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Supplement of

Modelling subglacial fluvial sediment transport with a graph-based model, Graphical Subglacial Sediment Transport (GraphSSeT)

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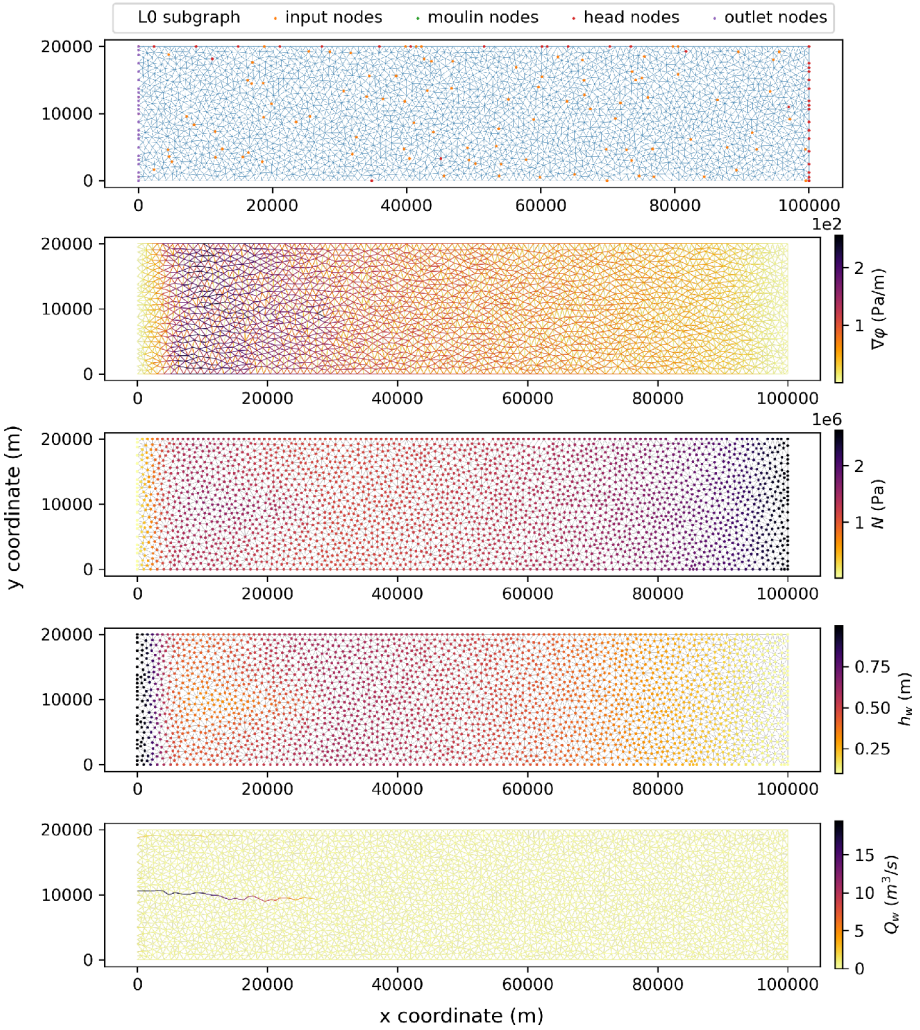
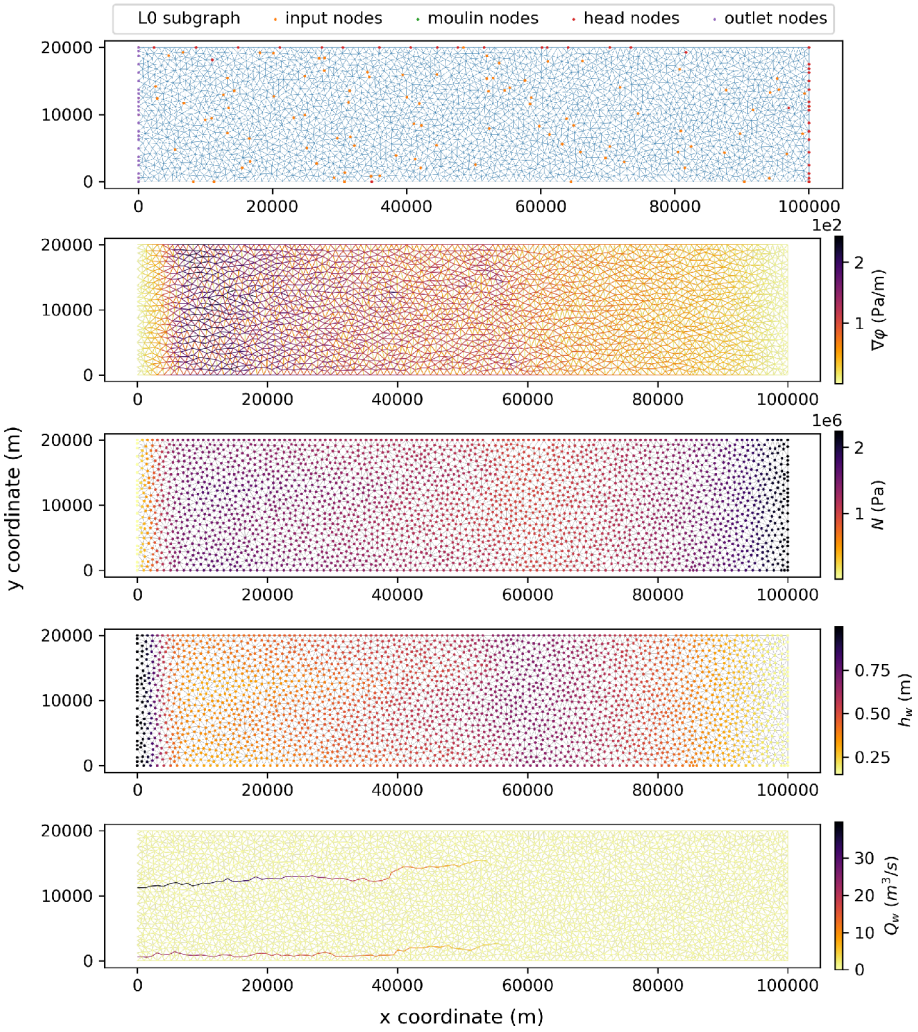


Figure S1. Graph representation of the model scenario A4 showing a) network geometry, b) the hydraulic potential gradient (Pa/m) on edges c) effective pressure (Pa) on nodes d) thickness of distributed water flow 'sheet' (m) on nodes and e) the channelised water flux on edges (m^3/s)

S1.1.2 A5



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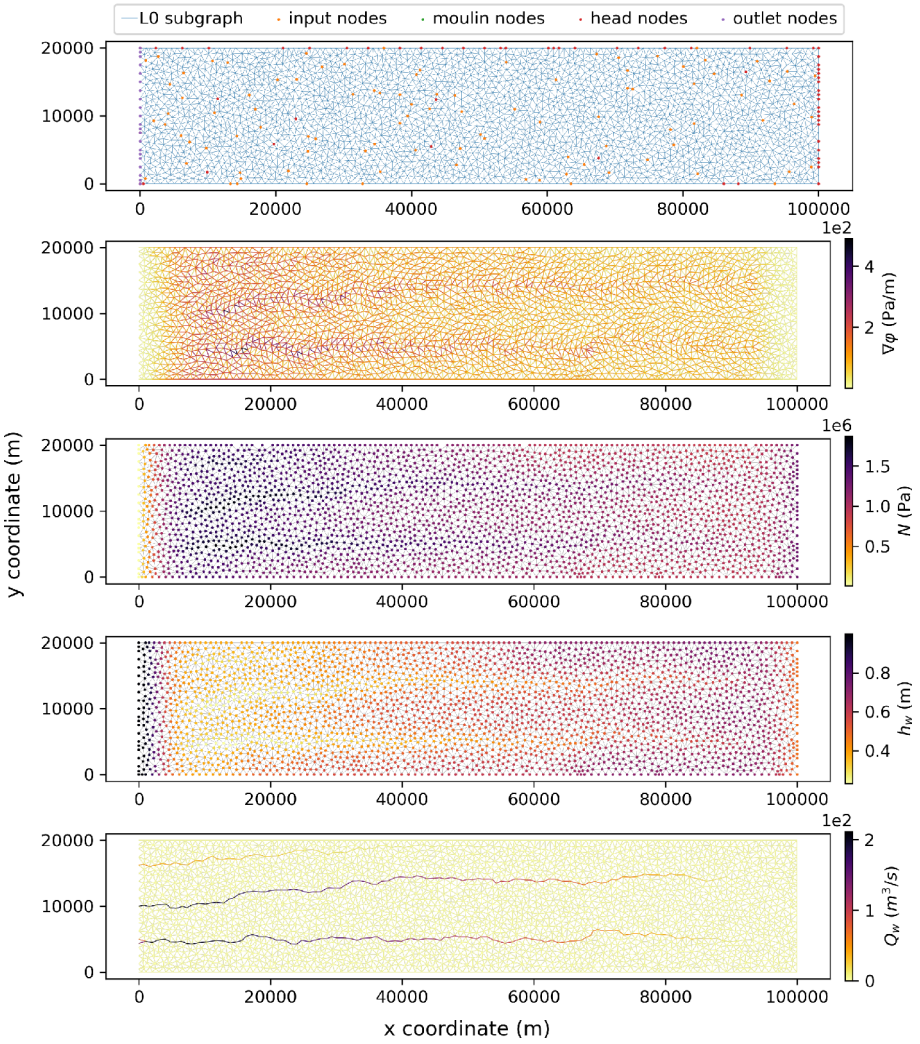

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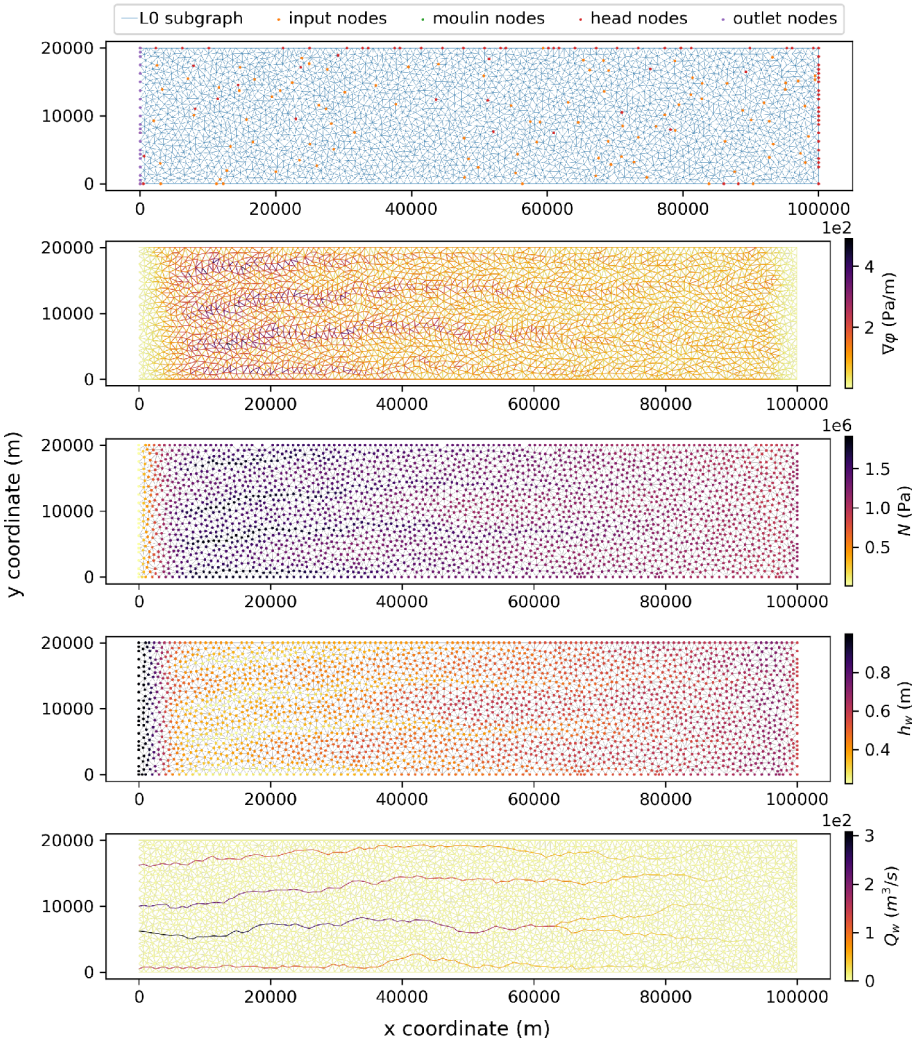

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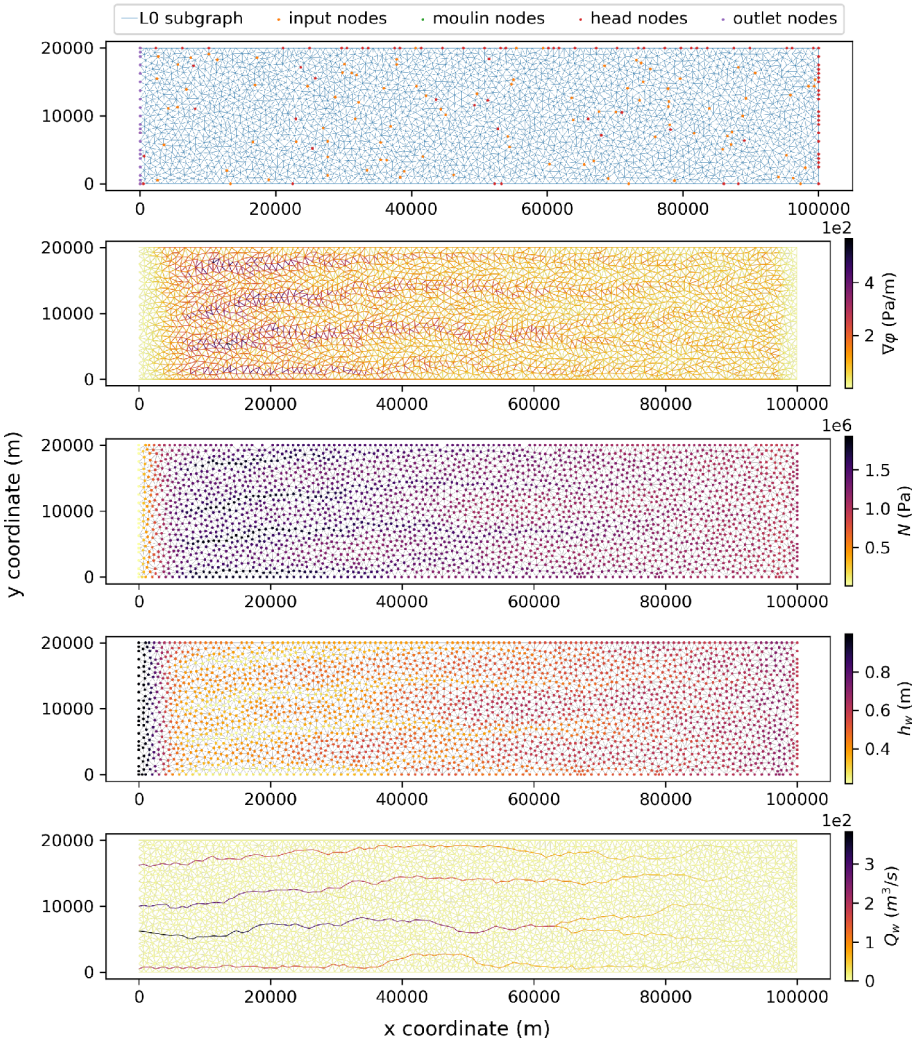

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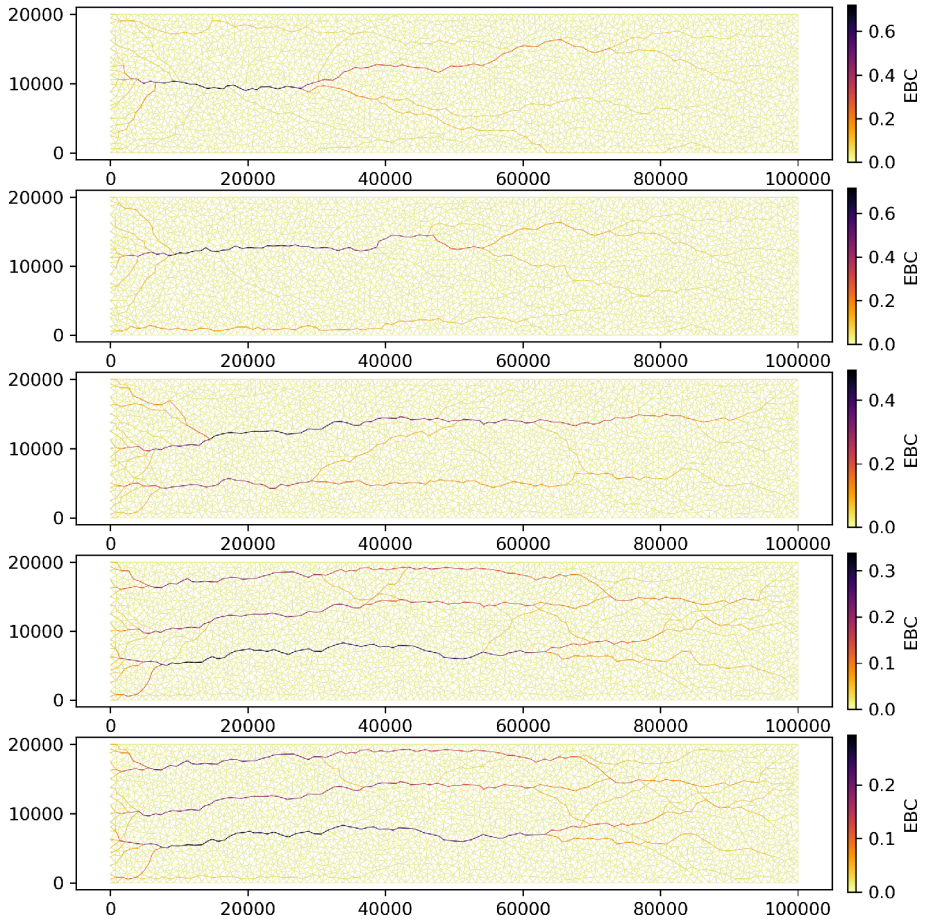

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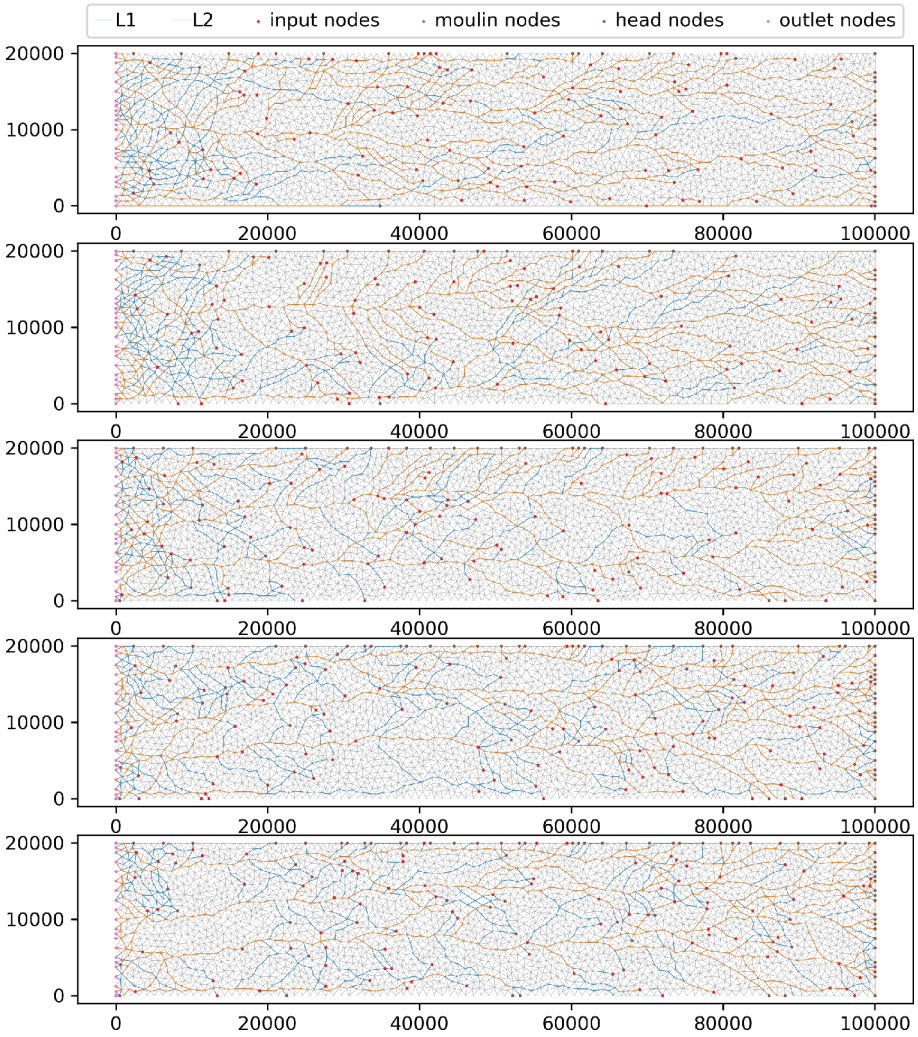
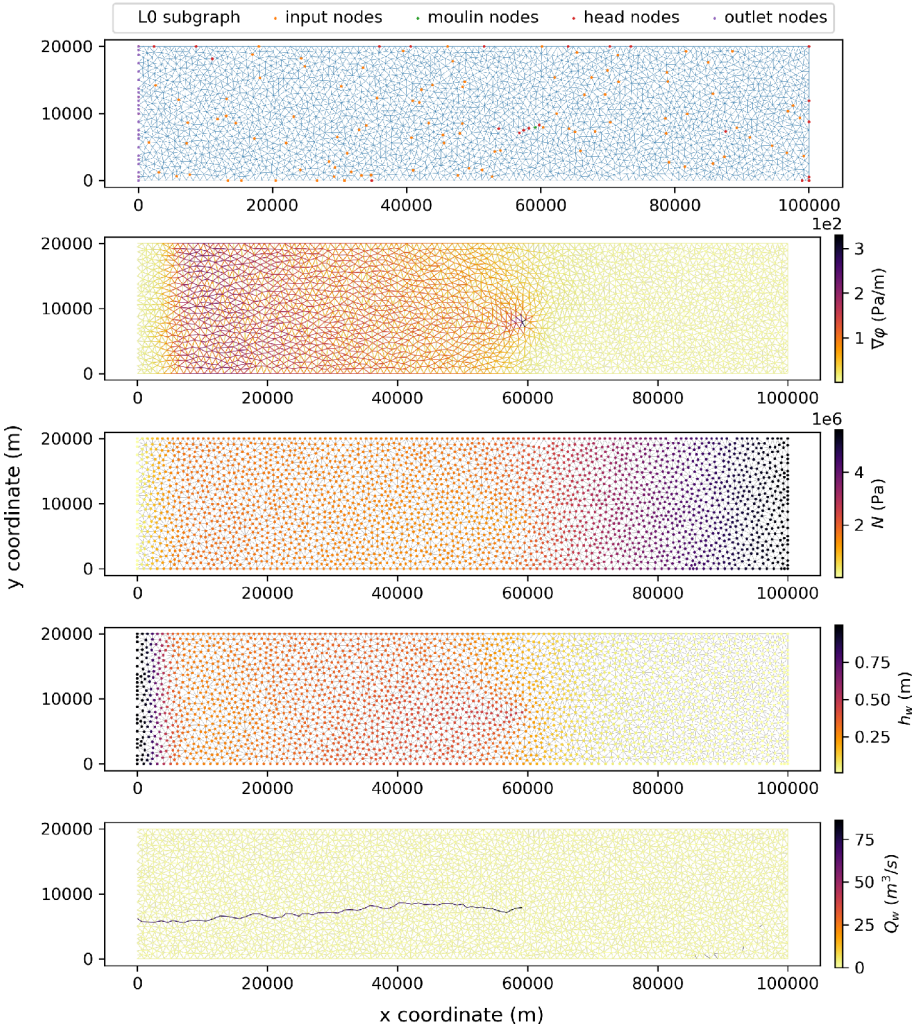


Figure S7. L1 and L2 networks for increasing flux a) A4 b) A5 c) A7 d) A8 and e) A6

S1.2 B-Series models

S1.2.1 B1



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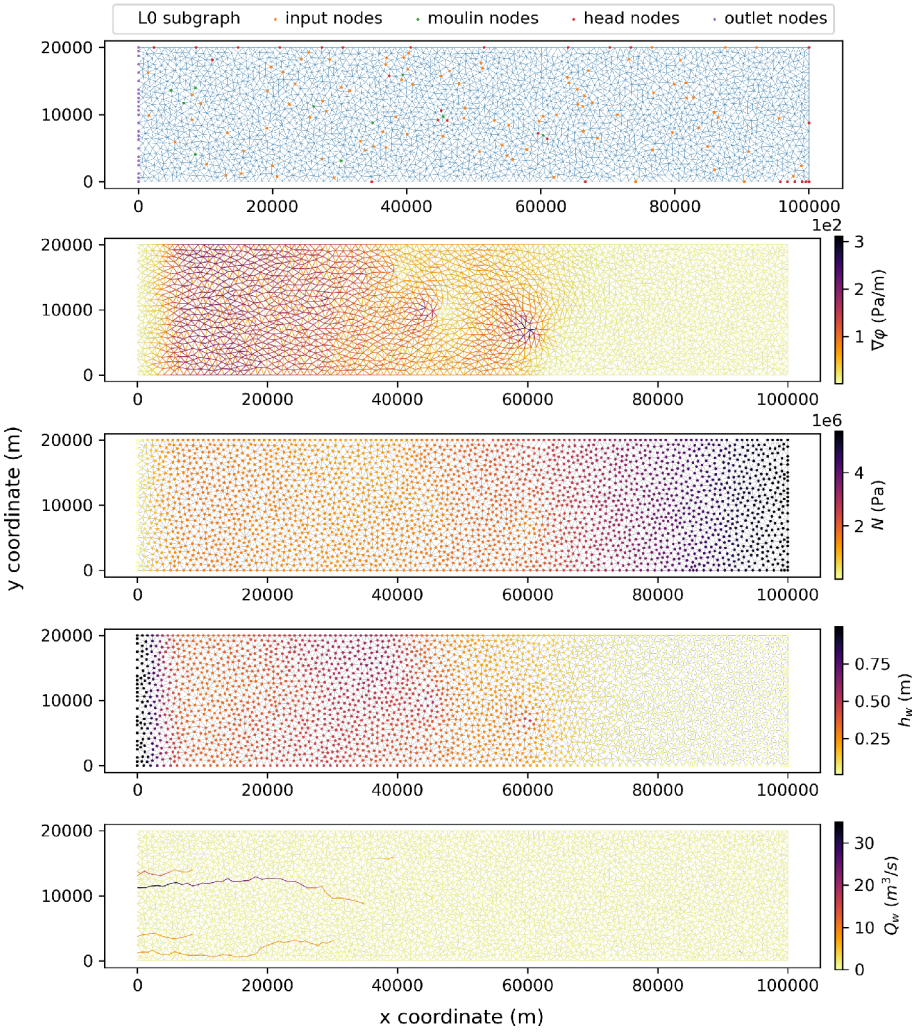
S1.2.2 B2



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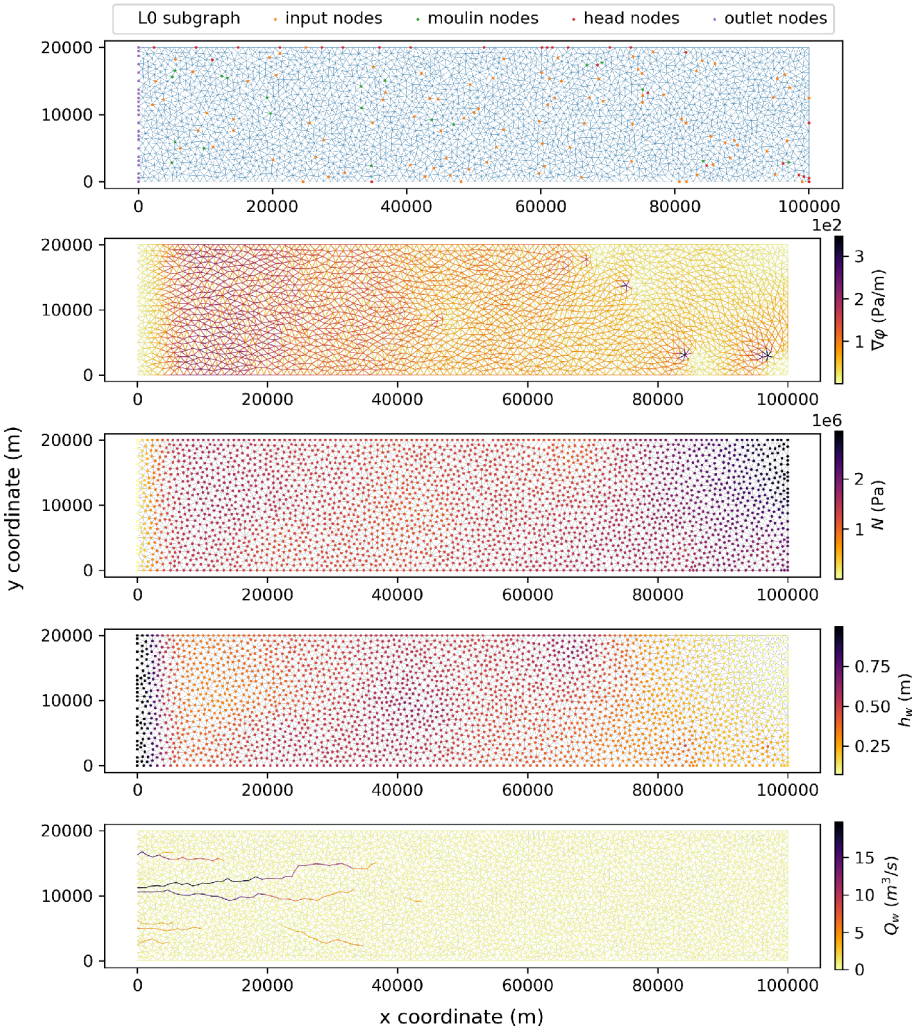
S1.2.3 B3



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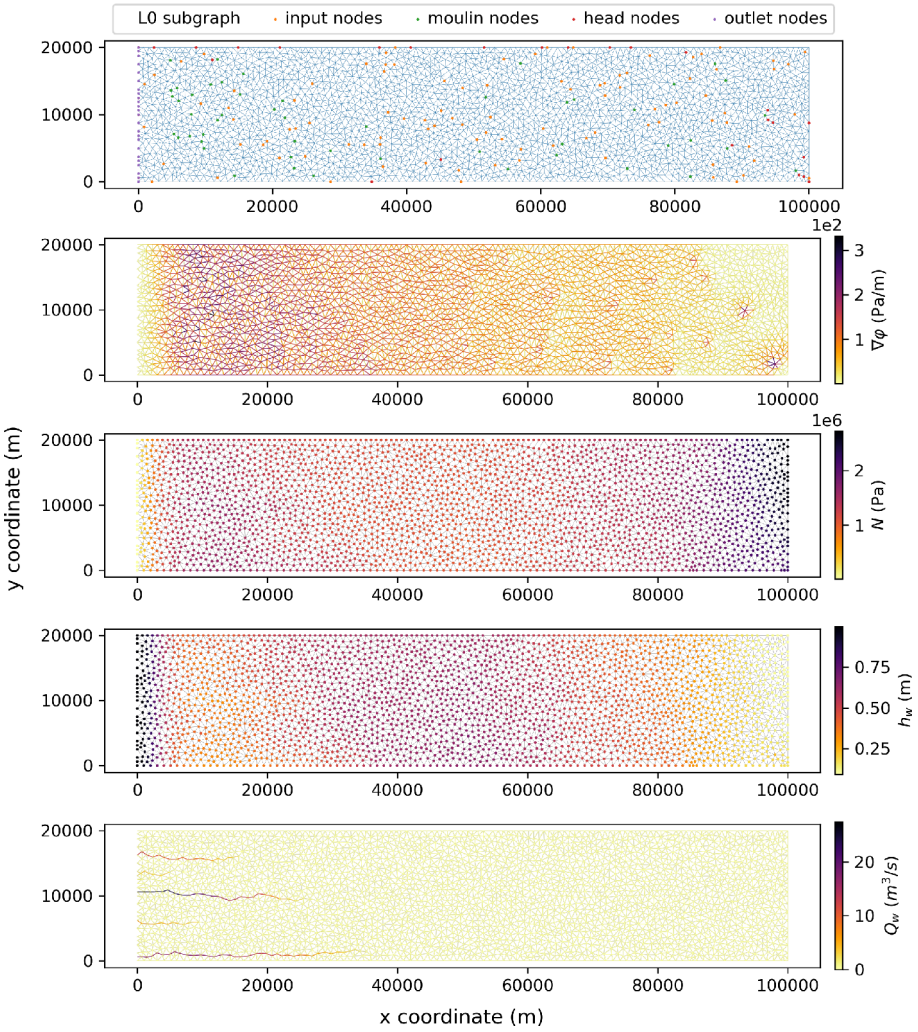
S1.2.4 B4



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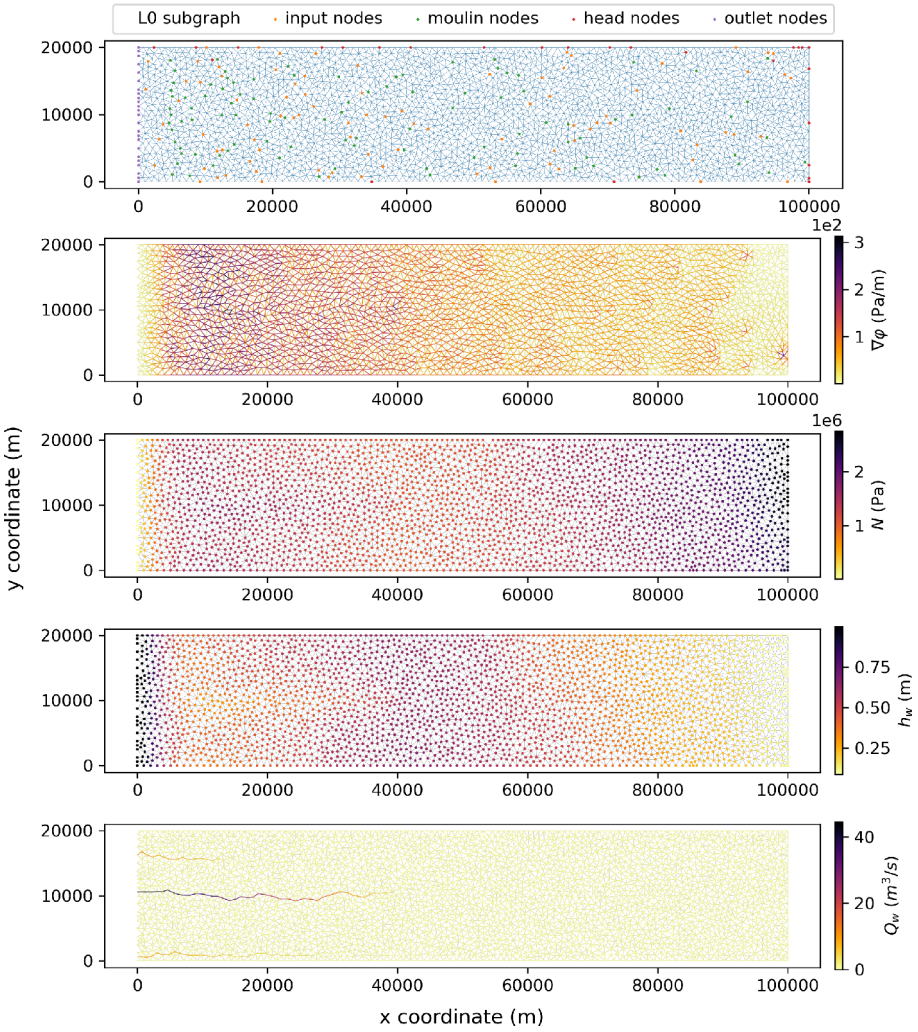
S1.2.5 B5



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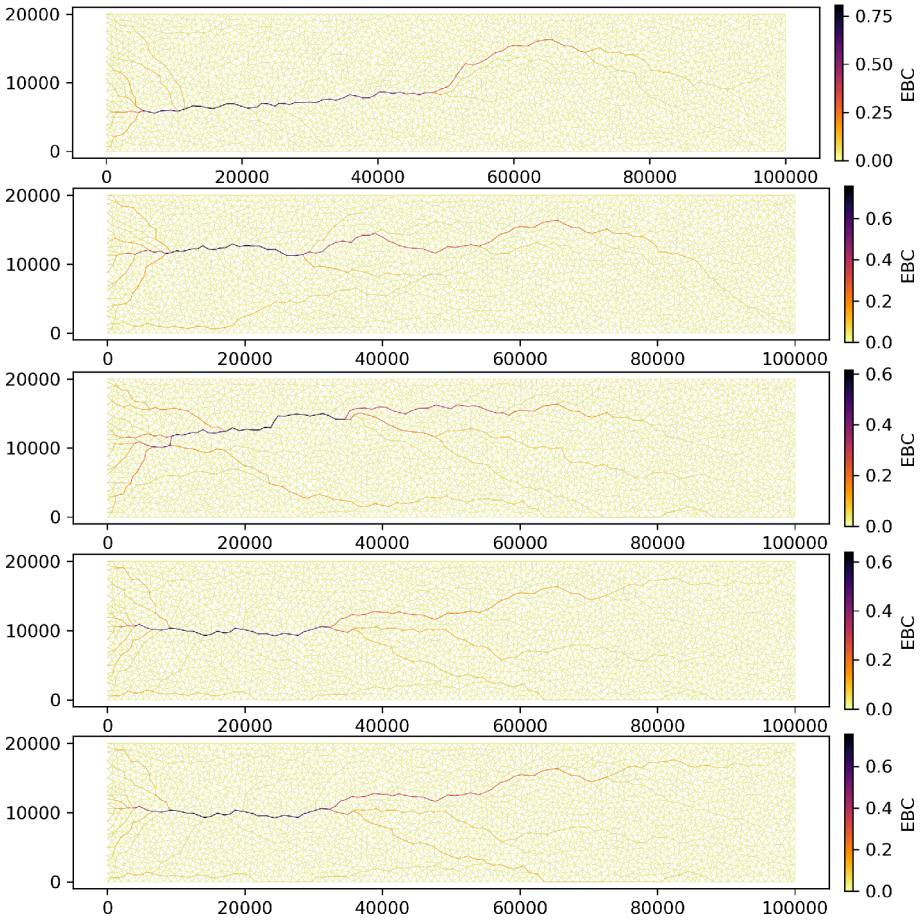
S1.2.6 Edge-betweenness Centrality



