Appendix S1: Tables comparing statistics for the absolute magnitude of seafloor change observed in difference maps created between bathymetric surveys. (A) Comparison of seafloor change observed in difference maps that encompass flow events (rows coloured in red) and those with no documented events from the Squamish prodelta dataset. (B) Comparison of seafloor changes observed in difference maps within the active channel and on the canyon flanks from the Monterey Canyon dataset.

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| A) | Difference Map | Mean (m) | Standard Deviation (m) | Maximum (m) |
| SQUAMISH SURVEYS | 175 – 178 | 0.28 | 0.31 | 3.55 |
| 178 – 180 | 0.21 | 0.12 | 1.27 |
| 180 – 181 | 0.41 | 0.47 | 4.45 |
| 181 – 182 | 0.17 | 0.14 | 1.78 |
| 182 – 185 | 0.31 | 0.31 | 2.87 |
| 185 – 189 | 0.17 | 0.18 | 5.23 |
| 189 – 192 | 0.29 | 0.35 | 5.69 |
| 192 – 202 | 0.1 | 0.1 | 2.3 |
| 202 – 203 | 0.42 | 0.47 | 7.63 |
| 203 – 208 | 0.28 | 0.33 | 6.03 |
| 208 – 217 | 0.21 | 0.2 | 2.28 |

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| B) |  | Change in Channel | | | Change on Canyon Flanks | | |
| MONTEREY SURVEYS | Difference Map | Mean (m) | Standard Deviation (m) | Maximum (m) | Mean (m) | Standard Deviation (m) | Maximum (m) |
| 2003084 - 2003256 | 0.78 | 0.58 | 3.71 | 0.31 | 0.18 | 1.39 |
| 2003256 - 2004324 | 1.03 | 1.01 | 8.15 | 0.16 | 0.11 | 0.84 |
| 2004324 - 2005035 | 0.74 | 0.62 | 8.75 | 0.17 | 0.15 | 0.97 |
| 2005035 - 2006054 | 1.27 | 1.07 | 7.93 | 0.1 | 0.09 | 0.77 |
| 2006054 - 2006272 | 0.82 | 0.69 | 4.53 | 0.07 | 0.06 | 0.63 |
| 2006272 - 2007121 | 1.02 | 0.87 | 5.45 | 0.09 | 0.07 | 0.86 |
| 2007121 - 2007257 | 0.78 | 0.73 | 5.33 | 0.19 | 0.14 | 1.53 |
| 2007257 - 2008079 | 1.19 | 0.94 | 5.38 | 0.12 | 0.12 | 1.56 |
| 2008079 - 2008243 | 0.69 | 0.66 | 5.81 | 0.11 | 0.07 | 0.9 |
| 2008243 - 2009028 | 0.91 | 0.74 | 9.77 | 0.09 | 0.07 | 0.63 |
| 2009028 - 2011216 | 1.06 | 0.92 | 10.89 | 0.06 | 0.05 | 0.49 |
| 2011216 - 2013067 | 1.09 | 0.86 | 8.11 | 0.10 | 0.07 | 0.73 |
| 2013067 - 2014087 | 1.06 | 0.91 | 6.09 | 0.29 | 0.22 | 1.18 |