Working Group (WG): study of sustainable water management in tunnels (GESTAG) Established by the Italian chapter of IAH on 20/06/2012



## **Document GESTAG-04:**

## **REPORT OF WORK PROGRESS IN NOVEMBER 2012**

This note summarizes the progress of the activities of the WG GESTAG in November 2012. In these first 5 months of life, the WG was formed by recording the membership of 21 experts, three of whom hold Control Agencies, 6 to universities or research centers, 4 to Contractors, 7 to Designers and 1 to a testing and monitoring company. The involvement of Construction Companies is desired and is seeking members in future.

The official launch of the activities took place during the first workshop held in Piacenza (Italy) in conjunction with the exhibition Geofluid2012, the 4/10/2012. The workshop was organized by inviting six experts who have presented examples from case studies, useful to introduce the various issues, and organizing a final discussion, open to all those present at the meeting.

Specific issues to be explored in the context of sub-WG was identified on the basis of the indications received during the workshop and subsequent discussions within GESTAG members, held by e-mail. Sub-WG will have the task of developing these issues and bring in the WG synthesis for sharing, discussion and approval.

## Sub-WG

- 1. <u>Basic data</u>: archive cases of literature, past experience, tunnels data base and water inflow rates, examples of exploitation of water and heat
- 2. <u>Geological and hydrogeological reference model and methods of forecasting and management of the relationship between water and tunnel</u>: availability and type of basic data, investigation plans, inflow forecasting, calculation methods, design and planning processes, technologies for drainage and waterproofing
- 3. <u>Impact on the GDE (*Groundwater Dependent Ecosystems*)</u>: springs, streams, wetlands. Risk analysis and mitigation
- 4. <u>Communication</u> (dissemination, training, support to decision makers, advertising, perception of impacts and opportunities for enhancement)
- 5. <u>Regulation</u> (de facto state of laws, rules and policy framework, perspectives and development of new regulations and guidelines

All documents produced by GESTAG and the workshop presentations are published on the Italian IAH website <a href="http://nuke.iahitaly.it/">http://nuke.iahitaly.it/</a>.

Antonio Dematteis
Chairman of GESTAG WG

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