

# FIRST NATIONAL STAKEHOLDER WORKSHOP JUNE 12<sup>TH</sup> 2017, ZAGREB, CRO

Minutes	Version 1
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### 1. Participating stakeholders

Organization	Participants
City of Zagreb, City office for energetics, environment protection and sustainable development, Department of water and water management	Tihana Ledecki
Water supply Zagreb Ltd.	Vesna Arar Maričić
Association "Slap"	Snježana Kralj
IRES ecology	Marina Čačić, Josip Stojak, Danijel Stanić
Green infrastructure Ltd.	Nikolina Bakšić
Meteorological and Hydrological Service of Croatia	Ivana Marinović, Ivan Bertović, Petar Zvonar
Source Ploče	Đino Zmijarević
Aqua Kem Ltd.	Ivan Deotto
Terra Compacta Ltd.	Alan Bačić
VG water supply	Nikica Visković
Ministry of Environment and Energy	Vlasta Pašalić, Anita Pokrovac Patekar, Brigitte Mrvelj Čečatka
Faculty of Agriculture	Marina Bubalo Kovačić
OIKON Ltd.	Vladimir Kušan, Ivona Žiža
Croatian waters	Daria Čupić, Mara Pavelić
Sisak-Moslavina County	Ljiljana Križanić
Dubrovnik-Neretva County	Ivo Duračić
Croatian Geological Survey	Josip Terzić, Jasmina Lukač Reberski, Ivana Boljat, Matko Patekar, Ana Selak, Ivona Baniček





### 2. First national stakeholder workshop

The first national stakeholder workshop for the PROLINE-CE project was held on June 12<sup>th</sup> 2017 in the hall of the Croatian waters headquarters in Zagreb. Within the thematic work package T1: Capitalization: Capacity Building and Stakeholder Engagement that is led by the project partner Croatian Geological Survey, a national stakeholder workshop was planned.

The strategies and measures of the project will be identified and integrated in existing policy guidelines which will be done through intensive key stakeholder involvement by means of this kind of workshops. The input provided by the target groups is essential in developing best management practices in land use for drinking water protection and flood/drought mitigation.

The workshop kickstarted with a welcome to all the stakeholders and participants from the Head of the Hydrogeological and Engineering Geology Department of the Croatian Geological Survey, Josip Terzić who is representing the Croatian Geological Survey as the project partner lead.

### 2.1. General presentation of the national project partner coordinator

• Presentation "Proline-CE\_Introductory\_project\_information\_Josip\_Terzic" by PhD Josip Terzić showed the general information and figures of the project, its aims and current progress



Fig. 1. Introductory words of Josip Terzić as the project partner team leader





- The details of the work package were also mentioned, as well as the challenges that await the implementation of the project objectives and its contribution
- Pilot areas were presented to the stakeholders and all the difficulties connected with them

#### 2.2. Presentation of MSc Želimir Pekaš from Croatian waters

• "PROLINE-CE\_Challenges\_in\_drinking\_water\_resource\_management\_Pekas" presentation by Želimir Pekaš outlined the current issues in drinking water protection, explained the difficulties of syncing national legislation with the European one, gave a risk assessment and announced the planned activities for groundwater protection



Fig. 2. Želimir Pekaš presentation

- The results of detailed chemical analyses were presented and the risks connected to the decline of water quality
- Drinking water spring protection zones were depicted on the state map showing a very graphic portrayal of the unsatisfactory level of preservation on a national base





## 2.3. Presentation of PhD Marina Bubalo Kovačić from the Faculty of Agriculture

 "PROLINE-CE\_Influence\_of\_agriculture\_on\_groundwater\_Bubalo\_Kovacic" presentation by Marina Bubalo Kovačić included the maps of land use in regards to agriculture, pesticides and fertilizers used for individual crops and maps of aquifer and soil vulnerability



