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Preventing the brownification of water

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Pilot summary

Problem:
Brownification of lake water is a major problem for drinking water supply, biodiversity and tourism

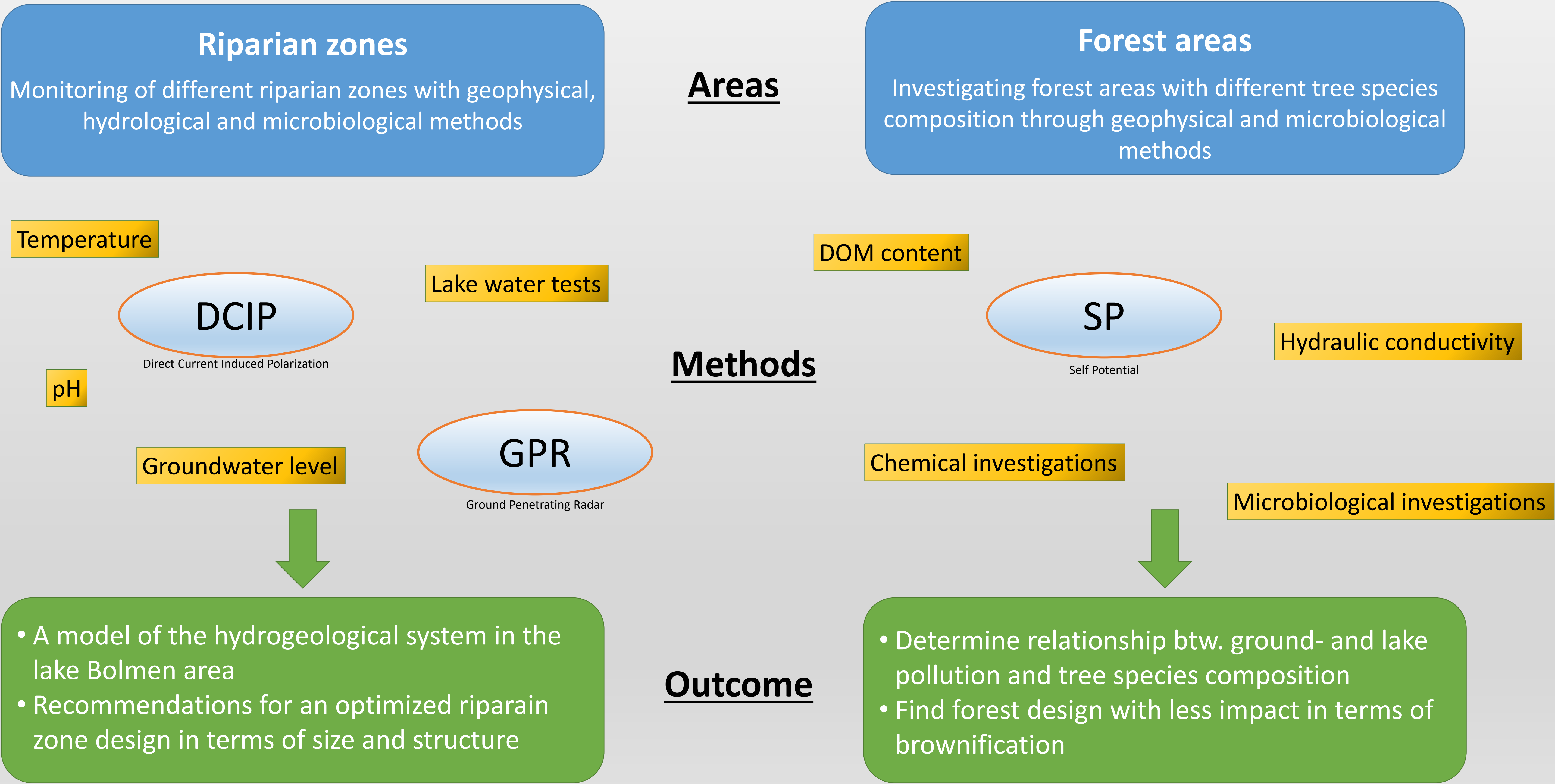
- Reason for brownification:**
- Unfavourable forest management (tree species) → increase in dissolved organic matter (DOM) flux to surface water
 - Drainage systems (e.g. ditches in forests) → direct, fast, inflow of DOM into the lake
 - Extreme weather events → further increase of inflow
 - Leakage of DOM from peat bogs

- Challenges/possible solutions:**
- Creating more and larger riparian zones
 - Avoid any direct drainage into the lake
 - Better forest water management
 - Knowledge of the complex hydrogeological system (here, of lake Bolmen)



Activities

- Investigations of ditched drainage leading directly to the lake vs. natural/re-established riparian zones of different size and structure
- Investigation of the effect of different tree species in the forest to the organic matter release (including seasonal changes)
- Combining both approaches to build a conceptual model



Governance

