

MARWAN M.ALRAGGAD
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Summary

- Professional experience in groundwater investigations, and water management..
- Expert in professional environmental management systems using GIS.
- Computer literate: water management and modeling systems.
- Excellent field and in class training capacity.

Professional Experience

Researcher and lecturer: May 2010 – recent.

Water, Energy and Environment Center, University of Jordan.

- Researcher responsible about conducting research papers and projects in Hydrogeology, Groundwater dynamics, well drilling and development and ecohydrology.
- Lecturer in graduate studies programs at faculties of science and engineering, IWRM, Climate change impact and adaptation, Disaster risk reduction, hydrogeologic modeling and water quality.

Water basin field manager: Apr 2008 – Apr 2010.

Water Authority of Jordan, Jordan valley, Jordan.

- Managing the water basins in the Jordan valley on quality and quantity basis through direct field supervision of groundwater drilling, development, water quality assurance, sustainable water management and land use planning on a basin scale.

Hydrogeologist: Mar 2007 – Apr 2008

Water Authority of Jordan, Groundwater basins monitoring sector, Amman, Jordan.

- Senior hydrogeologist responsible about managing groundwater data, well sites selection, pumping tests, GIS mapping, and groundwater wells monitoring.
- Hydrogeologic studies and mapping of water protection zones.

Hydrogeologist: Oct 2005 – Nov 2006

USAID/ARD, GMED project, Amman, Jordan.

- Groundwater management, field investigations, wells test evaluation, water quality and quantity monitoring tools.

Teacher assistant (Part time) Oct 2006 – Nov 2009

University of Jordan, Department of environmental geology, Amman, Jordan.

- Field hydrogeologist providing assistance to professors in the field work, sampling, mapping and laboratory work in hydrogeology and structural geology
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Researcher (Part time) Jan 2007 – Nov 2009

University of Jordan and German Federal Ministry of Education and Research.

- Field and GIS hydrogeologist providing data control and GIS mapping and assistance in SMART and SUMAR projects (Funded projects).

Environmental hydrogeologist Jan 2002 – Jul 2004

Ministry of environment and UNEP, Amman Jordan.

- Researcher in Persistent Organic Pollutants project (POPs).

Education

B.Sc, Applied and environmental geology (1998-2002)

M.Sc, Geology (2002-2005): Groundwater resources evaluation.

P.hD, Geology (2005 – 2009):GIS based groundwater flow modeling and hydrogeochemical assessment of the northern part of the Dead Sea groundwater basin.

Training

Swedish Meteorological and Hydrological Institute, Sweden 25th-Oct–19th–Nov 2010

Climate change mitigation and adaptations.

Helmholtz-Center for Environmental Research, Germany 14th-Aug– 2th Sep 2008

Introduction into numerical flow modeling, Aquifer hydraulics, well testing, Groundwater recharge and GIS.

USAID/ARD (On job training) Nov 2005 - Aug 2006

Groundwater occurrence properties and control including hydrogeology of Jordan, groundwater flow, investigation and management including well design and drilling.

Specific computer skills

Professional GIS user

Water quality modeling software.

Groundwater vulnerability as decision Support System (DST)

Excellent knowledge in statistical analysis software and data processing.

International research projects

- **Project Leader:** Mitigating Environmental impact of treated wastewater reuse in Zarqa basin (USAID 2013-2015).
- **Project Leader:** Managed Aquifer recharge using treated waste water in Zarqa river Jordan (USAID 2013-2015)
- **Hydrogeologist:** Sustainable management of water resources in the Dead Sea area (BMBF Germany 2011-2013)
- **Senior hydrogeologist:** Groundwater drilling for artificial recharge in the Jordan Valley (BMZ, Germany 2012).
- **Senior hydrogeologist and GIS modeler:** Sources of groundwater salinity in North Jordan (DFG Germany 2012 – 2015),
- **Senior water quality expert:** Pollutants of emerging concerns in surface and groundwater of the Zarqa basin (DFG, Germany 2012 – 2015).
- **Coordinator:** CNRD project (Center of Natural Resources and Development), 14 international countries (DAAD / BMBF Germany 2015 – 2019).

Scientific research papers.

- Supervisor of 19 master students and two PhD students (2010 – 2015) in IWRM aspects: Climate change, Groundwater hydraulics, Environmental vulnerability and water quality and treatment aspects.
- Disi Water Use for Irrigation-A False Decision and its Consequences -, Clean Soil and water Journal (2014)
- Natural salinity sources in the groundwater of Jordan—Importance of sustainable aquifer management, Chemie der Erde, Elsevier (2014)
- Challenges to estimate surface- and groundwater flow in arid regions: The Dead Sea catchment, Science of The Total Environment (2014)
- New structural/tectonical model and its implication on hydrological thinking and groundwater management – the Lake Tiberias, Jordan Rift Valley, Geophysical Research Abstracts 16 , EGU2014-10007 (2014).
- Potential Stagnation mechanisms of drinking water due to large-scale flow of brines across faults in the Tiberias Basin, Geophysical Research Abstracts 16 , EGU2014-8236 (2014).
- Distribution of Upper Pliocene brines in the northern Jordan Rift Valley, Israel and Jordan, Geophysical Research Abstracts 16 , EGU2014-11053-1(2014).

- Application of the water balance model J2000 to estimate groundwater recharge in a semi-arid environment - a case study in the Zarqa River catchment, NW-Jordan, Environmental Earth Sciences (2013).
- Hydro-Geoelectrical Investigation for the Potential of Underground Water Storage along the lower reaches of King Abdullah Canal-DeirAlla Area/Jordan, JWARP. Vol.4 No.7, July 2012.
- Groundwater Recharge zones Mapping Using GIS: A case study in southern part of Jordan valley. Arabic Journal of geosciences (2012)
- Vulnerability of Groundwater System in Central Jordan Valley/Pollution Indicators and Decontamination Process. JWARP. Vol.4 No.3, March 2012
- Potentiality of Managed Aquifer Recharge (MAR) through surface infiltration in Azraq, Journal of water resources and protection, Dec 2010.
- GIS modeling of the effects of climatic changes on the groundwater recharge in the central western parts of Jordan, Jordan journal of civil engineering, Vol. 3 No. 5, Jordan (2010)
- Assessing groundwater vulnerability in Azraq basin area using a modified DRASTIC index, Journal of water resources and protection, Nov 2010.

Personal information

D.O.B: Dec, 10th 1979.

Marital Status: Married.

Nationality: Jordanian.