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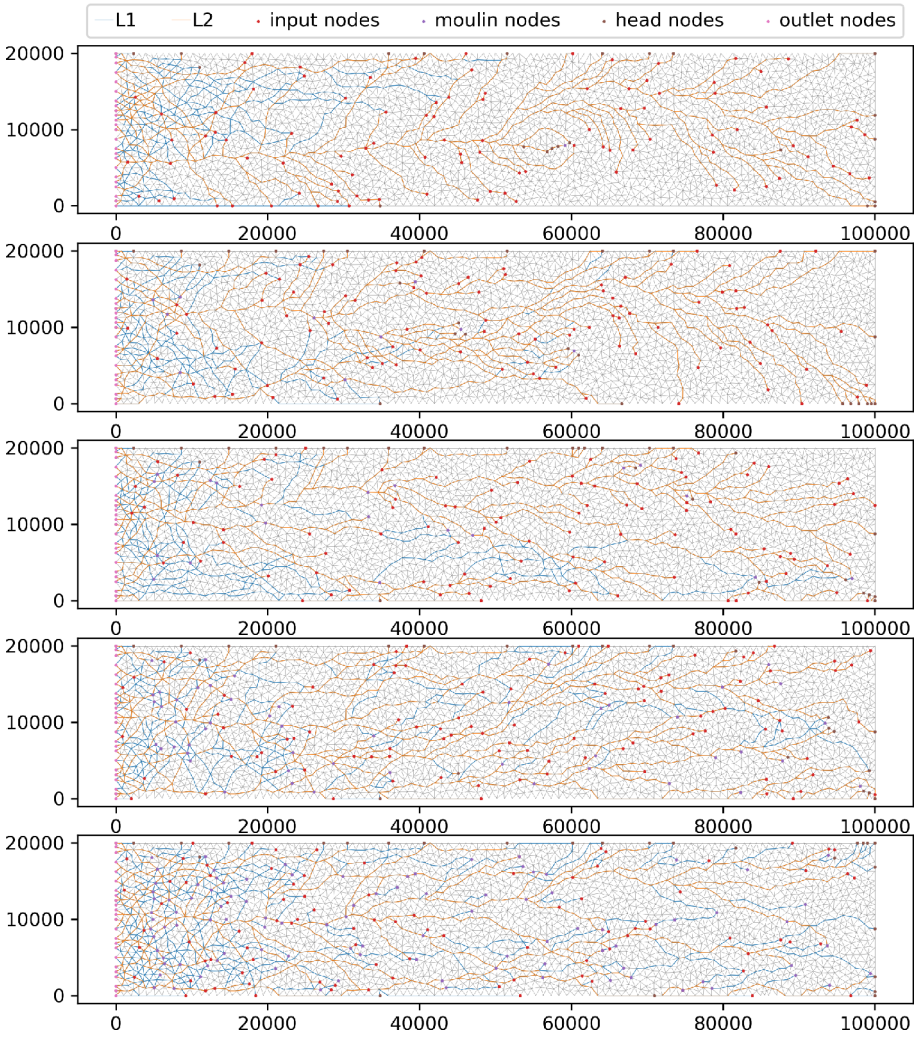

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S1.3 C-Series models

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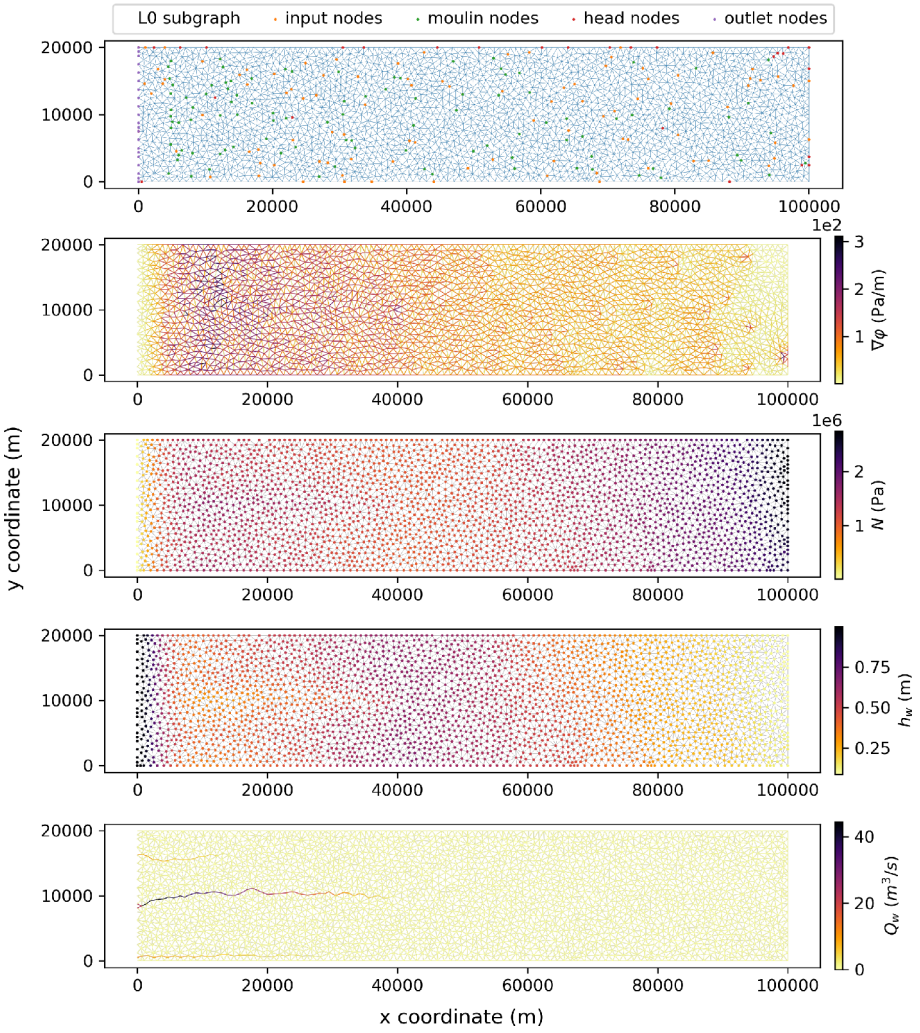

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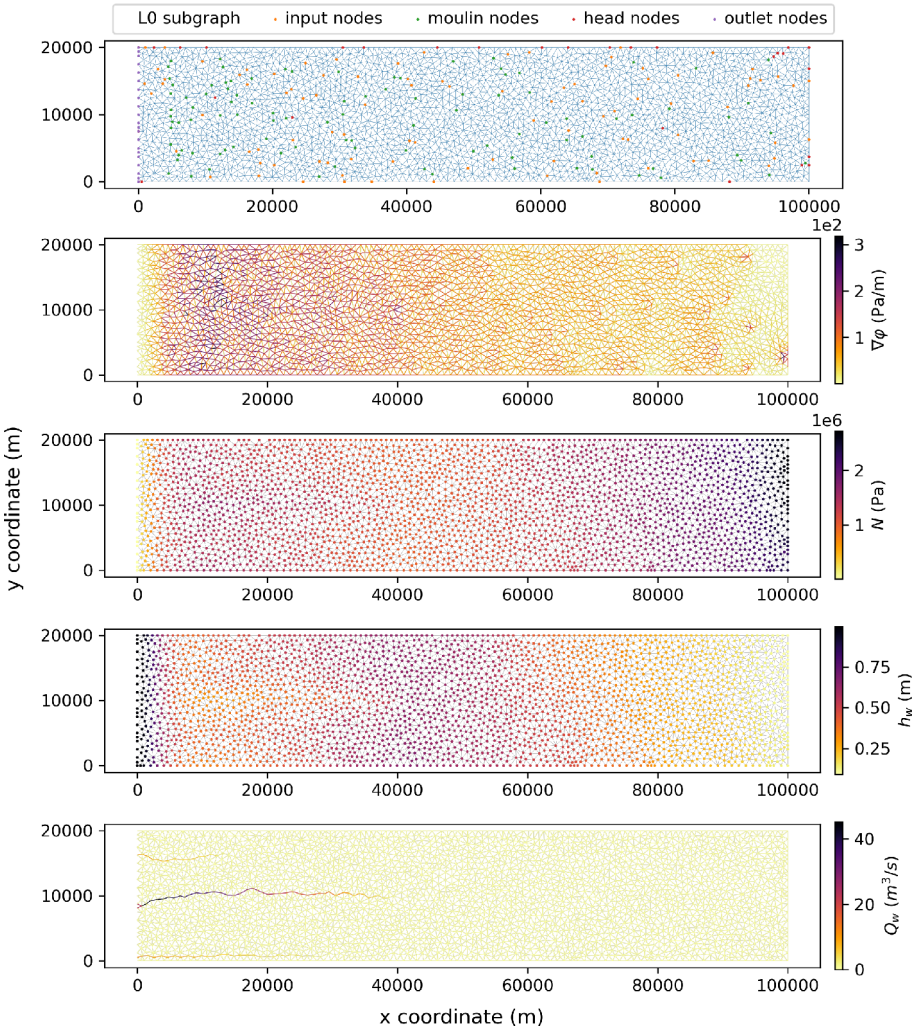
S1.3.2 C1 end



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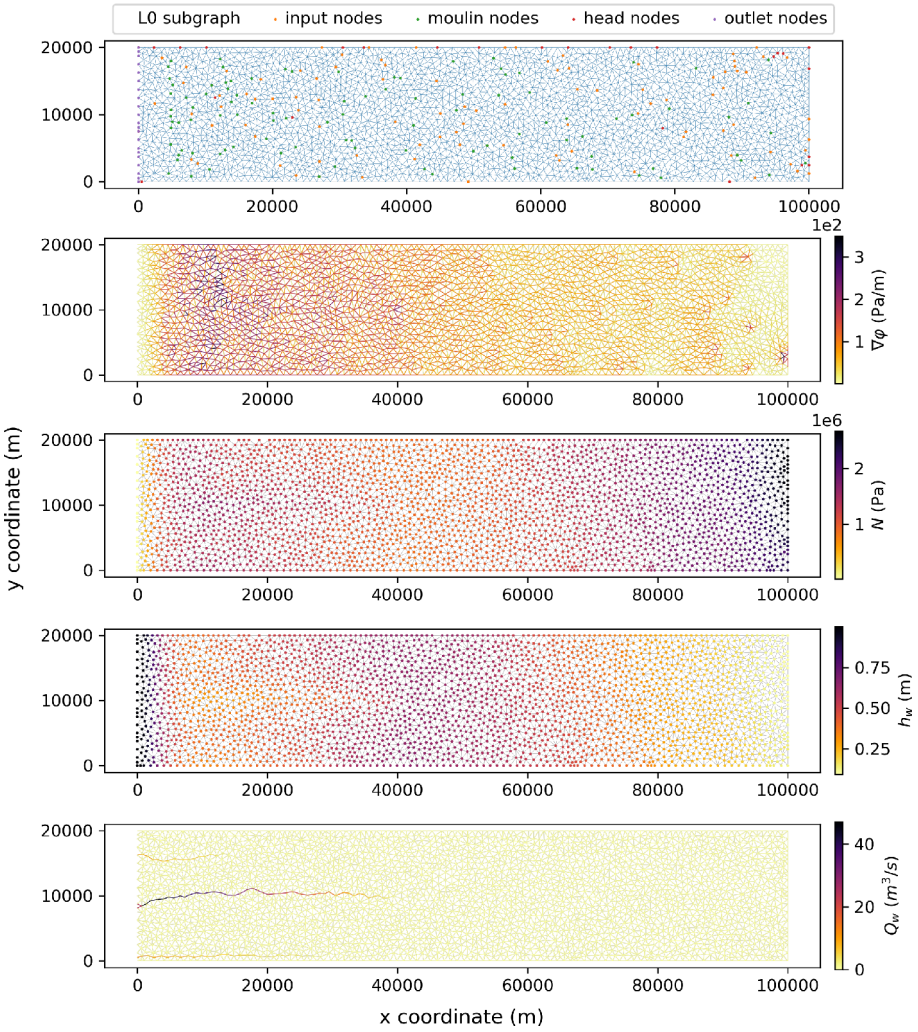
S1.3.3 C2 end



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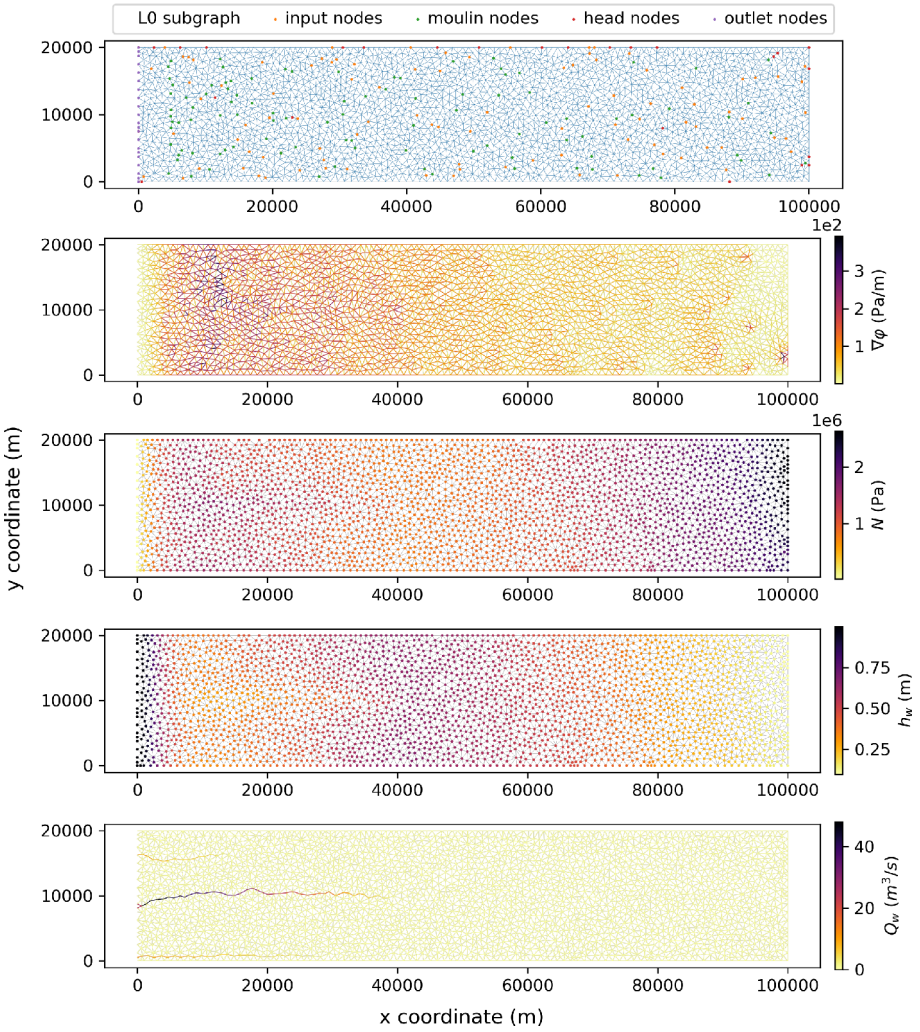
S1.3.4 C3 end



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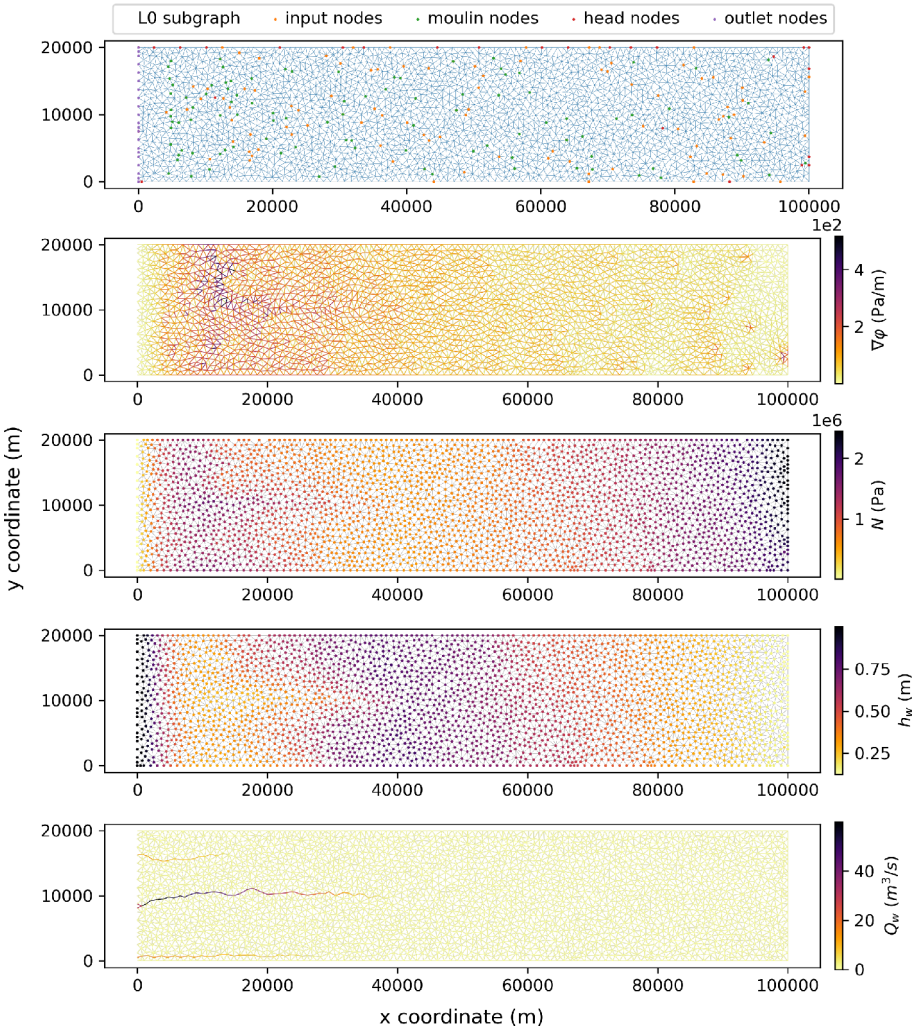
S1.3.5 C4 end



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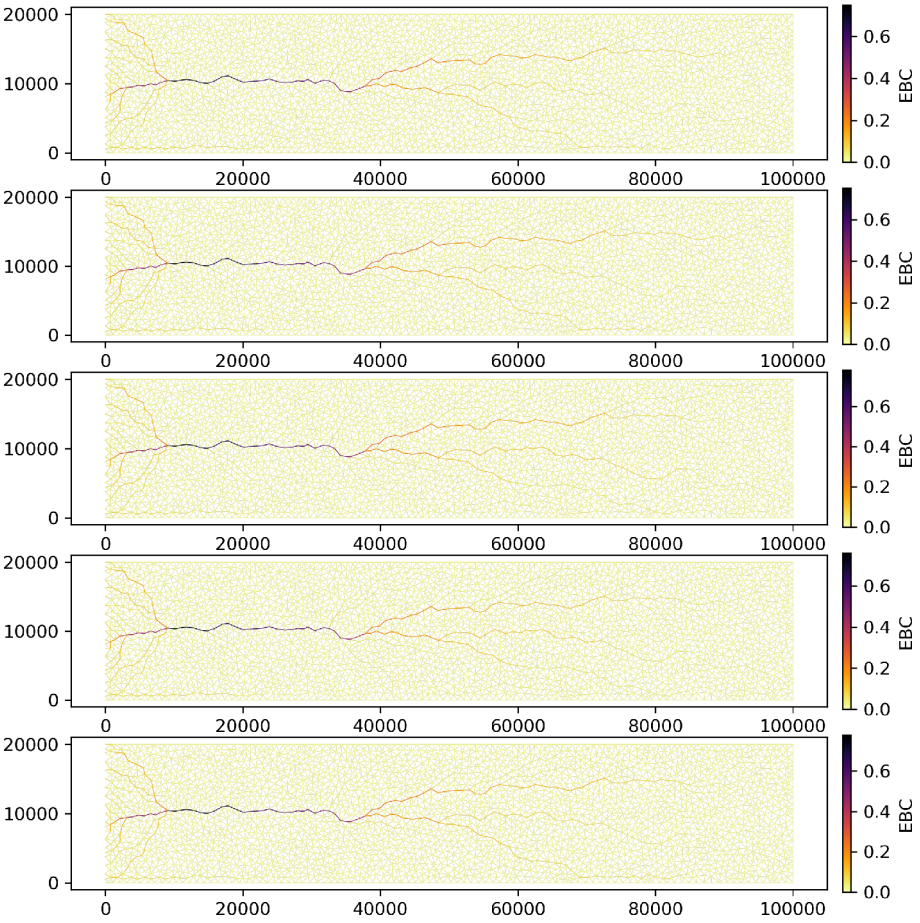
S1.3.6 Edge-betweenness Centrality



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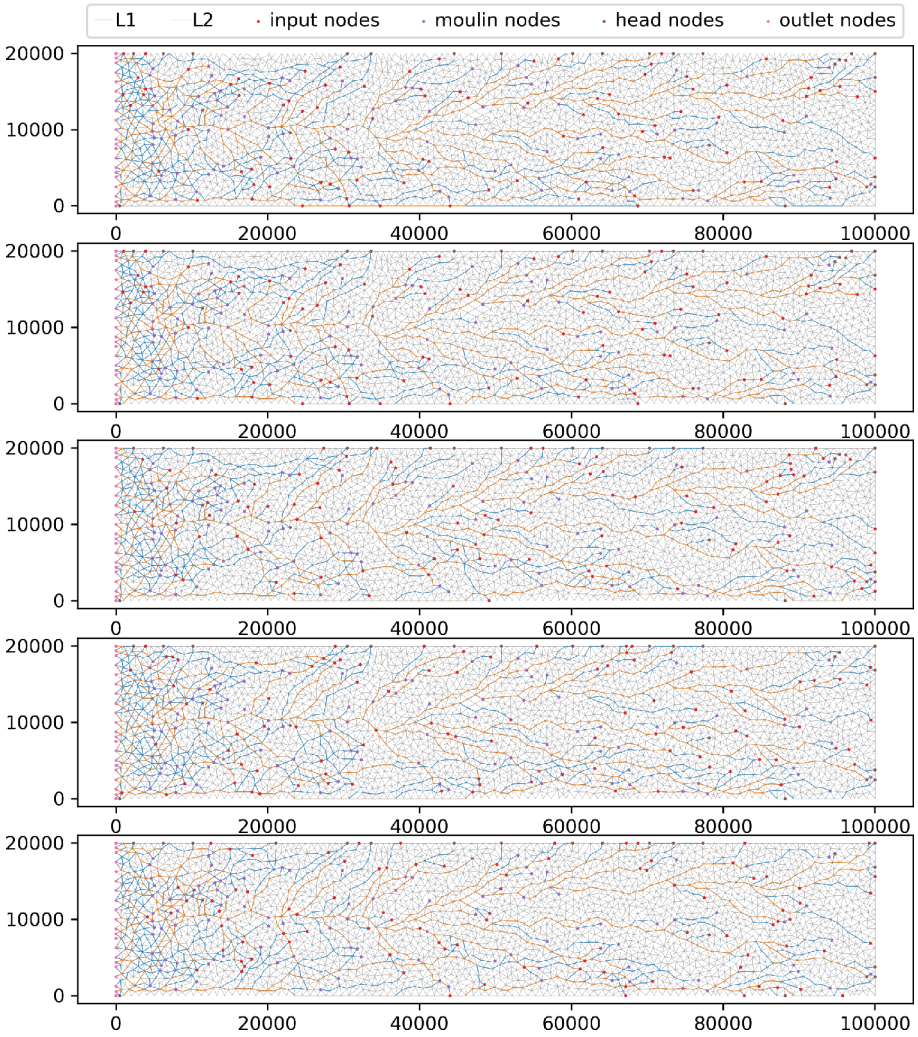

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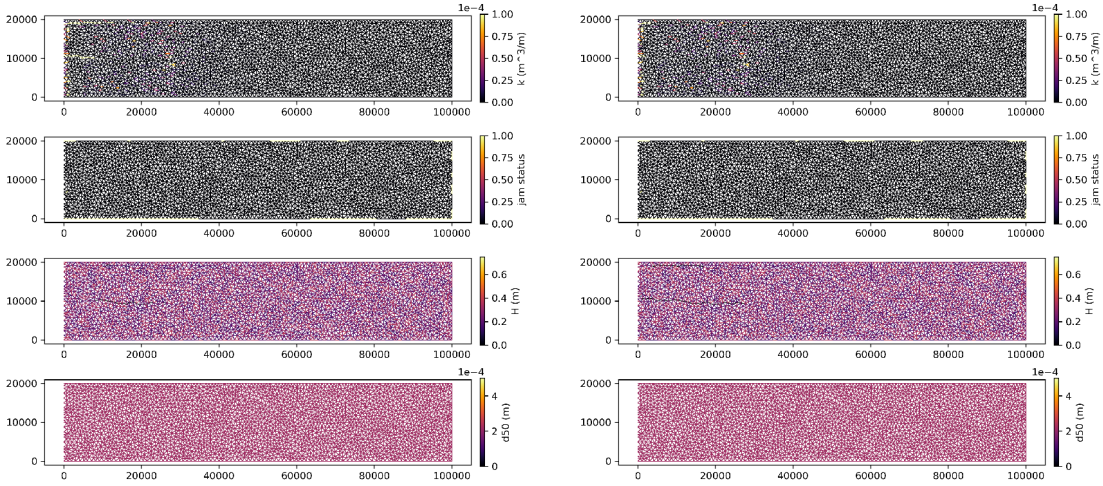
S2 Experiment Sets

S2.1 Experiment Set 1

S2.1.1 A4 reference



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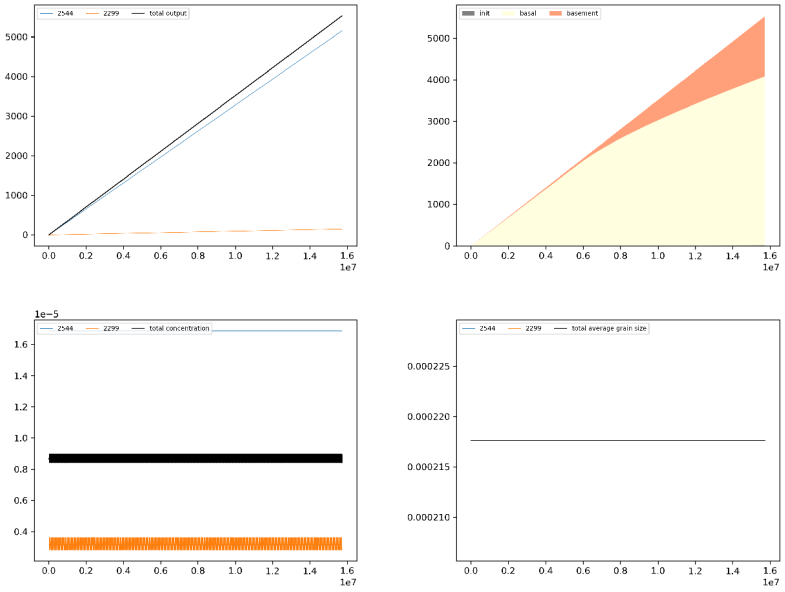

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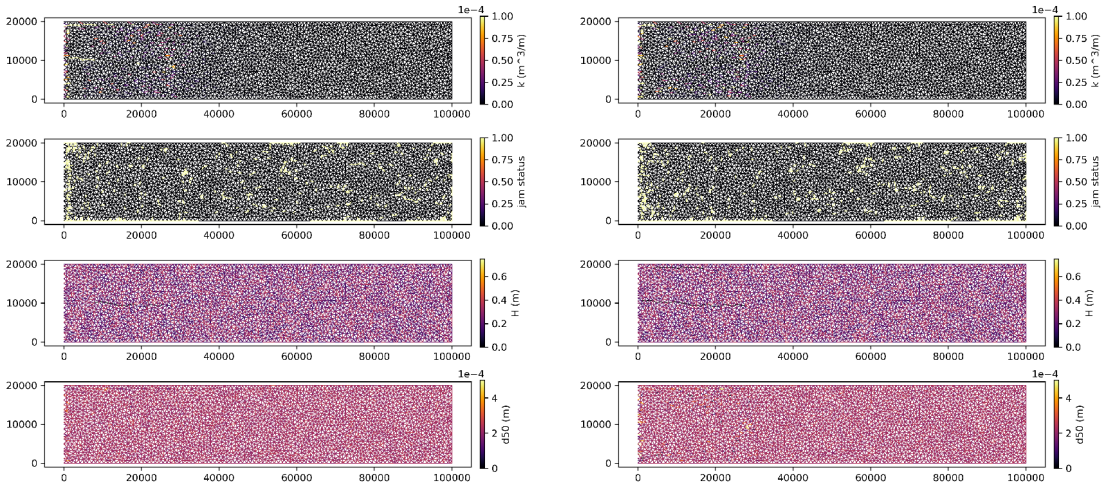
S2.1.2 A4 default



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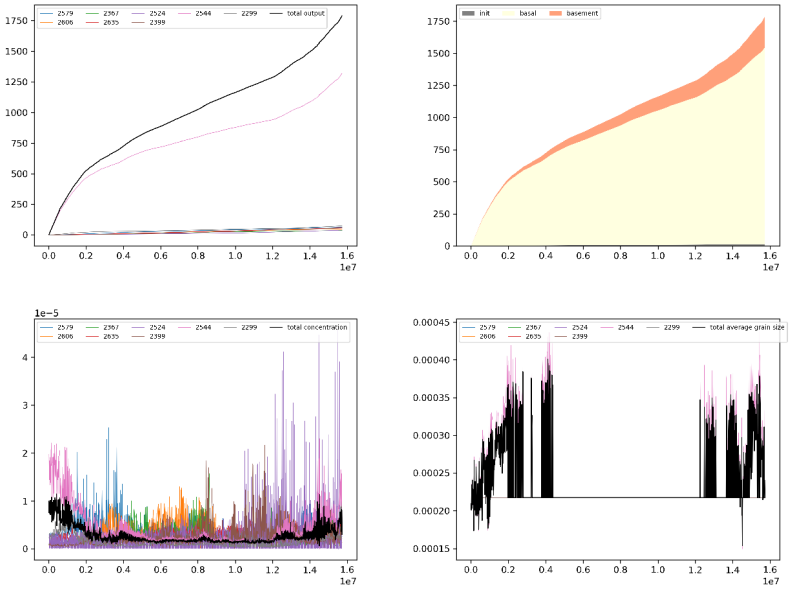

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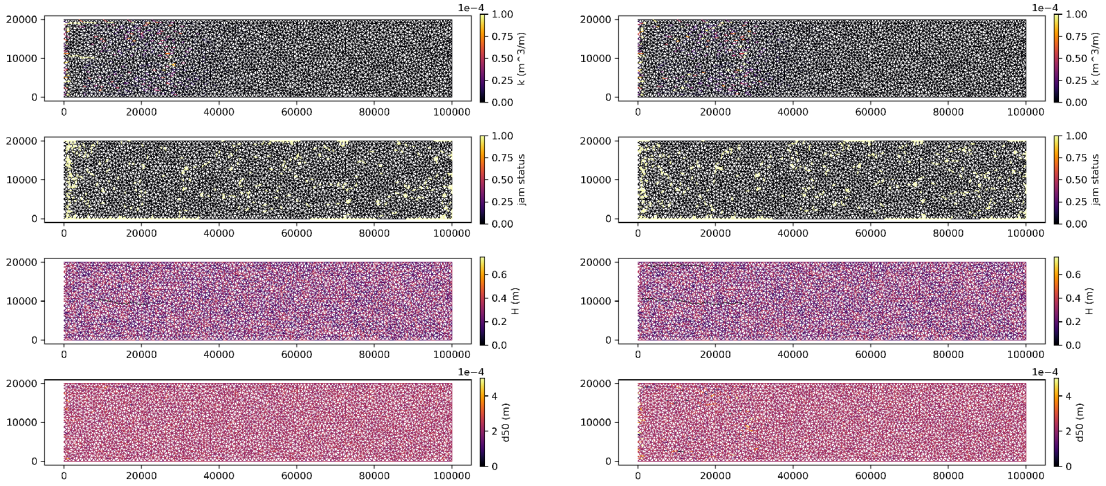

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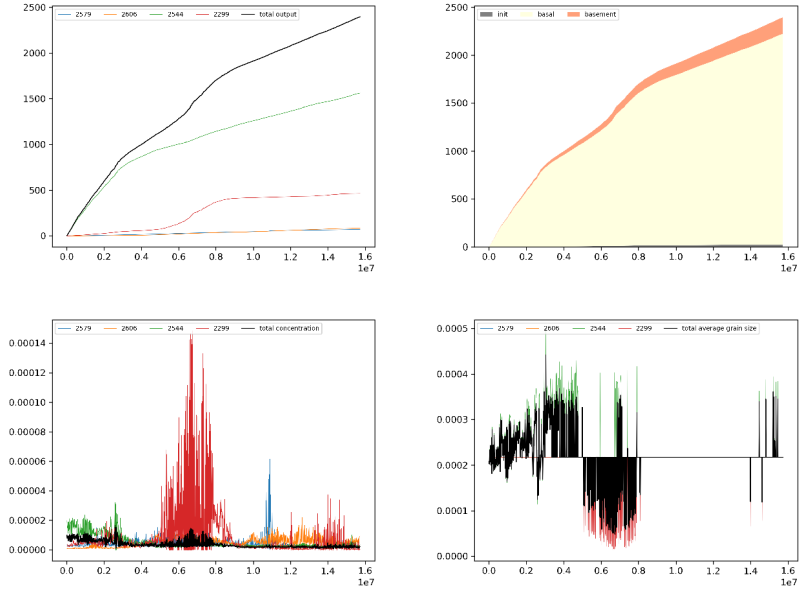

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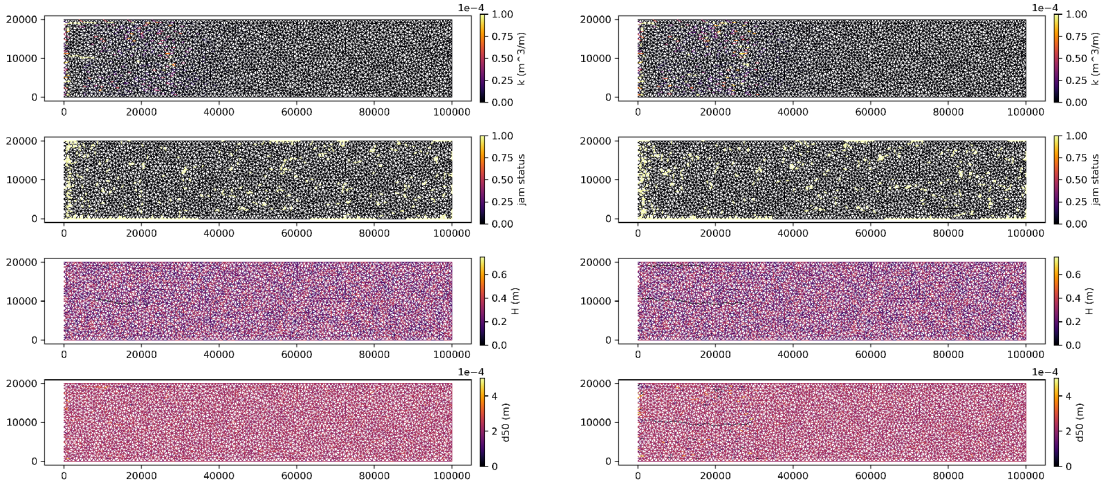

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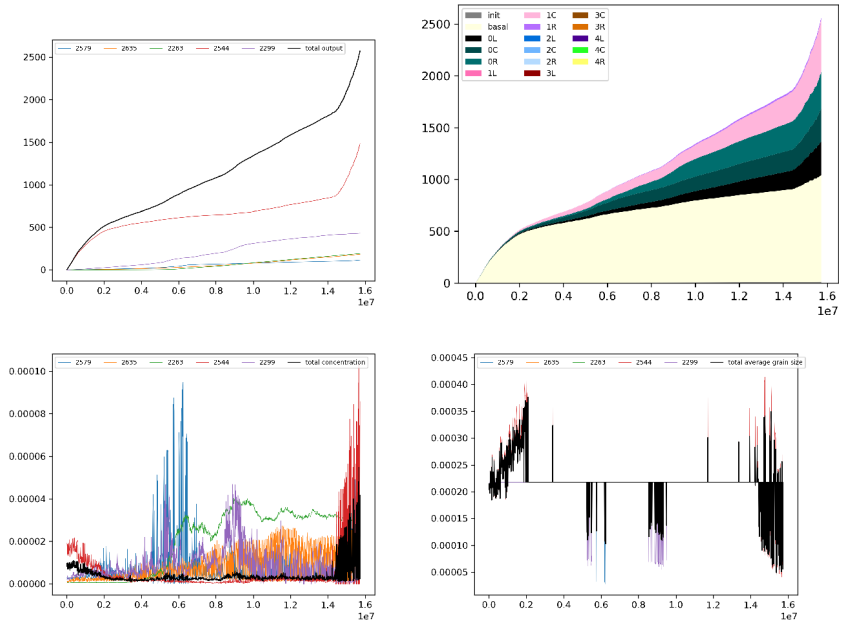

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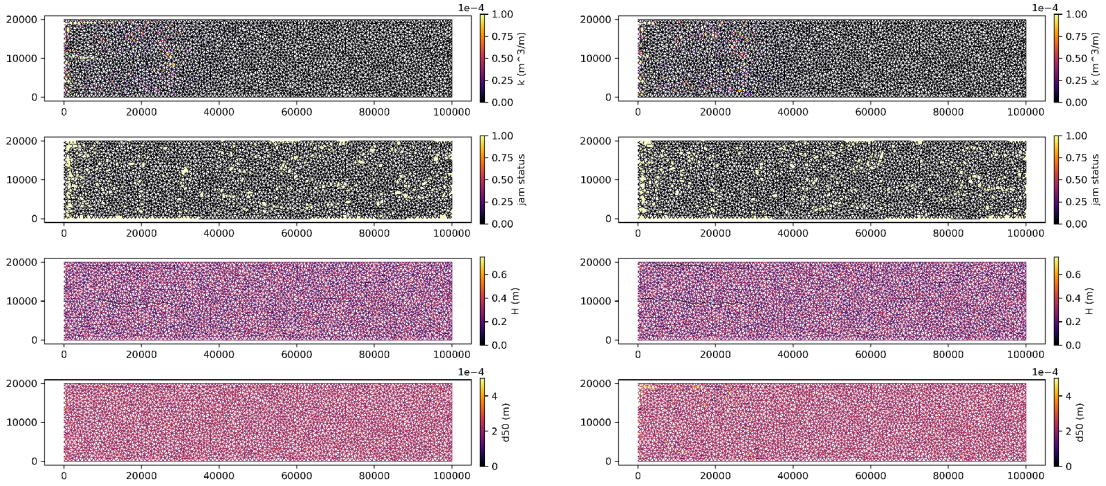
S2.1.5 A4D default rerun



