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):	Chioggia,along the southern margin of the Venice Lagoon,Italy
2)	Reported by:	Rita Deiana,Francesco Morari,Pietro Teatini,Luigi Tosi and Andrea Viezzoli
3)	Type of medium (karst, porous, fracture)	Porous medium
4)	Type of aquifer (phreatic or confined)	Aquifer system consisting of a shallow aquifer and 5 confined levels
5)	Main lithology - (e.g. gravel, sand and clay)	Sand, Clay, Silt and a particular limos clay appointed Caranto
6)	Hydrochemistry: fresh or saline	Fresh and saline(only 5-10 meters deep)
7)	Saltwater intrusion: lateral from sea or lakes - upconing	Saltwater (lateral) intrusion from the Adriatic Sea and Lagoon Upconing (fossil brines)
8)	Aquifer geometry: hydraulic characteristics	Shallow aquifer: k=10-1-10-3 cm/s
9)	Aquifer parameters: storage - annual water pumping - (in MCMA - millions cubic meters, annually)	The average annual rainfall calculated on a long term database(from 1971 to 2000) is more than 800 mm
10)	Depth of aquifer (water level and bottom) - water level 5-30 m - aquifer depth - 50-200 m	Shallow aquifer: water level: 0.70-0.05 m depht: 4-5 m Confined Aquifers: than 40 meters
11)	Major chemistry (anions - ?; Cations - ?):	Na,Cl,Ca,Mg,Na+K
12)	Major salinity sources:	Sea and lagoon.
13)	Population:	Here lie majority of human settlements, industrial production and fish farming
14)	Aquifer status: special features - e.g. thermal springs, major faults,…	In the Venice area numerous gemorphological features representing fluvial paleoriver beds,ancient tidal channel and paleobeach ridges occur
15)	Investigation methods - e.g. water level measurements, EC (electrical conductivity profiles), TDEM (geophysical),	pH, T°, seismics, water level, EC, geophysical prospecting (SEV), Hydrogeochemic
16)	Numerical hydrological modeling, chemical and isotopic methods, age determination, IR survey, seepage meters (for Submarine Groundwater Discharge, SGD)	Chemical and isotopic methods; Using enviromental tracer (Br e Cl) Transport and hydrochemical model
17)	Monitoring methods applied and duration - water level measurements, EC (electrical conductivity profiles - seasonal)	Measurements of EC,water level and pH carried out in 2001 (September), 2002 (June) and 2003 (December) and in same years were taken in a special boreholes many groundwater samples that were analyzed in laboratory
18)	Management methods:	Research Programme"GEO-RISKS: Geological,morphological and hydrological processes: monitoring,modelling and impact in the north-eastern Italy,funded by the University of Padova
19)	Aquifer management actions:	
20)	Identification of existing or potential problems:	Salt contamination of land and groundwater is a severe problem that is seriously affecting the farmland productivity
21)	Annexes:	
22)	Observations:	