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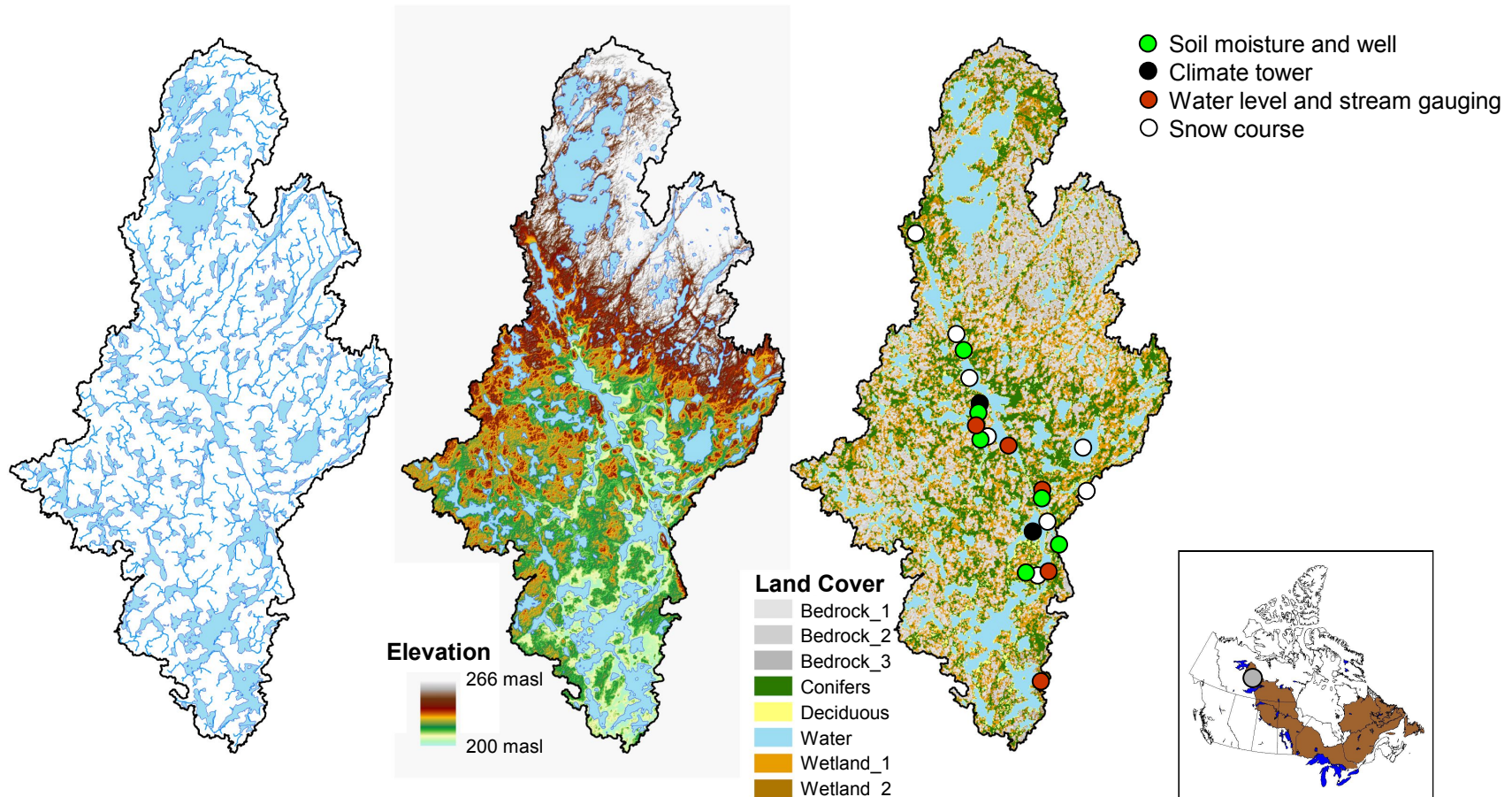
# Parameterization of subarctic Canadian Shield hydrological processes

