

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):	ITALY, Latium
2)	Reported by:	Sappa G., Coviello M.T.
3)	Type of medium (karst, porous, fracture)	Porous
4)	Type of aquifer (phreatic or confined)	Multistrata aquifer: 1. two shallow aquifers (made by sand the first and by eluvial deposits the latter); 2. a deeper and confined carbonatic one.
5)	Main lithology - (e.g. gravel, sand and clay)	Quaternary deposits (sands, silts and clays)
6)	Hydrochemistry: fresh or saline	Brackish and Saline
7)	Saltwater intrusion: lateral from sea or lakes - upconing	Lateral from sea and upconing
8)	Aquifer geometry: hydraulic characteristics	Base elevation: 50 m asl - Thickness: 1000 m - Conductivity: 50 m/d
9)	Aquifer parameters: storage - annual water pumping - (in MCMA - millions cubic meters, annually)	Recharge: 250 mm/y - Annual water pumping: 8000 MCMA
10)	Depth of aquifer (water level and bottom) - water level 5- 30 m - aquifer depth - 50-200 m	Shallow aquifers: water level 2-10 m; depth 40-80 m b.s.l. - Carbonatic aquifer: water level 80-100; depth 100 m b.s.l.
11)	Major chemistry (anions - ?; Cations - ?):	CaCl,NaCl,HCO3 -Ca, HCO3-Na,mix(Cl-HCO3)-Ca,mix(Cl-HCO3)-Na
12)	Major salinity sources:	salt water intrusion - incongruent dissolution of dolomite - dissolution of gypsum - nitrate contamination
13)	Population:	100.000
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),	1.VES (Vertical Electrical Soundings) 2.water level measurements 3.Hydrochemistry investigation 4.EC (electrical conductivity profiles)
16)	Numerical hydrological modeling, chemical and isotopic methods, age determination, IR survey, seepage meters (for Submarine Groundwater Discharge, SGD)	Analysis of ionic delta and isotopic methods
17)	Monitoring methods applied and duration - water level measurements, EC (electrical conductivity profiles - seasonal)	None
18)	Management methods:	
19)	Aquifer management actions:	
20)	Identification of existing or potential problems:	High values of salinity are not suitable for irrigation crops in the study area
21)	Annexes:	Regione Lazio, Roma CIVITA M et al. (1988), Una metodologia GIS per la valutazione della ricarica attiva degli acquiferi, Parma
22)	Observations:	