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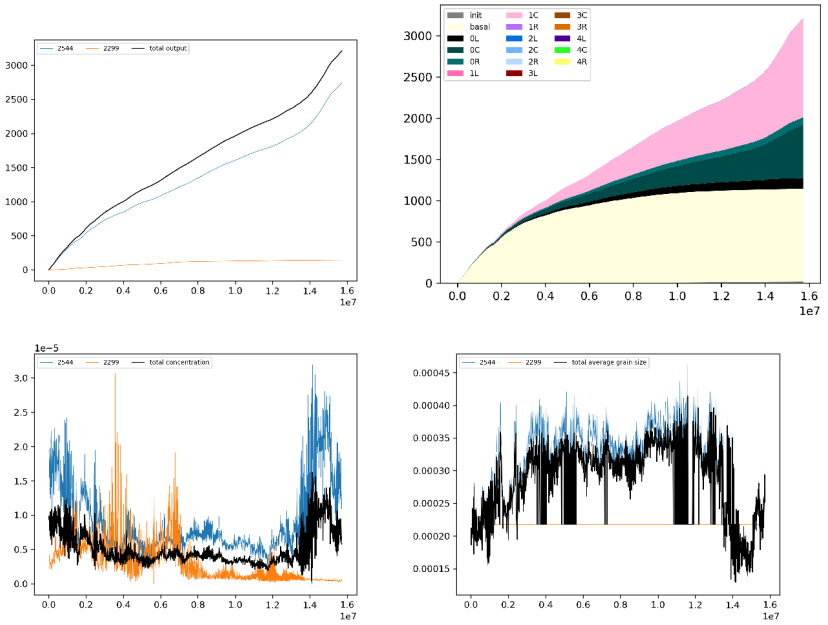

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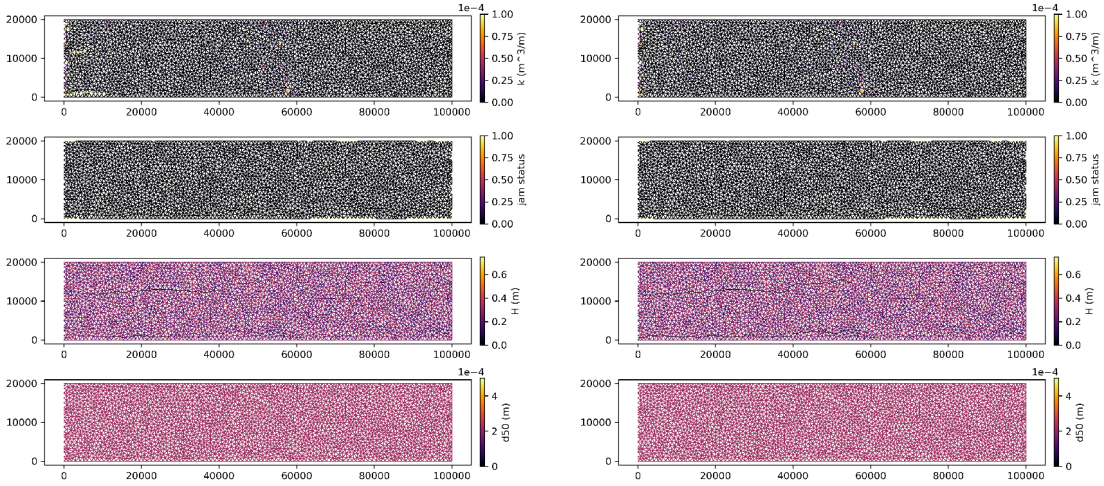
S2.1.6 A5 reference



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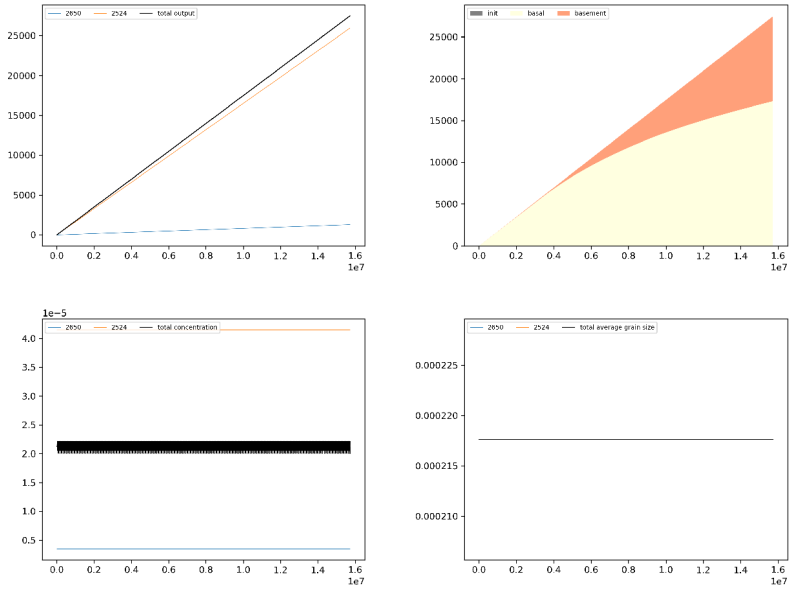
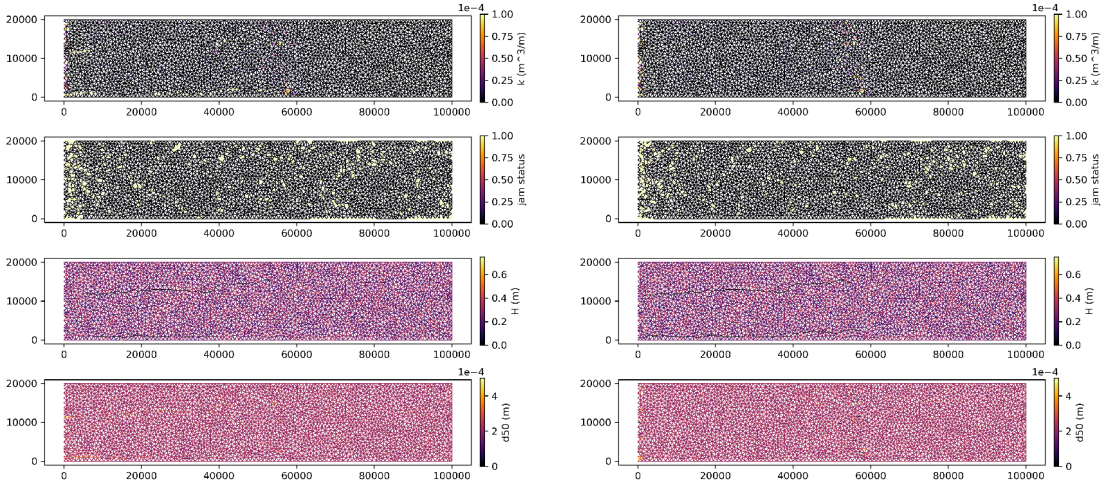


Figure S33. Outputs from the A5 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.7 A5 default



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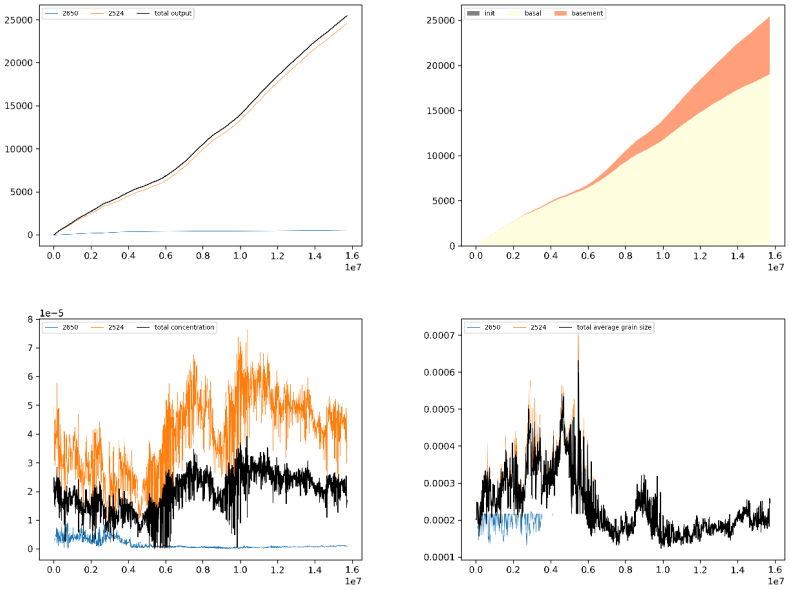


Figure S35. Outputs from the A5 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.8 A5 default rerun

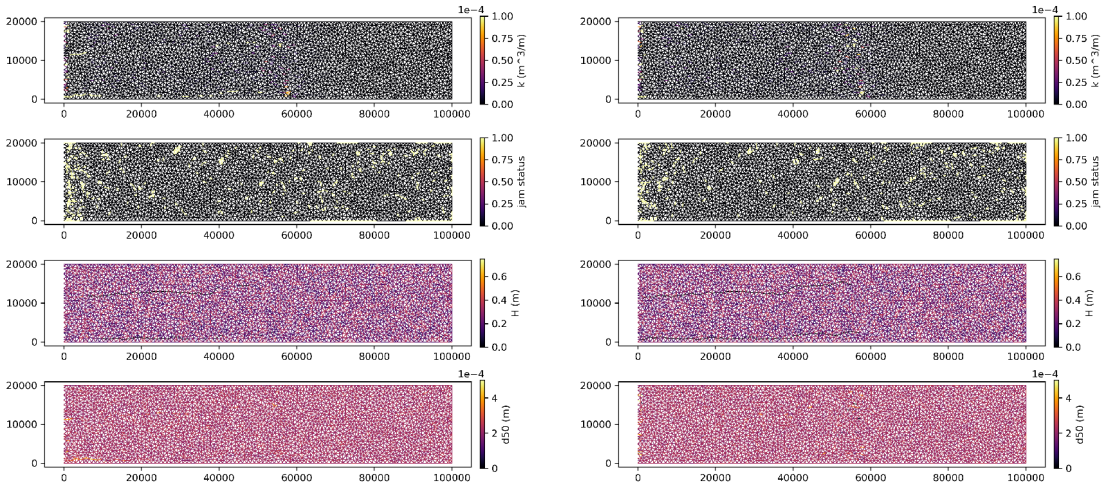


Figure S36. Results for the A5 default model rerun at a) week 0 and b) week 25

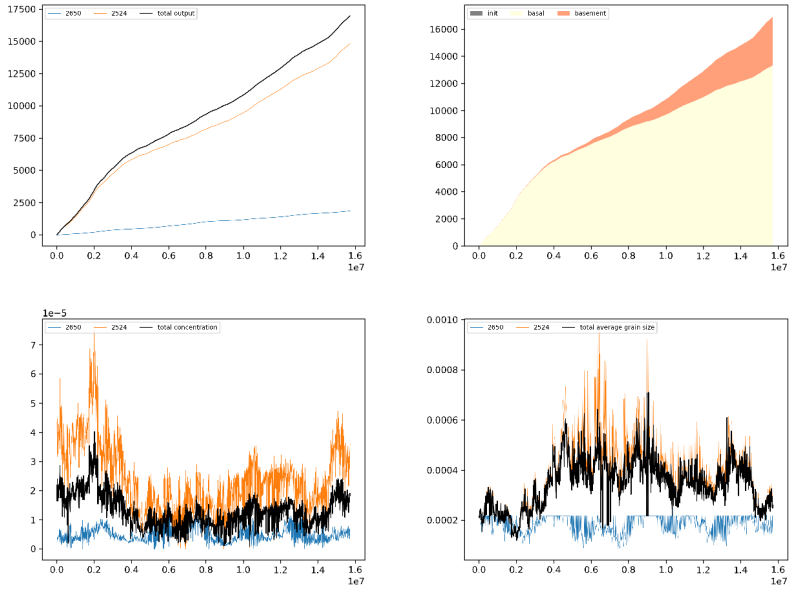
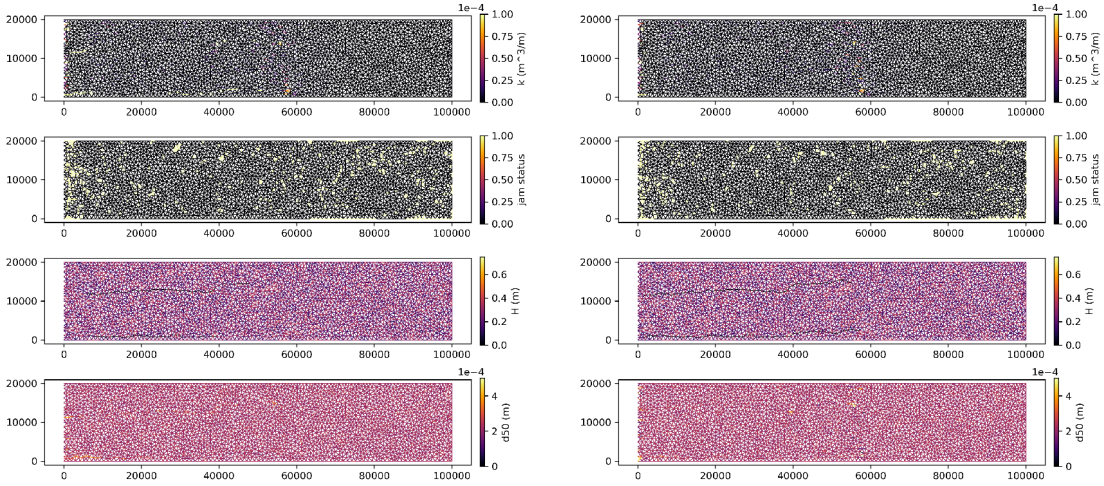


Figure S37. Outputs from the A5 default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.9 A5D default



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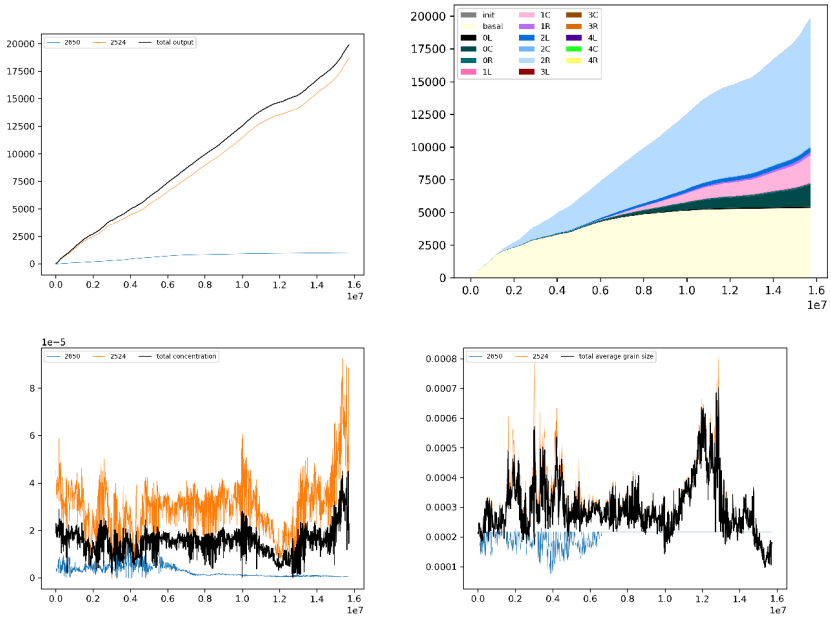
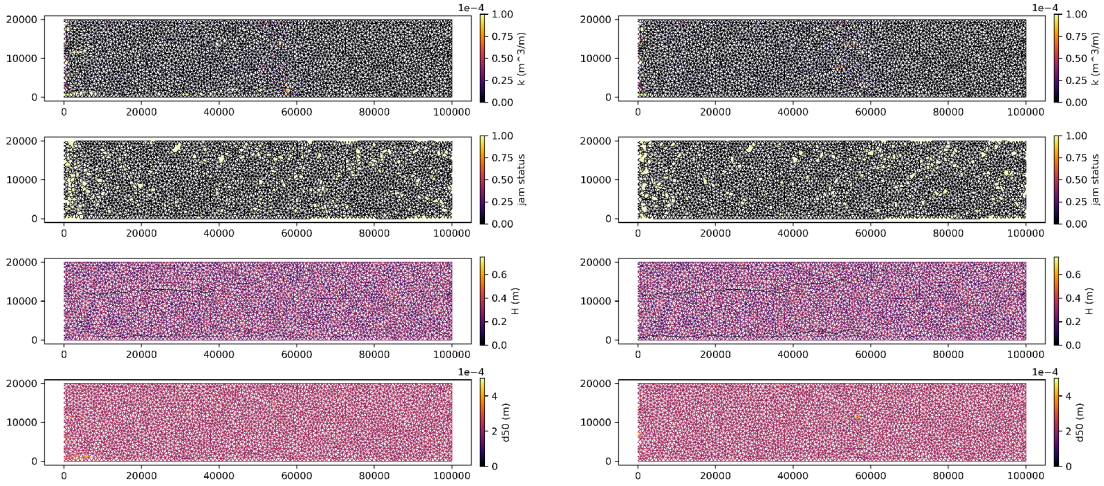


Figure S39. Outputs from the A5D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.10 A5D default rerun



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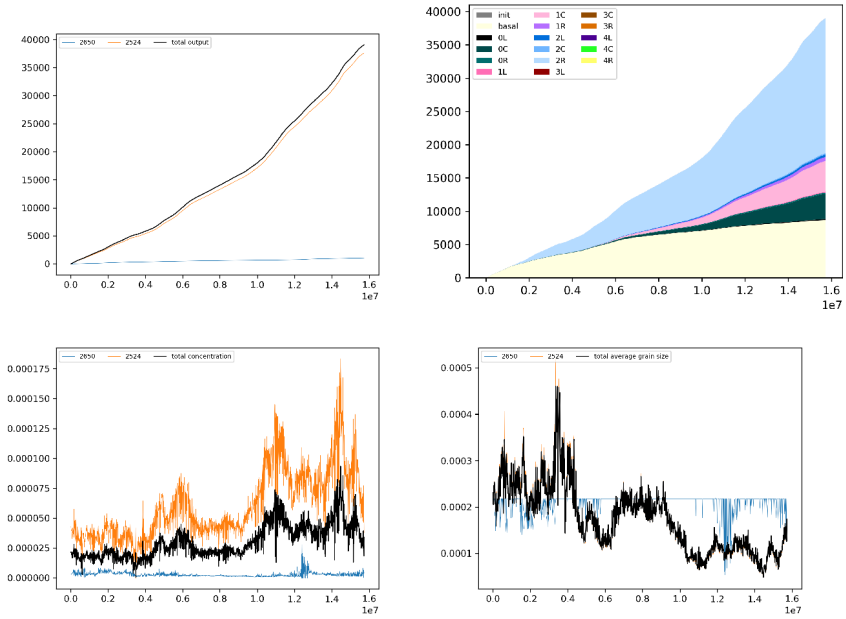


Figure S41. Outputs from the A5D default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.11 A7 reference

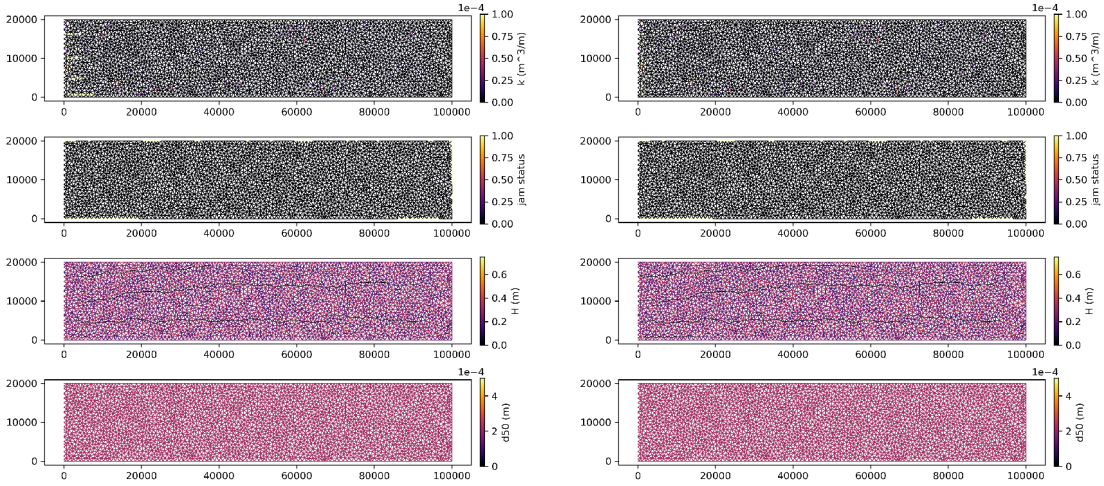


Figure S42. Results for the A7 reference model run at a) week 0 and b) week 25

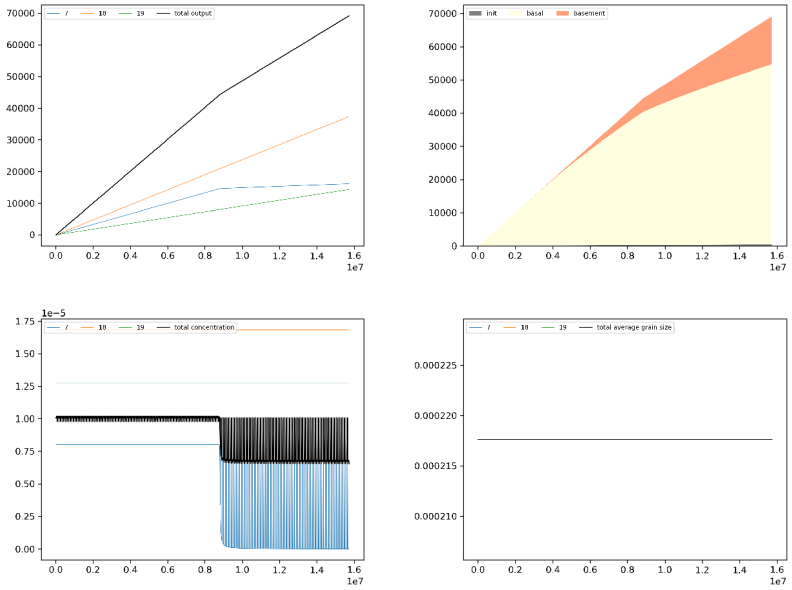


Figure S43. Outputs from the A7 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.12 A7 default

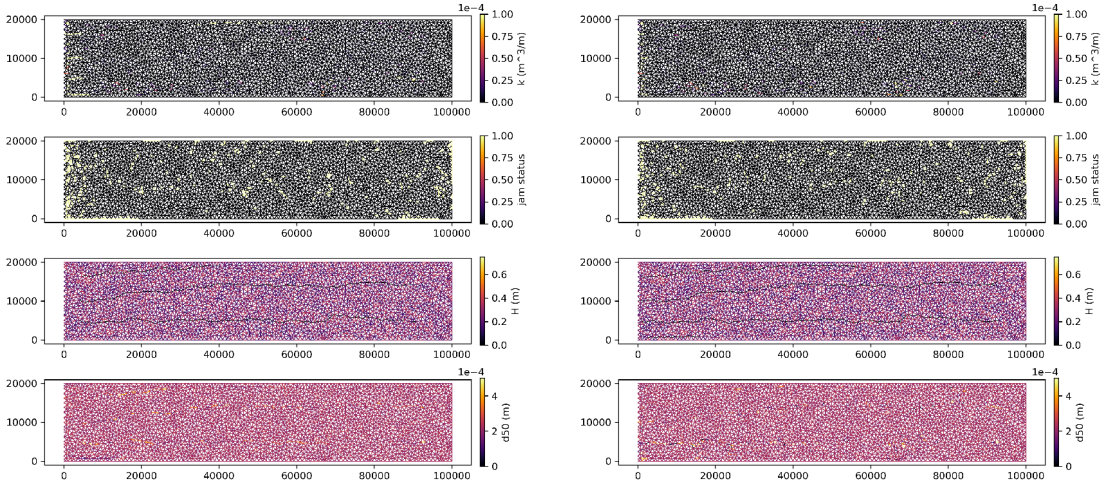


Figure S44. Results for the A7 default model run at a) week 0 and b) week 25

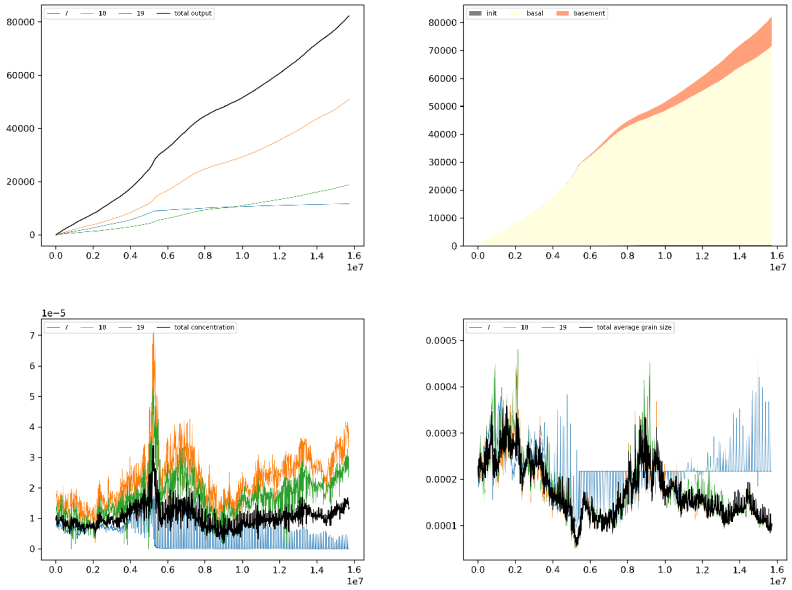


Figure S45. Outputs from the A7 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.13 A7 default rerun

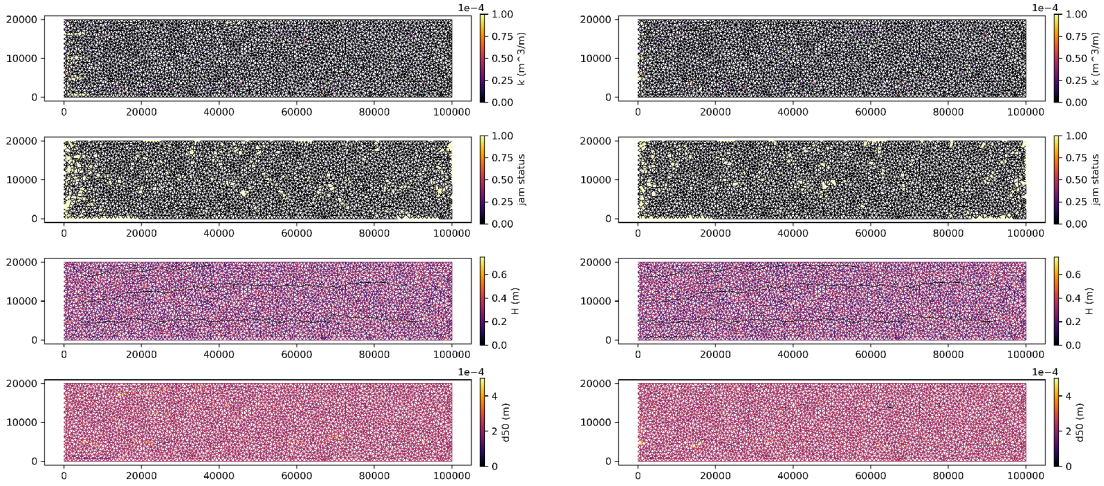


Figure S46. Results for the A7 default model rerun at a) week 0 and b) week 25

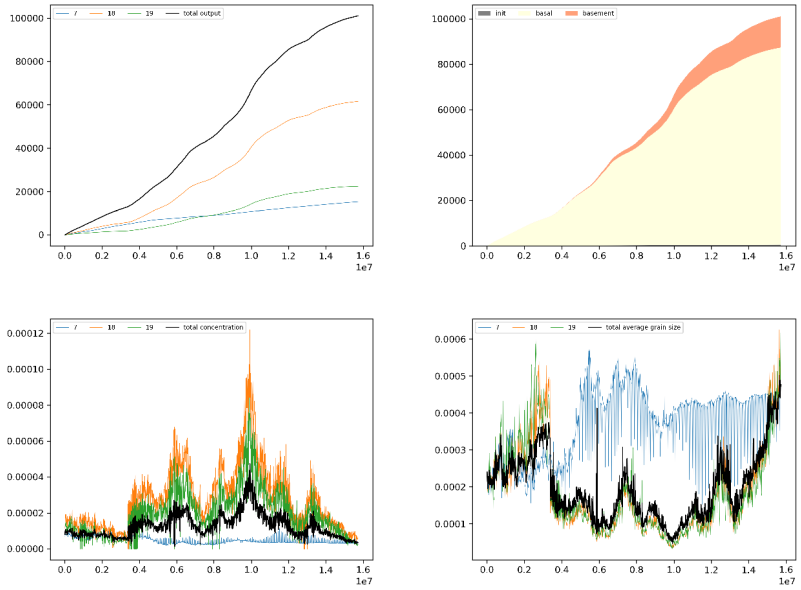
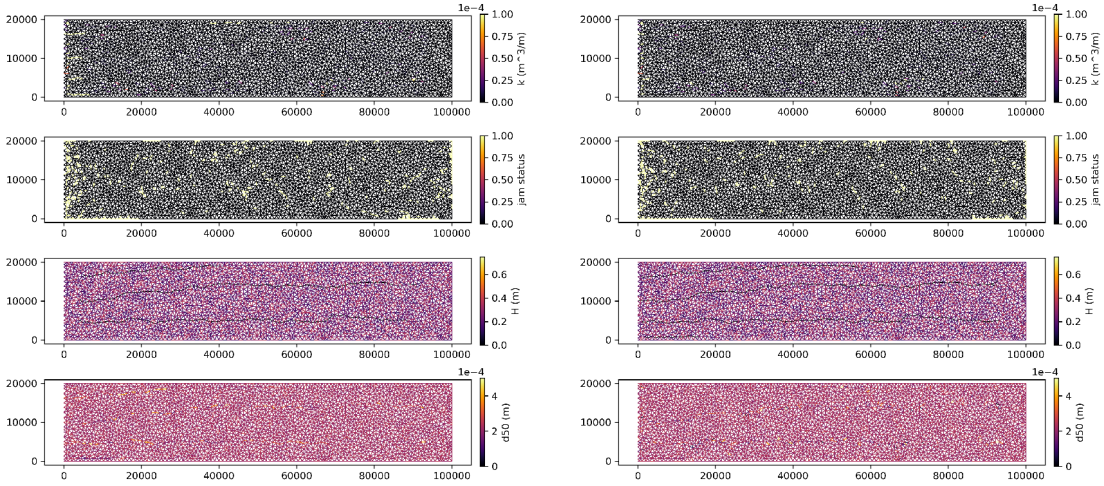


Figure S47. Outputs from the A7 default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.14 A7D default



230

Figure S48. Results for the A7D default model run at a) week 0 and b) week 25

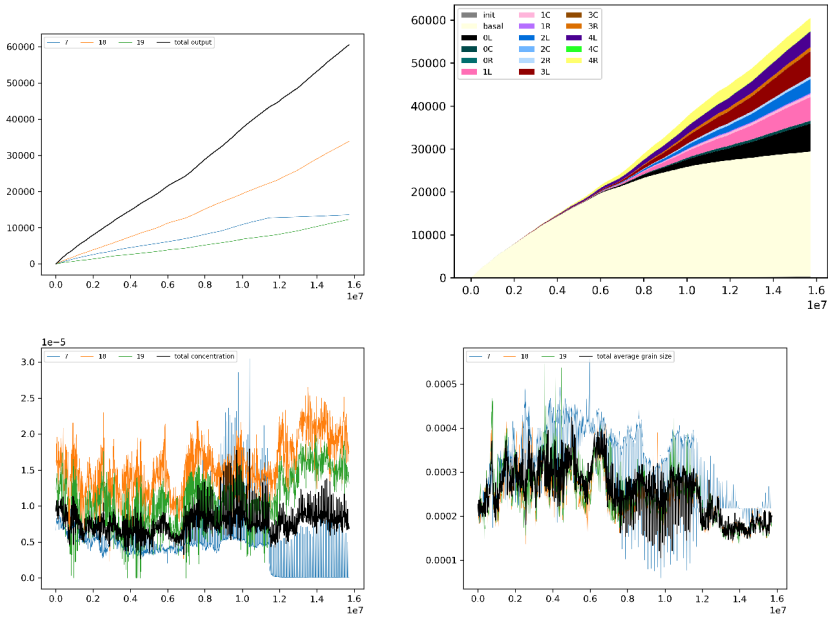


Figure S49. Outputs from the A7D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.15 A7D default rerun

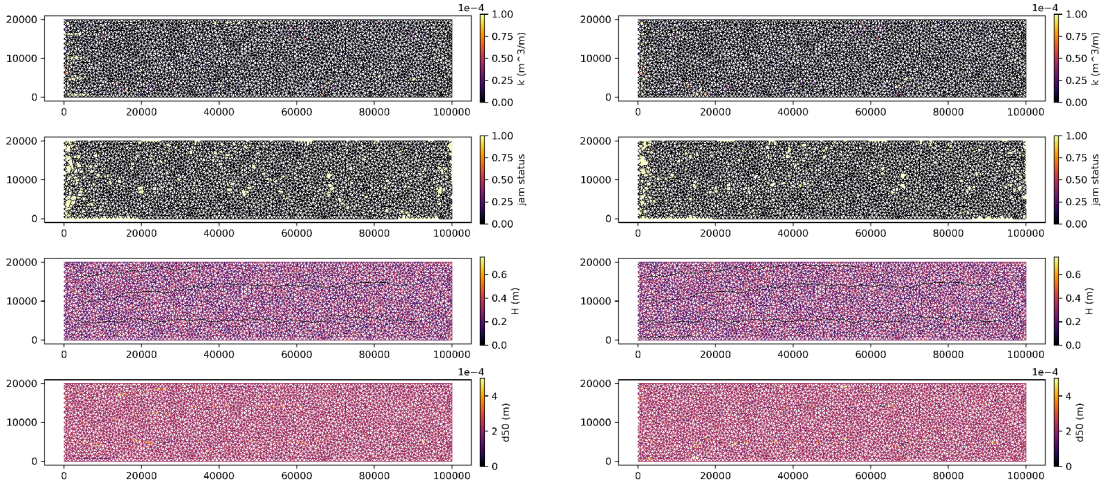


Figure S50. Results for the A7D default model rerun at a) week 0 and b) week 25

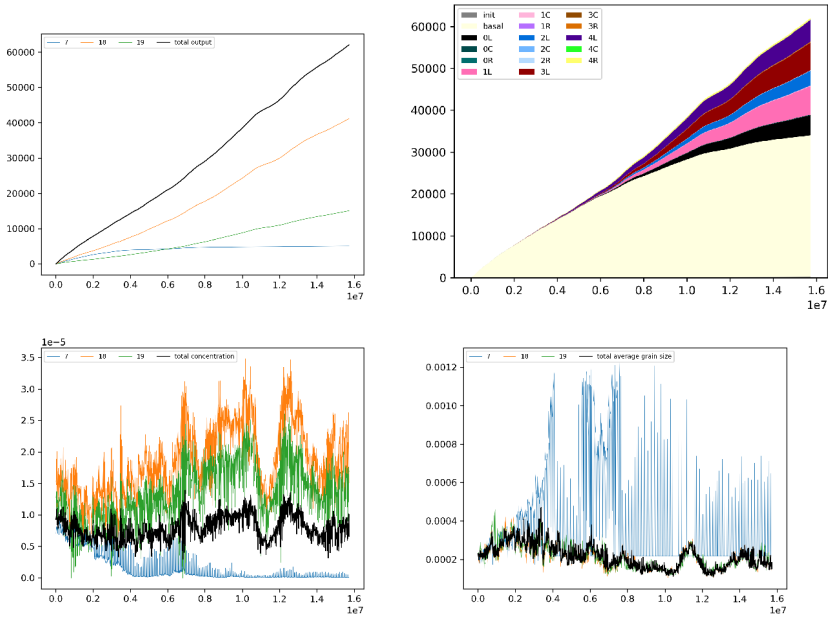


Figure S51. Outputs from the A7D default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.16 A8 reference

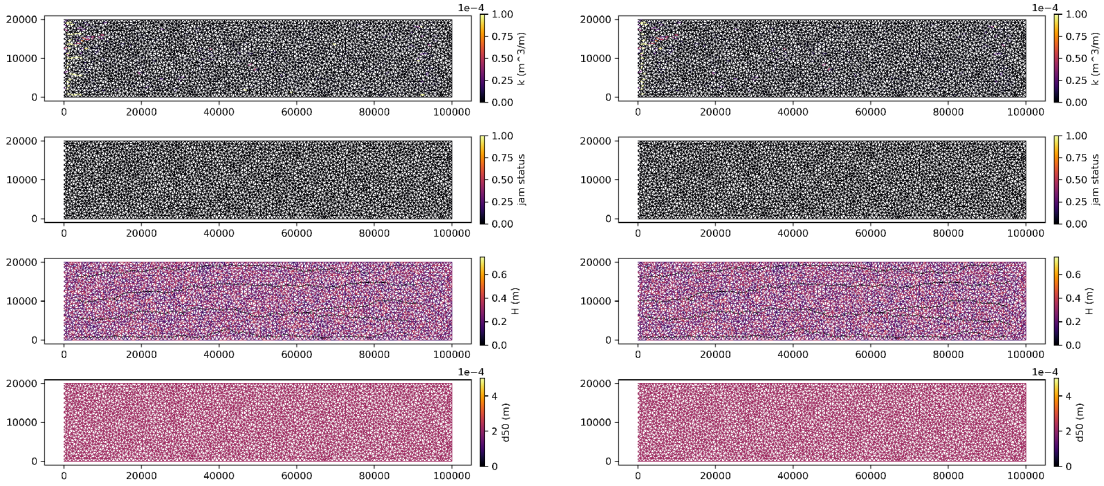
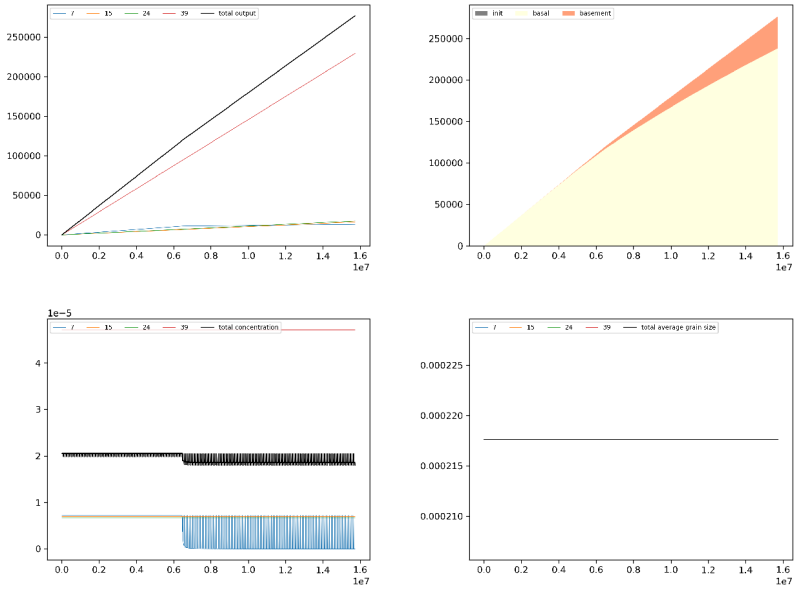


Figure S52. Results for the A8 reference model run at a) week 0 and b) week 25



240

Figure S53. Outputs from the A8 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.17 A8 default