**IP3 Annual Workshop  
Whitehorse, YK  
Christopher Spence  
November 13, 2008**



Improved Processes & Parameterisation  
for Prediction in Cold Regions

# Baker Creek

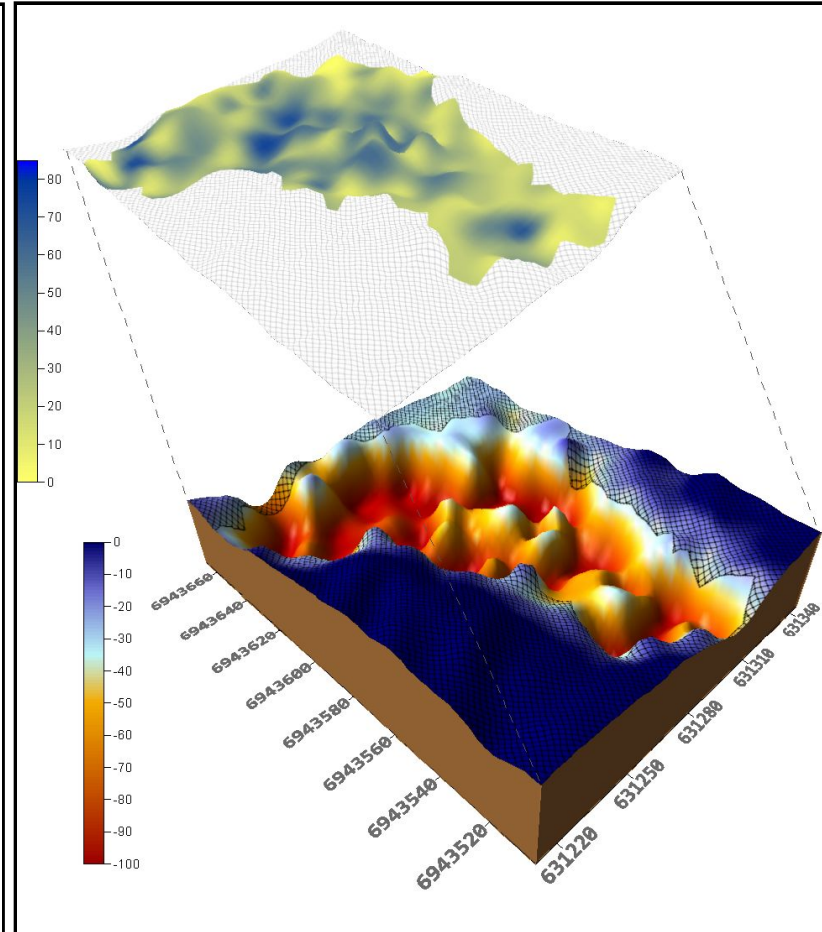
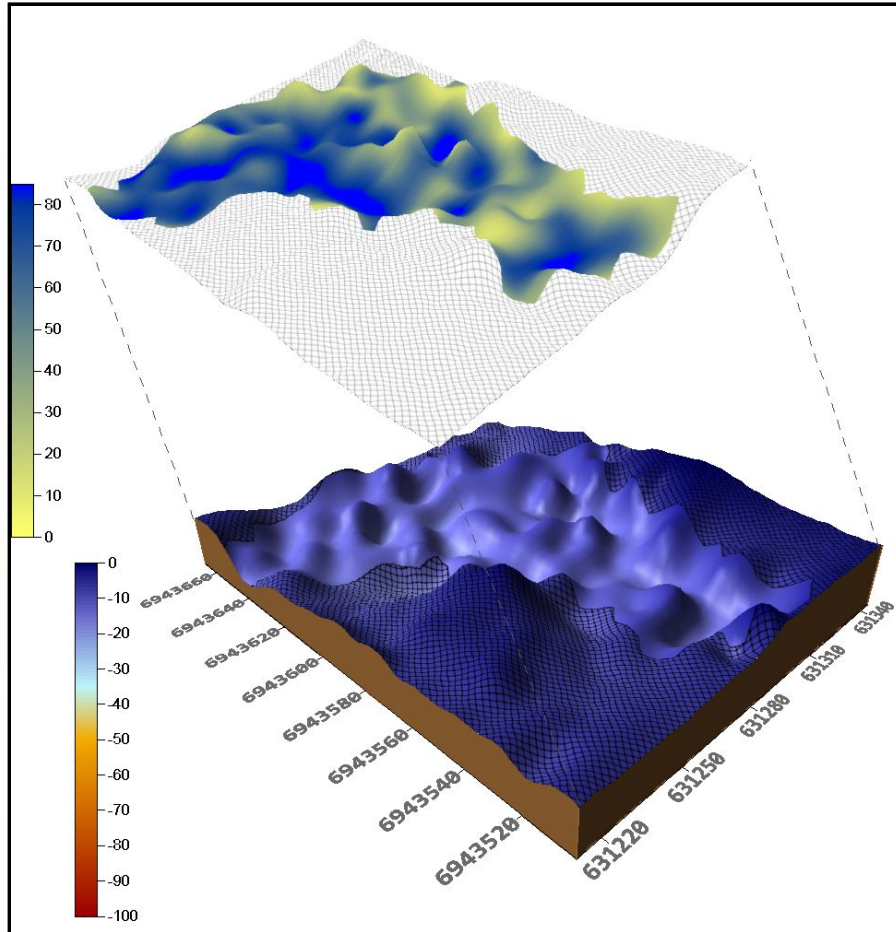


