



Sveriges lantbruksuniversitet  
Swedish University of Agricultural Sciences

Department of Soil and Environment

## Independent project/degree project

**Title:** Modelling the impact of urbanization pattern on surface water quality

**Credits:** 30 credits

**Level:** Master

**Subject:** Soil Science /Environmental Science

**Programme:** Civilingenjörsprogrammet Miljö och vattenteknik, Soil and Water management

**Start:** From summer 2016 or later

### Background

The urbanization trend recorded over the last decades have several environmental impacts, particularly associated with increasing runoff and flood hazard, and decreasing water quality. These topics have been investigated all around the world, but relatively little is known about the impacts of urban development in partially urbanized peri-urban catchments, namely in the Mediterranean regions.

### Issues

This master project aims to investigate the impact of different urbanization patterns on surface water quality within a Portuguese peri-urban catchment. The study will focus in Ribeira dos Covões, a small peri-urban catchment that has been studied since 2008. Several research projects have been performed on this study site to assess the impact of land-use changes, mainly urbanization, on streamflow, water quality and sediment transport, through a wide monitoring network installed.

### Performance

The master project will focus on available data to perform modelling of surface water quality, and investigate the impact of distinct urban patterns. This master project will be carried out in collaboration with several researchers, particularly from Portugal.

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