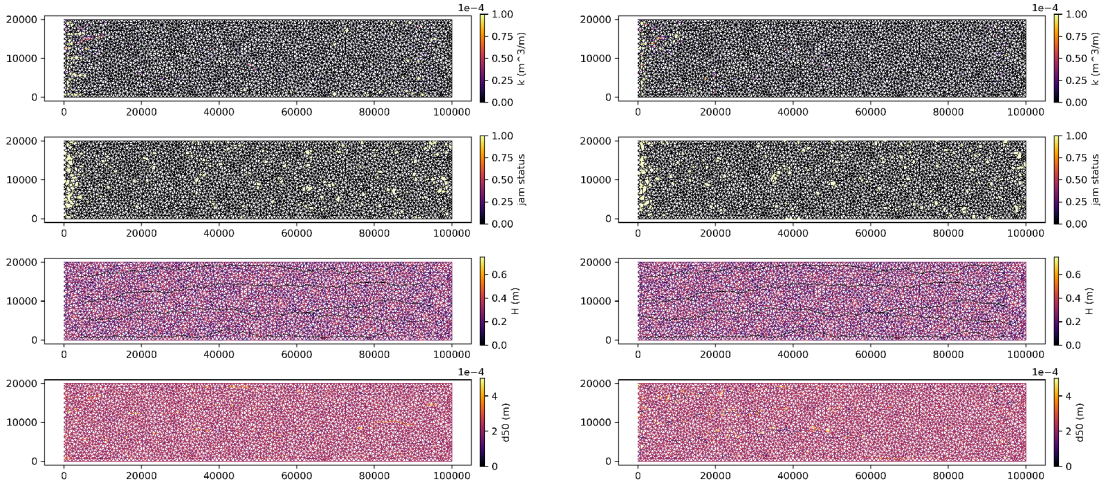


Figure S54. Results for the A8 default model run at a) week 0 and b) week 25

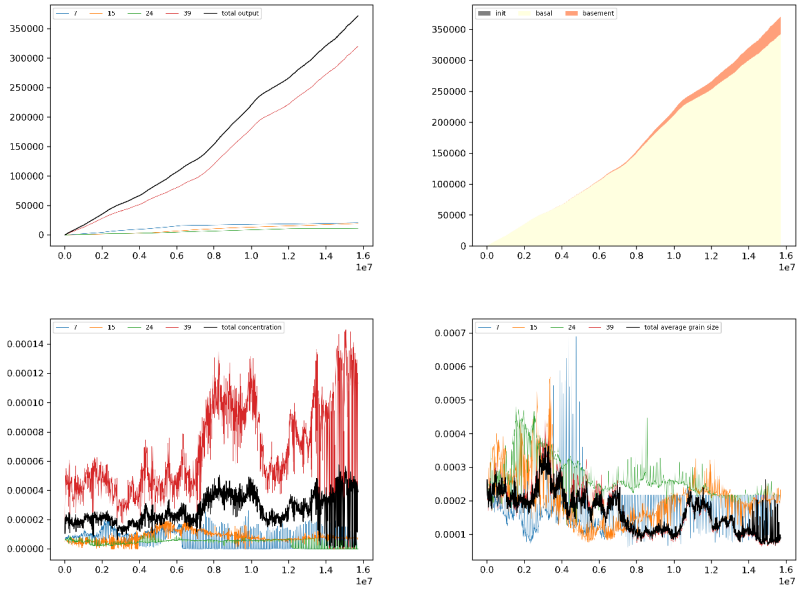


Figure S55. Outputs from the A8 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.18 A8 default rerun

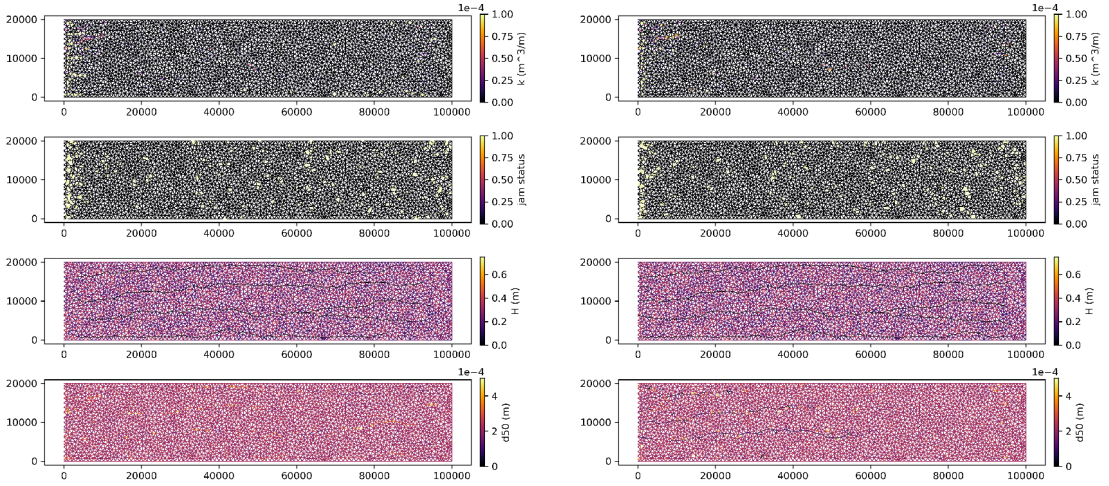


Figure S56. Results for the A8 default model rerun at a) week 0 and b) week 25

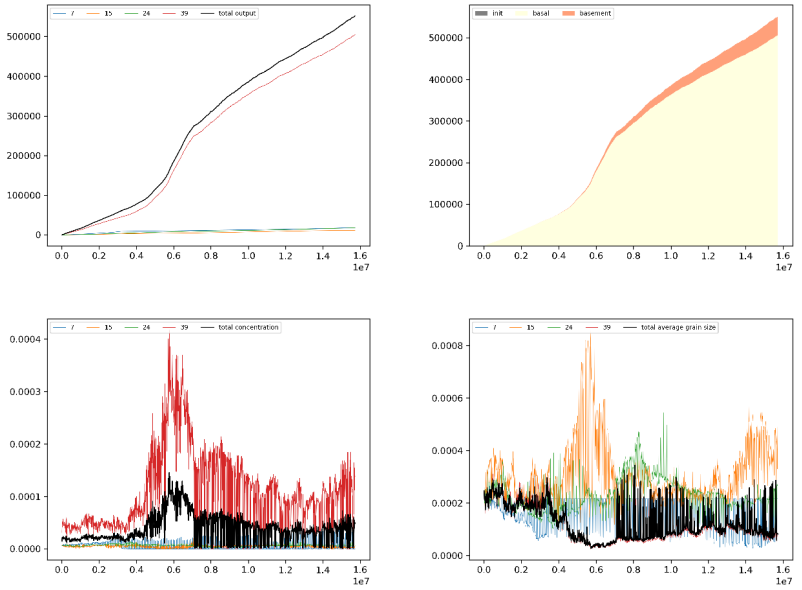
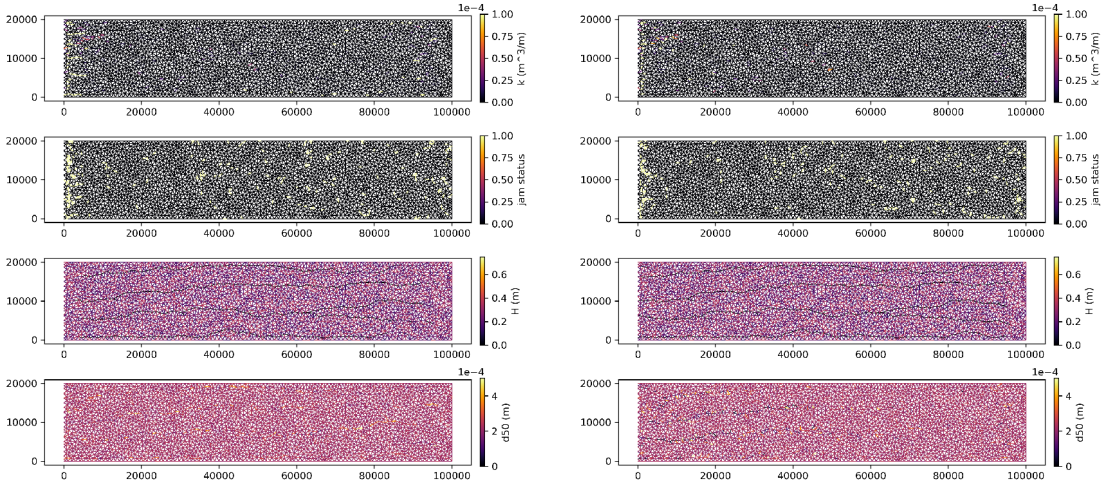


Figure S57. Outputs from the A8 default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.19 A8D default



250

Figure S58. Results for the A8D default model run at a) week 0 and b) week 25

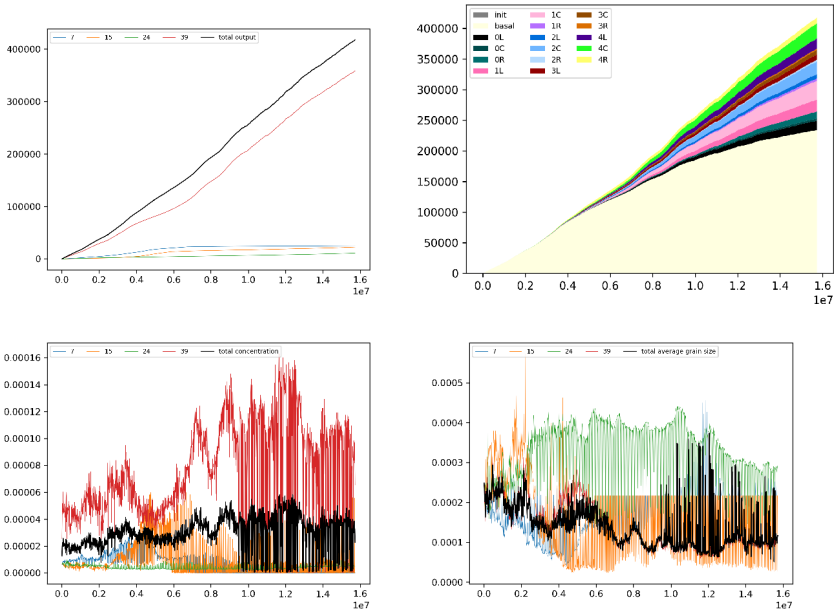


Figure S59. Outputs from the A8D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.20 A8D default rerun

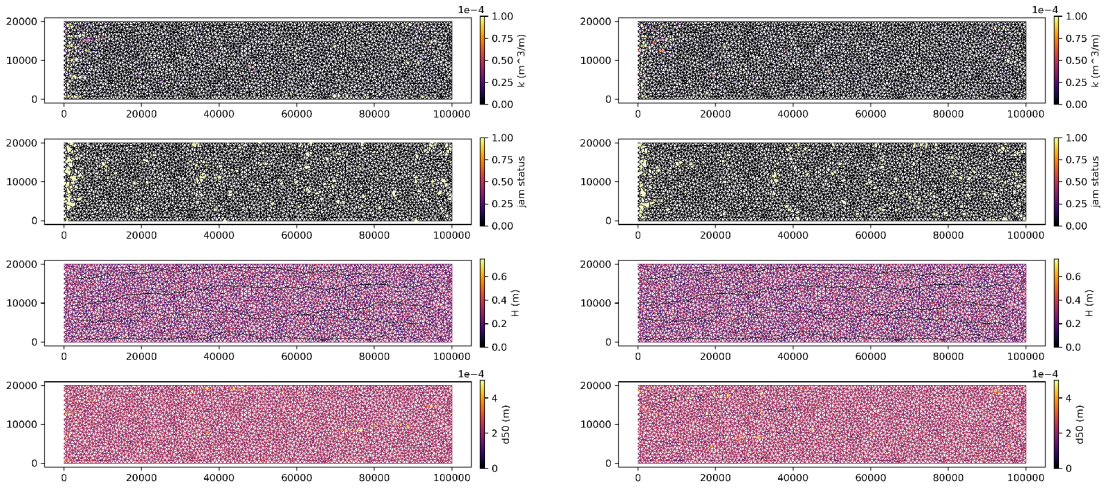


Figure S60. Results for the A8D default model rerun at a) week 0 and b) week 25

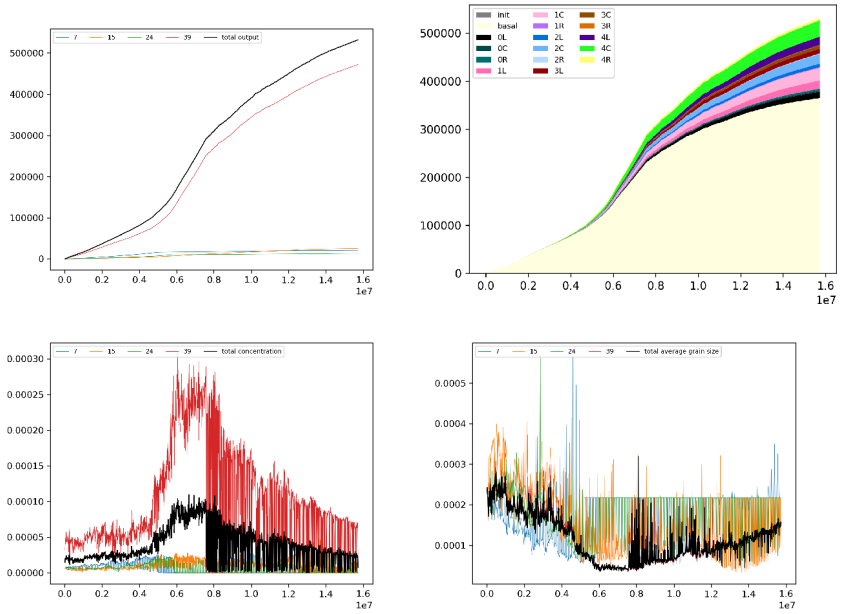


Figure S61. Outputs from the A8D default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.21 A6 reference

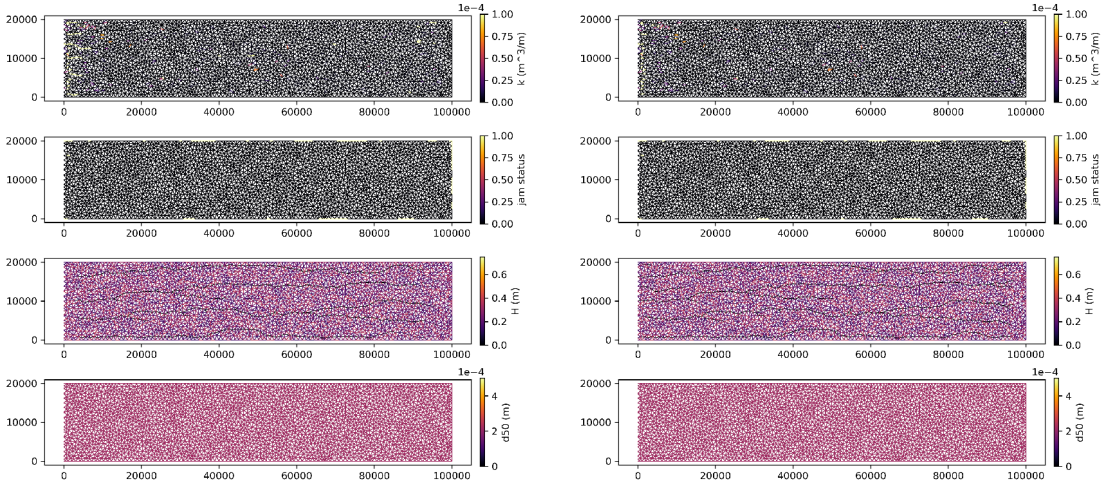


Figure S62. Results for the A6 reference model run at a) week 0 and b) week 25

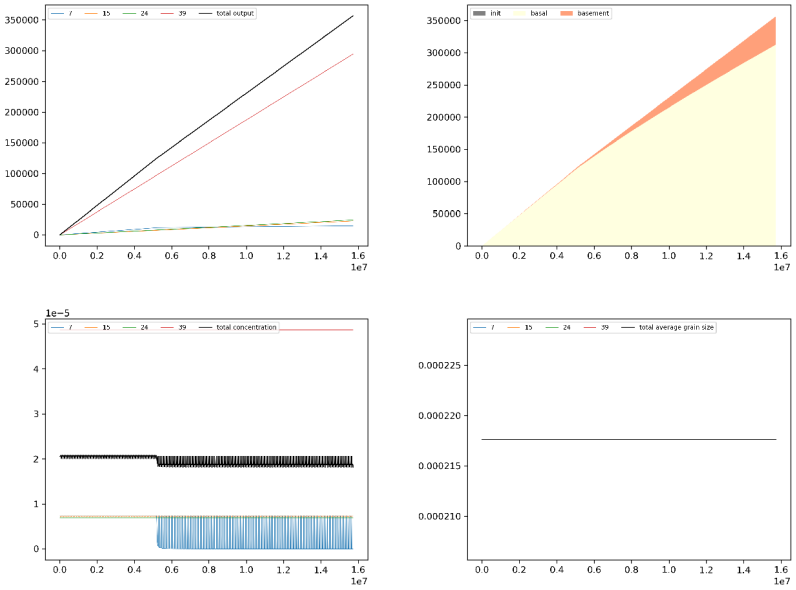


Figure S63. Outputs from the A6 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.22 A6 default

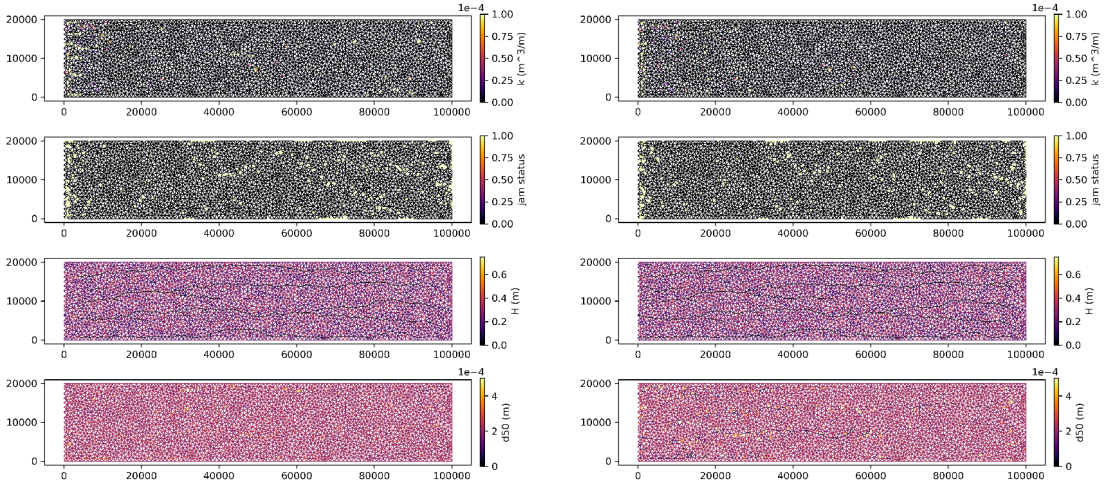


Figure S64. Results for the A6 default model run at a) week 0 and b) week 25

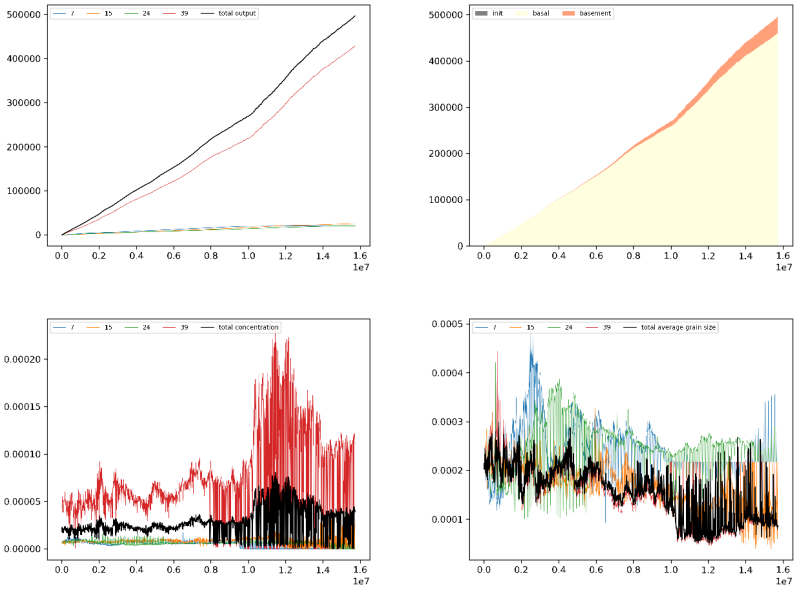


Figure S65. Outputs from the A6 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.23 A6 default rerun

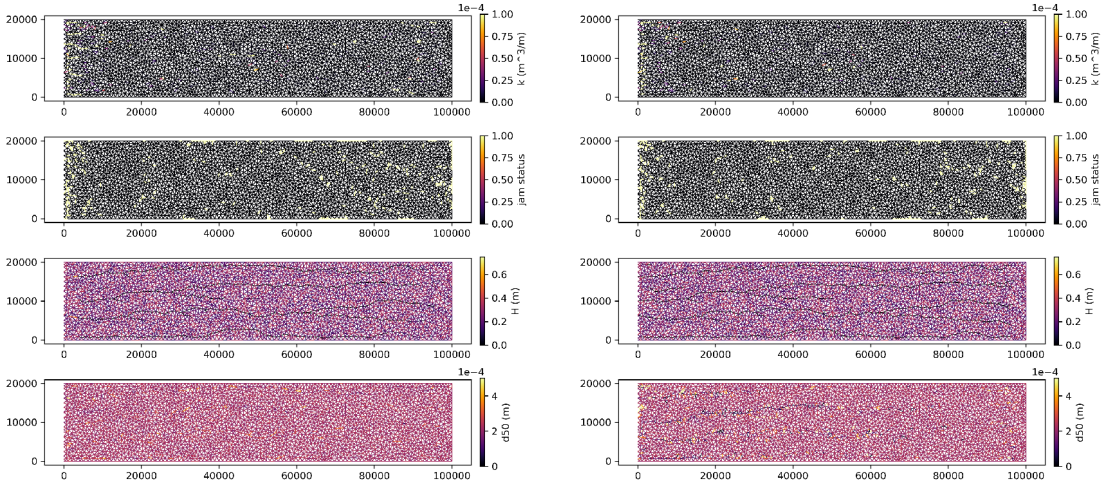


Figure S66. Results for the A6 default model rerun at a) week 0 and b) week 25

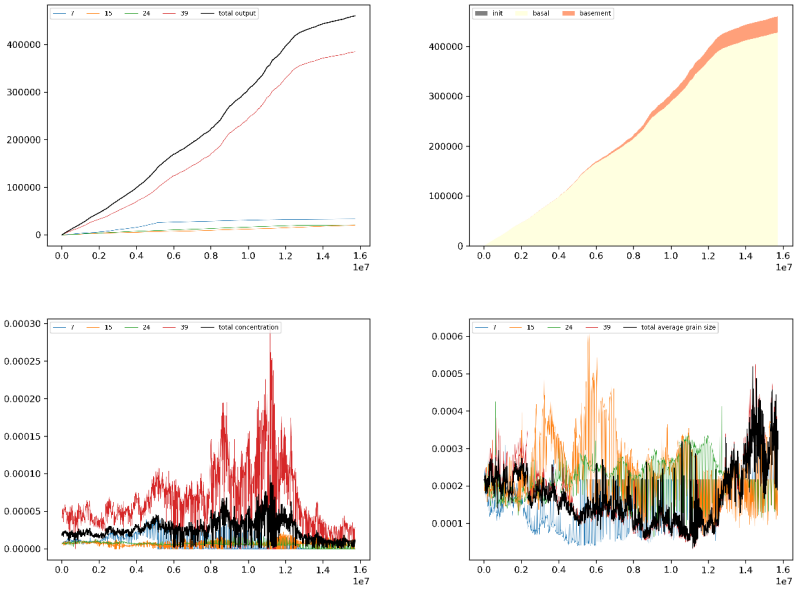


Figure S67. Outputs from the A6 default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.24 A6D default

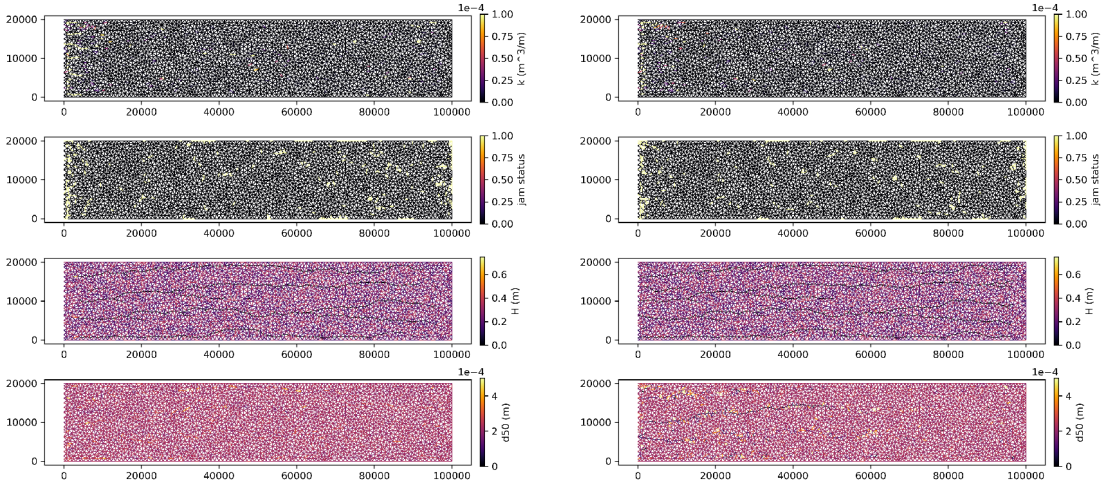


Figure S68. Results for the A6D default model run at a) week 0 and b) week 25

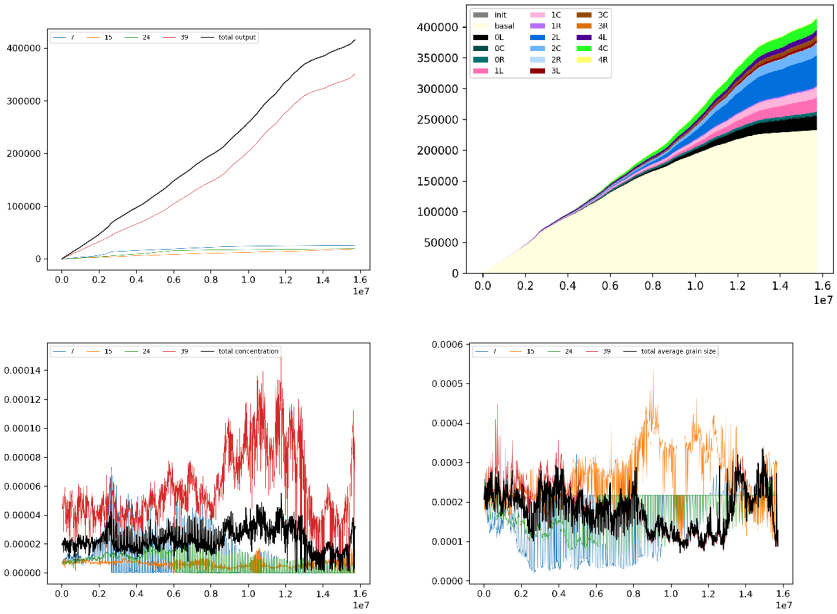


Figure S69. Outputs from the A6D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.1.25 A6D default rerun

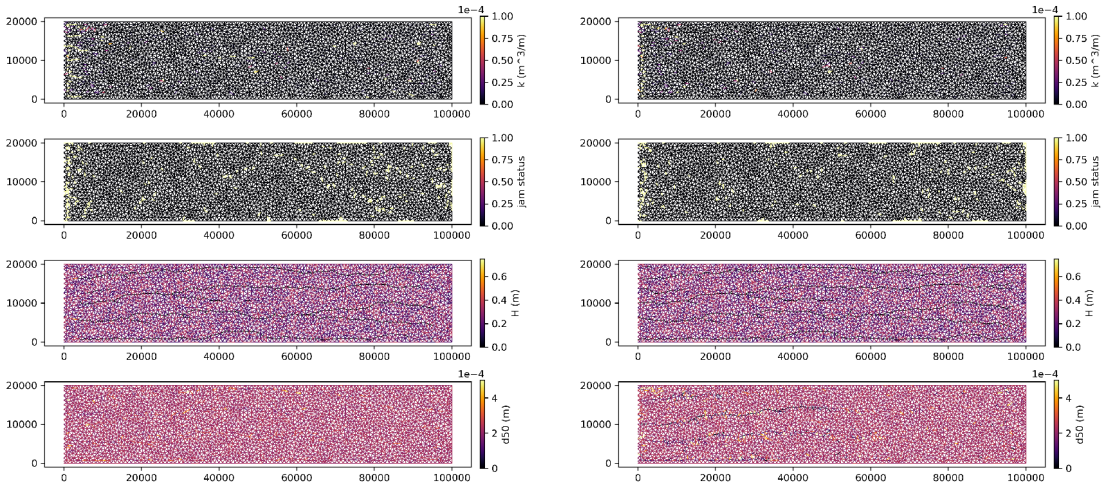


Figure S70. Results for the A6D default model rerun at a) week 0 and b) week 25

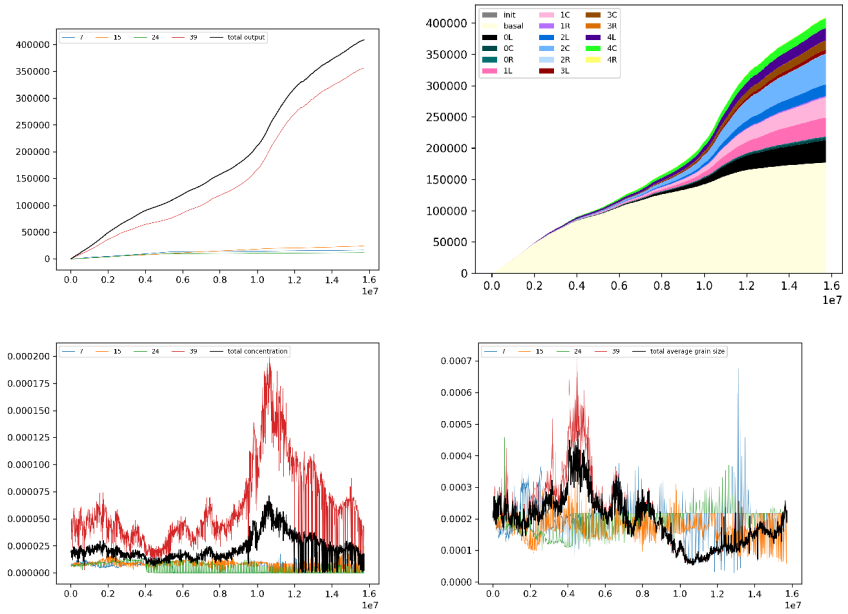


Figure S71. Outputs from the A6D default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.2 Experiment Set 2

S2.2.1 $\phi = 3.2$

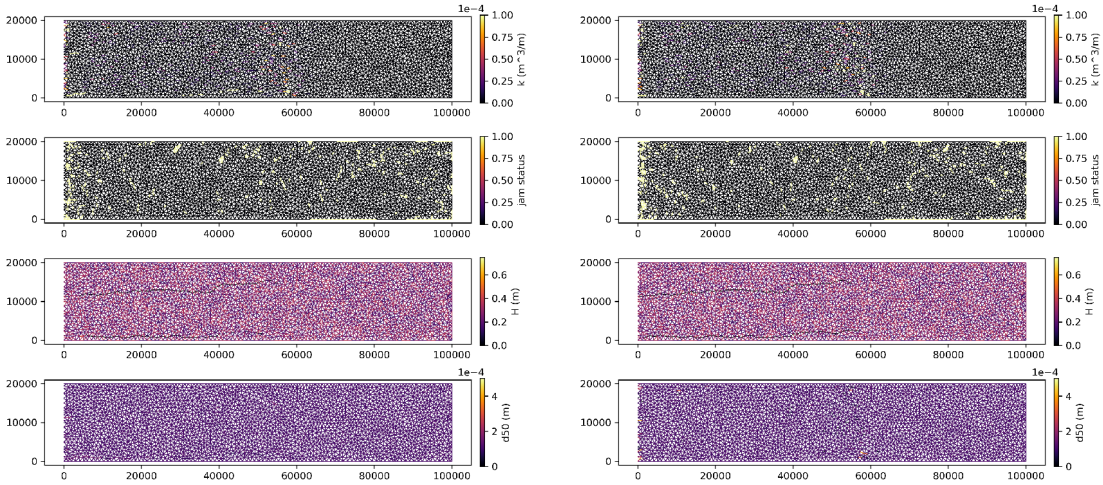


Figure S72. Results for the $\phi = 3.2$ model run at a) week 0 and b) week 25

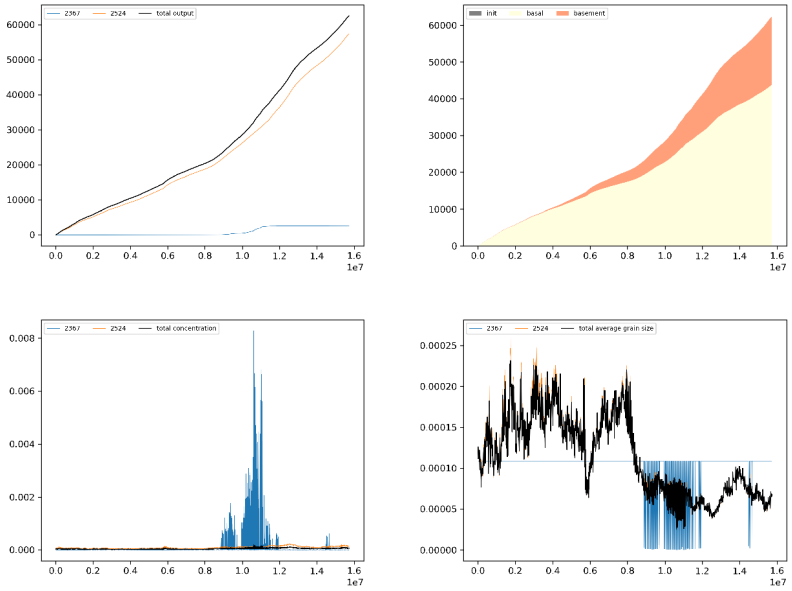


Figure S73. Outputs from the $\phi = 3.2$ model run with a) volume flux b) detritus volume flux c) concentration d) grainsize.In a, c and d numbers indicate outlet node IDs

S2.2.2 $\phi = 1.2$

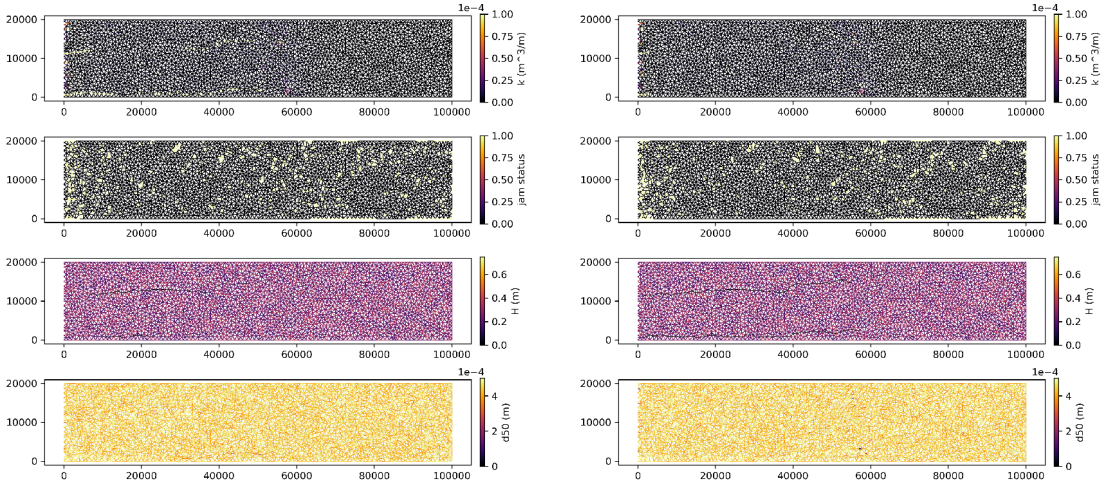


Figure S74. Results for the $\phi = 1.2$ model run at a) week 0 and b) week 25

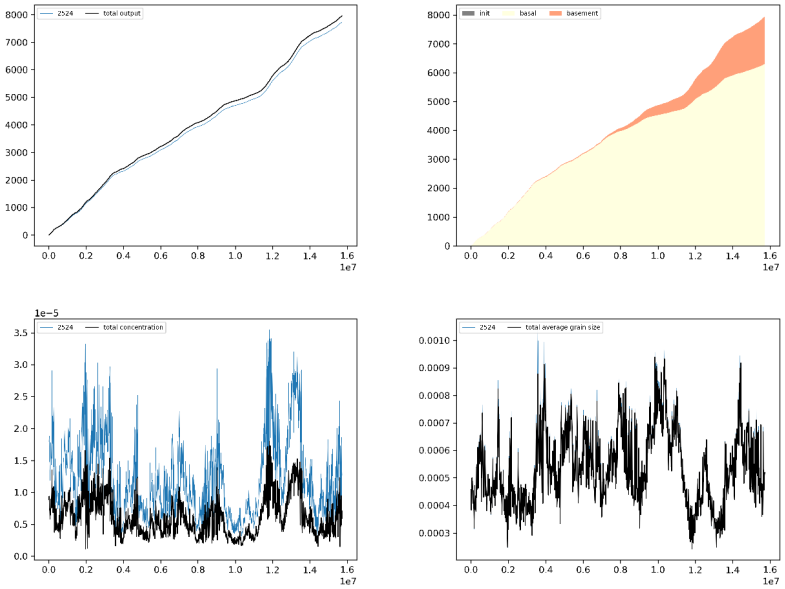


Figure S75. Outputs from the $\phi = 1.2$ model run with a) volume flux b) detritus volume flux c) concentration d) grainsize.In a, c and d numbers indicate outlet node IDs

