

International Association of Hydrogeologists Commission on Managing Aquifer Recharge



**International Association
of Hydrogeologists**
the World-wide Groundwater Organisation

**IAH Commission on
Managing Aquifer Recharge**

IAH-MAR REPORT OF ACTIVITIES 2022

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Chinese: <http://china-mar.ujn.edu.cn/>

Report of activities by IAH-MAR co-chairs and commission members in 2022

Events

- **11th International Symposium on Managed Aquifer Recharge (ISMAR11), 11-15 April 2022, Long Beach, California, USA**
 - Conference co-organisation: IAH-MAR, UNESCO, NGWA
 - Re-election of IAH-MAR Co-Chairs (until 2025)
 - Issued six IAH Certificates of Appreciation
 - Organised IAH-MAR Commission plenary session
 - Released materials: abstracts book, posters and presentations collection, videos of the slots... available in the MAR Commission website.
 - <https://recharge.iah.org/ismar>
- **Session on MAR at the Bi-annual Groundwater Conference in Germany, 23-25 March 2022 (online)**
 - Organised by the German Expert Group of Hydrogeology in the German Geological Society (FH-DGGV)
 - IAH German chapter and IAH-MAR commission co-organised a session on “Artificial and natural groundwater recharge”
- **Session on MAR at the International Conference “Groundwater, Key to the Sustainable Development Goals”, 18-20 May 2022, Paris, France**
 - Sub-topic 4.j. Managed aquifer recharge as a tool to protect and help sustainable groundwater management. Co-organised by Jesús Carrera, M. Silvia Diaz-Cruz, Cristina Valhondo
 - <https://www.gw-sdg2022.fr/index.php/en/topics>
- **4th International Summer School on Managed Aquifer Recharge, 29 August – 9 September 2022, Dresden, Germany**
 - Organised by Dresden University of Applied Sciences in collaboration with Technical University of Dresden
 - Funded by the German Federal Ministry of Education and Research (BMBF) and the German Academic Exchange Service (DAAD)
 - The 5th summer school on MAR will take place on 3-14 July 2023
 - <http://www.htw-dresden.de/mariss>
- **Session on MAR at the 49th IAH Congress “Groundwater Sustainability and Poverty Reduction”. Wuhan, China, 18-23 September 2023**
 - Topic 15 Managed aquifer recharge, co-organised by the IAH-MAR Commission. https://www.iah2022.com/Topics_And_Sessions.shtml
- **Session on MAR at the 9th International Groundwater Conference (IGWC) on 2-4 November 2022 (online)**
 - The conference was organised by IIT Roorkee. The Session 7 on MAR was entitled: “Water harvesting, managed aquifer recharge (MAR) and



conjunctive use/interactions of surface & groundwater”.

<https://www.igwc2022.com>.

- **Session on MAR at the AGU Fall Meeting, 12-16 December 2022, Chicago, IL, USA**
 - Session H52A: “Advances in managed aquifer recharge for groundwater sustainability”
- **Courses, lectures and webinars**
 - 40 hours course on managed aquifer recharge given by Enrique Fernandez Escalante, organized by the Peruvian Water National Authority (ANA), February – March 2022:
<https://www.gob.pe/institucion/ana/noticias/586552-ana-organiza-curso-recarga-gestionada-de-acuiferos>
 - Third webinar on groundwater challenges in Mediterranean and semi-arid regions entitled titled “Problems and solutions with Aquifer Storage Recovery in Lebanon”, organised by the IAH Lebanon Chapter, IAH-MENA, and the Department of Geology at the American University of Beirut (AUB). Lectures by Catalin Stefan and Peter J. Stuyfzand, 17 March 2022. <https://iah.org/events/problems-and-solutions-with-aquifer-storage-recovery-in-lebanon>
 - IWRA Webinar N°50. Groundwater Success Stories: Large-scale Water Transfer and Managed Aquifer Recharge, February 2022. Contributions by Karen G. Villholth. <https://www.iwra.org/groundwater-success-stories-webinar3/>.
 - A six-day course on MAR organised by UNAM, Mexico, as part of the LatinMAR Community of Practice (in Spanish), with contributions by Enrique Fernandez Escalante, 6-10 June 2022
 - Webinar about drilling and constructive differences between water supply and MAR wells organised by Hidro-Drilling Chile (in Spanish), 25 June 2022
 - Webinar on “Ground Water Recharge through Abandoned Dug Wells – Roof-top Rainwater Harvesting Structures” organised by WaterAid on 22 July 2022 with contributions from Peter Dillon and Karen G. Villholth
 - Webinar on MAR organised online by FUNGAGUA Guatemala with contributions from IAH-MAR Commission, 22 September 2022
 - MAR Con '22: Workshop on MAR to present the results of the H2020 MARSoluT project. 19-20 October 2022, Barcelona, Spain, with live online streaming. <https://www.marsolut-itn.eu/news-events/network-events/conference/>
 - Webinar: “Tackling the 21st Century Water Quality Challenges for Managed Aquifer Recharge”, organised by the European Federation of Geologists (EFG). Speaker Yan Zheng, Co-Chair of IAH-MAR Commission