# Processes

- Contributing area dynamics were investigated at both the hydrological element and basin scale.

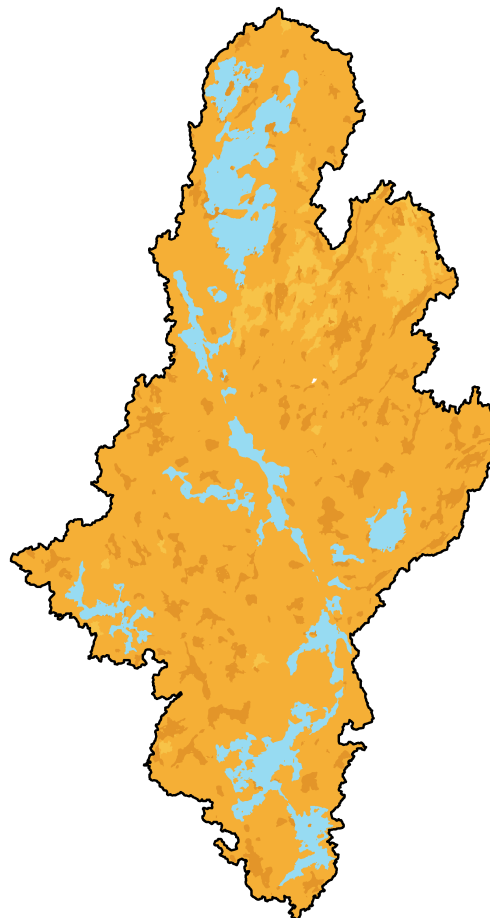


# Element scale



# Basin scale

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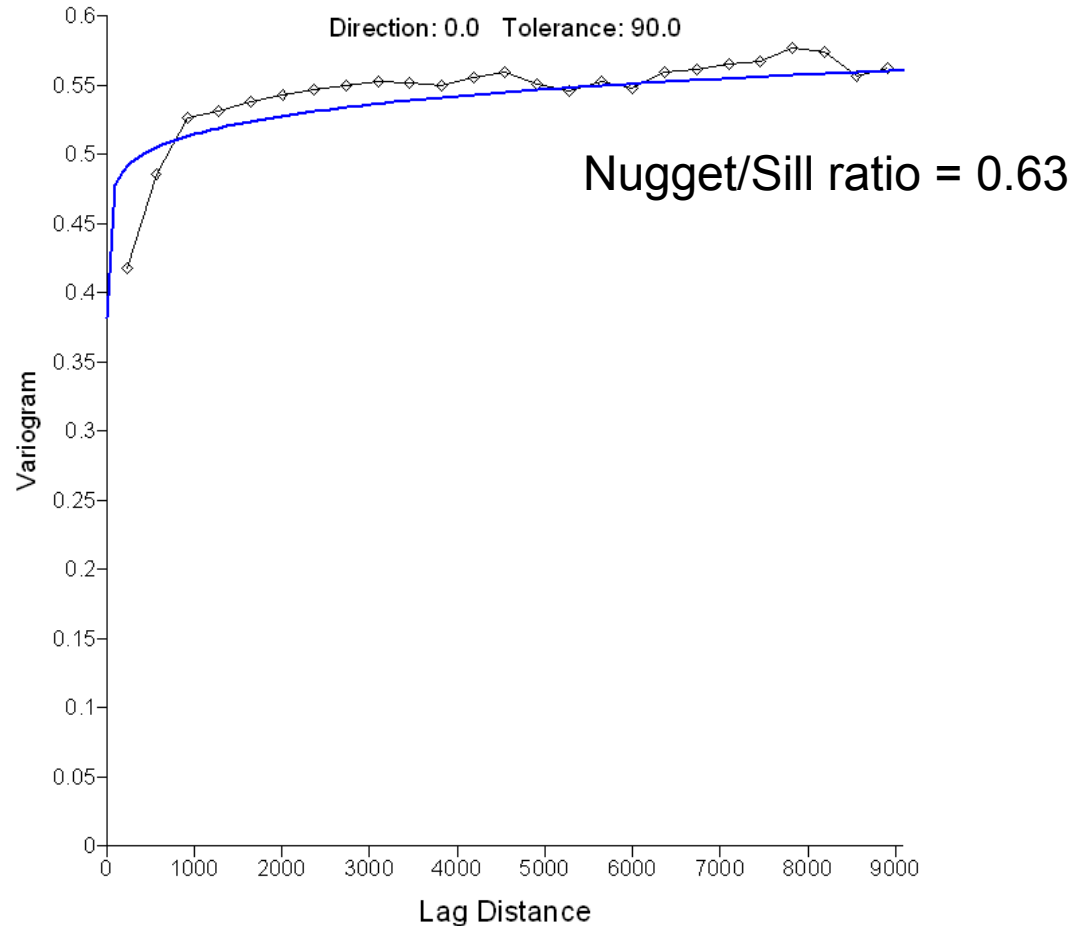