S2.2.3 $\varsigma = 1$

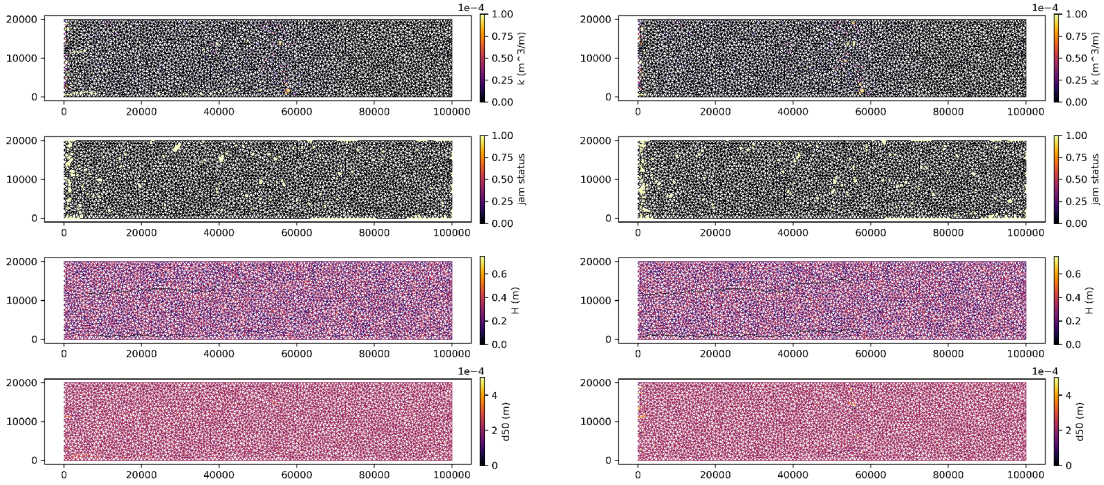


Figure S76. Results for the $\varsigma = 1$ model run at a) week 0 and b) week 25

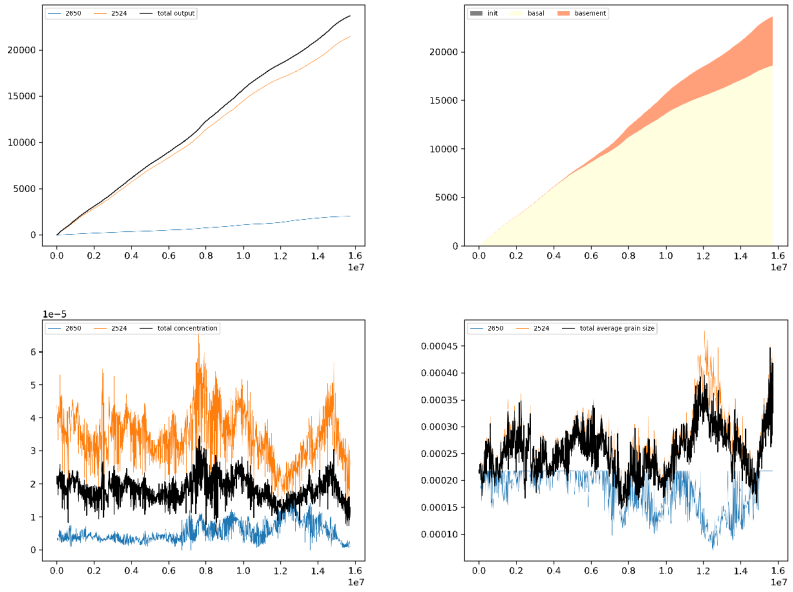


Figure S77. Outputs from the $\varsigma = 1$ model run with a) volume flux b) detritus volume flux c) concentration d) grainsize.In a, c and d numbers indicate outlet node IDs

S2.2.4 $\varsigma = 2$

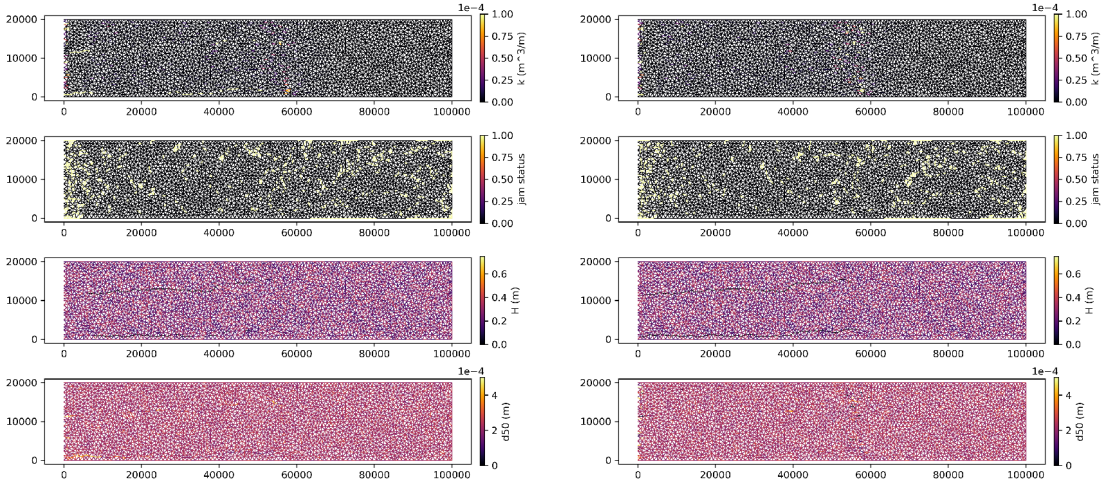


Figure S78. Results for the $\varsigma = 2$ model run at a) week 0 and b) week 25

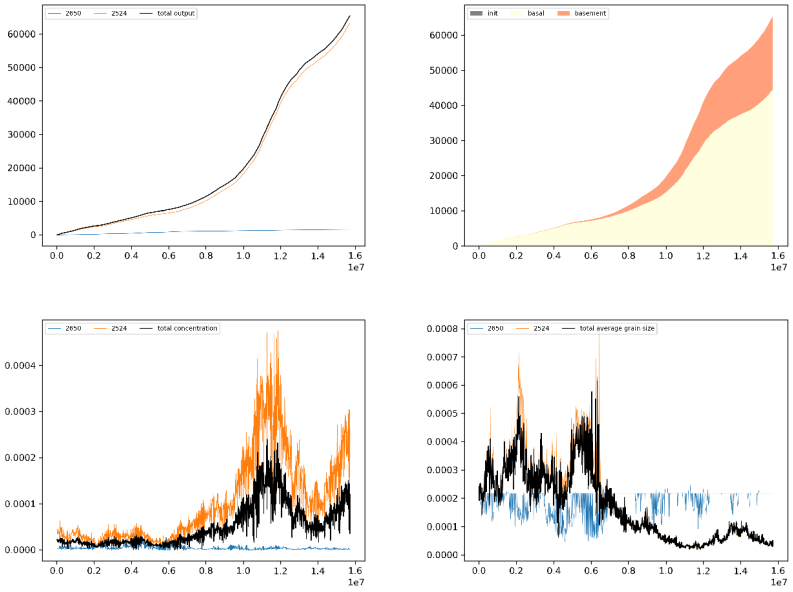
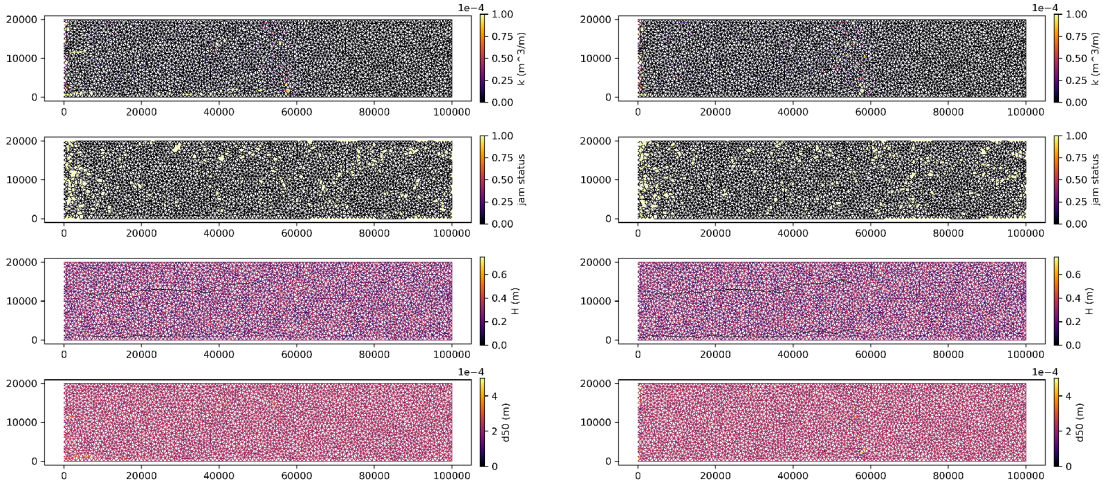


Figure S79. Outputs from the $\varsigma = 2$ model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.2.5 $\rho_s = 2550$



295

Figure S80. Results for the low grain density model run at a) week 0 and b) week 25

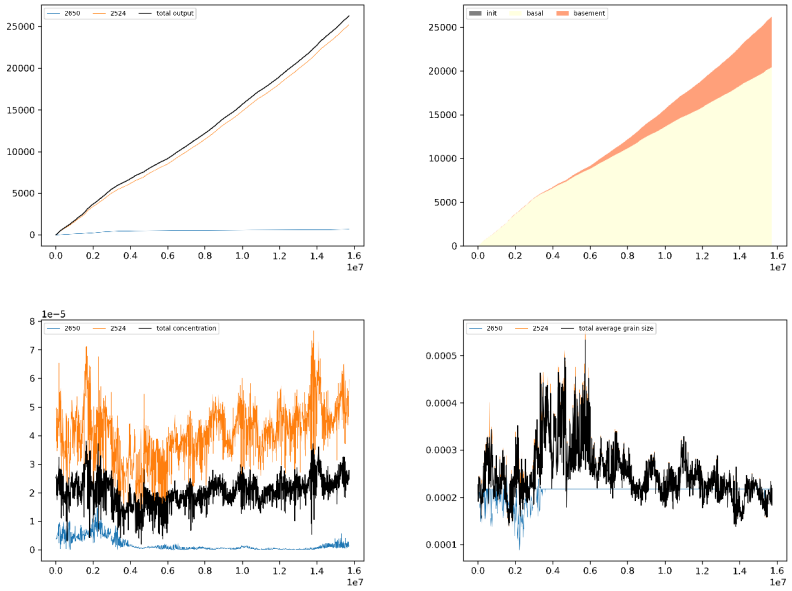


Figure S81. Outputs from the low grain density model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.2.6 $\rho_s = 2750$

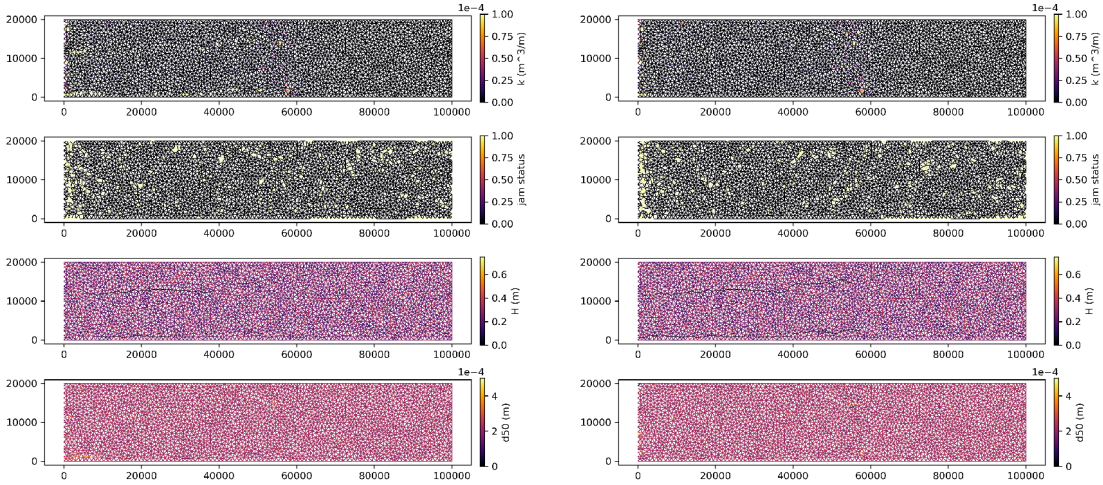


Figure S82. Results for the high grain density model run at a) week 0 and b) week 25

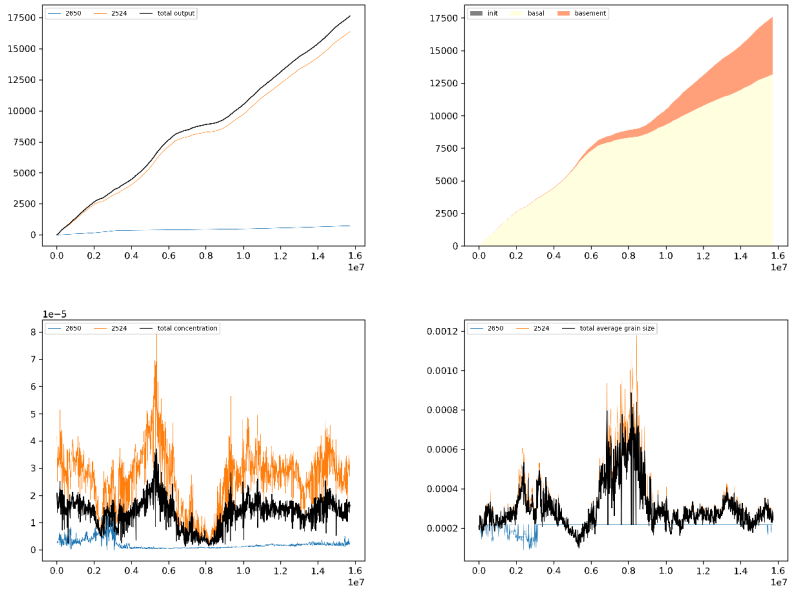


Figure S83. Outputs from the high grain density model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.2.7 $h_s = 0.05$

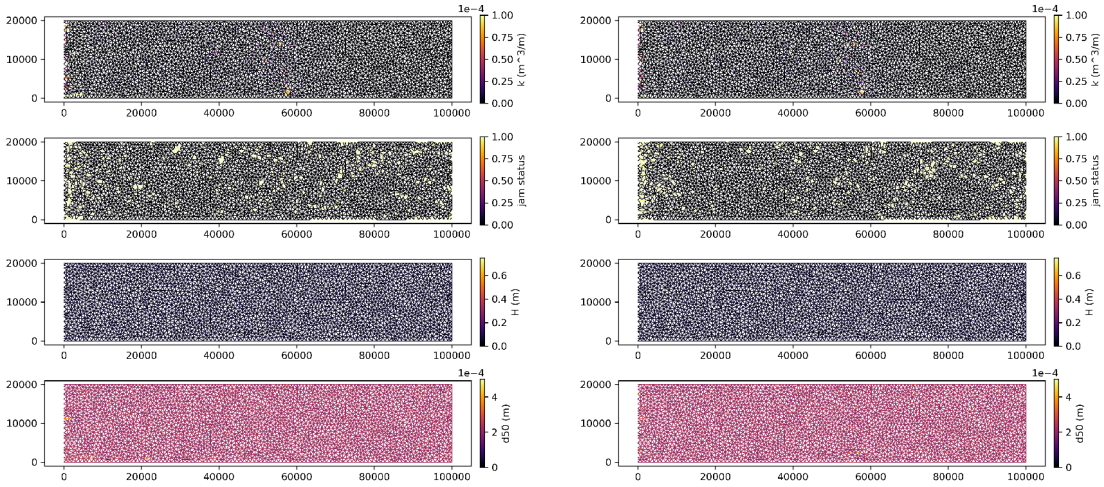


Figure S84. Results for the low sediment thickness model run at a) week 0 and b) week 25

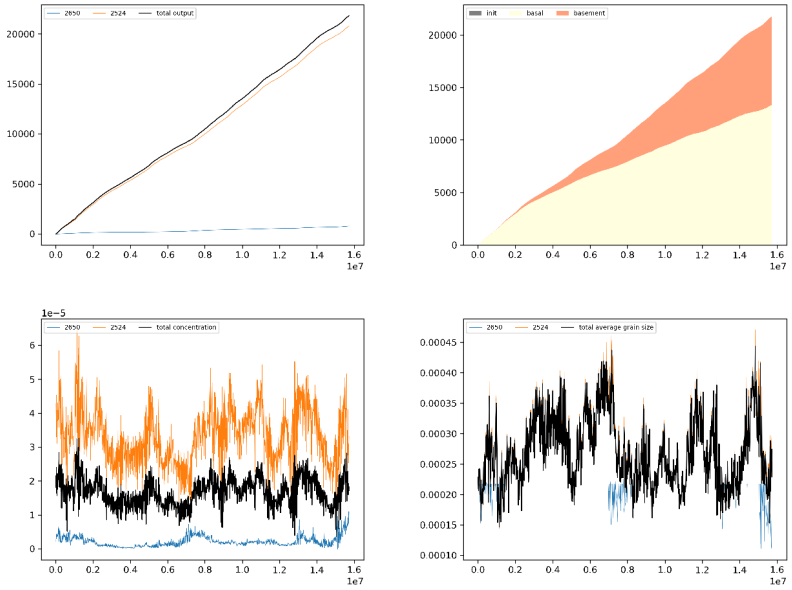


Figure S85. Outputs from the low sediment thickness model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.2.8 $h_s = 0.5$

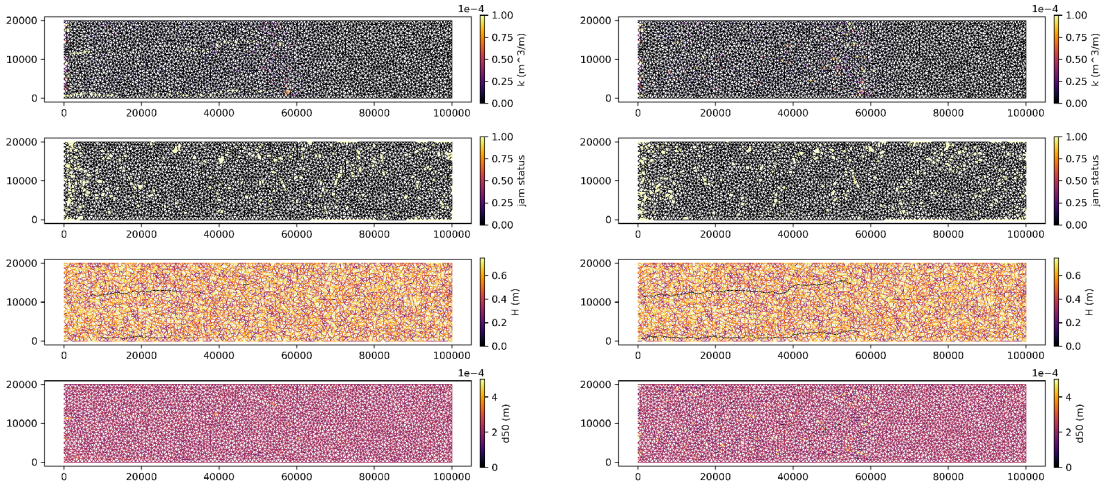


Figure S86. Results for the high sediment thickness model run at a) week 0 and b) week 25

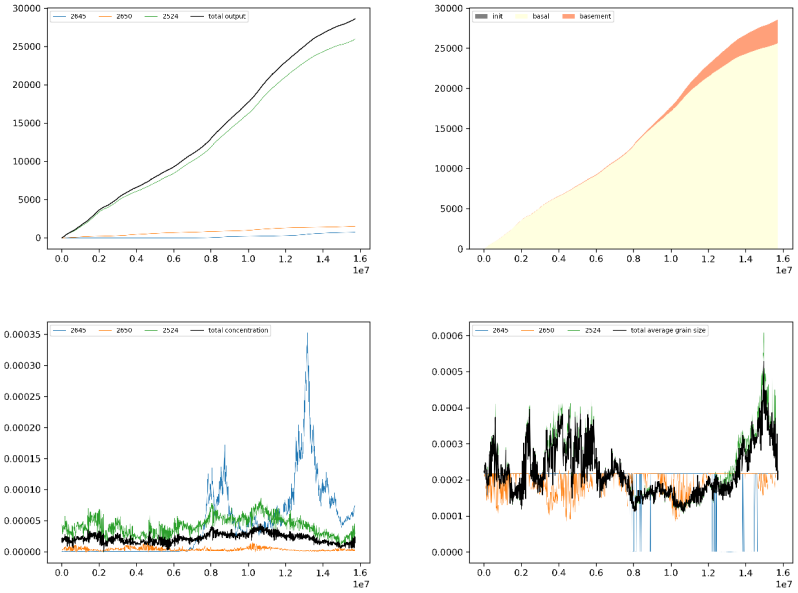


Figure S87. Outputs from the high sediment thickness model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.2.9 $\Delta\sigma = 0.005$

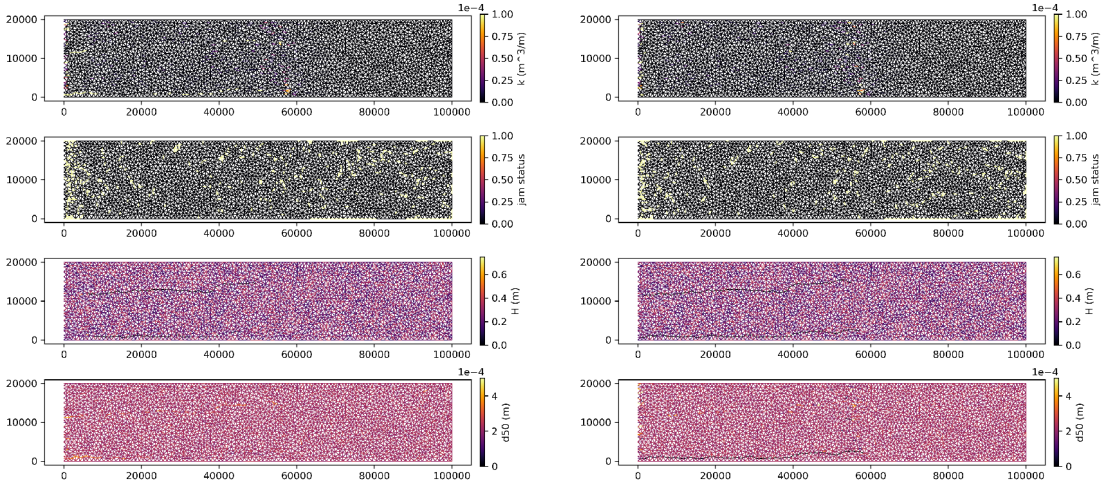


Figure S88. Results for the $\Delta\sigma = 0.005$ model run at a) week 0 and b) week 25

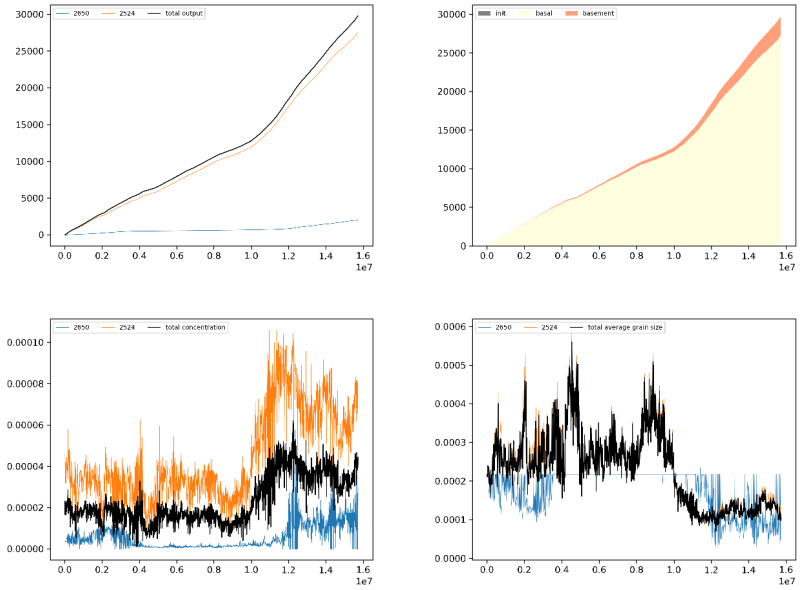
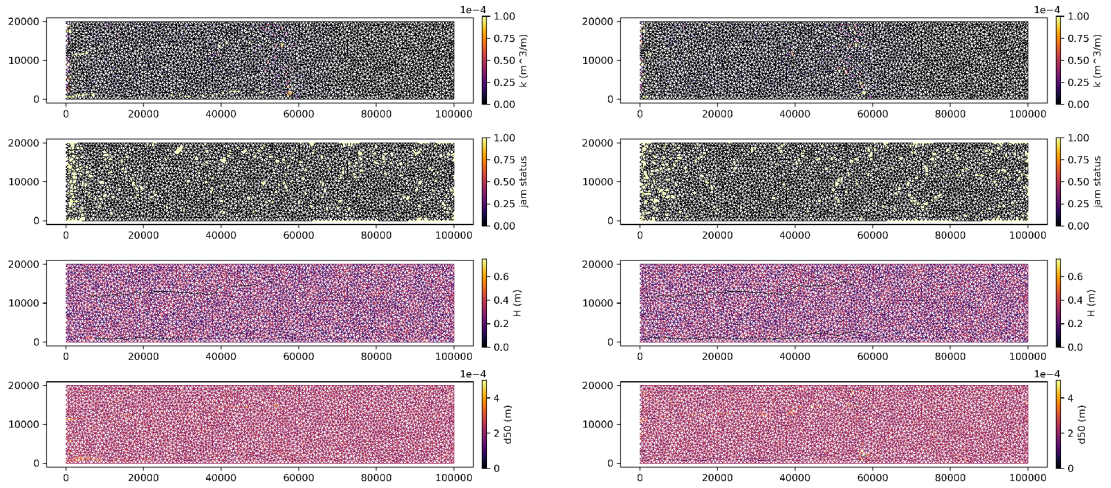


Figure S89. Outputs from the $\Delta\sigma = 0.005$ model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.2.10 $\Delta\sigma = 0.01$



315

Figure S90. Results for the $\Delta\sigma = 100$ model run at a) week 0 and b) week 25

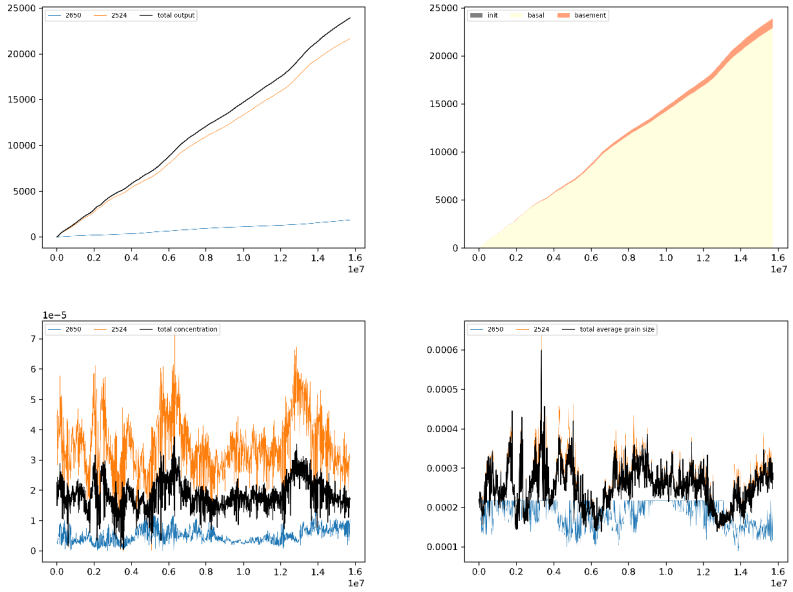


Figure S91. Outputs from the $\Delta\sigma = 0.01$ model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.2.11 Erosion scaling $\dot{e} = 1e^{-7}u_b^{2.02}$

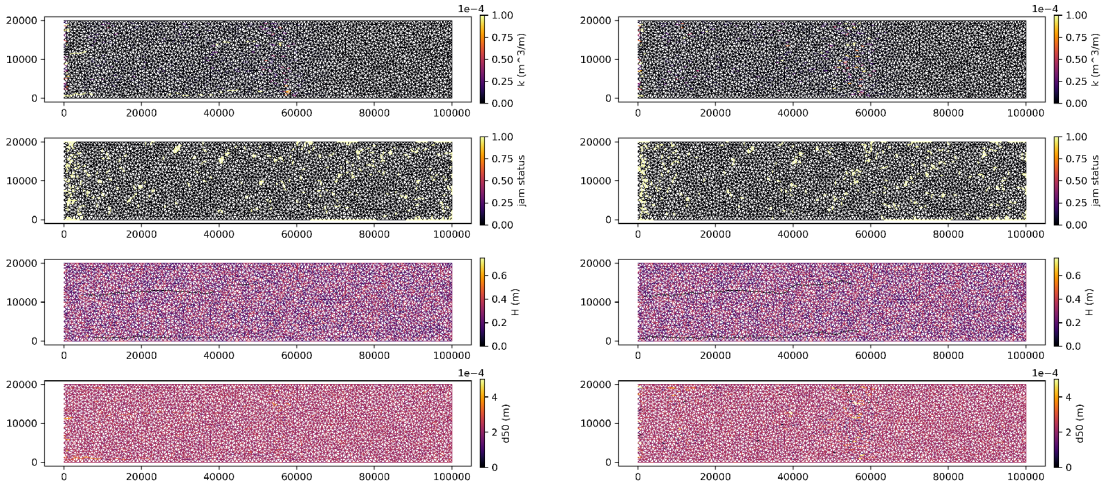


Figure S92. Results for the $\dot{e} = 1e^{-7}u_b^{2.02}$ model run at a) week 0 and b) week 25

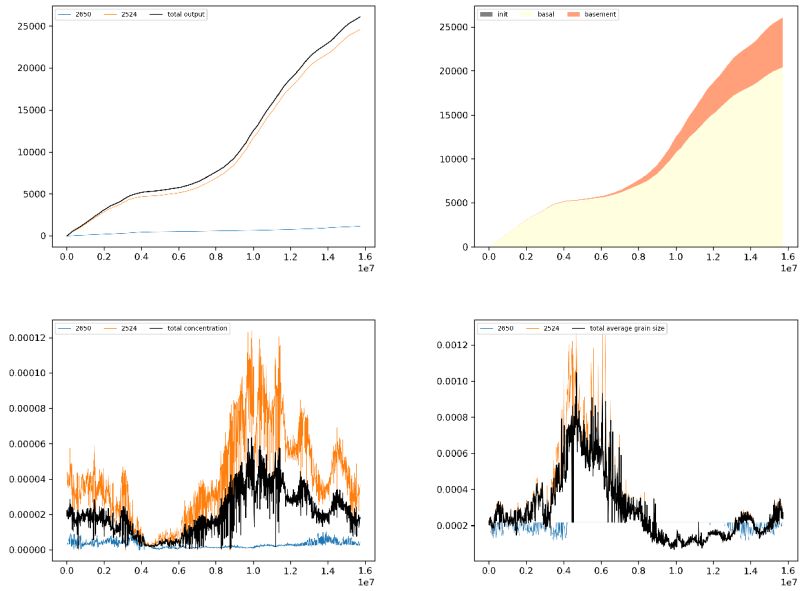


Figure S93. Outputs from the $\dot{e} = 1e^{-7}u_b^{2.02}$ model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.2.12 Erosion scaling $\dot{e} = 1e^{-4}u_b$

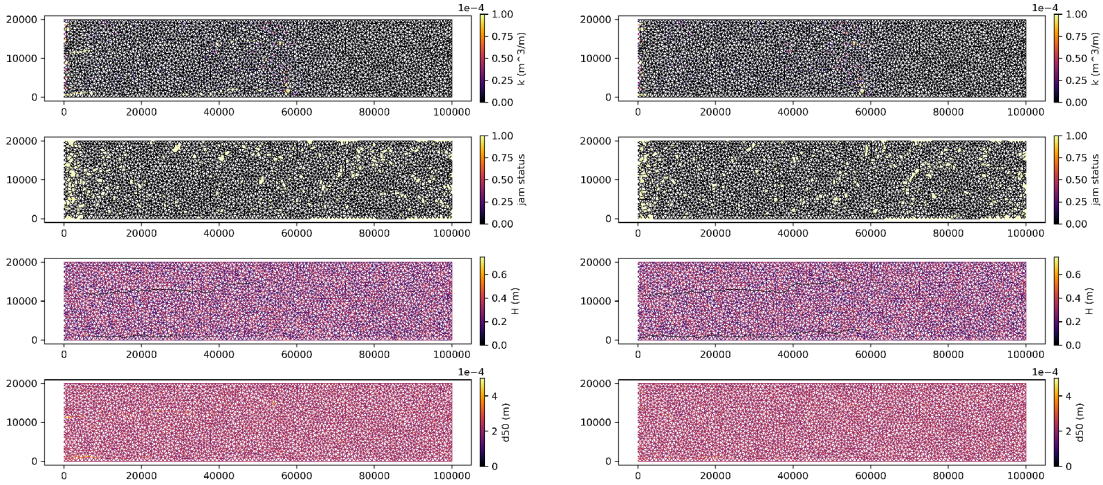


Figure S94. Results for the $\dot{e} = 1e^{-4}u_b$ model run at a) week 0 and b) week 25

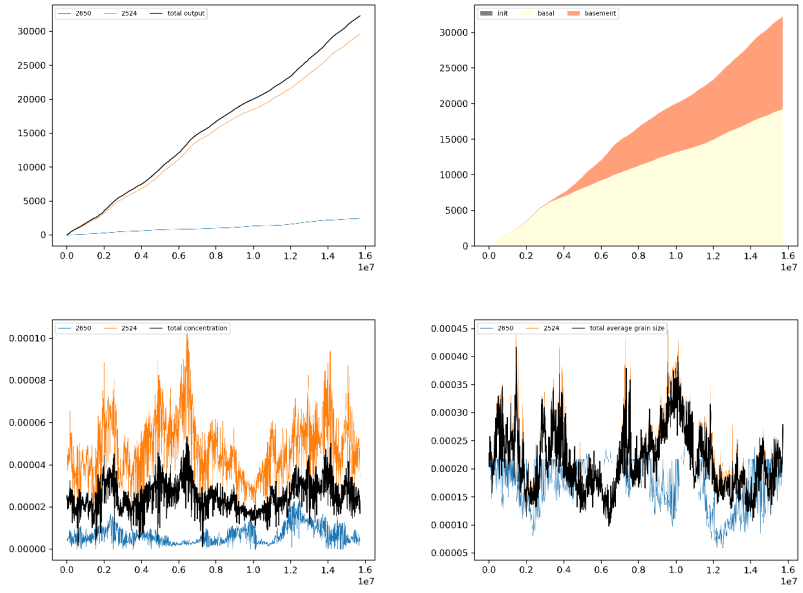


Figure S95. Outputs from the $\dot{e} = 1e^{-4}u_b$ model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.2.13 Erosion scaling $\dot{e} = 2e^{-4}u_b$

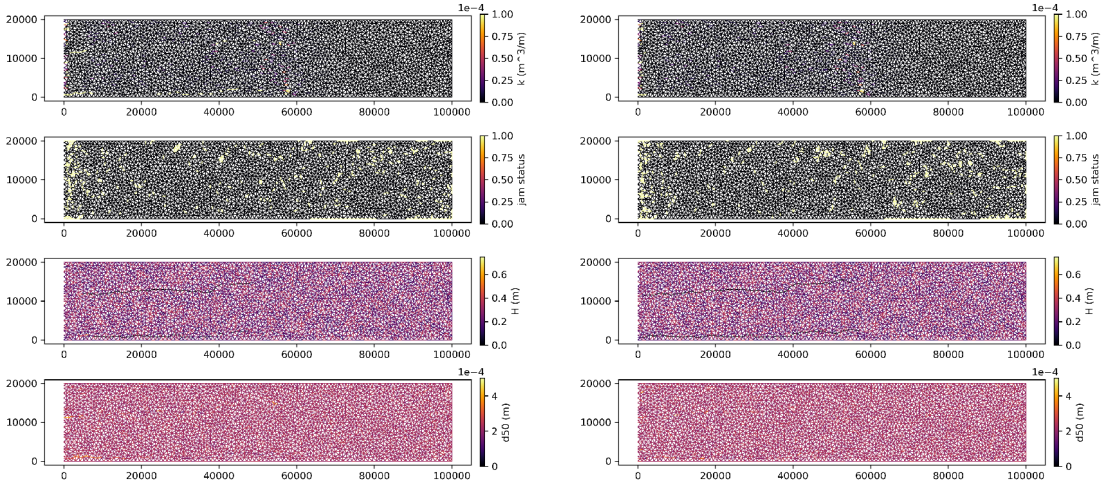


Figure S96. Results for the $\dot{e} = 2e^{-4}u_b$ model run at a) week 0 and b) week 25

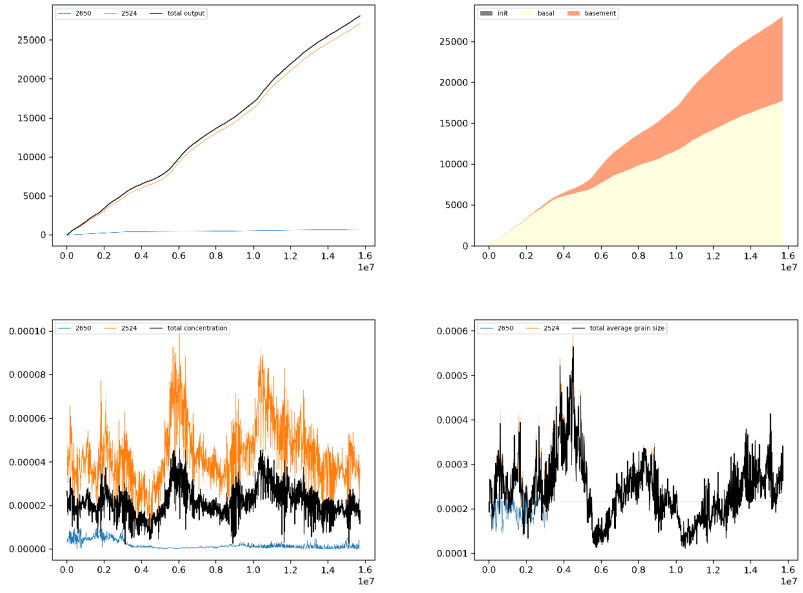


Figure S97. Outputs from the $\dot{e} = 2e^{-4}u_b$ model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3 Experiment Set 3

