

Figure S1. Imagery of Run 1 depicting channel development and classification at each timestep. Contributing area of Type 1 (overland flow) and Type 2 (seepage erosion) channels are shown in blue and red shading, respectively. The channelized extent is depicted as a black line, which divides the contributing area into a non-channelized upland portion and a channelized portion. Surface water non-contributing area (NCA) is shown in brown.

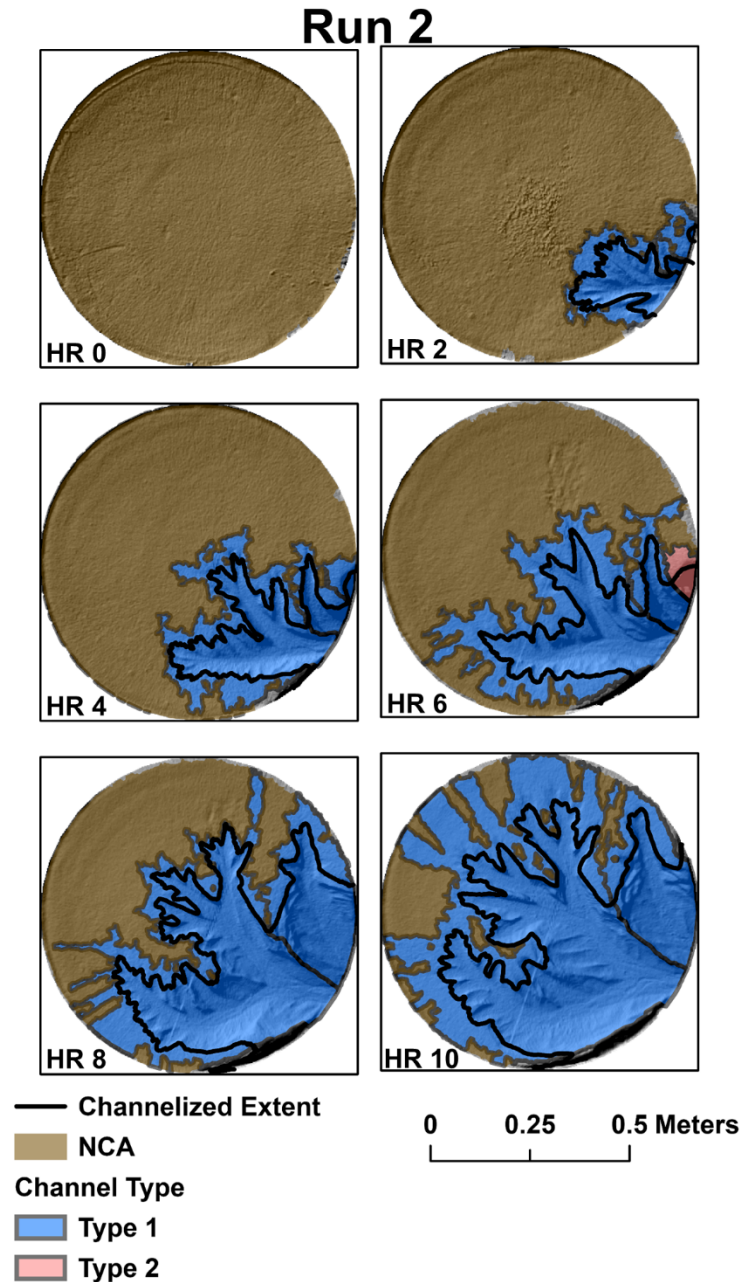


Figure S2. Imagery of Run 2 depicting channel development and classification at each timestep. Contributing area of Type 1 (overland flow) and Type 2 (seepage erosion) channels are shown in blue and red shading, respectively. The channelized extent is depicted as a black line, which divides the contributing area into a non-channelized upland portion and a channelized portion. Surface water non-contributing area (NCA) is shown in brown.