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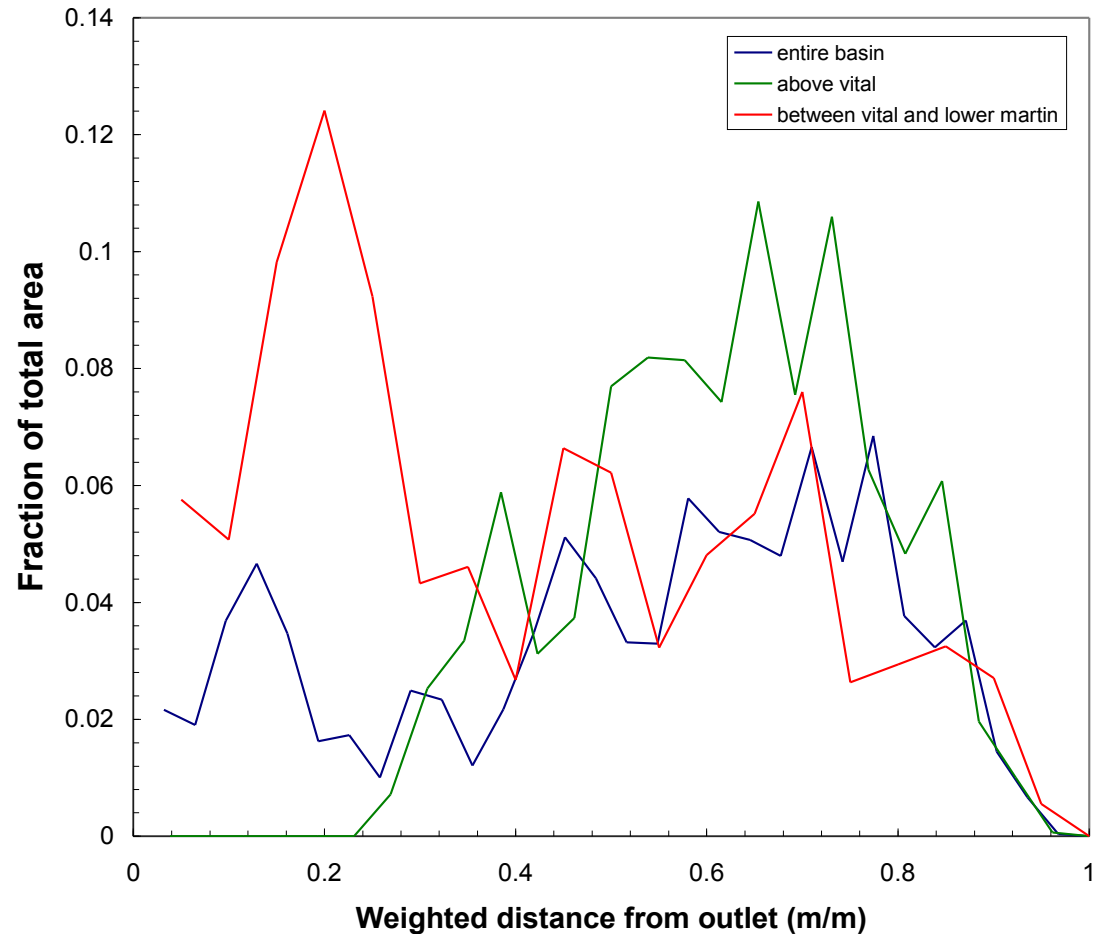
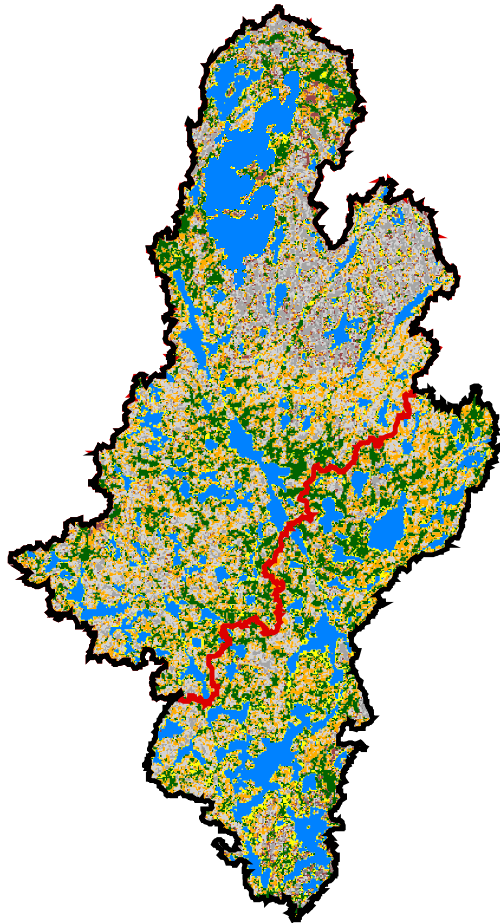