S2.3.1 B1 reference

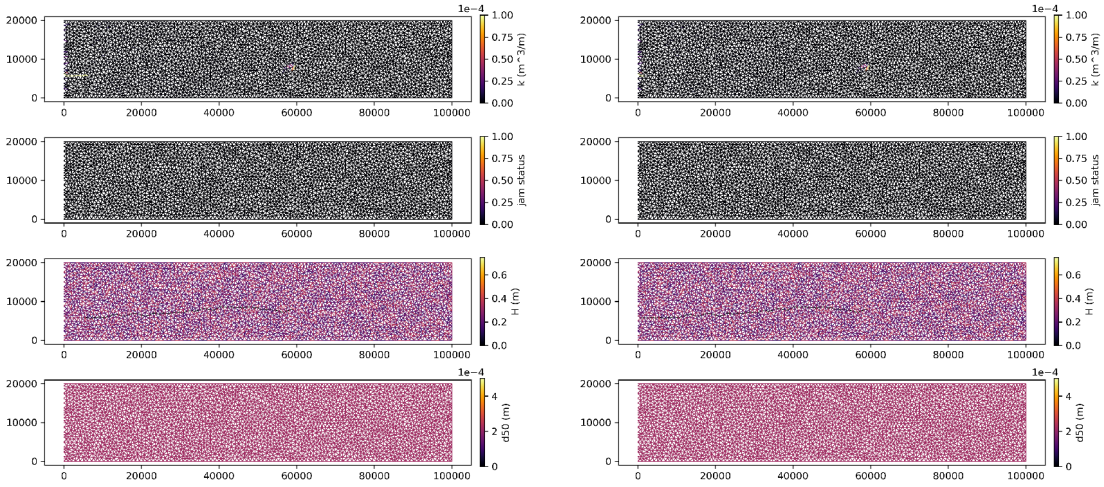


Figure S98. Results for the B1 reference model run at a) week 0 and b) week 25

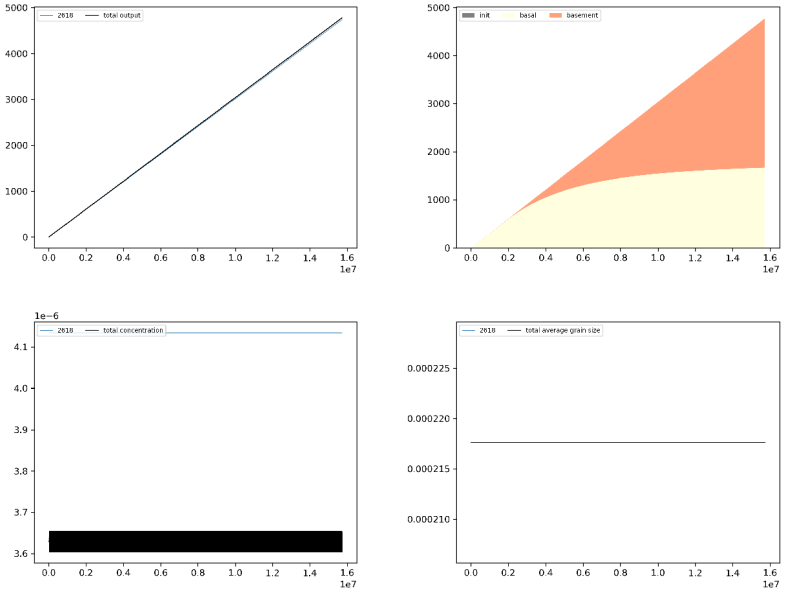


Figure S99. Outputs from the B1 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.2 B1 default

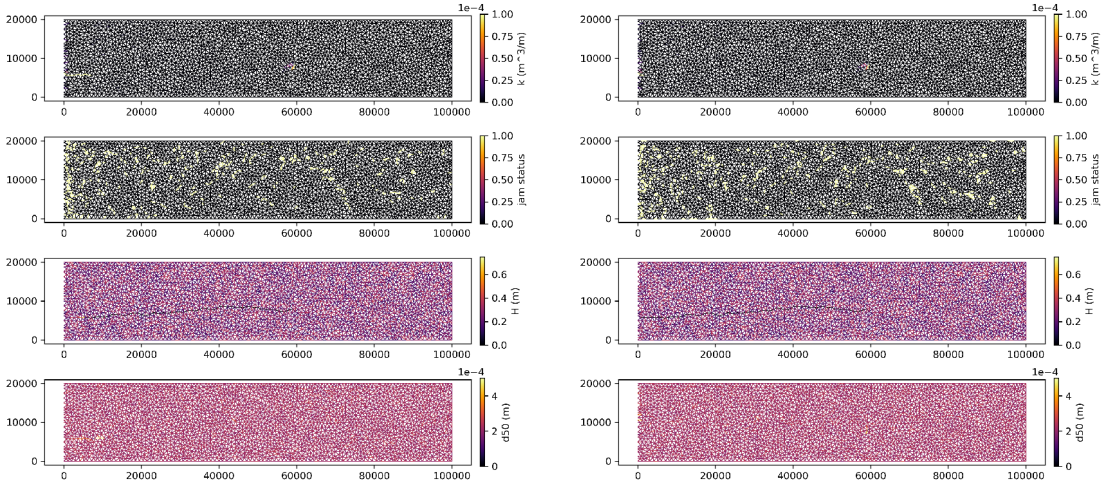


Figure S100. Results for the B1 default model run at a) week 0 and b) week 25

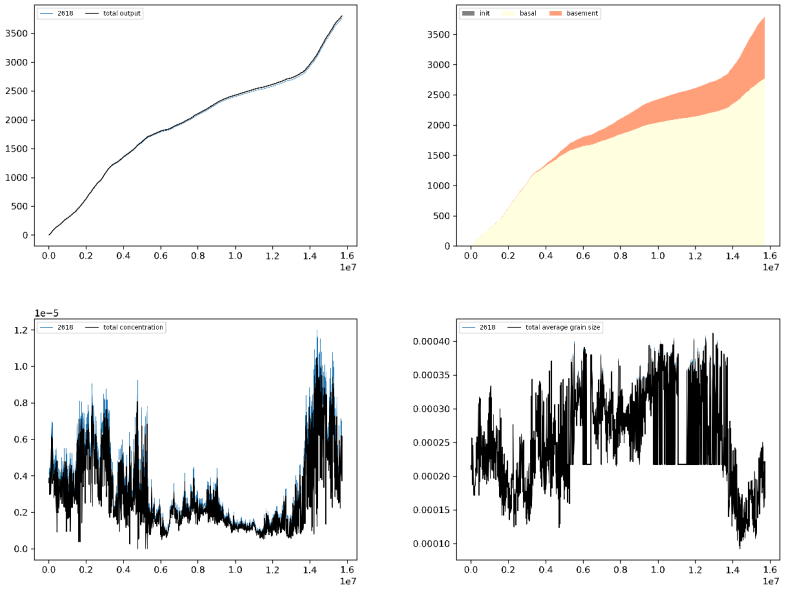
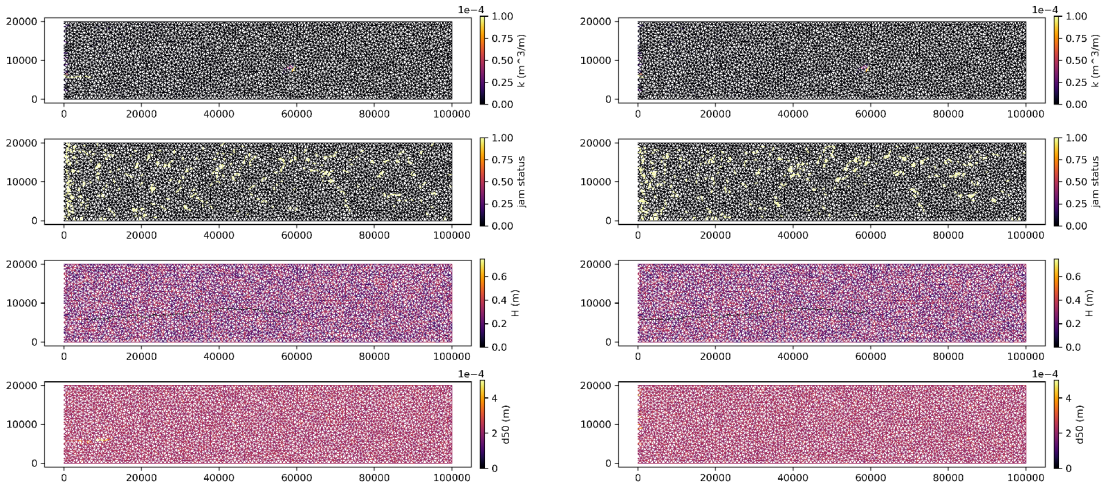


Figure S101. Outputs from the B1 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.3 B1 default rerun



340

Figure S102. Results for the B1 default model rerun at a) week 0 and b) week 25

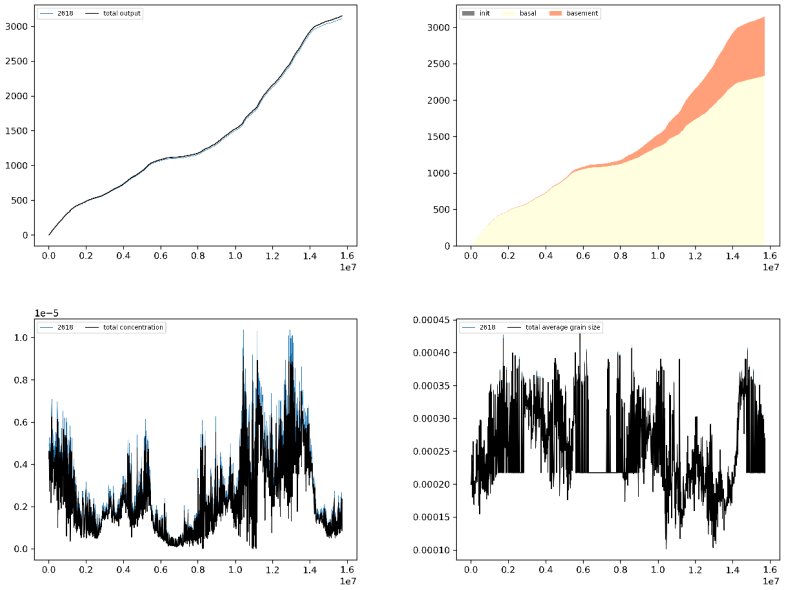


Figure S103. Outputs from the B1 default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.4 B1D default

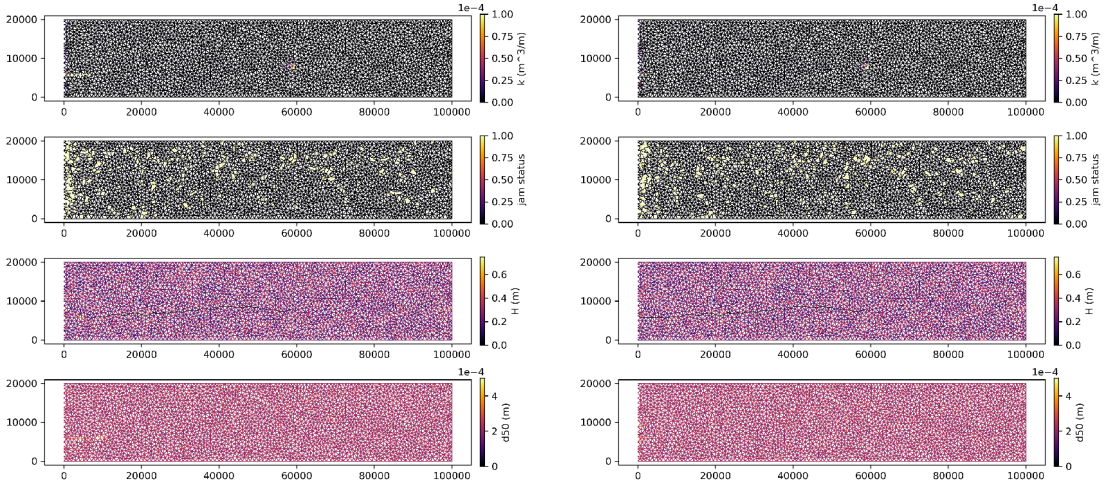


Figure S104. Results for the B1D default model run at a) week 0 and b) week 25

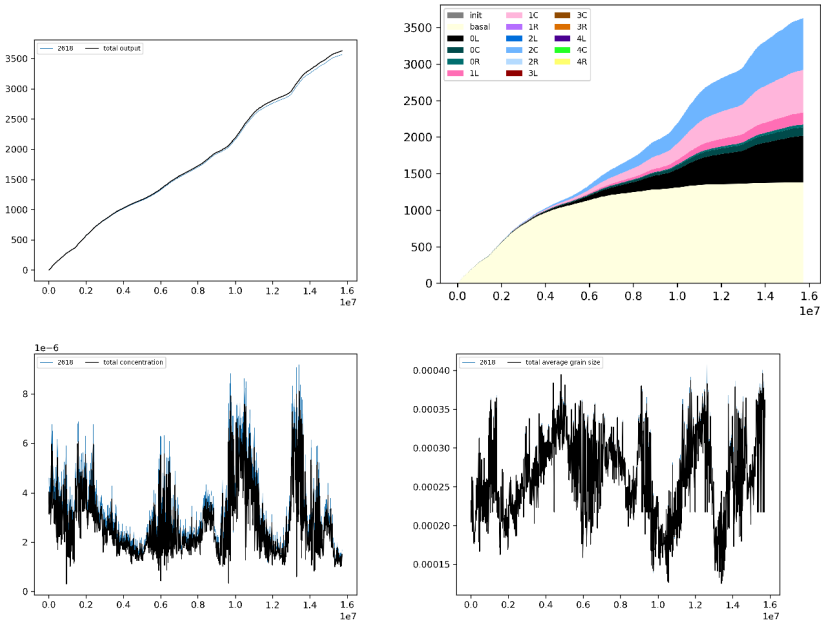


Figure S105. Outputs from the B1D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.5 B2 reference

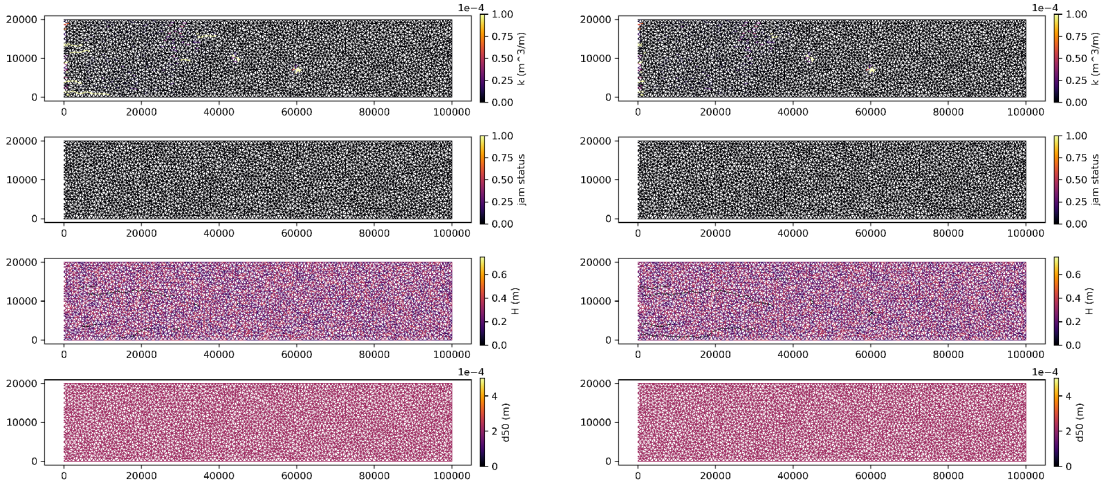


Figure S106. Results for the B2 reference model run at a) week 0 and b) week 25

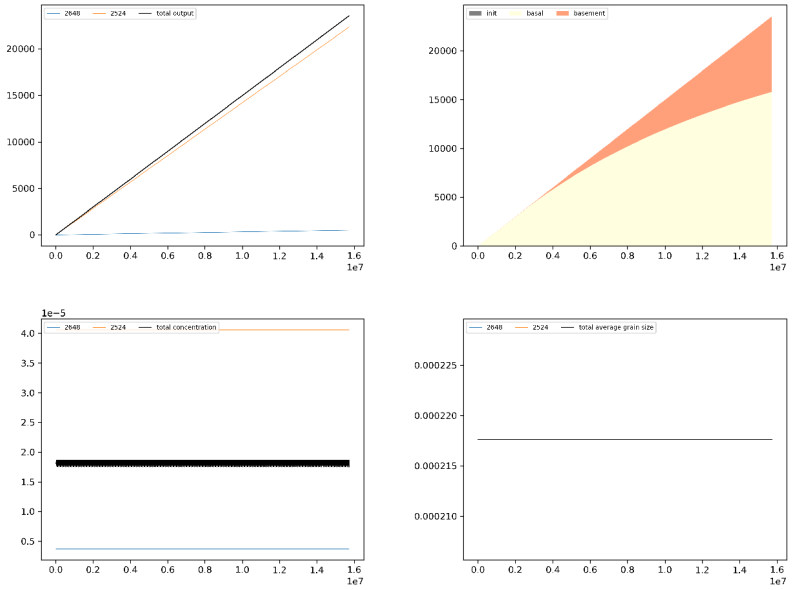


Figure S107. Outputs from the B2 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.6 B2 default

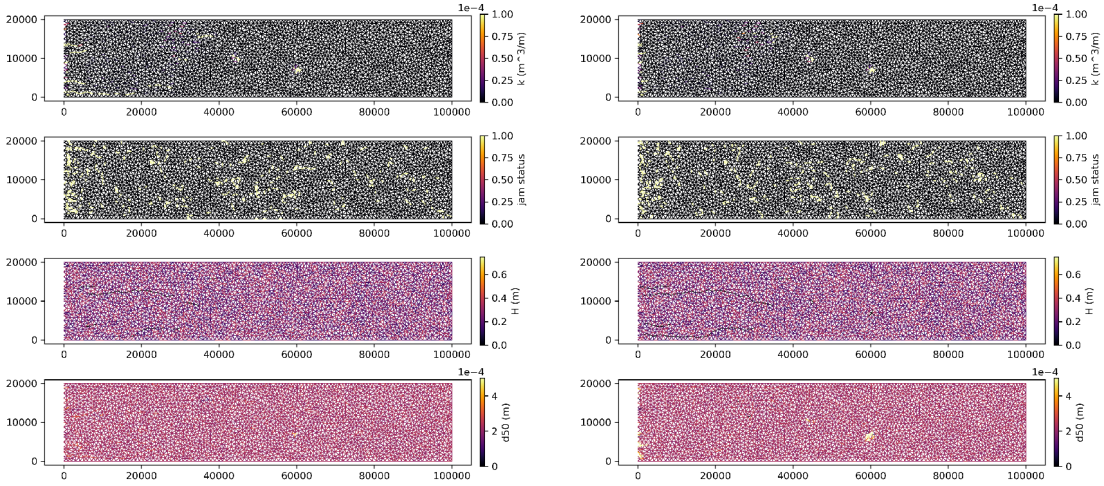


Figure S108. Results for the B2 default model run at a) week 0 and b) week 25

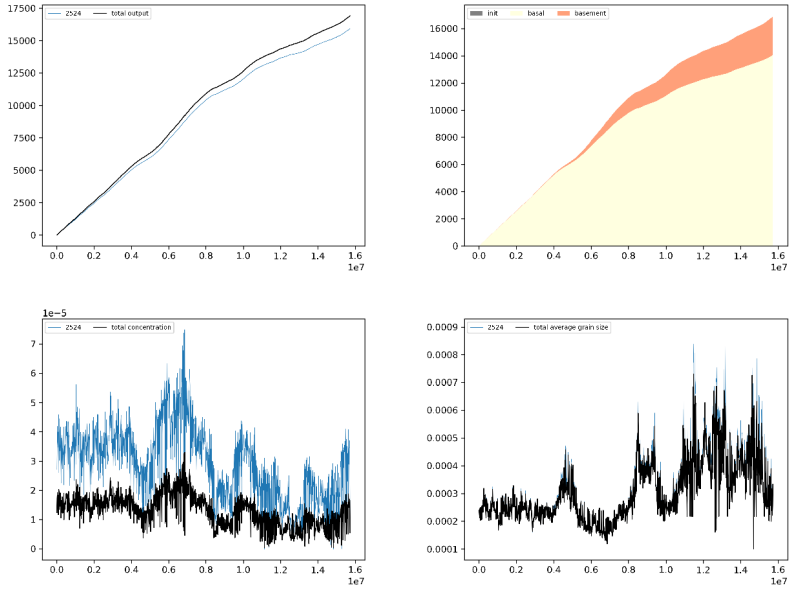


Figure S109. Outputs from the B2 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.7 B2 default rerun

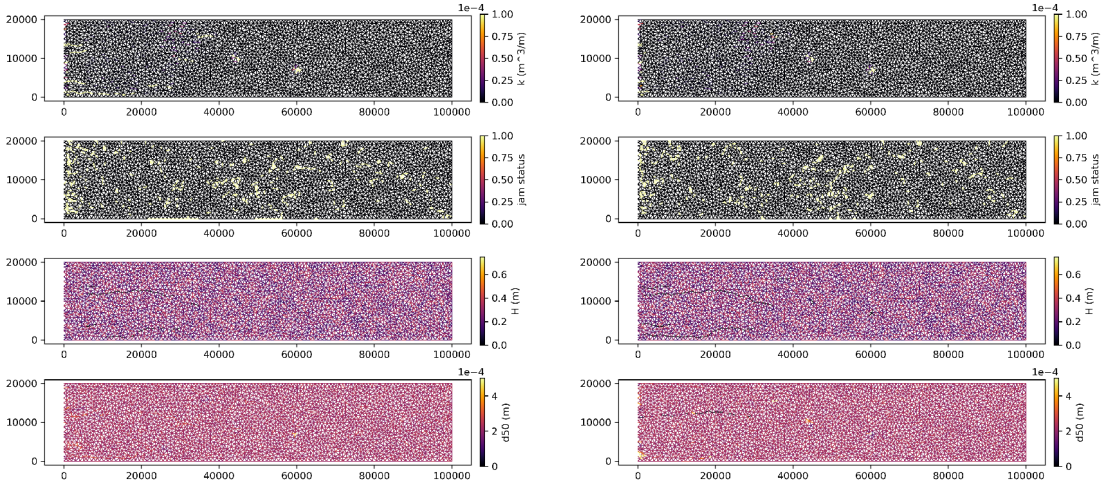


Figure S110. Results for the B2 default model rerun at a) week 0 and b) week 25

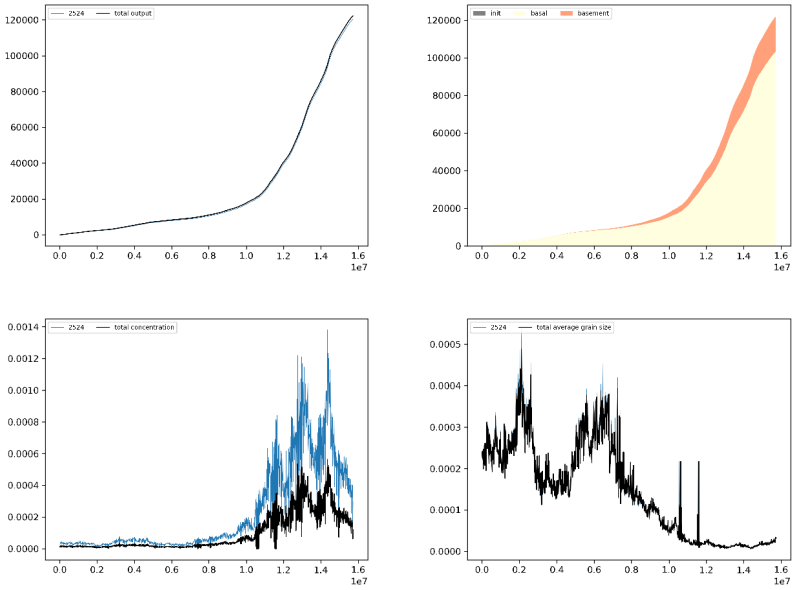
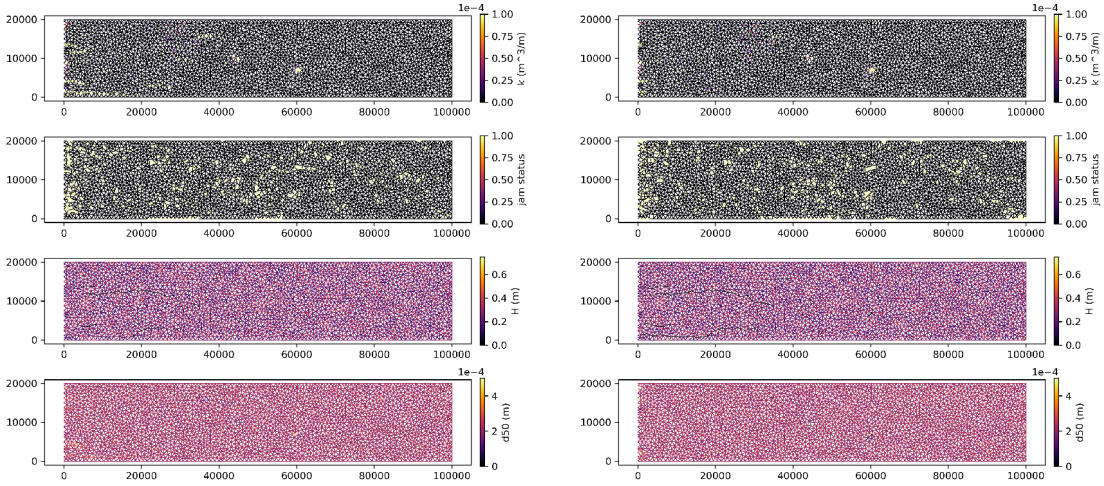


Figure S111. Outputs from the B2 default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.8 B2D default



360

Figure S112. Results for the B2D default model run at a) week 0 and b) week 25

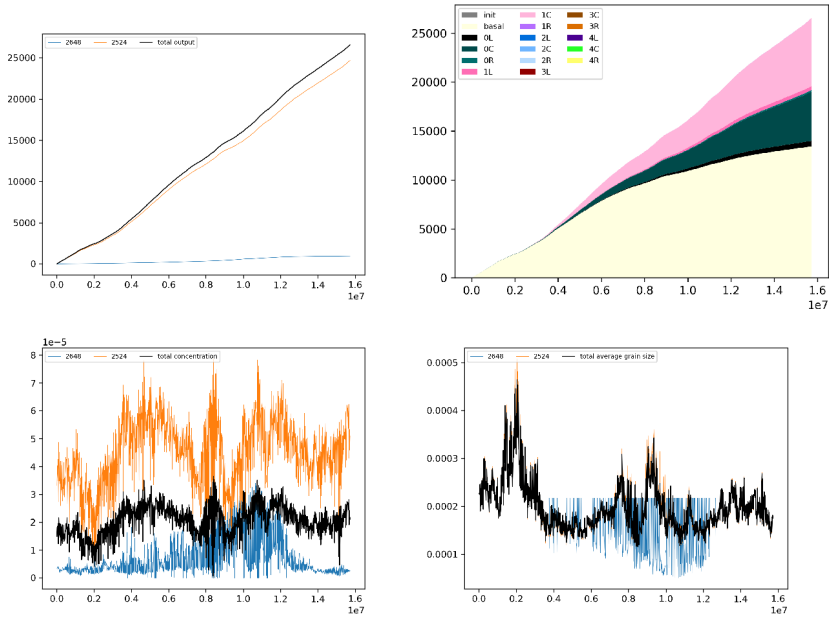


Figure S113. Outputs from the B2D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.9 B3 reference

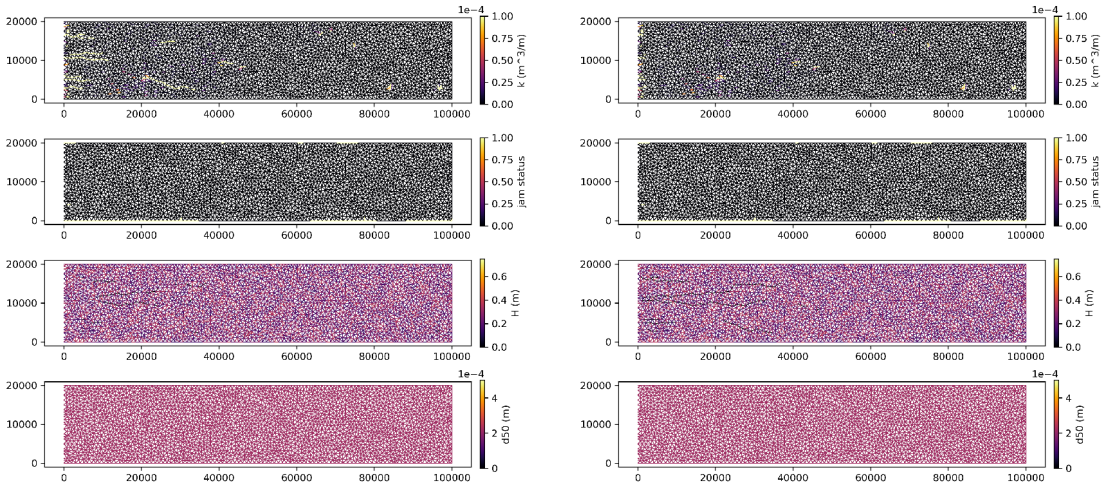


Figure S114. Results for the B3 reference model run at a) week 0 and b) week 25

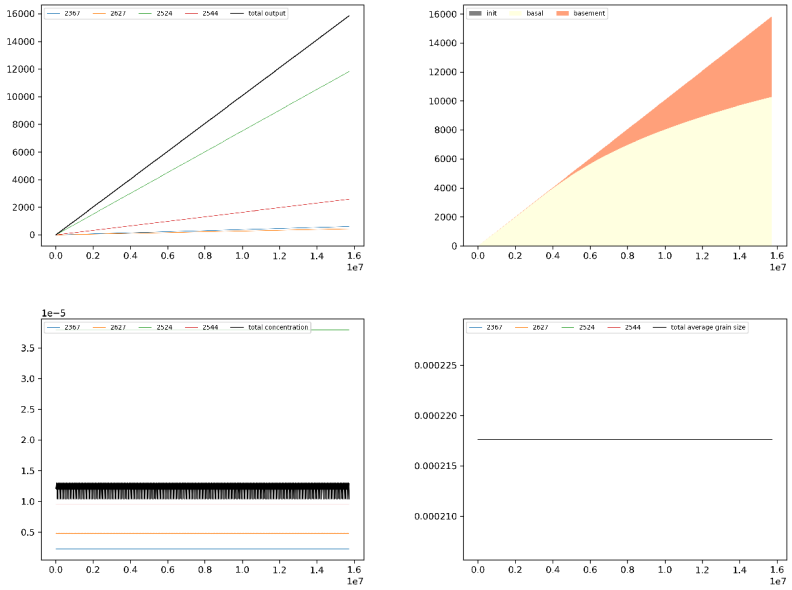


Figure S115. Outputs from the B3 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.10 B3 default

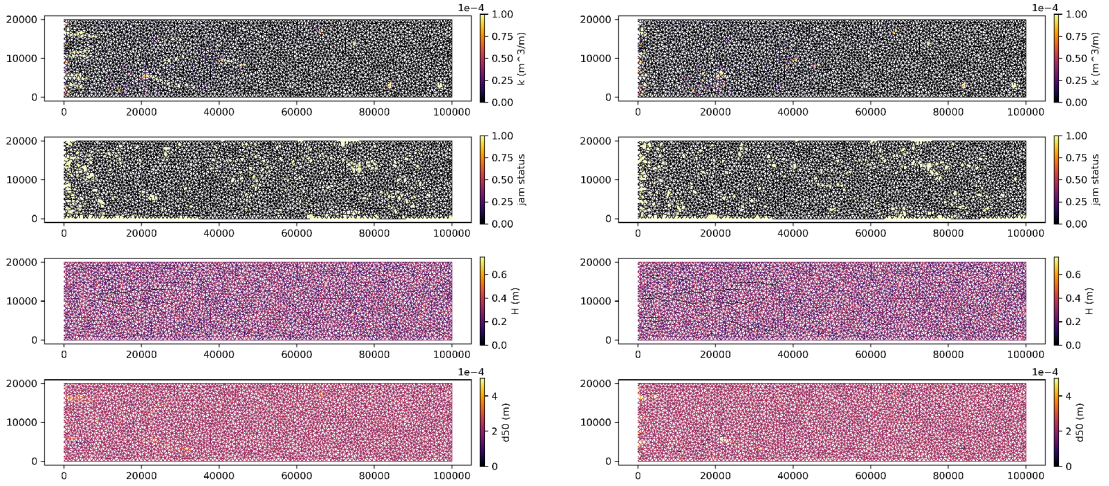


Figure S116. Results for the B3 default model run at a) week 0 and b) week 25

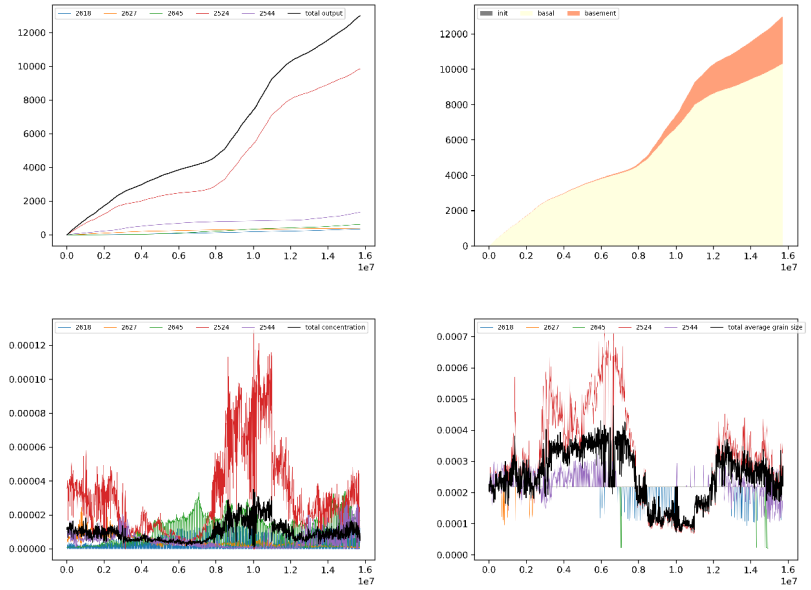


Figure S117. Outputs from the B3 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.11 B3 default rerun

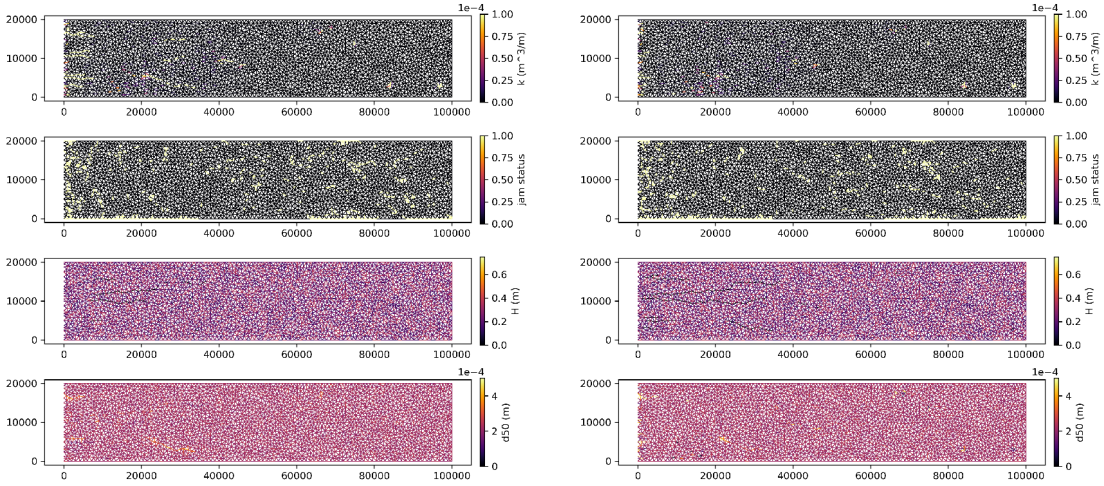


Figure S118. Results for the B3 default model rerun at a) week 0 and b) week 25

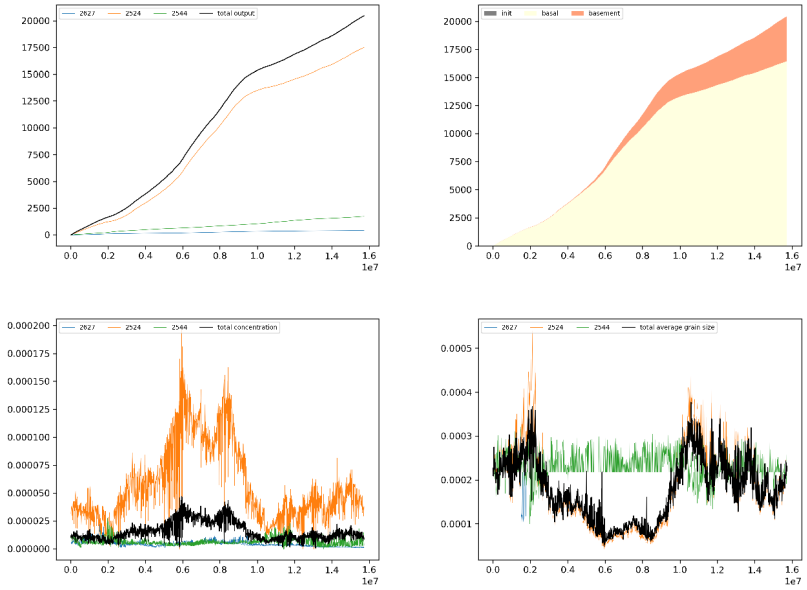


Figure S119. Outputs from the B3 default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.12 B3D default

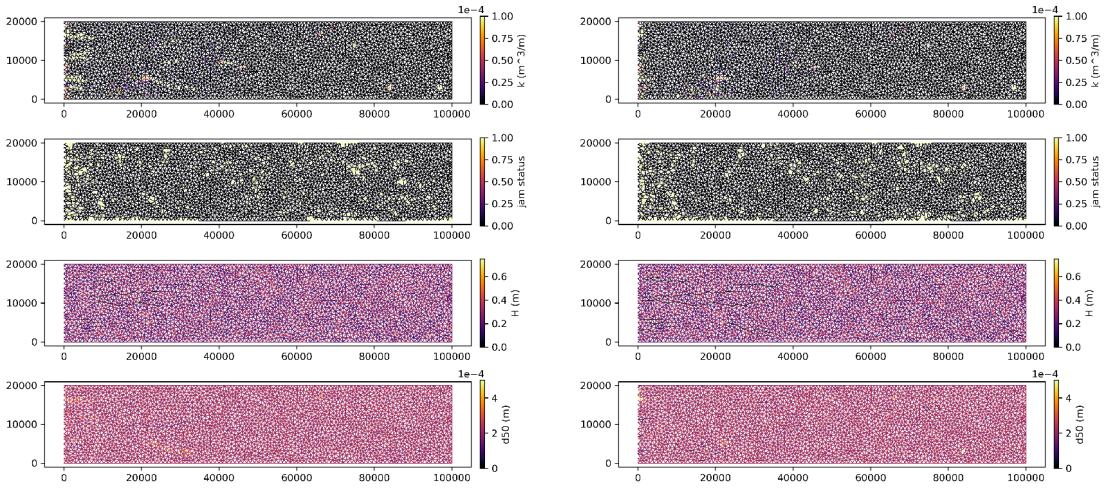


Figure S120. Results for the B3D default model run at a) week 0 and b) week 25

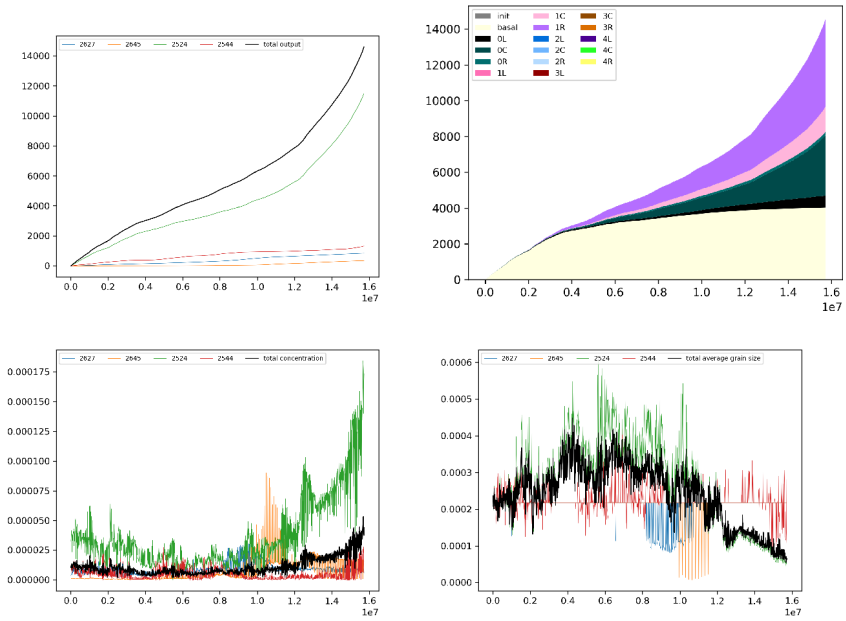


Figure S121. Outputs from the B3D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.13 B4 reference

