# Towards a parameterisation of GW/soil/river interactions in riparian wetlands for ORCHIDEE

## FROM THE SEINE WATERSHED UP TO THE GLOBAL SCALE

Ardalan Tootchi PhD student at UMR-METIS

# Outline

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- General project description

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- Main objectives

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- Roadmap for main tasks

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- Time table

# General description of the project

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- What are their importance?

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  - No absolute answer!
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  - Presence of water
  - Unique soil condition
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  - Buffering function
  - High Evapotranspiration
  - Shelter for animals

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  - Both rainfall and groundwater
  - Water table depth

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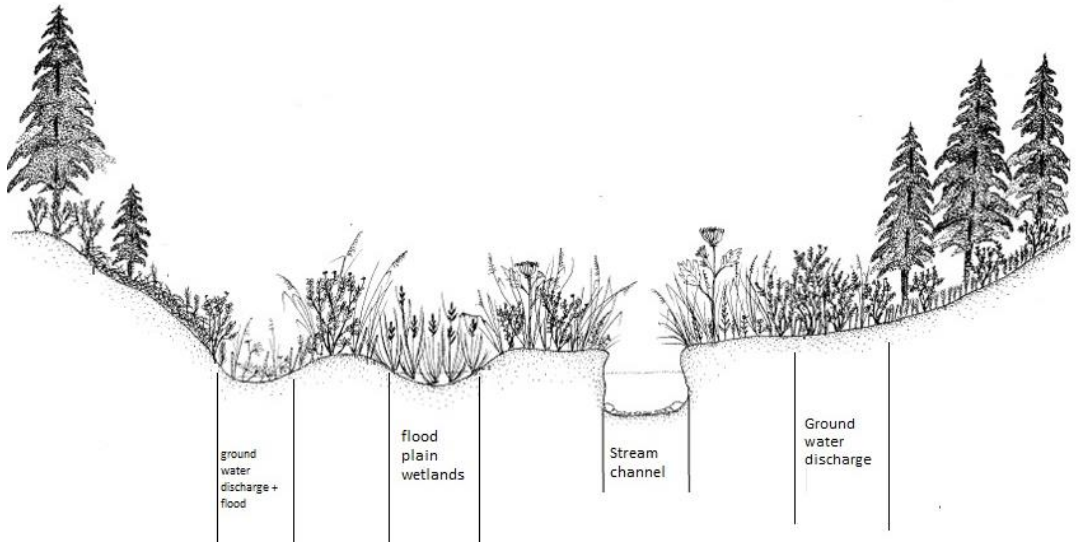

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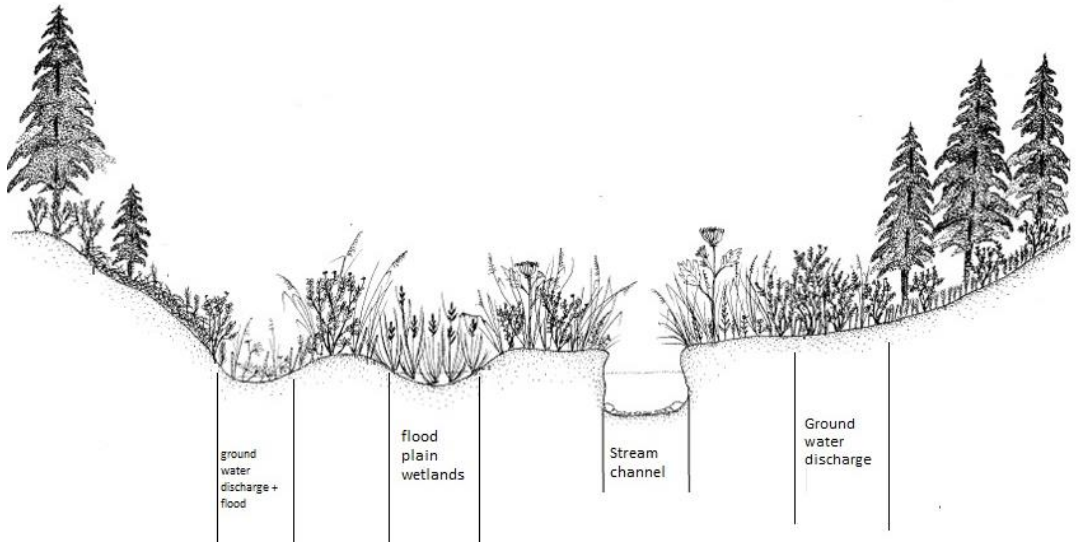
     - Cost functions