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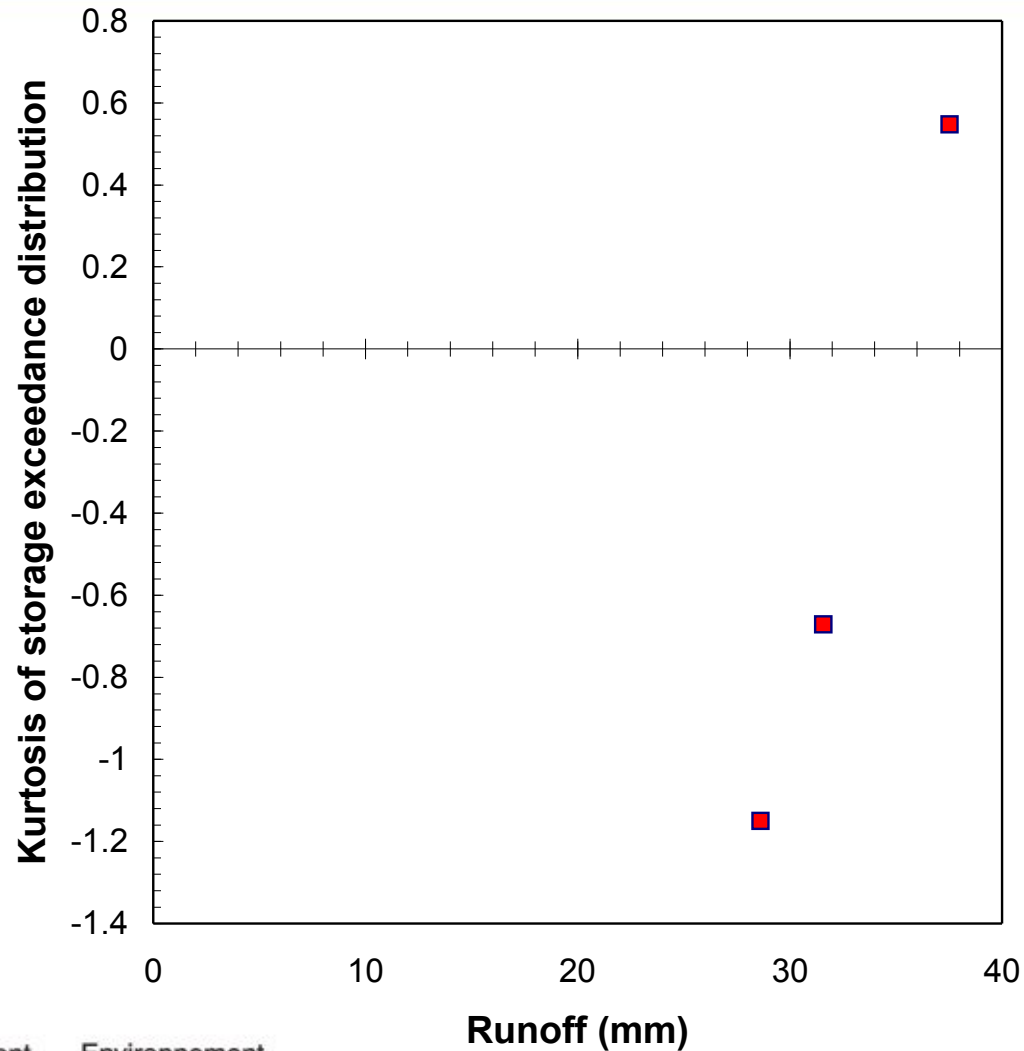
# Distribution of storage