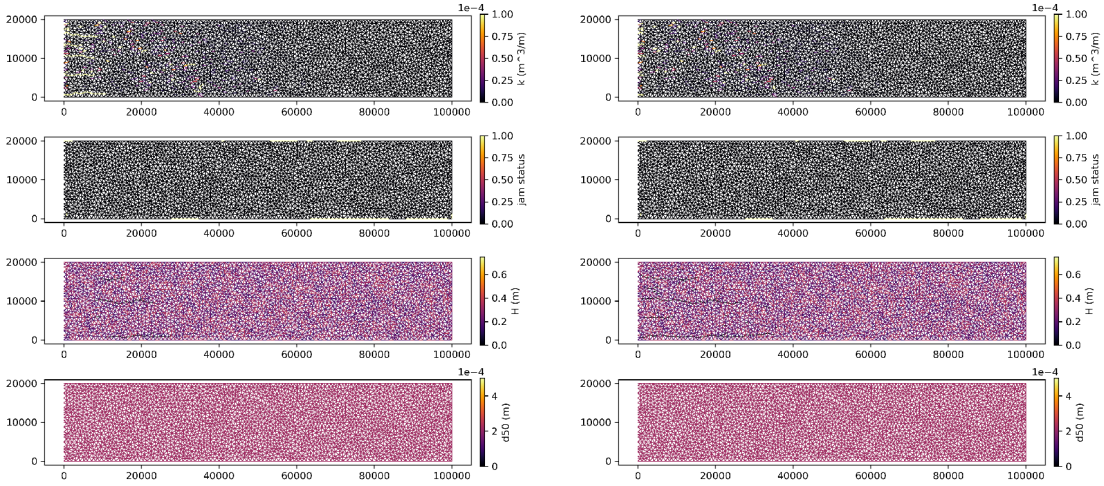


Figure S122. Results for the B4 reference model run at a) week 0 and b) week 25

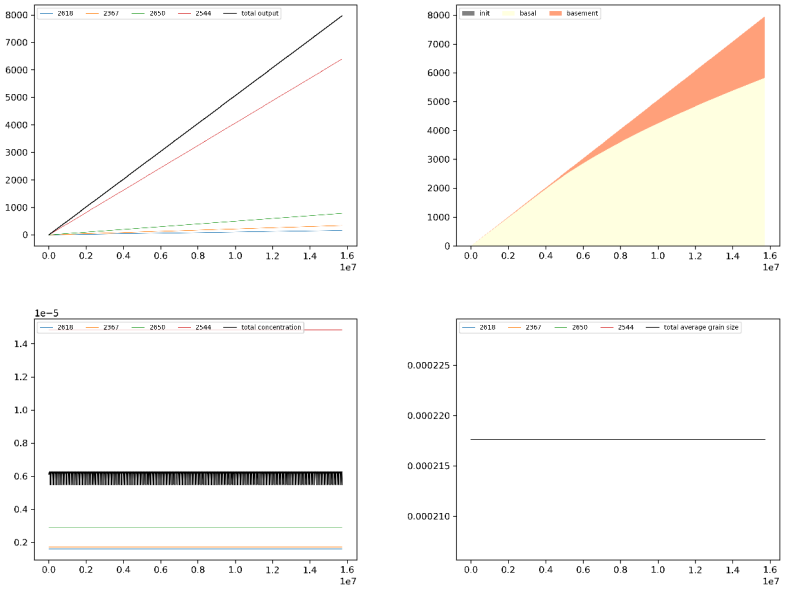


Figure S123. Outputs from the B4 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.14 B4 default

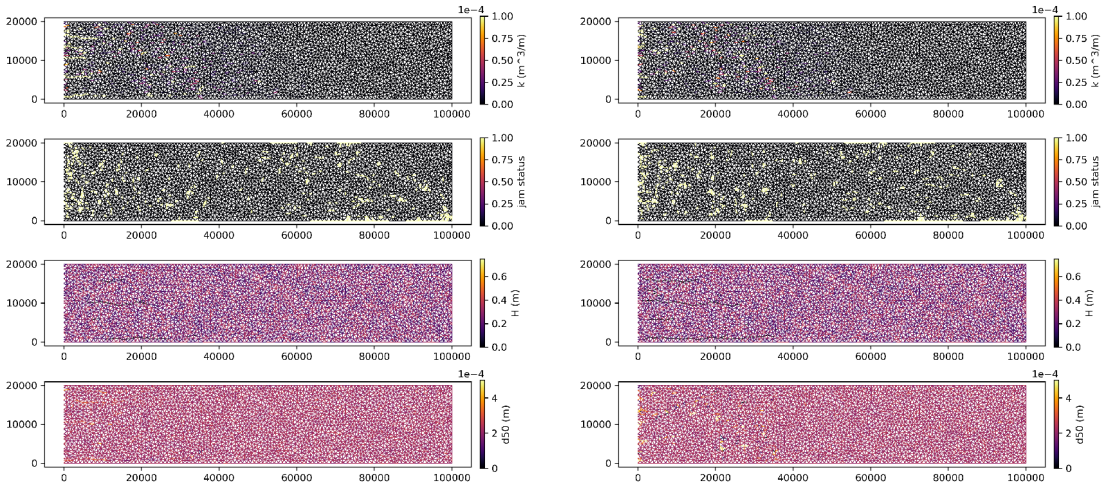


Figure S124. Results for the B4 default model run at a) week 0 and b) week 25

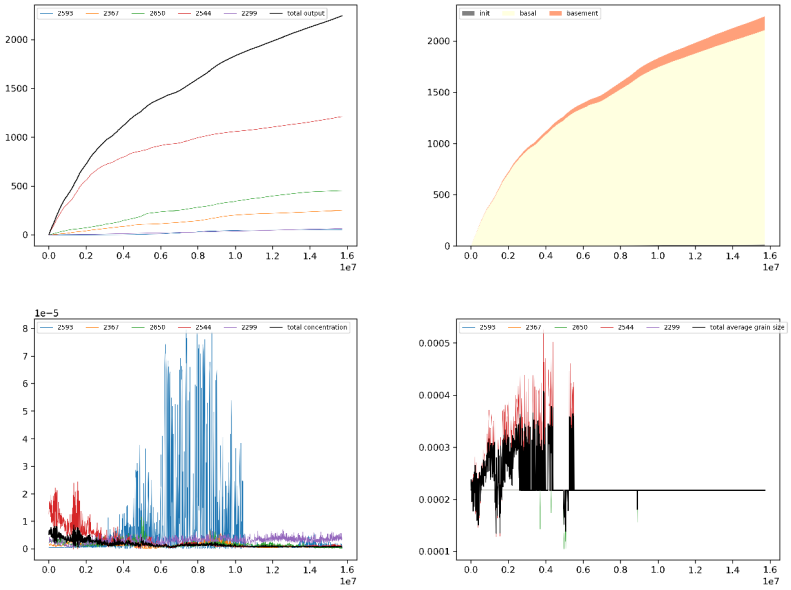


Figure S125. Outputs from the B4 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.15 B4 default rerun

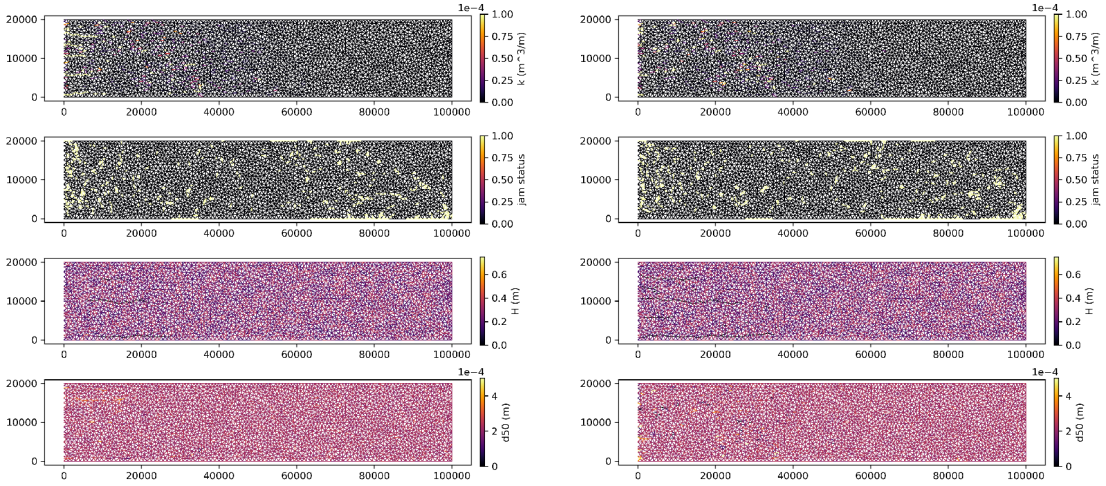


Figure S126. Results for the B4 default model rerun at a) week 0 and b) week 25

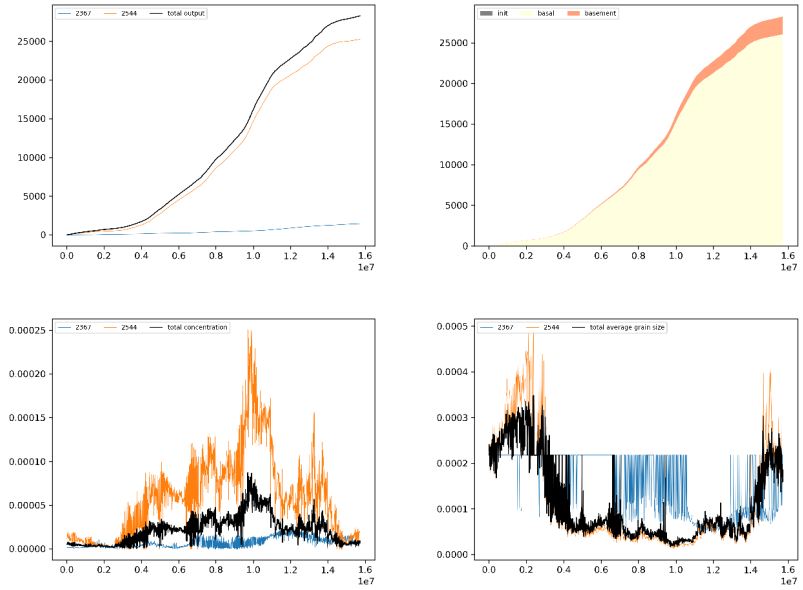


Figure S127. Outputs from the B4 default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.16 B4D default

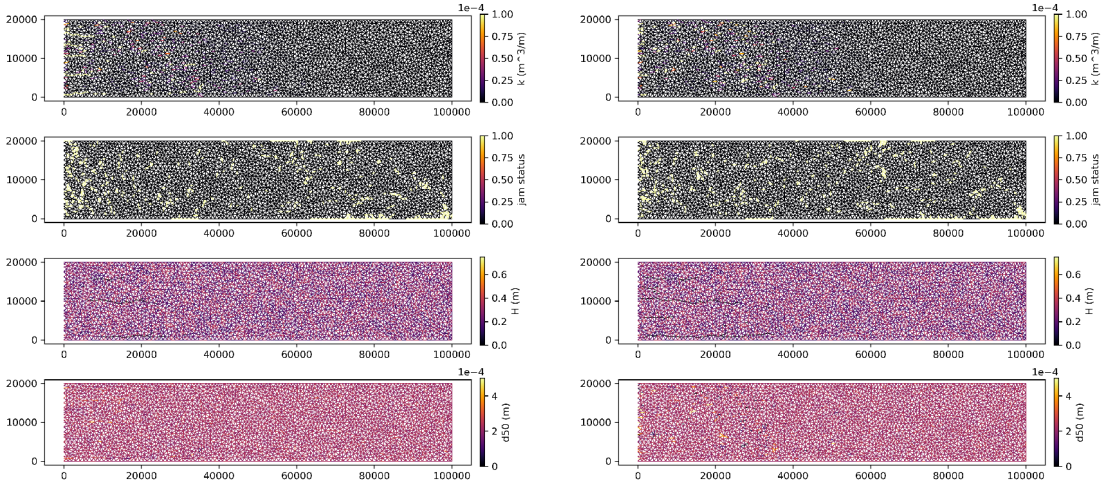


Figure S128. Results for the B4D default model run at a) week 0 and b) week 25

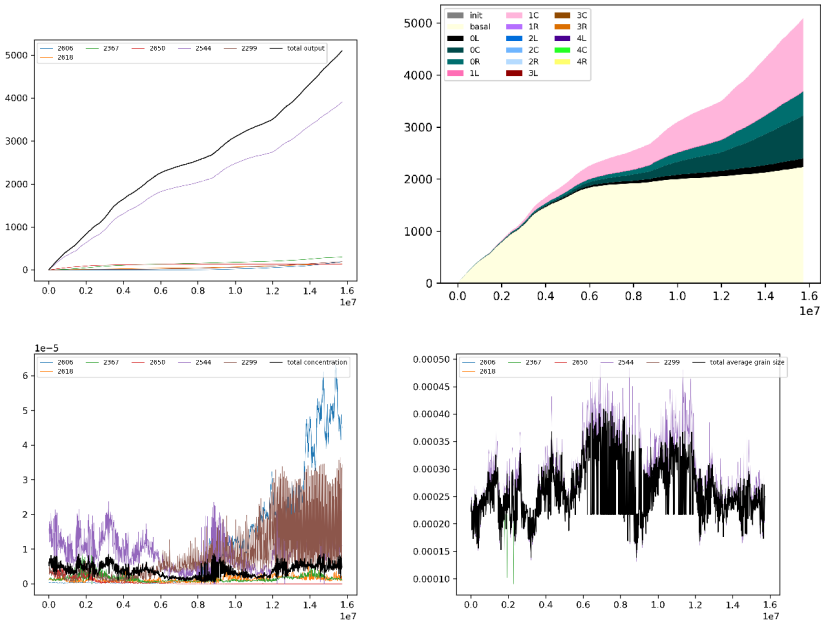


Figure S129. Outputs from the B4D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.17 B5 reference

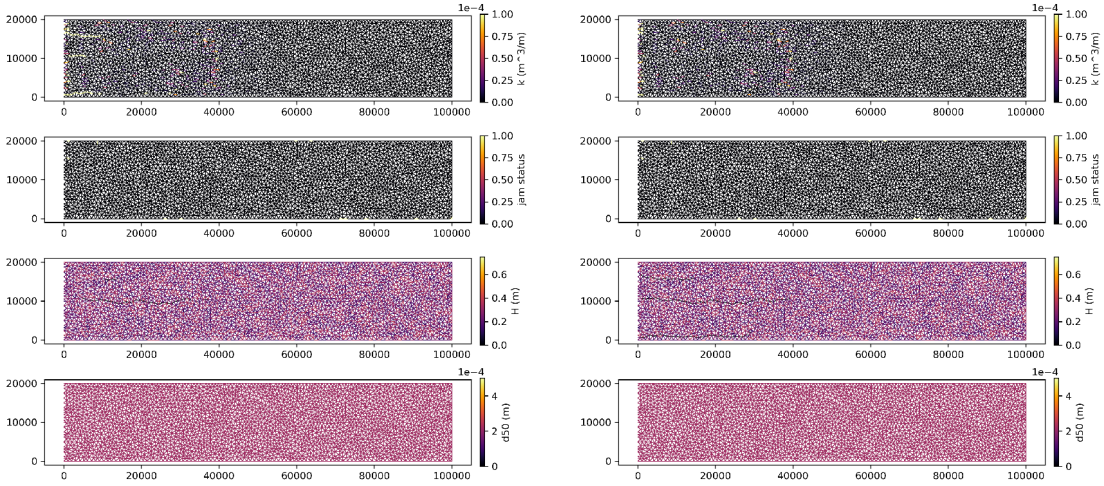


Figure S130. Results for the B5 reference model run at a) week 0 and b) week 25

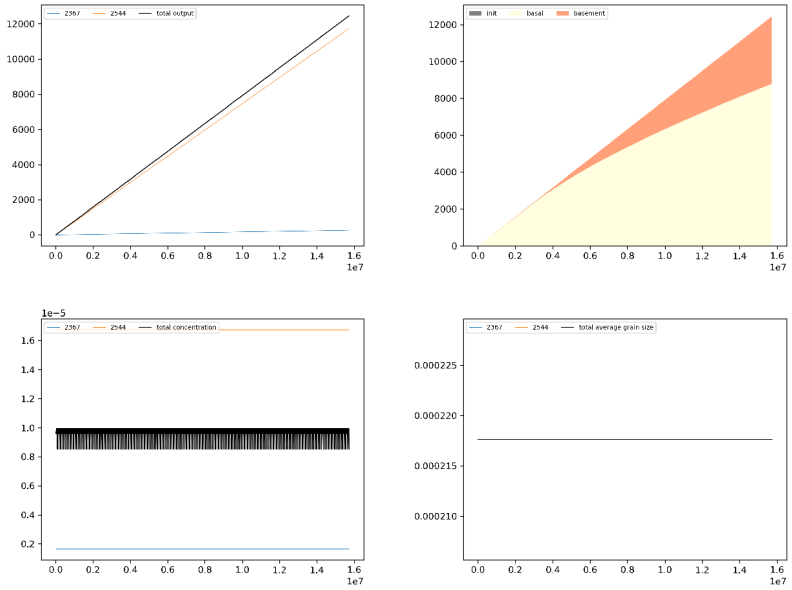
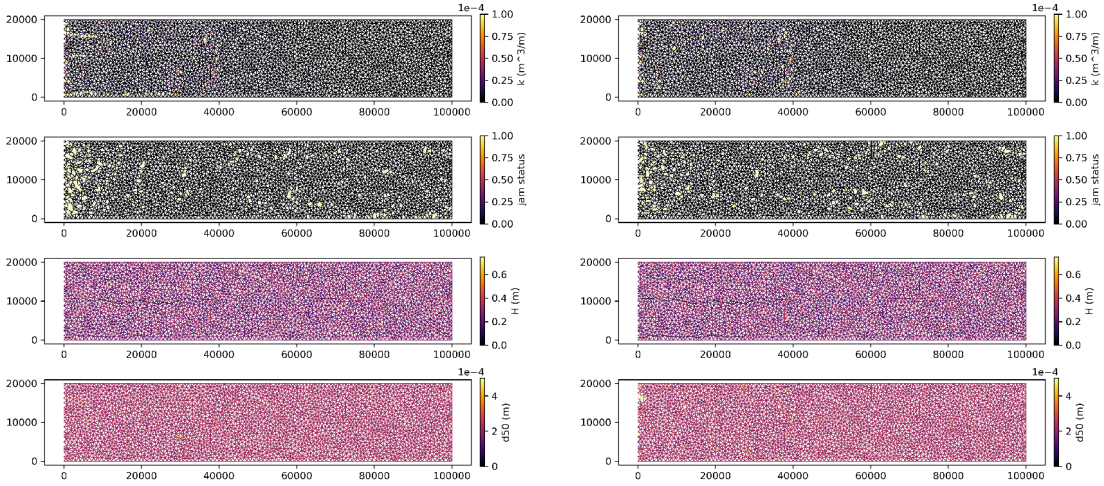


Figure S131. Outputs from the B5 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.18 B5 default



400

Figure S132. Results for the B5 default model run at a) week 0 and b) week 25

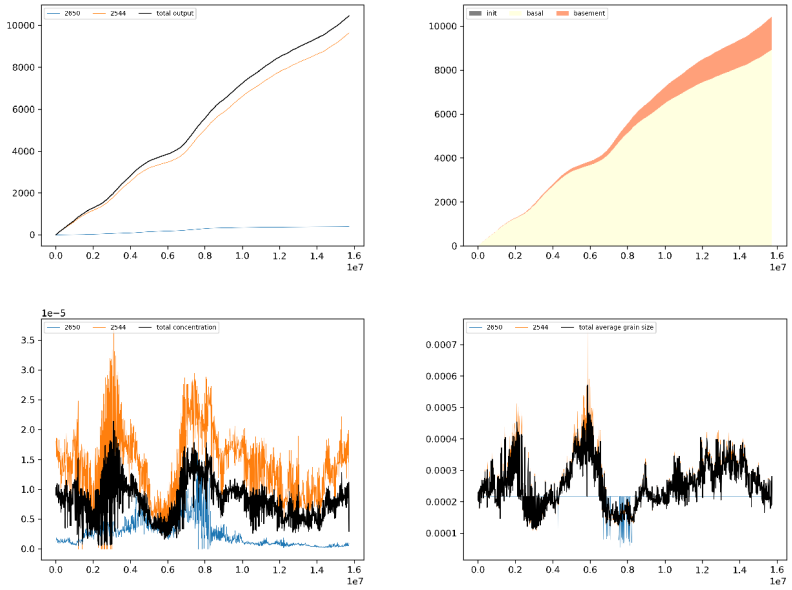


Figure S133. Outputs from the B5 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.19 B5 default rerun

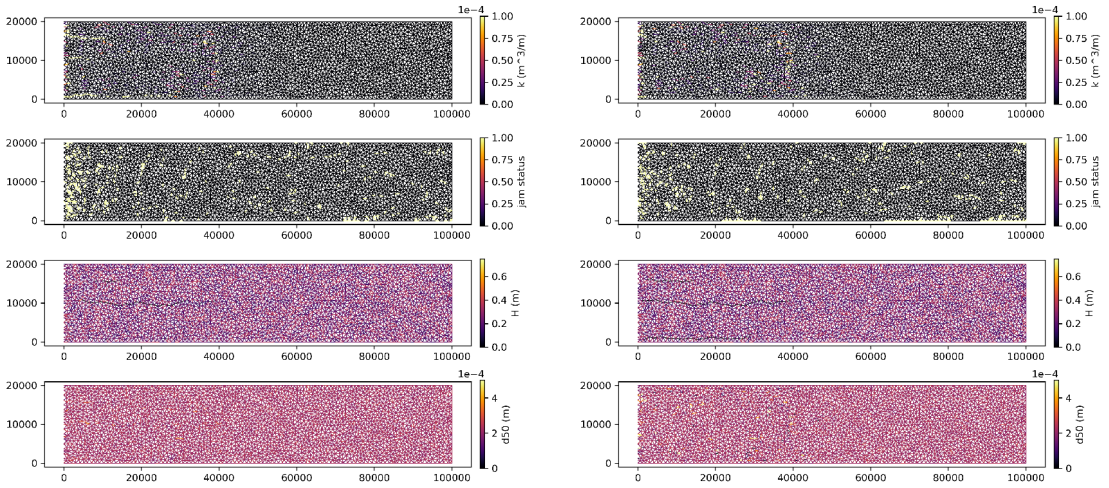


Figure S134. Results for the B5 default model rerun at a) week 0 and b) week 25

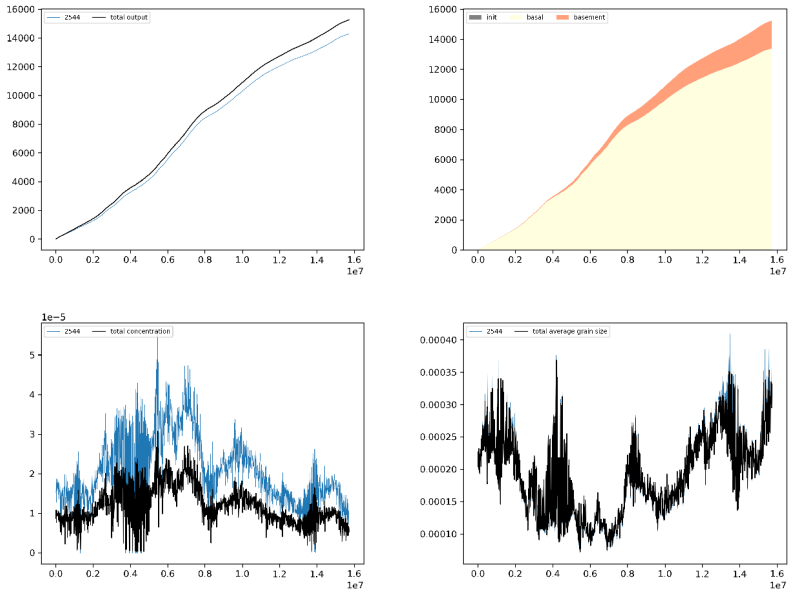


Figure S135. Outputs from the B5 default model rerun with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.3.20 B5D default

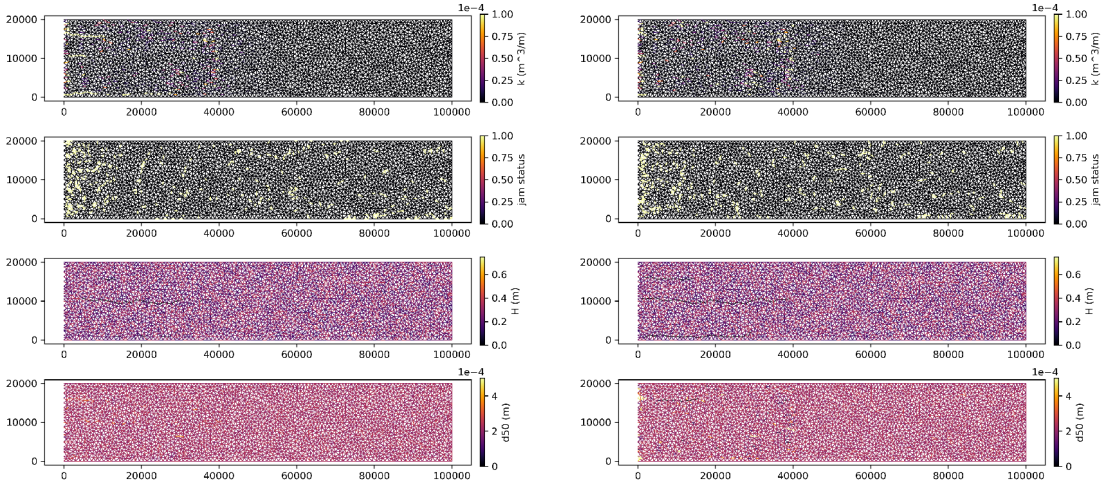


Figure S136. Results for the B5D default model run at a) week 0 and b) week 25

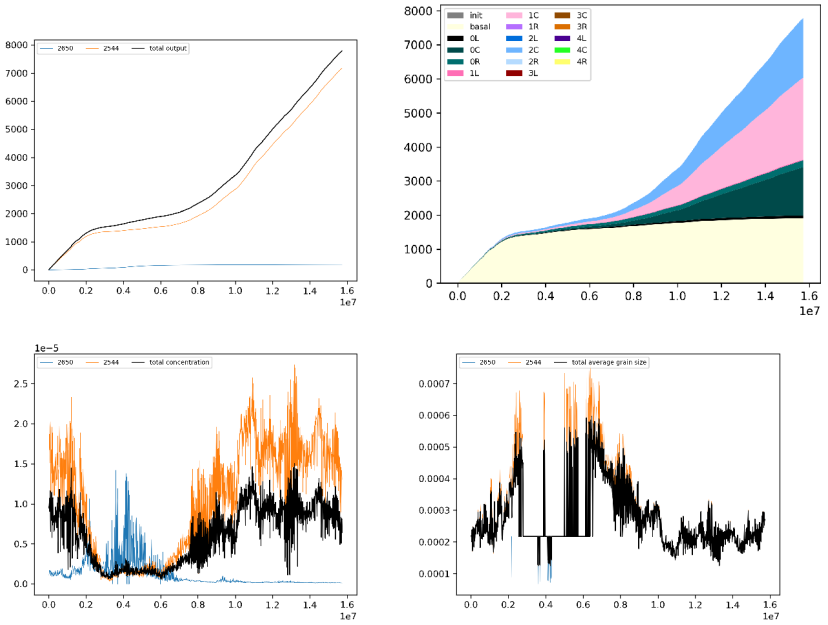


Figure S137. Outputs from the B5D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4 Experiment Set 4

S2.4.1 C0 reference

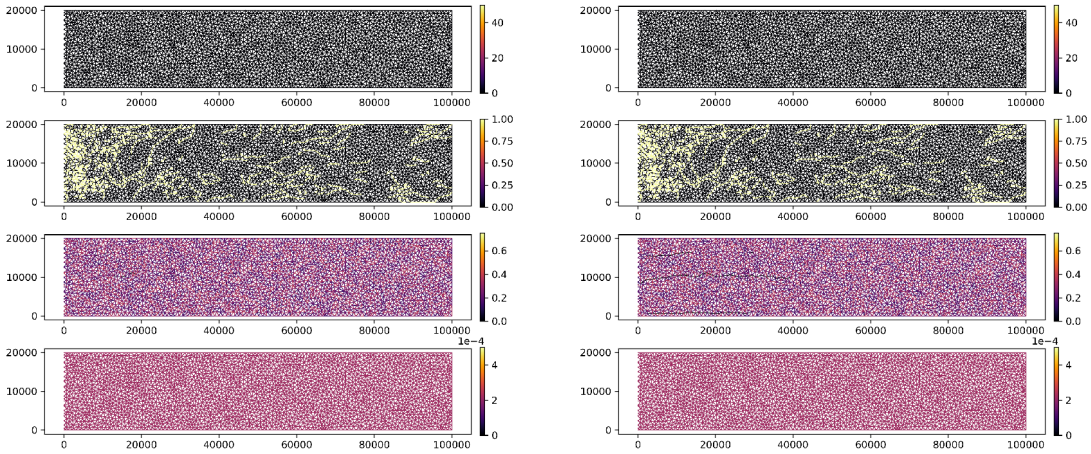


Figure S138. Results for the C0 reference model run at a) day 0 and b) day 49

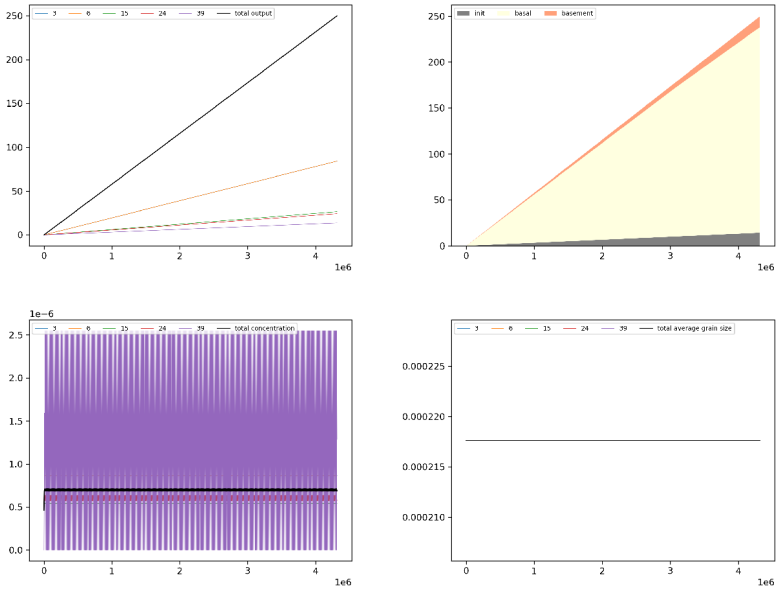


Figure S139. Outputs from the C0 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.2 C0 default

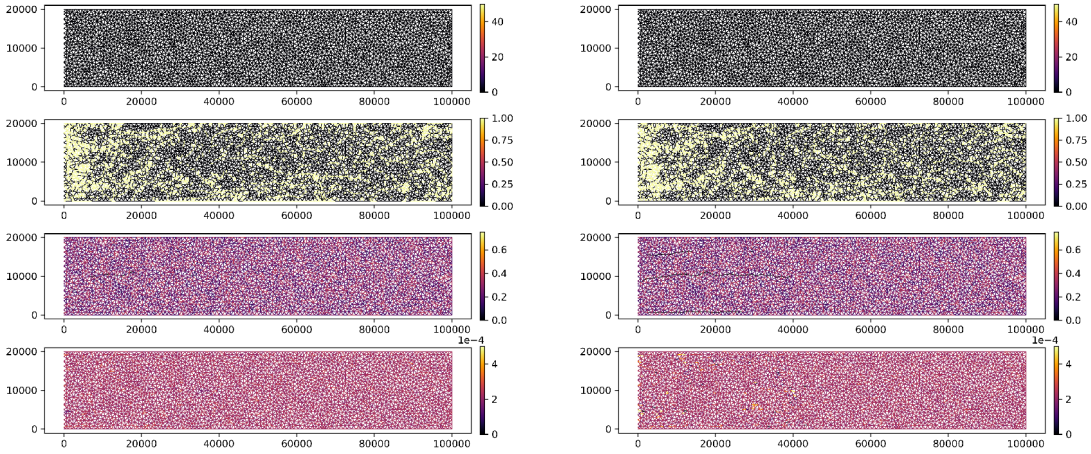


Figure S140. Results for the C0 default model run at a) day 0 and b) day 49

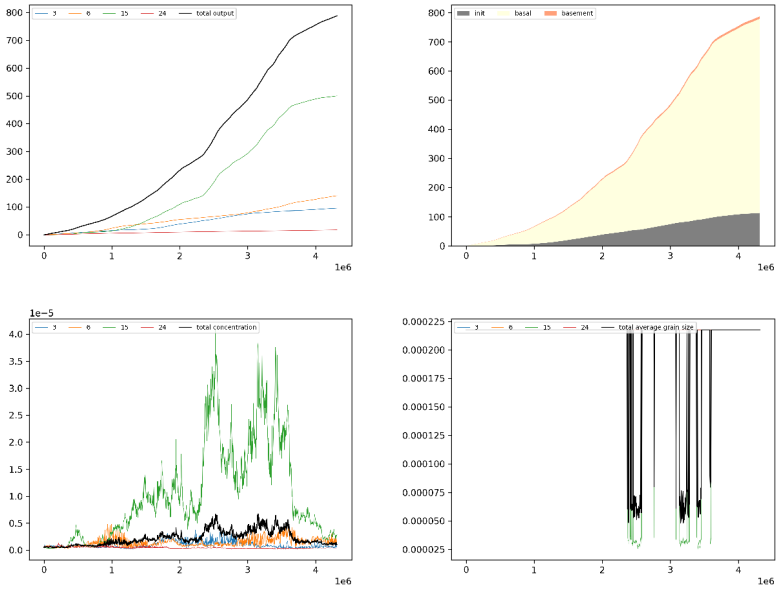


Figure S141. Outputs from the C0 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.3 C0D default

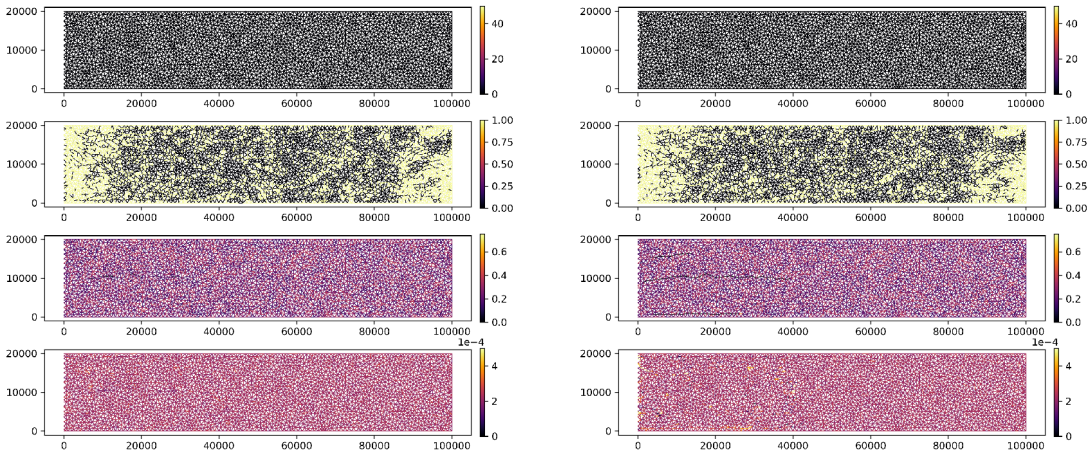


Figure S142. Results for the C0D default model run at a) day 0 and b) day 49

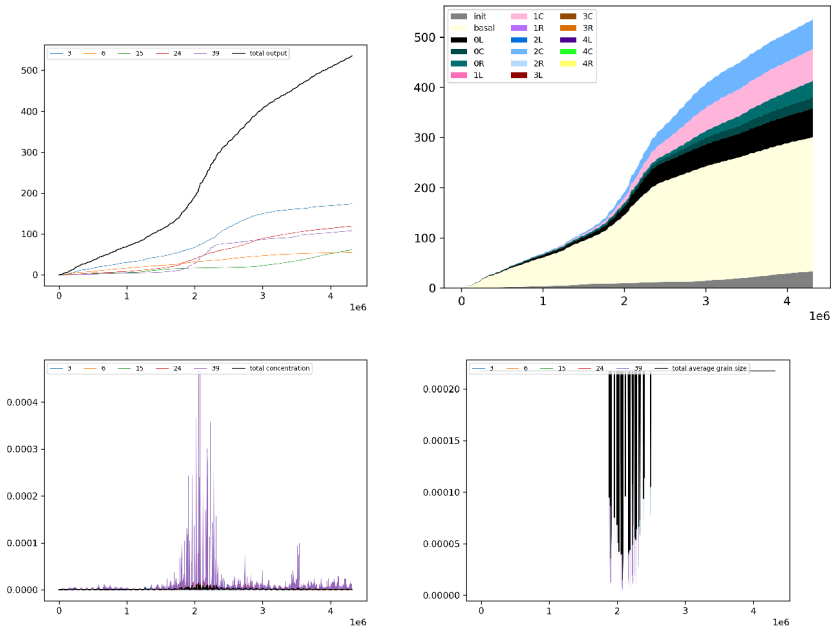
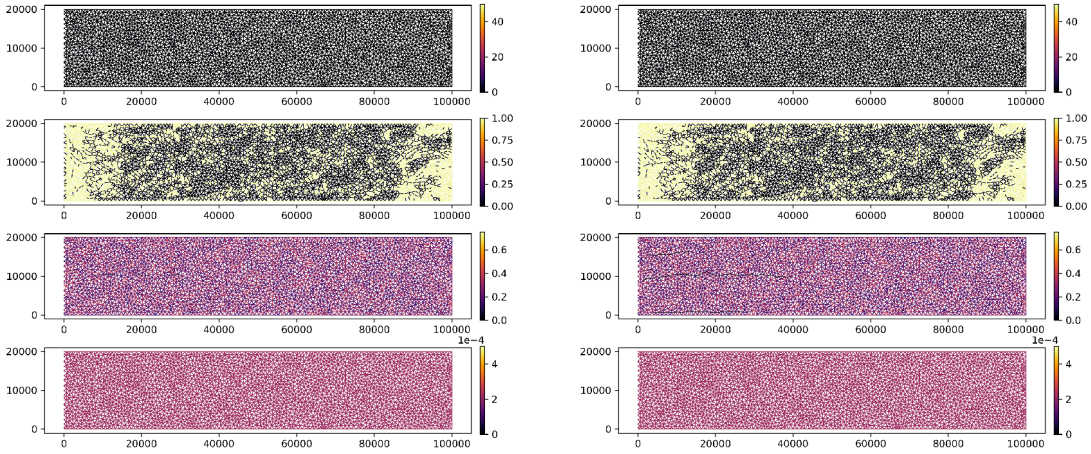