Run 3

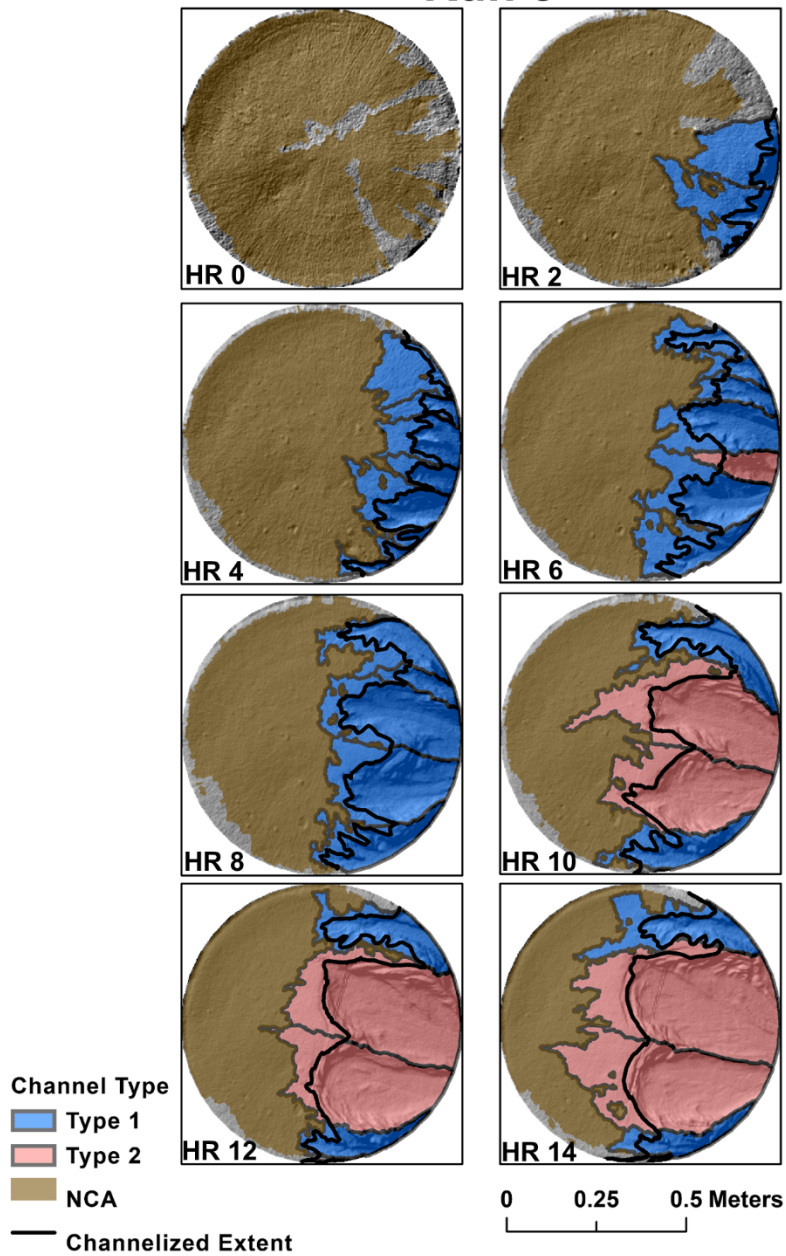


Figure S3. Imagery of Run 3 depicting channel development and classification at each timestep. Contributing area of Type 1 (overland flow) and Type 2 (seepage erosion) channels are shown in blue and red shading, respectively. The channelized extent is depicted as a black line, which divides the contributing area into a non-channelized upland portion and a channelized portion. Surface water non-contributing area (NCA) is shown in brown.

