# Nutrient Sustainability in Swiss wood extraction

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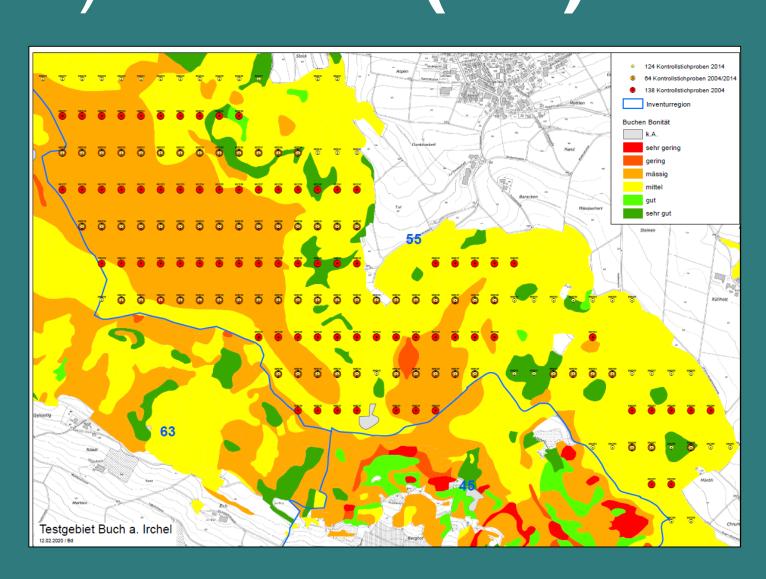
### Aim of the project: Protection of soil fertility and biodiversity

- > Determination of current nutrient pools and fluxes of different forest sites
- Estimation of expected nutrient removals during wood extraction
- Derivation of nutrient balances
- Formulation of management recommendations

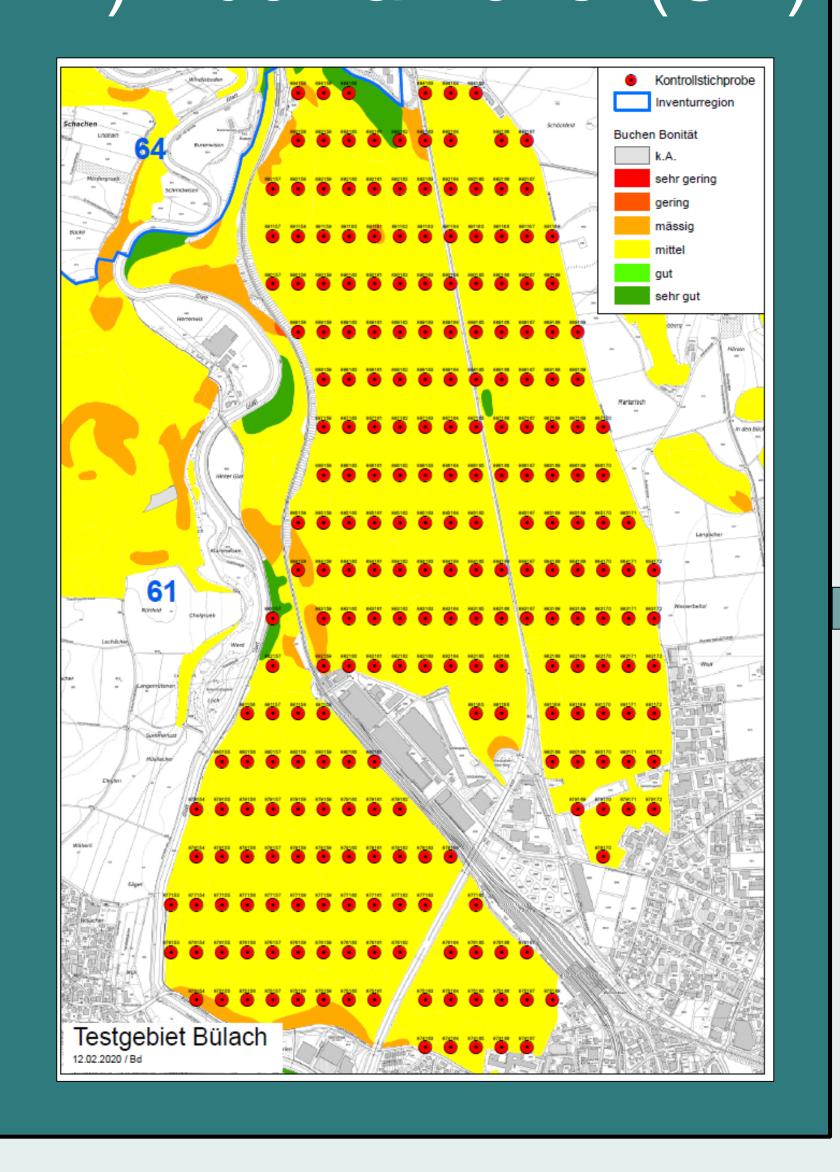
### Material and methods: Real data from case study areas and modelling

## Case study areas

1) Bülach (CH)



2) Buch a.Irchel (CH)



#### Soil analyses

- pH-value
- Ca, Mg, K, Na, Mn, Fe, Zn
- N-, S- and P-content
- carbon<sub>(org)</sub>-content
- weathering rate
- deposition
- soil leaching

#### Simulation

- alternative forest management strategies
- forest stand
  development over
  rotation period
- nutrient removal due to extraction



### Decision Support

- Derivation of nutrient balances
- Formulation of management recommendations



### Outlook: Development of nutrient database and software

- > Application of method to overall Switzerland
- > Implementation of site-specific nutrient-balances in forest planning