Figure S143. Outputs from the C0D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.4 C1 reference



425

Figure S144. Results for the C1 reference model run at a) day 0 and b) day 49

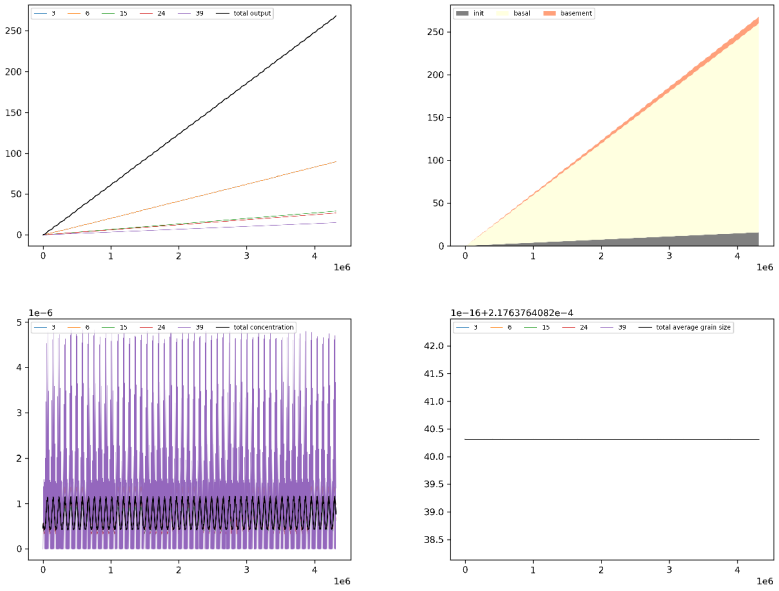


Figure S145. Outputs from the C1 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.5 C1 default

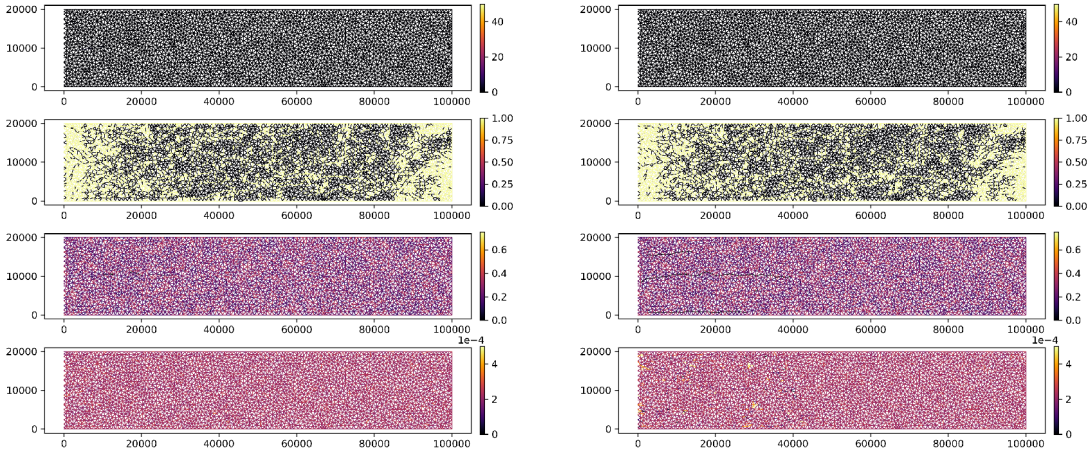


Figure S146. Results for the C1 default model run at a) day 0 and b) day 49

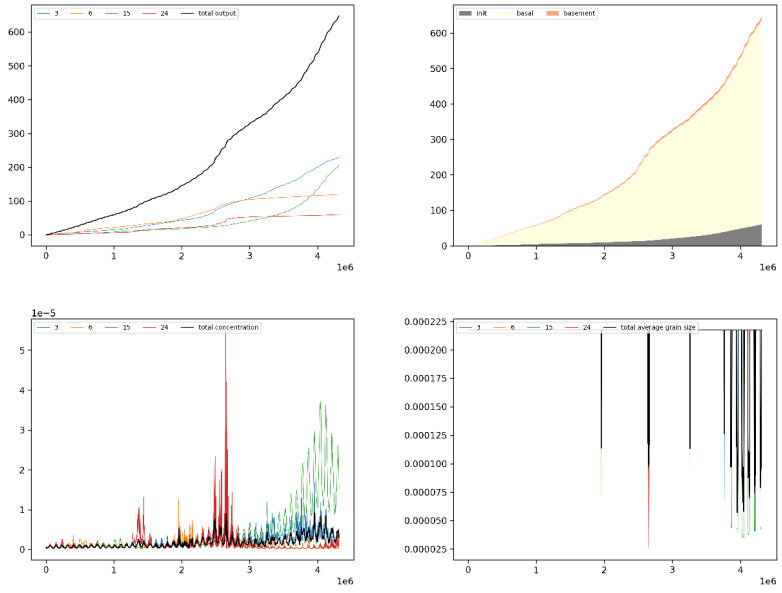


Figure S147. Outputs from the C1 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.6 C1D default

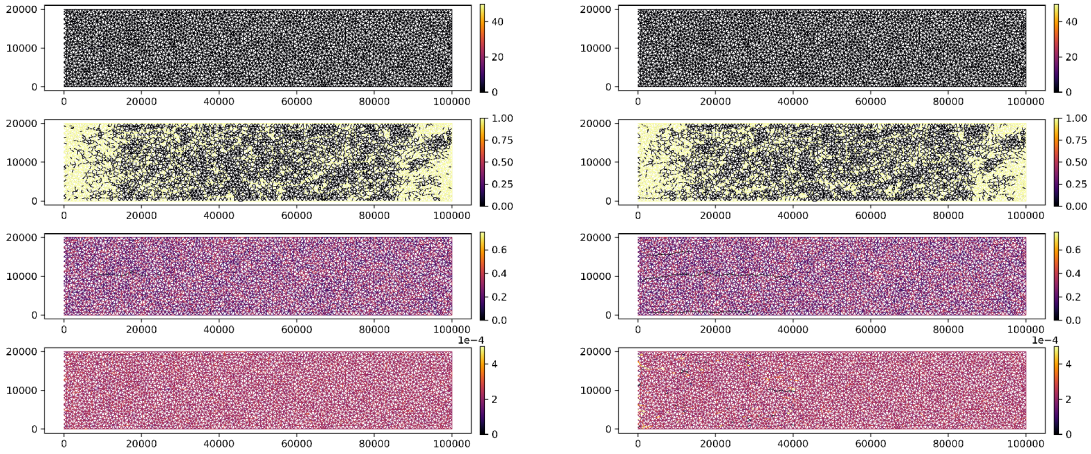


Figure S148. Results for the C1D default model run at a) day 0 and b) day 49

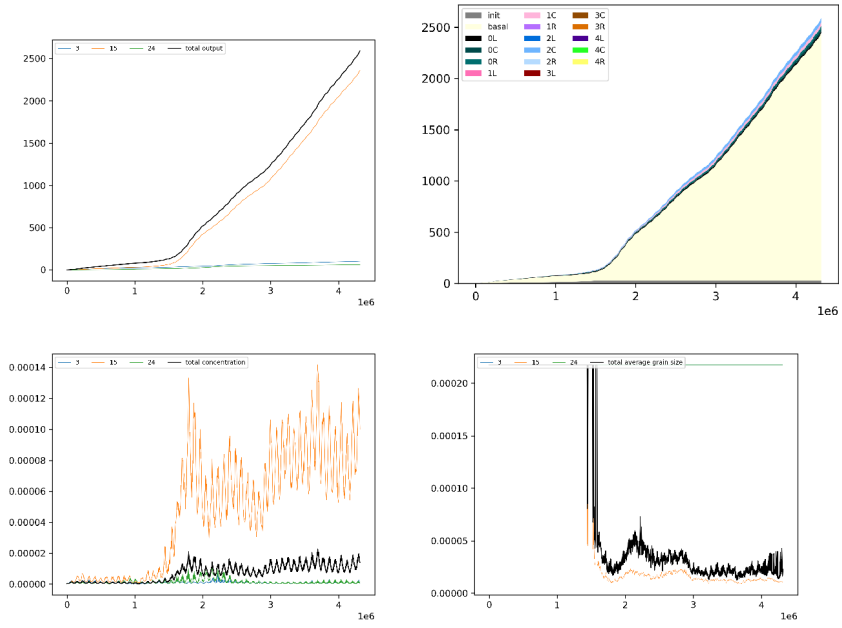


Figure S149. Outputs from the C1D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.7 C2 reference

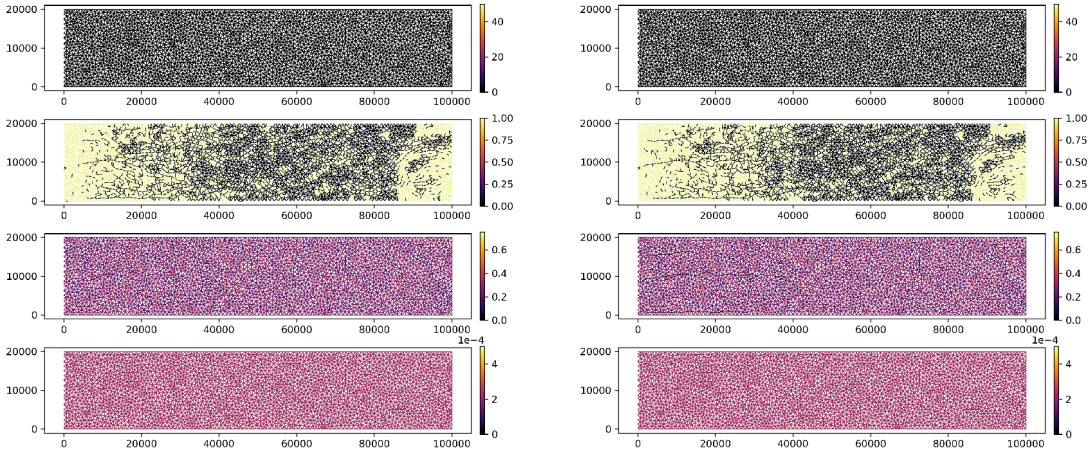


Figure S150. Results for the C2 reference model run at a) day 0 and b) day 49

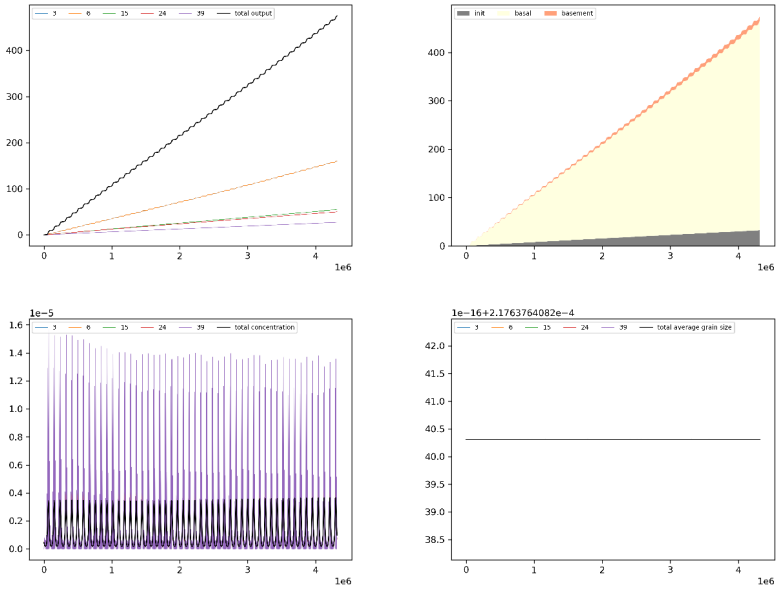


Figure S151. Outputs from the C2 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.8 C2 default

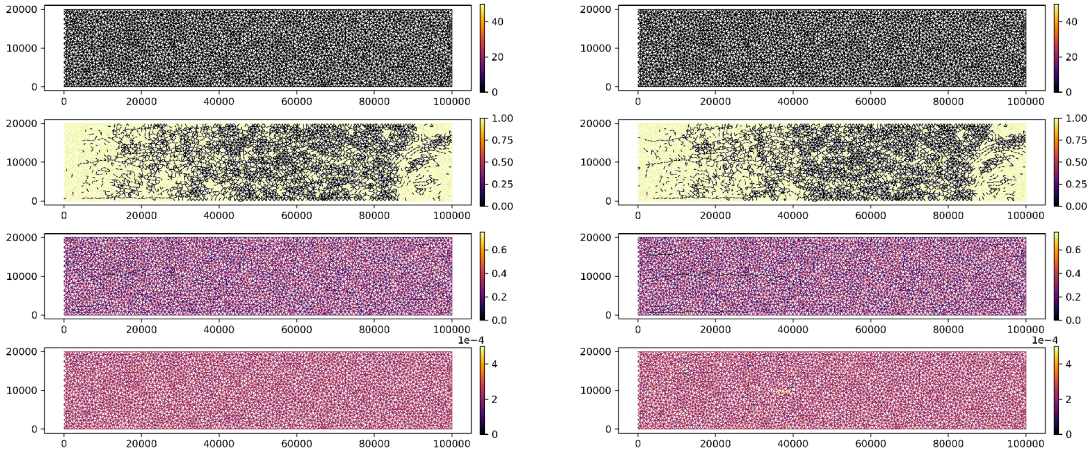


Figure S152. Results for the C2 default model run at a) day 0 and b) day 49

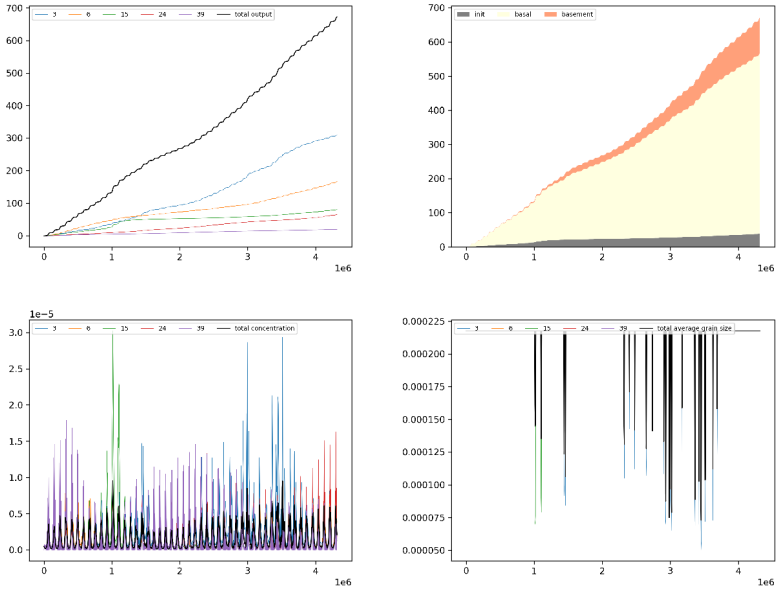


Figure S153. Outputs from the C2 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.9 C2D default

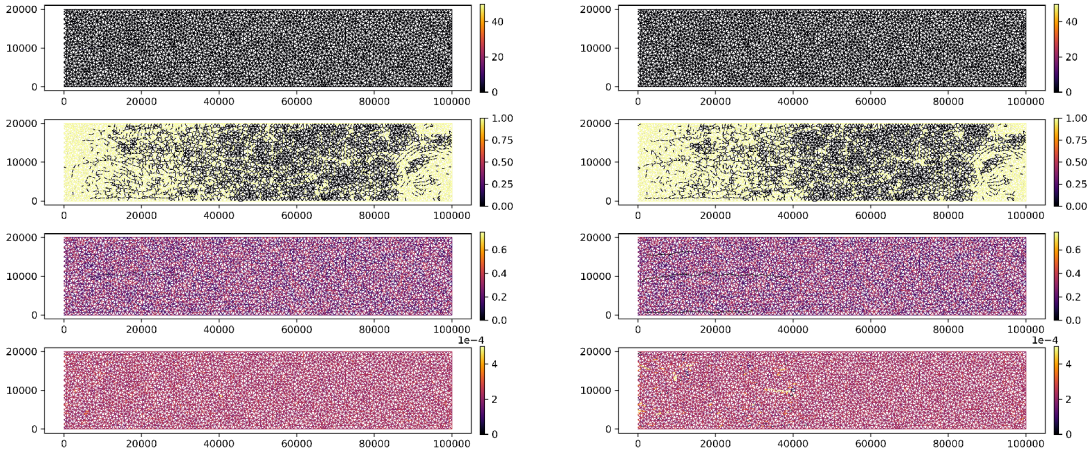


Figure S154. Results for the C2D default model run at a) day 0 and b) day 49

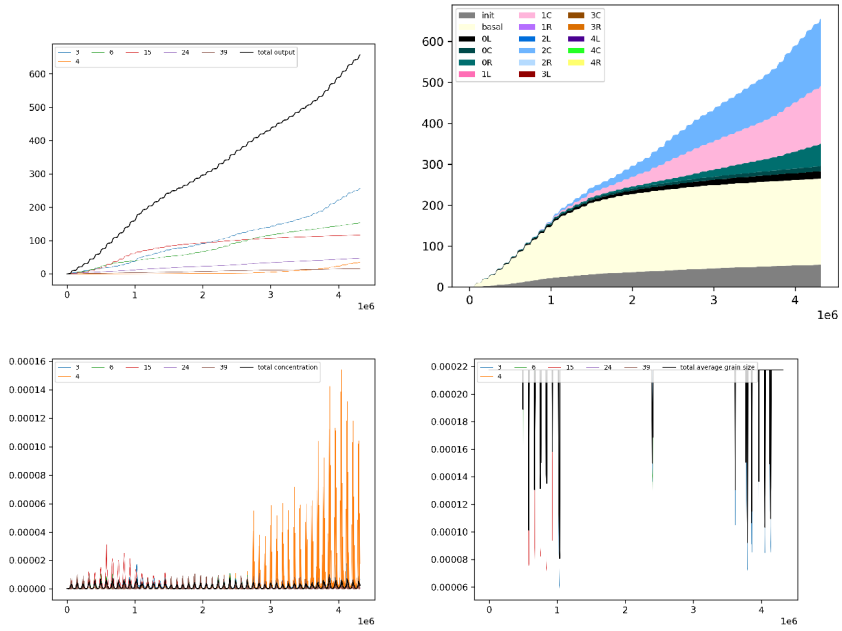


Figure S155. Outputs from the C2D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.10 C3 reference

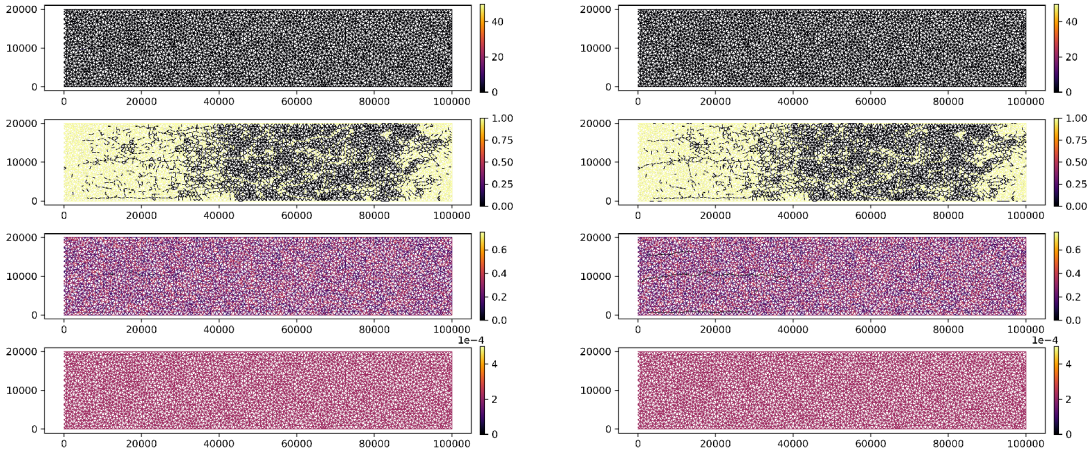


Figure S156. Results for the C3 reference model run at a) day 0 and b) day 49

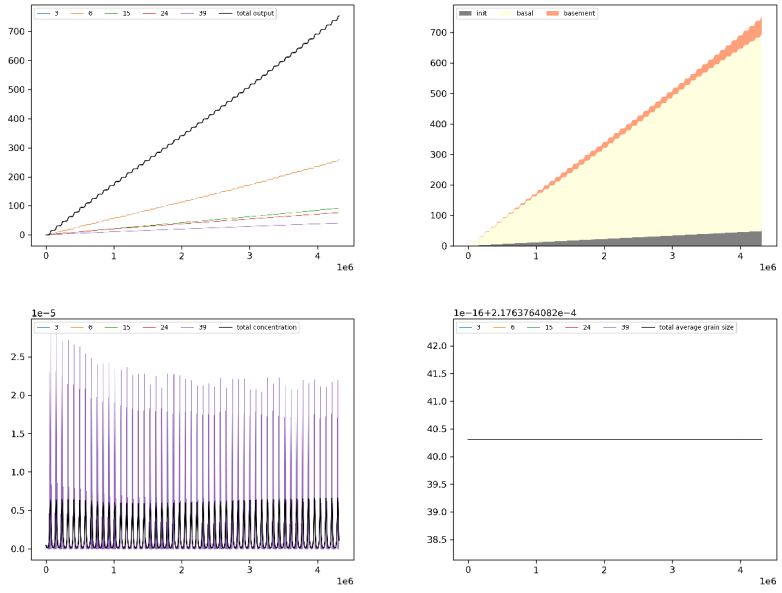


Figure S157. Outputs from the C3 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.11 C3 default

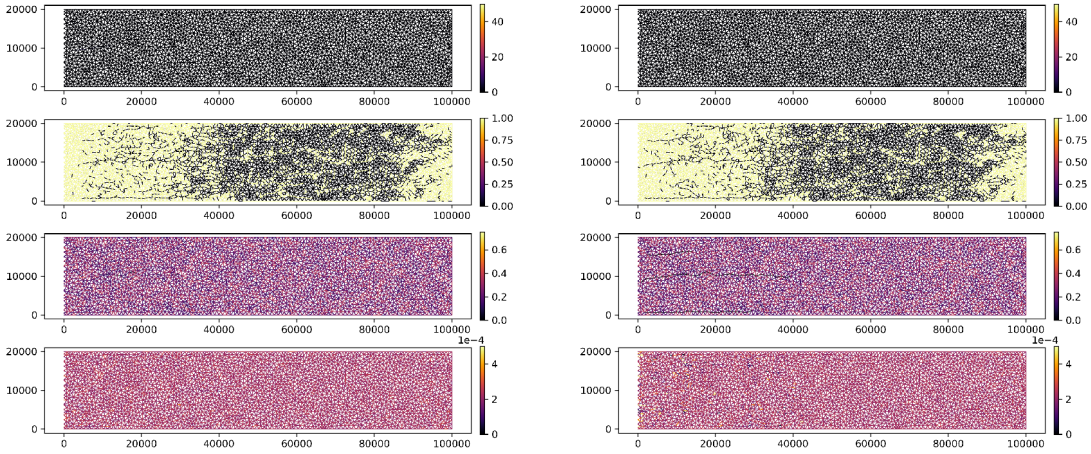


Figure S158. Results for the C3 default model run at a) day 0 and b) day 49

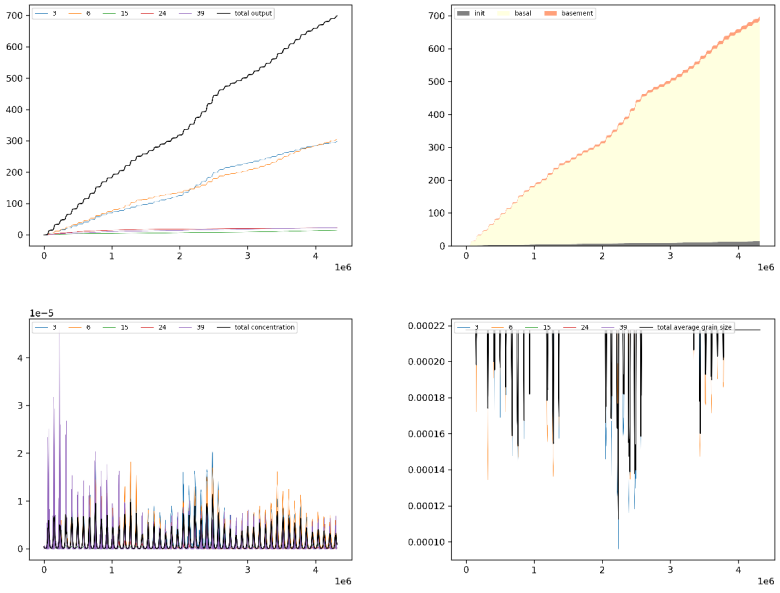


Figure S159. Outputs from the C3 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.12 C3D default

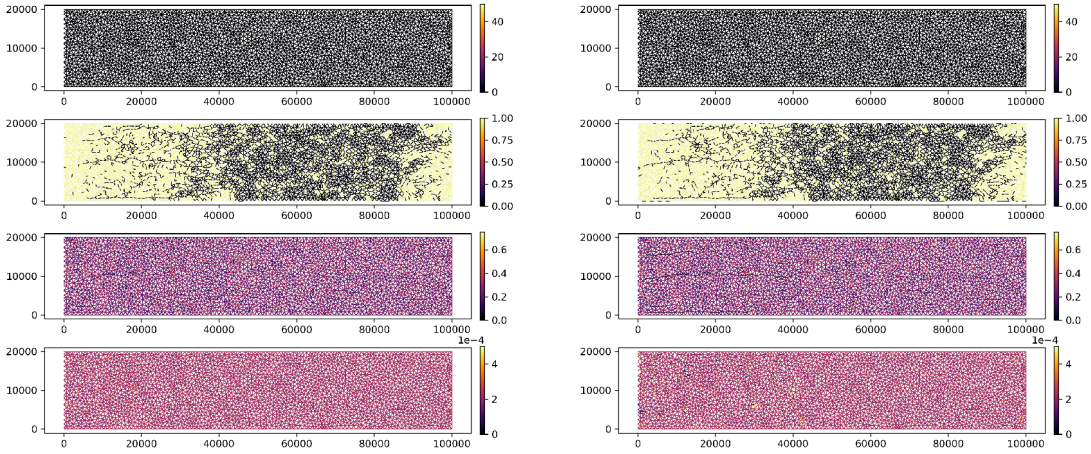


Figure S160. Results for the C3D default model run at a) day 0 and b) day 49

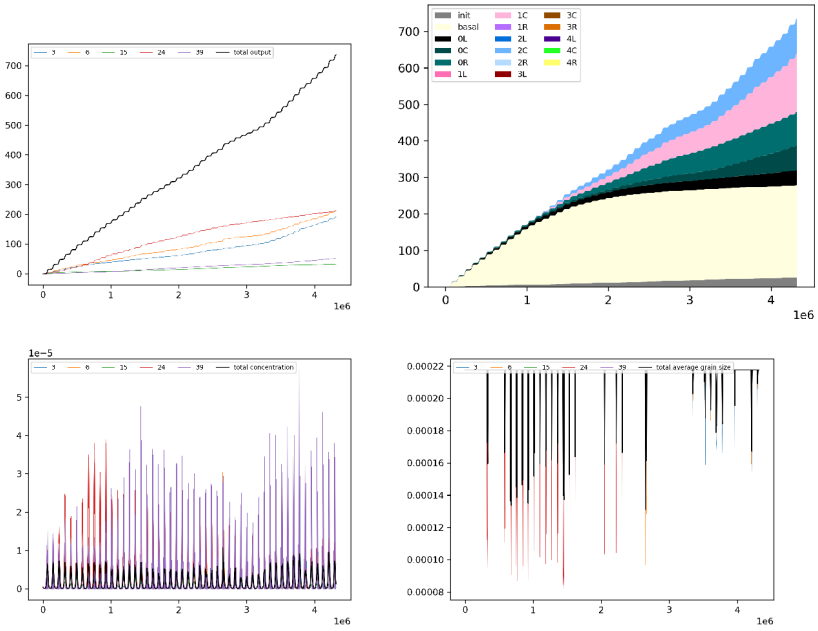


Figure S161. Outputs from the C3D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.13 C4 reference

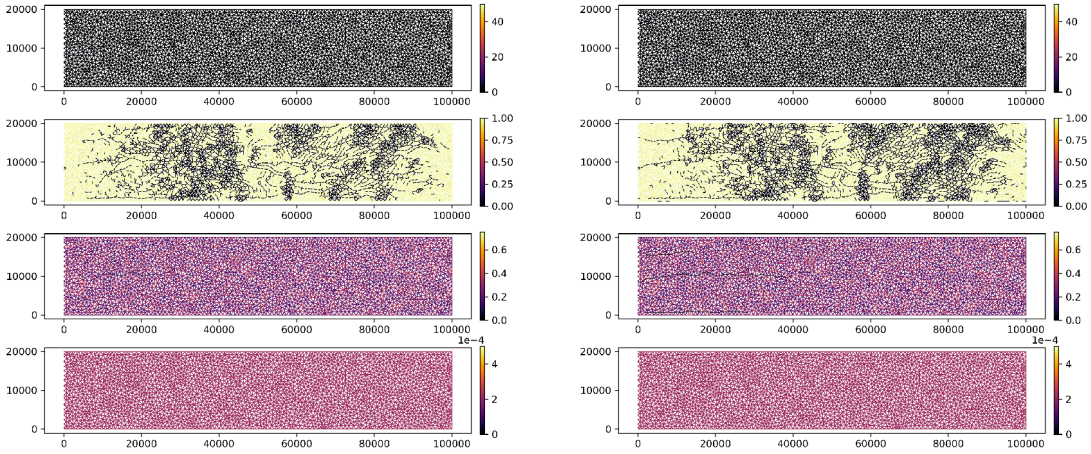


Figure S162. Results for the C4 reference model run at a) day 0 and b) day 49

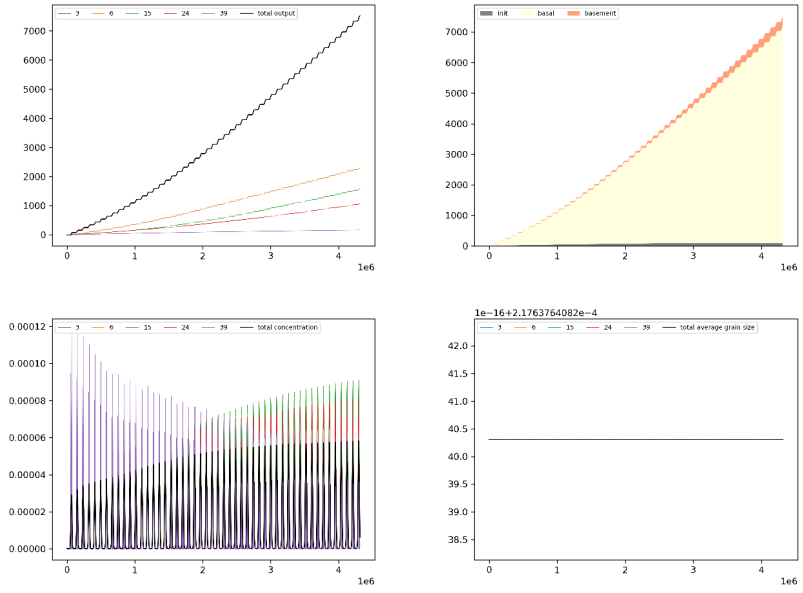


Figure S163. Outputs from the C4 reference model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.14 C4 default

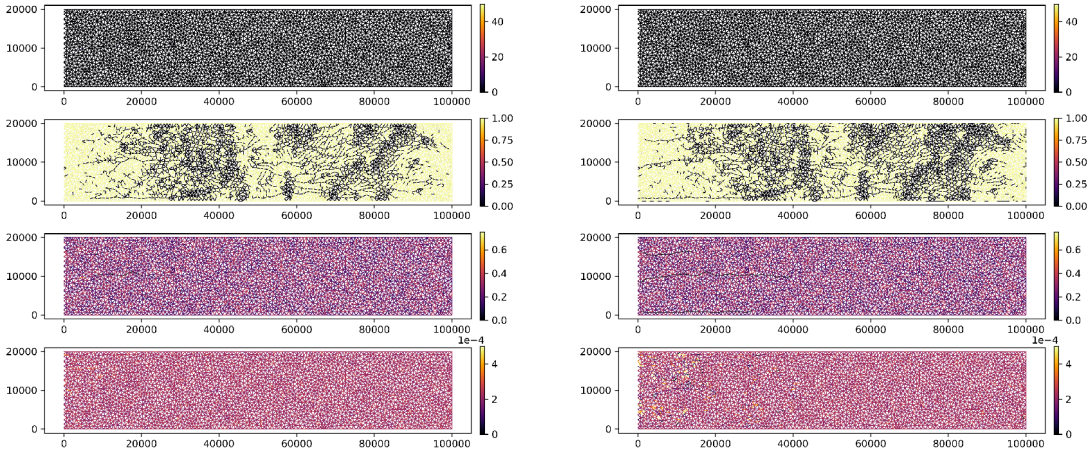


Figure S164. Results for the C4 default model run at a) day 0 and b) day 49

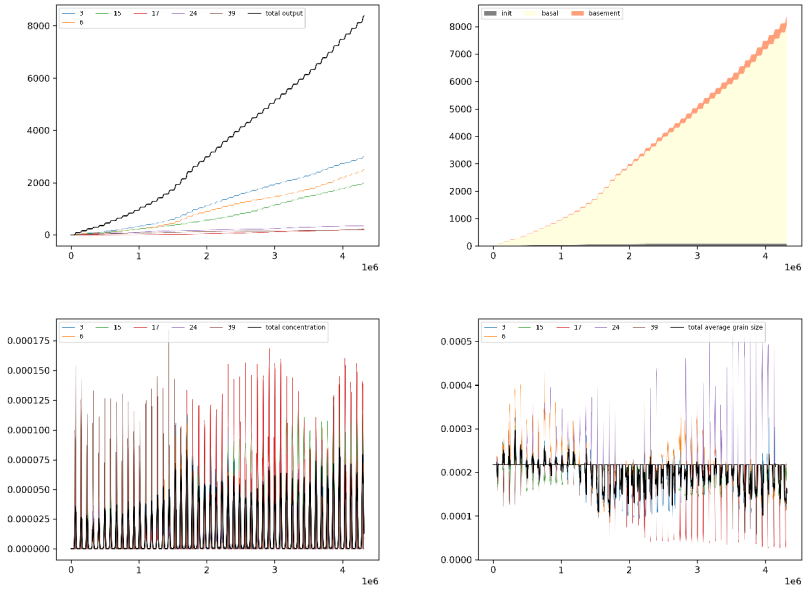


Figure S165. Outputs from the C4 default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs

S2.4.15 C4D default

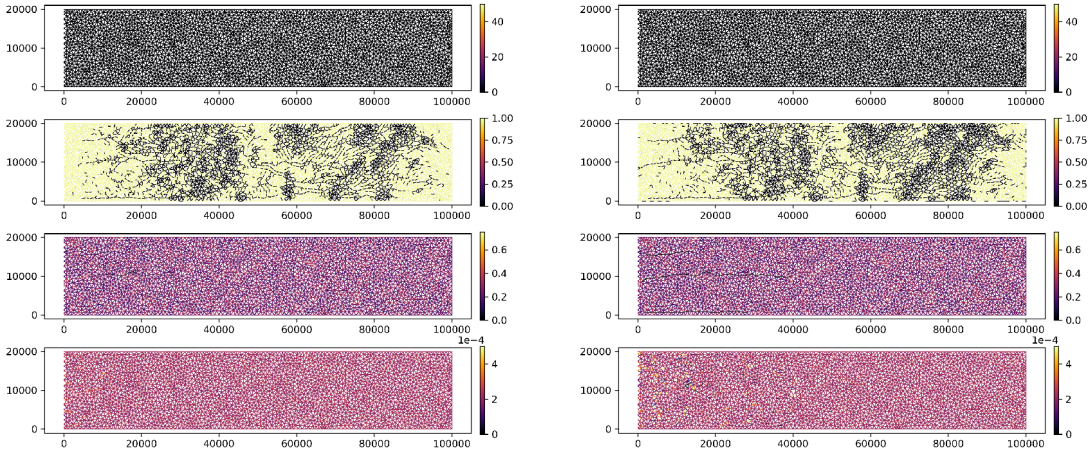


Figure S166. Results for the C4D default model run at a) day 0 and b) day 49

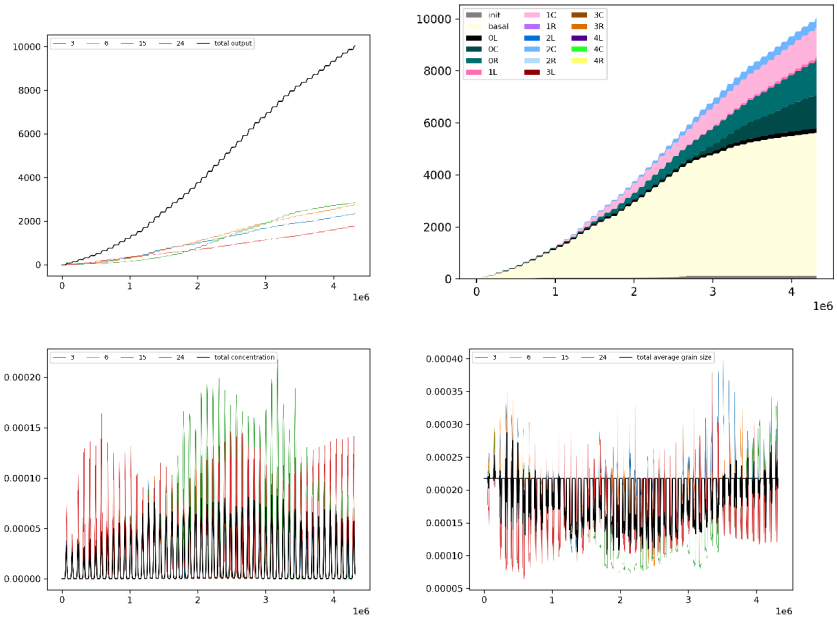


Figure S167. Outputs from the C4D default model run with a) volume flux b) detritus volume flux c) concentration d) grainsize. In a, c and d numbers indicate outlet node IDs