# Spatial distribution of $S_c$

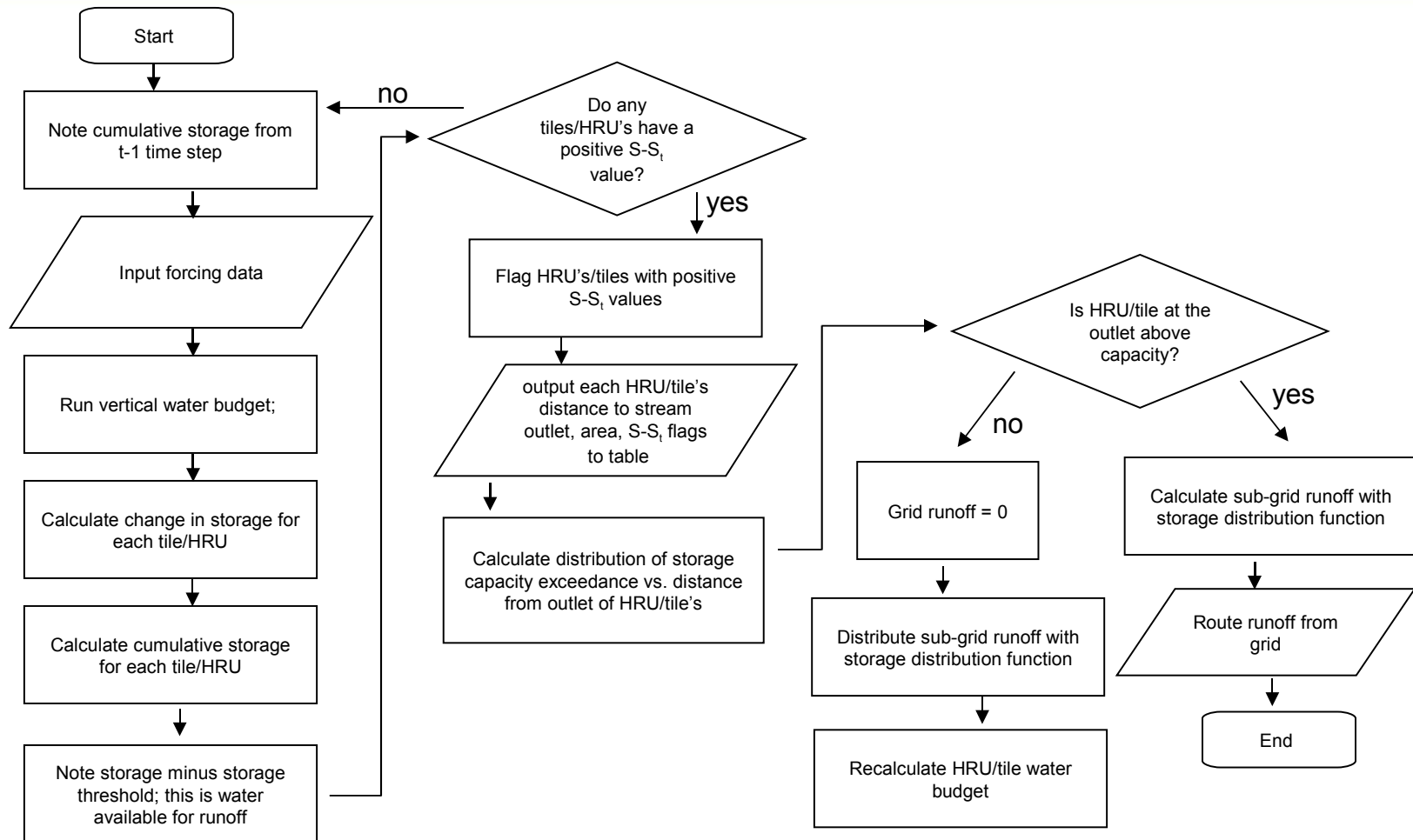


# Influence on runoff response





# Parameterization



# The upcoming year

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- Develop a methodology to describe the geometry of contributing area dynamics.
- Attempt to develop scaling relationships to link storage thresholds and contributing area dynamics to Baker Creek runoff response.
- Test different tile connector schemes within CRHM and MESH



# Acknowledgements

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- NWRI - Newell Hedstrom, Raoul Granger, Kelly Best
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- U of S - Tom Brown, John Pomeroy



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Fondation canadienne pour les sciences  
du climat et de l'atmosphère (FCSCA)



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