Run 4

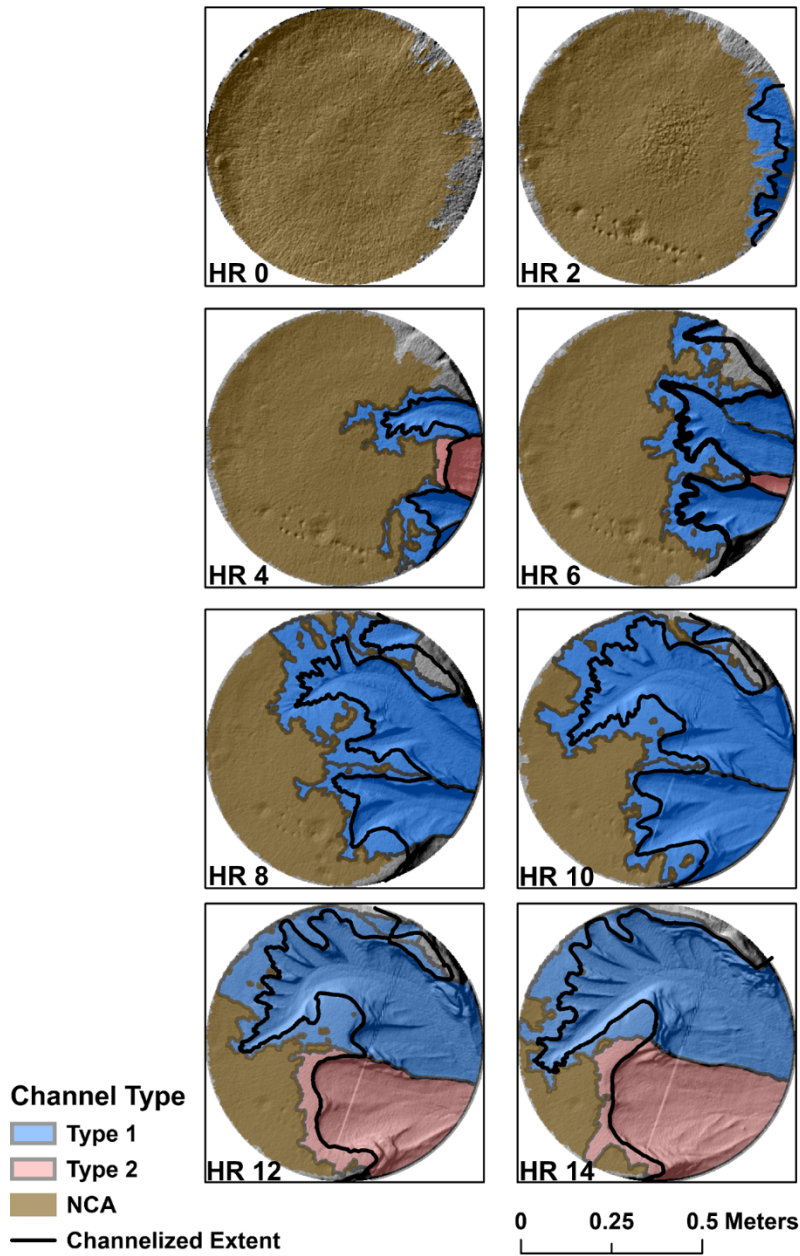


Figure S4. Imagery of Run 4 depicting channel development and classification at each timestep. Contributing area of Type 1 (overland flow) and Type 2 (seepage erosion) channels are shown in blue and red shading, respectively. The channelized extent is depicted as a black line, which divides the contributing area into a non-channelized upland portion and a channelized portion. Surface water non-contributing area (NCA) is shown in brown.

