CRC for Water Sensitive Cities

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Project C4.1
Integrated Multi-functional Urban Water Systems

Can we design better wetlands?

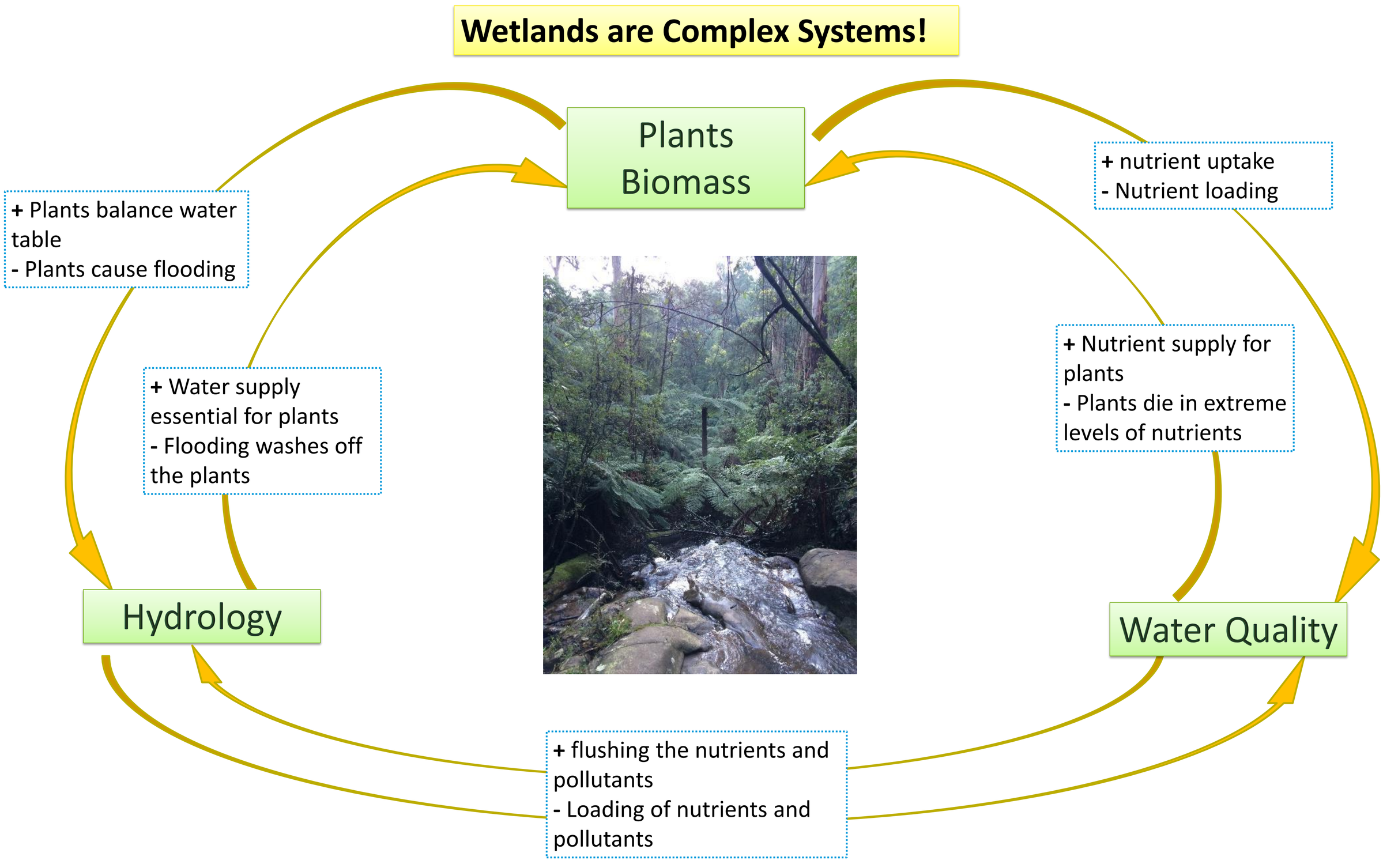
Development of a Hydrogeological Model

Introduction

While constructed wetlands are well known for their water treatment function, their ability changes over time by establishment of the wetland. The plants assembly evolves and this affects the contaminants uptake by plants.

Let's develop a model with high confidence to predict the evolution of wetlands.

Wetlands are Complex Systems!



Phase 1: Conceptual Model

Model and test the effect of vegetation on hydrology of wetlands

A hydrological model is developed and tested with sampled and synthesised data.

Phase 2: decadal Model

Validate the model in phase 1 with long term vegetation dynamics

Model from Phase 1 is used as a virtual wetland to explore long term evolution of a wetland. Sampled data is used to validate the model.

Phase 3: Design Criteria Model

Explore the effect of probation and test the mode

The final design model is develop and become available for wetland modellers and designers globally.

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