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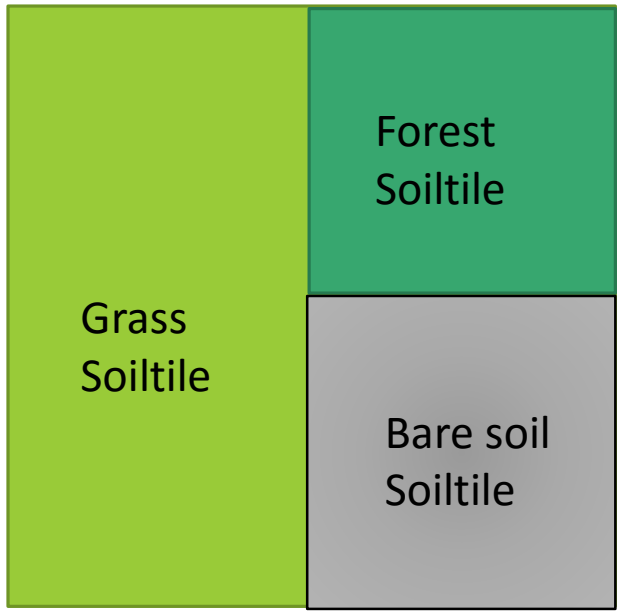

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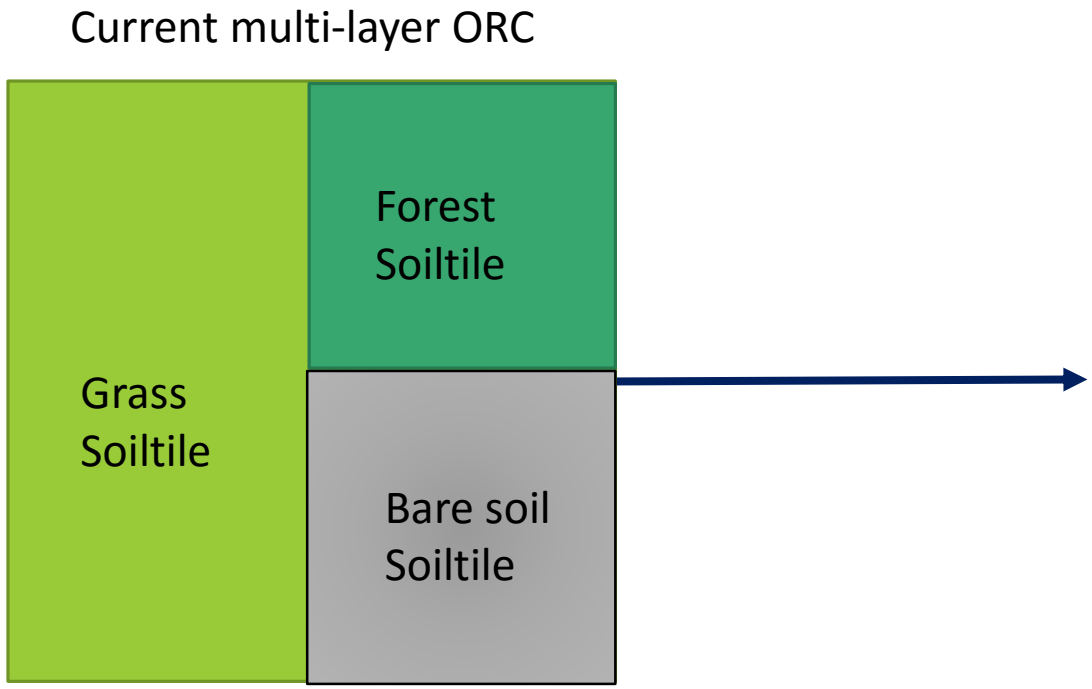

