

## Using the concept of ecosystem and public services as a tool for establishing a reserve drinking water source. A case study from Ljubljana, Slovenia

Špela Železnikar (1), Marina Pintar (1), Branka Bračič Železnik (2), Barbara Čenčur Curk (3), Anja Torkar (3), Ajda Cilenšek (4), and Primož Banovec (4)

(1) University of Ljubljana, Biotechnical Faculty, Department of Agronomy, Slovenia (spela.zeleznikar@bf.uni-lj.si), (2) Public Water Supply Company JP VODOVOD-KANALIZACIJA d.o.o. Ljubljana, Research Department, Ljubljana, Slovenia (branka.bracic.zeleznik@vo-ka.si), (3) University of Ljubljana, Faculty of Natural Sciences and Engineering, Slovenia (barbara.cencur@ntf.uni-lj.si), (4) University of Ljubljana, Faculty of Civil and Geodetic Engineering, Slovenia (primoz.banovec@fgg.uni-lj.si)

Land use and climate change have significant impacts on drinking water resources. Drinking water protection is already an integrated part of some land-use practices, but lagging behind with implementation and establishment. Nowadays, different tools and stakeholder analysis are used as mechanisms for establishing new approaches and solutions for future urban-natural city solutions. Ecosystem services, benefits derived from ecosystems, and public services, services that provide public goods for the population with associated net social benefits, can be used as combined and merged mechanisms in establishing a reserve drinking water source. For the Slovenian case study, literature and in-situ ecosystem and public services identification was made. Next level identification and reserve drinking water source establishment was performed through stakeholder workshops. Interactive presentations to targeted stakeholder groups, presented and explained booth concepts, explicitly highlighted that the relation between the ecosystem and public services concept is hazy and indistinct in some parts. With stakeholder analysis and different in-situ research, we would like to introduce a new approach to existing city land use practices. Furthermore, development of new solutions, such as establishing a reserve drinking water source using ecosystem and public services concepts, is one of the main goals for future urban-natural city growth in Ljubljana, Slovenia. This research was done in the frame of the Central Europe project PROLINE-CE aiming to improve protection of drinking water resources as well as protection against floods/droughts in an integrated land use management approach, in order to facilitate implementation of existing strategies and management plans.