SI Figure 1. Snow water equivalent and precipitation accumulation from a nearby SNOTEL site (Bug Lake, Utah) for 2008, 2009, and 2010. Although the snow water equivalent at its peak is smaller in 2010, precipitation accumulation for all three years is comparable at the end of the each water year (October). The graph was generated by the National Water and Climate Center, Natural Resources Conservation Service (http://www.wcc.nrcs.usda.gov/nwcc/site?sitenum=374&state=ut)

SI Figure 2. Groundwater elevations across the floodplain including surface water elevations in the channel (point in the shaded area). The cross-sectional view is from river left to right when looking downstream. The location of both cross-sections is shown on the map.

SI Figure 3. Stream temperature upstream and downstream from five beaver dams in the study reach (Figure 1) and at reach boundaries (PT515 and PT1252). Individual beaver dams cumulatively contribute to the downstream warming with temperature being the warmest upstream and downstream from beaver dam 8. Temperature decreased at the downstream reach boundary (red solid line) likely due to old channel and groundwater influences.

SI Figure 4. Stream temperature at the upstream (inflow, PT515) and downstream (outflow, PT1252) reach boundary limits (shown in Figure 1) for July 16-21, 2008 and 2010. Temperature values represent 5-minute temperature records.

SI Figure 5. Aerial imagery capturing stream conditions prior (2006) and 2 years after beaver colonization (A and B). More complex channels were formed and can be observed from the 2011 image where there are multiple beaver dams, beaver ponds and side channels present. The old channel was also reoccupied due to the beaver dam construction at the downstream end of the reach (BD 10). Stream temperature variability captured via aerial thermal imagery in May 2012 post beaver colonization (C). The temperatures range from 11°C to 18°C and show increased thermal heterogeneity and channel complexity in and around beaver ponds. The information and details regarding the aerial imagery shown can be found at http://www.aggieair.usu.edu/.