Fig. 3. Marina Bubalo Kovačić presentation

• The lecturer analyzed the impact of various contaminants on water resources, mentioned the project of national groundwater quality monitoring and the locations of sampling

#### 2.4. Presentation of Prof. Vladimir Kušan from OlKON Ltd.

• Presentation "PROLINE-CE\_Land\_use\_and\_drinking\_water\_Kusan" by Prof. Vladimir Kušan, PhD illustrated the complication with conflicting land use data, mentioned various models of water retention in regards to the surface and how evapotranspiration and filtration vary depending on the degree of urbanization







Fig. 4. Vladimir Kušan presentation

• Professor Kušan spoke of the torrent flood problem in urban areas and how bad land use practices influence this hazard in particular, he mentioned a successful UK project that deals with the importance of permeable surfaces in cities and a great example of good rainwater management legislative in Germany as positive practices

#### 3. Interactive stakeholder dialogue

The second aim of the workshop was to acquire feedback on various aspects of flood protection and land-use management in drinking water recharge areas from the event participants. The method used was carousel brainstorming which enabled exploring multiple perspectives of an issue in a dynamic session.

After the coffee break that followed the last of the presentations, the participants returned for the discussion and were encouraged to offer their input. The dialogue was organized in a circular fashion with the stakeholders being divided into three groups. Each station had a moderator from the Croatian Geological Survey who prompted the debate.





The topics were:

- Group 1 concerned itself with the analysis of the current water management and existing legislation and how to improve them
- Group 2 dealt with the challenges of drinking water protection regarding land use management
- Group 3 discussed the issues of drinking water protection regarding flood mitigation measures

The carousel worked by rotating people around the stations with its assigned facilitators, flipcharts and markers. The participants provided their ideas and experience from diverse sectors which the moderators wrote down on a panel. When the time was up, after circa 20 minutes, the groups rotated to a different station. The arriving group added their own opinions, comments and answers. The rotation continued until each group arrived back to their original stations to see how the others have responded.



Fig. 5. Interactive panel discussion

The water management and legislation panel had numerous inputs ranging from betterment of legislation in general, crossborder collaboration, educational workshops and seminars for the general public, stimulations for good management practices from the government,





improvement of monitoring to difficulties with metadata and systematization of research and planning, just to name a few.



Figs. 6 and 7. Water management and legislation panel with stakeholder input



The land use management panel used the pilot areas as examples of the existing issues and focused on pesticide impact, poor information availability for the local community and the implementation of legislation.







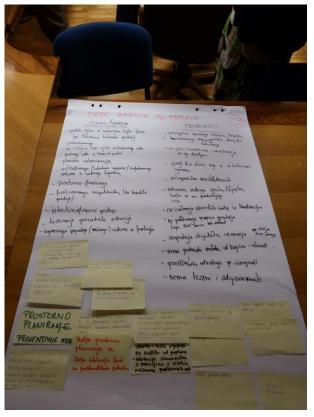
Figs. 7 and 8. The land use management panel with stakeholder input

The flood mitigation panel structured the stakeholder input into measures/solutions and problems which illustrated the numerous problems that occur in Croatia. An interdisciplinary approach was emphasized as a means for a positive impact, spatial planning, abundant research in the current status of water retention, planned urbanization and upper river basin management. Poor legislation implementation and small panelties were mentioned as one of the bigger issues in this sector.









Figs. 9 and 10. The flood mitigation panel with stakeholder input

The group leaders presented their flipchart results and pointed out the similarities between the existing issues.

Afterwards, the Head of the Hydrogeological and Engineering Geology Department of the Croatian Geological Survey, Josip Terzić closed the workshop with some final remarks, asked the participants to fill out the questionnaires and thanked them for coming. He invited them for lunch and further discussions which the stakeholders gladly accepted. The flipcharts were photographed in order to summarise the conclusions.

The follow-up entails sending thank you notes, the report of the event, powerpoint presentations of the lecturers and the list of participants to all attendees.