

## IAH Session URBAN GROUNDWATER – UNAPPRECIATED BENEFITS & UNDERESTIMATED RISKS < IGNORE AT YOUR PERIL! > 3 December 2015: 10.30-12.30

# Background

- groundwater has an intimate but concealed relationship with many facets of the development and functioning of urban conurbations – including water-supply security, wastewater disposal and management, drainage and groundwater flood prevention, and infrastructure design and stability
- positive examples of recent progress towards a more sustainable and resilient future in the developing world include Bangkok, Lima & Beijing – but major challenges still exist in Mexico DF, Sao Paulo, Delhi, Cairo, Manila, etc and these contrast to the 'tertiary problems' that have been confronted in cities like Buenos Aires, London & New York

# Objective

 the session is designed to summarise and highlight current understanding of urban hydrogeology, the opportunities and risks related to groundwater for urban infrastructure worldwide, and the integrated policy, governance and conjunctive/adaptive management requirements for achieving the UN-SDG of resilient cities

# Structure

 session will comprise some scene-setting presentation with a high-level panel of 4-6 people (a mix of senior urban water-sector managers, urban water researchers and groundwater specialists) who will respond to some pre-set questions about urban groundwater policy, and the institutional and financial provisions for sustainable management

### 10.30 Introduction, Scope & Objectives of Session

• Dr Ken Howard (IAH President 2012-16)

### 10.35 Resilient Cities & Groundwater – Opportunities & Threats

• Dr Stephen Foster (GWP-Senior Adviser & IAH Past President 2004-08)

### 11.05 Megacities Groundwater Issues – Case Histories

- Dr Ricardo Hirata (Sao Paulo-Brasil)
- Dr Graciela Schneier-Madanes (Tucson/Phoenix-USA)

### 11.45 Panel Discussion: Urban Groundwater Policy & Management

- Dr Blanca Jimenez-Cisneros (UNESCO-IHP)
- Mr Graham Alabaster/Mr Faraj El-Awar (UN-Habitat)
- Eng Hugues Haeffner (Suez Environment)
- Mr Stephane Dahan (World Bank)
- Dr Stephen Foster (IAH)
- Dr Ricardo Hirata (USP-Brasil)

### 12.25 Summation & Conclusions

• Dr Ken Howard (IAH President 2012-16)

### **Panel Questions**

- •
- How can groundwater storage resources best be conserved and utilised by urban water-service utilities to increase supply security ?
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- As regards private in-situ use of groundwater in urban areas, how can the benefits be maximised and the risks be minimised ?
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- How can groundwater considerations best be incorporated into the planning of urban sanitation?
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- How can the 'vacuum of responsibility' for groundwater in urban areas best be filled as a basis for integrated management?