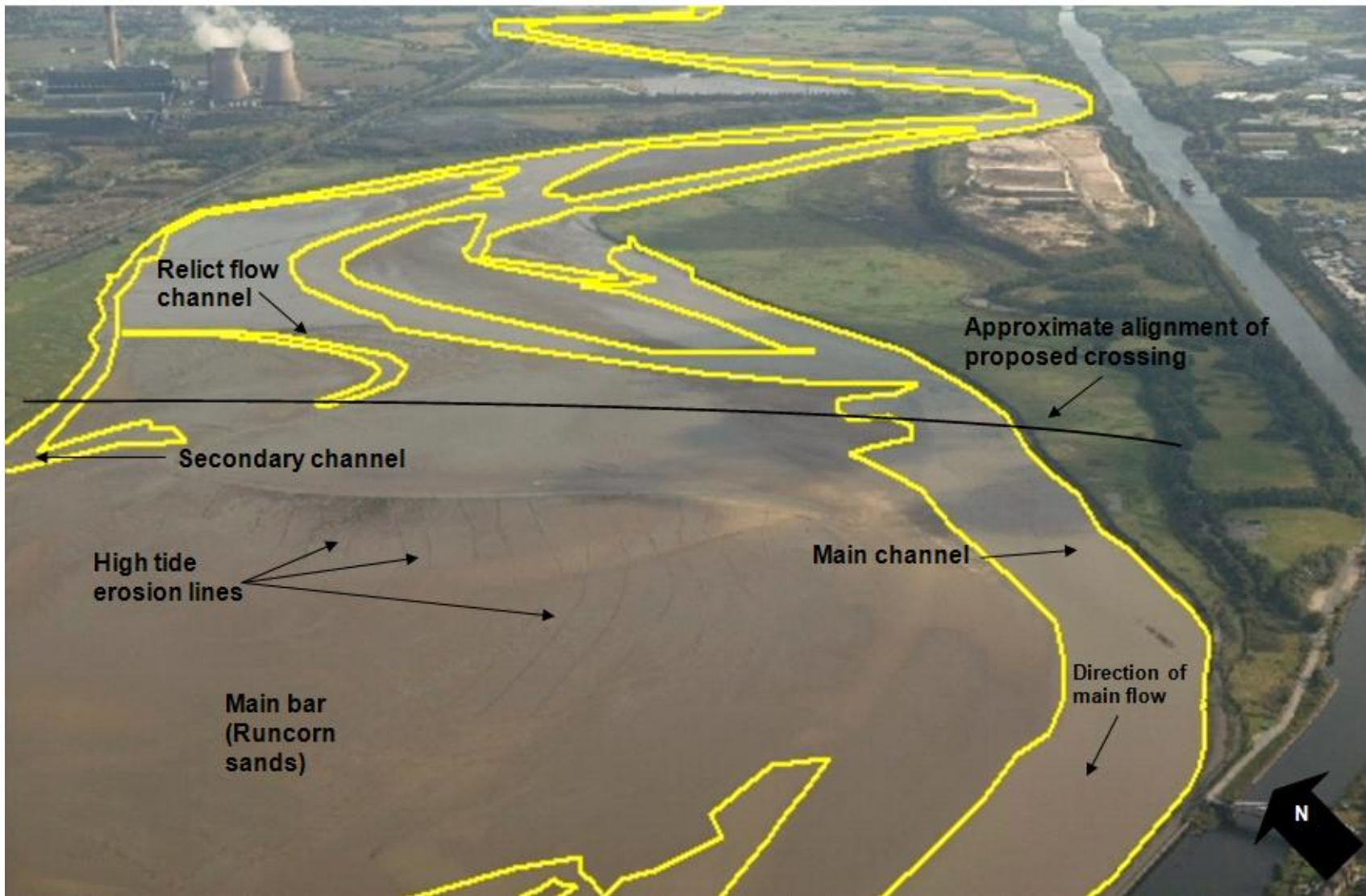
21/06/11 12:46 BST	V3_1106_M6P6994		5.4	230.1	0.7	The previous northern branch has developed into a new main channel.	The previous southern branch has developed into a secondary channel. The inlet of the secondary channel has accreted significantly.	No change.	A number of relict low flow channels are visible on the main bar.	None.	None.	A new sinuous flood levee has been formed on the southern edge of the main bar.	Spring 24/05/11 Neap 01/06/11 Spring 09/06/11 Neap 15/06/11	
19/07/11 12:52 BST	V3_1107_M6P7420		1.9	290.9	0.6	The previous main and secondary channel are now of comparable size.	No secondary channel.	No change.	No change.	None.	None.	No change.	Spring 23/06/11 Neap 01/07/11 Spring 08/07/11 Neap 15/07/11	
19/08/11 13:19 BST	V3_1108_M6P7979		3.4	221.9	0.5	The inlet of the southern channel has developed into a complicated, braided form, while cutting off sediment bars from the upstream part of the main bar.	No change.	The sinuosity of the southern channel has increased.	Two sediment bars cut off from the upstream part of the main bar by one of the inlet channels of the southern channel.	None.	None.	No change.	Spring 23/07/11 Neap 30/07/11 Spring 06/08/11 Neap 13/08/11	
20/09/11 14:38 BST	V3_1109_M6P8159		3.8	225.5	0.4	No change.	No change.	The sinuosity of the southern channel has decreased.	No change.	None.	None.	No change.	Spring 21/08/11 Neap 29/08/11 Spring 04/09/11 Neap 12/09/11 Spring 20/09/11	
16/10/11 12:10 BST	V3_1110_M6P8512		2.9	258.7	0.6	The main flow has now switched to the southern channel while the upstream reach of the channel has migrated to the centre of the estuary.	The previous northern branch has developed into a secondary channel.	Increased.	Due to the migration of southern channel's upstream reach, a sediment bar has been cut off the main bar which has started to combine with the point bar of the southern bank at its upstream meander.	The upstream reach of the southern channel has migrated to the centre of the estuary.	The main flow has now switched to the southern channel.	The southern flood levee has been partially eroded.	Neap 27/09/11 Spring 04/10/11 Neap 12/10/11	



Dominant state of the system: main channel next to the northern bank, secondary channel next to the southern bank. Date: 25/11/10 11:13 GMT LW: 0.6 m



One ebb channel on either side of the main bar. Date: 12/09/10 12:55 BST LW: 0.6 m



Main channel on the southern side of the main bar. Date: 21/08/09 10:58 BST LW: 0.7 m