IAH network on "Coastal aquifer dynamics and coastal zone management"

QUESTIONNAIRE

IAH national committees, IAH members and non members from all around the world involved in SWI and SGD research and management are kindly asked to fill in the questionnaire in this page with as many details as possible.
A world database will be set up and made available, with basic coastal aquifer main characteristics.
We expect to gather standard and comparable information on the knowledge level and hopefully the state of the art of the research on SWI and SGD, and coastal aquifer management methods adopted around the world

1)	Location of aquifer (country, more specific location):	Aveiro,Portugal
2)	Reported by:	E.MARTINHO,F. ALMEIDA and M. J. SENOS MATIAS
3)	Type of medium (karst, porous, fracture)	Porous medium
4)	Type of aquifer (phreatic or confined)	The main regional freshwater sources include a shallower unconfined aquifer of Holocene age and a semiconfined aquifer associated with Pleistocene formations of the lower Quaternary
5)	Main lithology - (e.g. gravel, sand and clay)	Gravel and sands
6)	Hydrochemistry: fresh or saline	Fresh and Saline
7)	Saltwater intrusion: lateral from sea or lakes - upconing	Lateral from sea
8)	Aquifer geometry: hydraulic characteristics	
9)	Aquifer parameters: storage - annual water pumping - (in MCMA - millions cubic meters, annually)	
10)	Depth of aquifer (water level and bottom) - water level 5-30 m - aquifer depth - 50-200 m	
11)	Major chemistry (anions - ?; Cations - ?):	
12)	Major salinity sources:	Interaction of the Atlantic Ocean, the Aveiro Ria (a large body of saline saline water) and local freshwater aquifers; Nitrate pollution
13)	Population:	Industrial and Agricultural area with a population of less than 100,000 inhabitants
14)	Aquifer status: special features - e.g. thermal springs, major faults,…	
15)	Investigation methods - e.g. water level measurements, EC (electrical conductivity profiles), TDEM (geophysical),	Isotopic analysis
16)	Numerical hydrological modeling, chemical and isotopic methods, age determination, IR survey, seepage meters (for Submarine Groundwater Discharge, SGD)	2D resistivity / induced polarization (IP) surveys
17)	Monitoring methods applied and duration - water level measurements, EC (electrical conductivity profiles - seasonal)	The measurements were carried out along two individual lines using a a collinear dipole-dipole electrode array. The separation between the lines was 2500 m and in were carried out 441 individual apparent resistivity/IP measurements
18)	Management methods:	
19)	Aquifer management actions:	
20)	Identification of existing or potential problems:	In the Aveiro coastal zone agriculture needs,fast developing tourism, industry that leads to higher consumption of water,leading to increased risk of salinization of the aquifers.
21)	Annexes:	
22)	Observations:	