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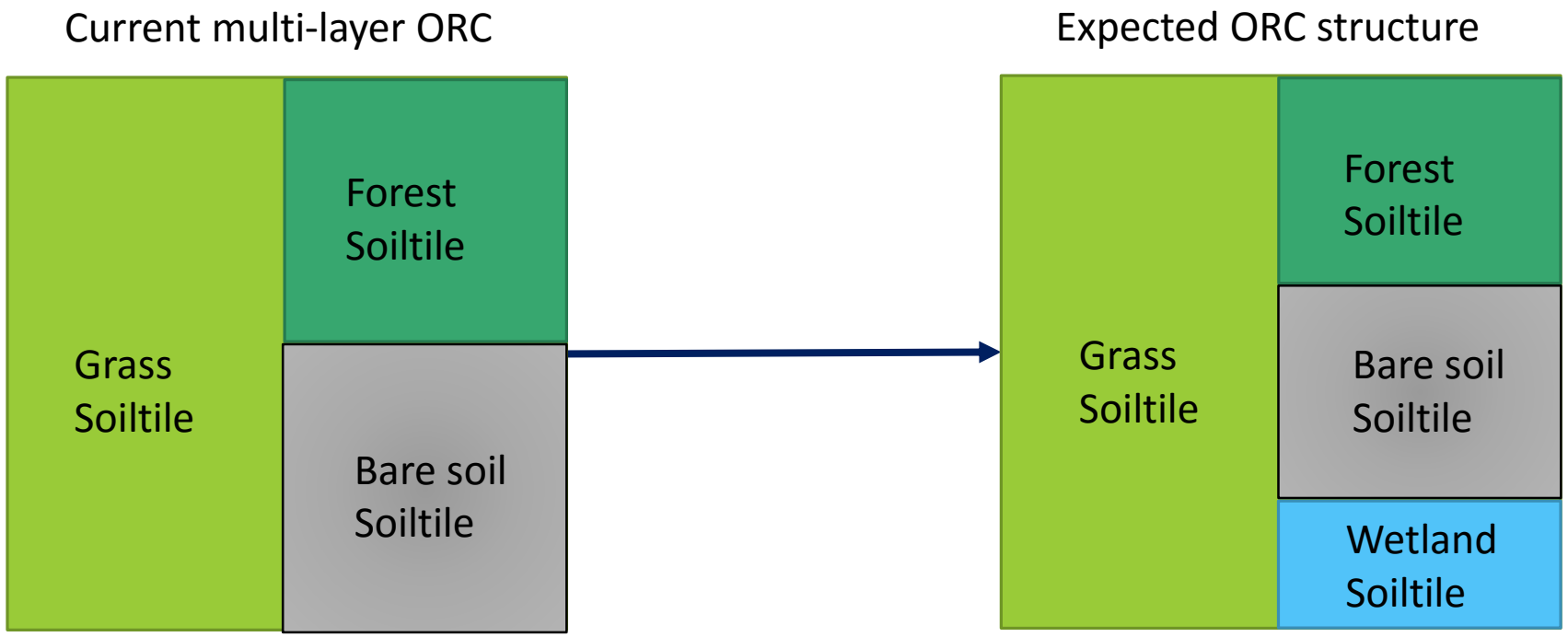

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4. Energy fluxes and buffering effects

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  - PIREN Seine (stream-aquifer exchange)
  - PNRZH (1997-2001)
  - Global maps (Lehner and Doll, 2004)

# Time table

- Start of the project: November 2015

| Area of work | | 2015 | 2016 | | | | 2017 | | | | 2018 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Reading and modeling | Background reading | | | | | | | | | | | | |
| | Trainings and workshops | | | | | | | | | | | | |
| | GIS Analysis | | | | | | | | | | | | |
| | Seine basin simulations (ORCHIDEE) | | | | | | | | | | | | |
| | Global Simulation | | | | | | | | | | | | |
| Writing | Literature review chapter | | | | | | | | | | | | |
| | Methodology Chapter | | | | | | | | | | | | |
| | Data Analysis Chapter | | | | | | | | | | | | |
| | Results chapter | | | | | | | | | | | | |
| | Discussion and Conclusion Chapters | | | | | | | | | | | | |
| | Editing and proof-reading | | | | | | | | | | | | |

# Thank you for your attention!