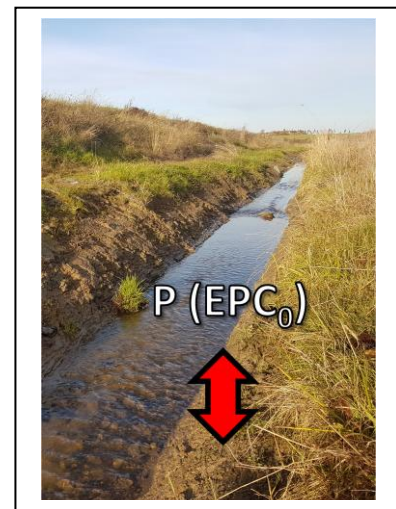


## The role of bed sediments for sorption of phosphorus in two-stage ditches in Sweden

**Credits:** 30 credits  
**Level:** Master  
**Subject:** Environmental Science  
**Start:** Anytime

### Background

Two-stage ditches are mitigation measures aiming to convert traditional agricultural ditches into streams with ability to increase water, nutrient and sediment retention. As such they are measures to reduce eutrophication but a lot of factors can control their effectiveness. This project focuses on **understanding the role of bed sediments in binding or releasing phosphorus** in two-stage ditches in Sweden.



### Objectives

To collect sediment samples and characterise phosphorus sorption using lab incubations. To characterise perform isotherm assay to determine equilibrium potential ( $EPC_0$ ) and sediment sink/source function. To use oxalate extraction to measure bioavailable P, Fe and Al.

### Performance

The work involves:

- Field and laboratory measurements,
- Statistical analysis of a large chemical dataset and GIS analysis of spatial data,
- Literature review and report writing.

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