Linking Earth Observation Data and Sustainable Development across Atlantic, Estoril, Portugal, 3-5 December







## Urban Metabolism for Coastal (and Urban) Resilience



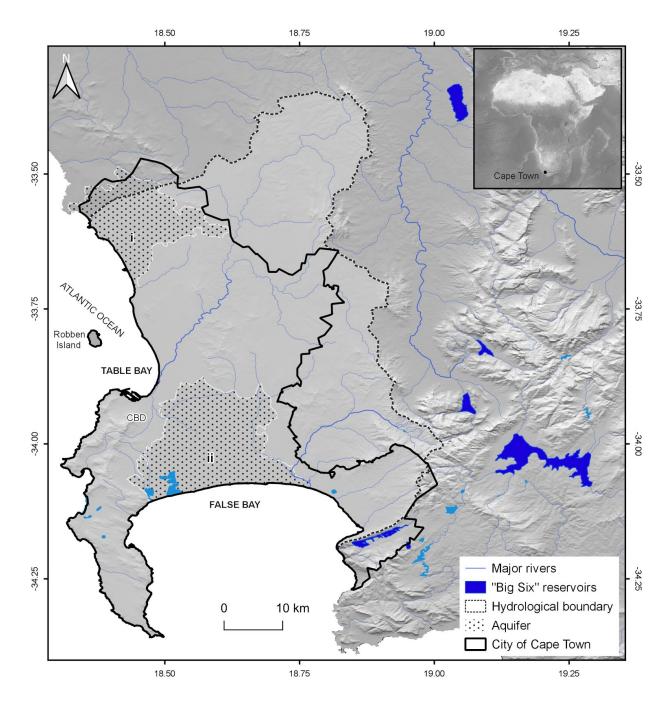




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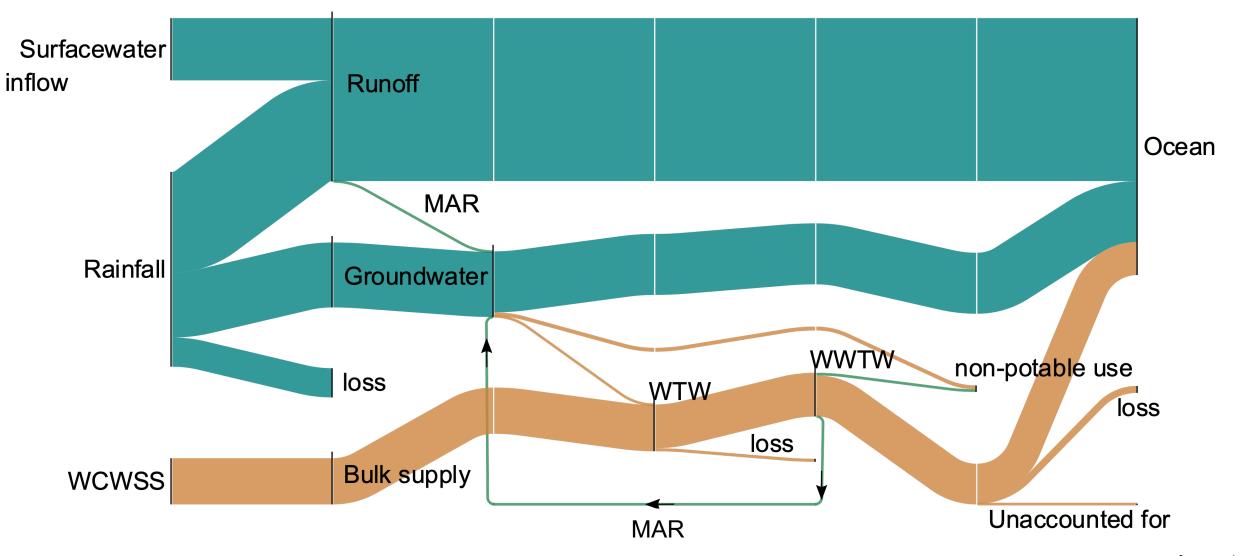
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- 1-300 year drought event (Day Zero) highlighted CoCT is not drought resilient
- Holistic management of urban water cycle is required
- Quantify urban water cycle to identify ways to improve sustainability and resilience to drought
- Water quality not getting as much attention but crucial for coastal resilience

## Current urban water mass balance



## Quantifying urban nitrogen metabolism

- Identify inputs, outputs and transformations
- N outputs into marine environment unknown for urban nitrogen budget
- N discharge not routinely measured in receiving waters (i.e. coastal marine waters)
- WWTW often fail national standards and data are difficult to get hold of
- EO required to fill in the gaps where data is not available via algal bloom proliferation in wetlands and coastal zone

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