Run 5

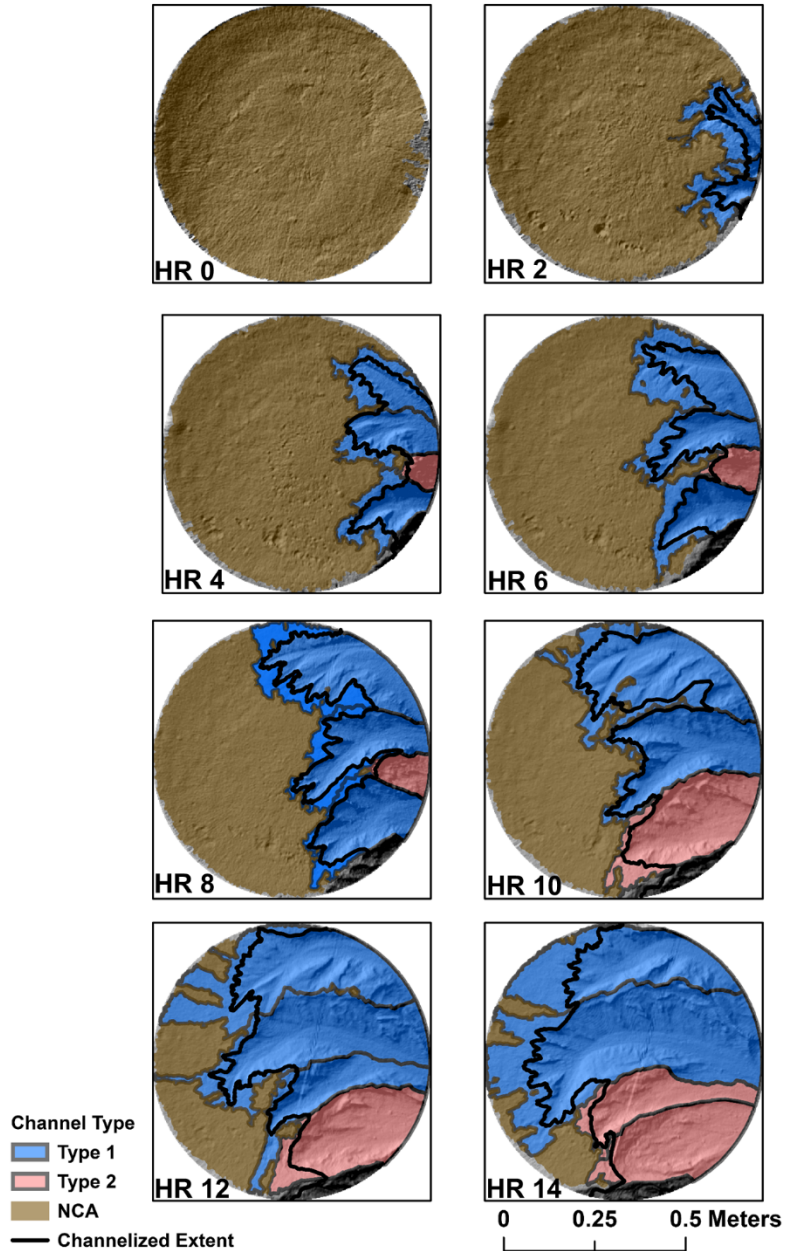


Figure S5. Imagery of Run 5 depicting channel development and classification at each timestep. Contributing area of Type 1 (overland flow) and Type 2 (seepage erosion) channels are shown in blue and red shading, respectively. The channelized extent is depicted as a black line, which divides the contributing area into a non-channelized upland portion and a channelized portion. Surface water non-contributing area (NCA) is shown in brown.

Run 6

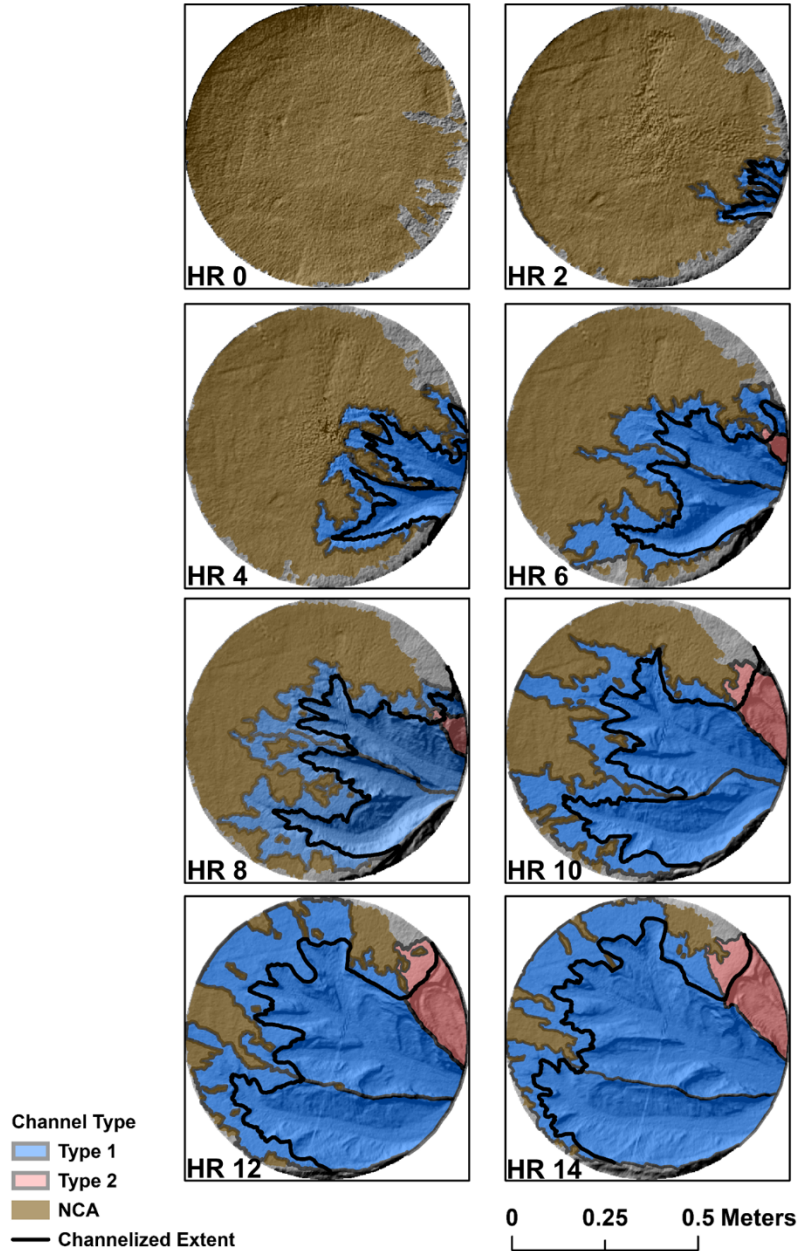


Figure S6. Imagery of Run 6 depicting channel development and classification at each timestep. Contributing area of Type 1 (overland flow) and Type 2 (seepage erosion) channels are shown in blue and red shading, respectively. The channelized extent is depicted as a black line, which divides the contributing area into a non-channelized upland portion and a channelized portion. Surface water non-contributing area (NCA) is shown in brown.