START of Process

All rain\_area values written out to waterlevel.txt

Frame of animation generated

Once all cells have been processed, more rain added

Once all values checked, highest value lowered by 0.1m

If not- retains rain\_area value

If not- next value

If no lower values but some equal value, both rain\_area’s total and divided equally between them

“flow\_scaled” (highest percentage to max downslope, etc.) rain\_area value added onto neighbour’s rain\_area

max\_output of cell checked, so rain\_area value transferred is not over the max\_output

For each diff value, if positive, the relative slope direction is calculated (flow\_scalar)

If is –the 8 neighbouring values in 2d array and separately subtracted from it. Results appended to ‘diff’

Value checked if it is equal to the ‘highest’ value

Largest value in environment is found

Animation begins

Create rain\_area based on size of environment and append rainfall

Load environment

If yes

Check for repeat (if frame number less than days\_rain)

If no

END of Process - Animation end- stopping statement printed.