Publications

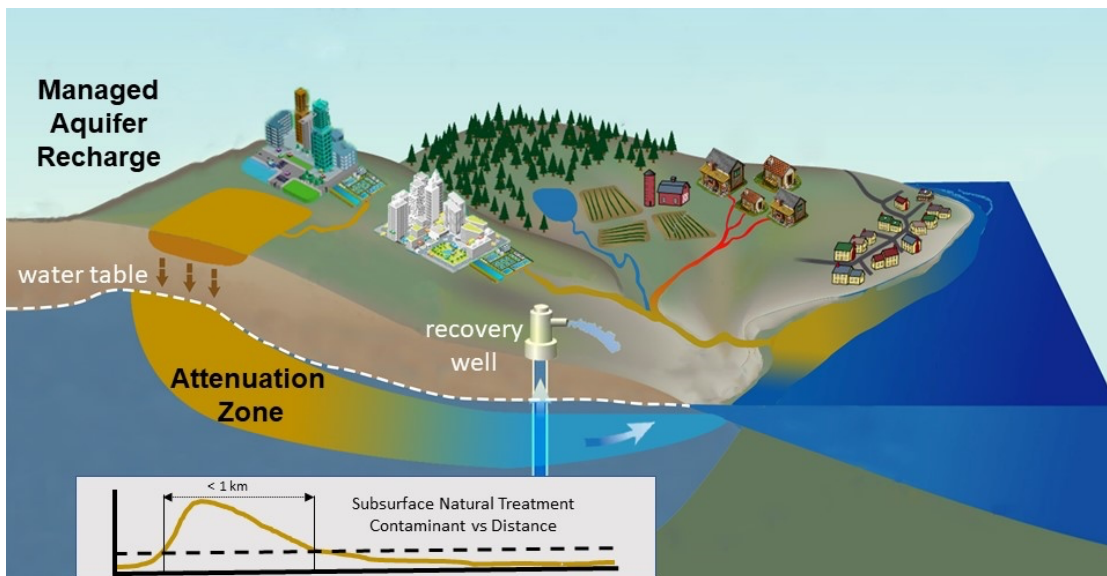
- **Guest editing of a special issue on MAR: “Managed Aquifer Recharge, A Key to Sustainability”**
 - Guests Editors: Enrique Fernandez Escalante, Catalin Stefan, Christopher J. Brown, June Mirecki
 - 7 papers published (by 17 March 2023), still open
 - MDPI Journal “Water” (ISSN 2073-4441), IF 3.53
 - https://www.mdpi.com/journal/water/special_issues/Aquifer_Recharge
- **IAH Groundwater Strategic Monograph Series No. 1**
 - Dillon, P., Alley, W., Zheng, Y., Vanderzalm, J. (ed.) 2022. Managed aquifer recharge: Overview and governance. An IAH-UNESCO-NGWA publication. <https://recharge.iah.org/files/2022/06/MAR-overview-and-governance-IAH-Special-Publication-18June2022.pdf>
- **UN World Water Development Report 2022: “Groundwater: making the invisible visible”**
 - Section on managed aquifer recharge in Chapter 11 Groundwater Management with contributions from IAH-MAR Commission co-chairs and members. <https://unesdoc.unesco.org/ark:/48223/pf0000380721>
- **New book on MAR in developing countries (in preparation)**
 - “Artificial recharge to groundwater and rain water harvesting: issues and learning from the developing countries”. Monograph initiated by the Centre for Science and Technology of the Non-Aligned and other Developing Countries in collaboration with the Groundwater Solutions Initiative for Policy and Practice (GRIPP). https://gripp.iwmi.org/wp-content/uploads/sites/2/2022/01/Flyer_Monograph-FFF.pdf
- **Other relevant publications**
 - Zheng, Y., Vanderzalm, J., Hartog, N., Fernández Escalante, E., Stefan, C. 2022. The 21st century water quality challenges for managed aquifer recharge: towards a risk-based regulatory approach. Hydrogeology Journal, 31:31–34. <https://doi.org/10.1007/s10040-022-02543-z>. (the article is part of the topical collection “International Year of Groundwater”)
 - Megdal, S.B. 2022. Managed aquifer recharge: MAR as a mechanism to advance water policy goals – a perspective. In: The Water Report. Water Rights, Water Quality and Water Solutions in the West. Issue #220, 15 June 2022. <https://wrrc.arizona.edu/publication/managed-aquifer-recharge>

Others

- **Mandate renewal for IAH-MAR Commission (2021 – 2026)**
 - Submission of report of activities for 2021 and renewal form (January)
 - Renewal granted by IAH Board until 2026



- **Awards and appreciations**
 - Peter Dillon, former IAH-MAR co-chair, was awarded the German Bower trophy during ISMAR11 in California, 11 April 2022
 - Peter Dillon received the NGWA M. King Hubbert Award during the NGWA Groundwater Week in Las Vegas, Nevada, USA; 6-8 December 2022. <https://wga.com.au/news/2022/08/26/2022-m.-king-hubbert-award-winner/>
 - Certifications of appreciation signed by the IAH Board were awarded during ISMAR11 to six members of IAH-MAR commission for their outstanding contributions to MAR development: Adam Hutchinson, Robert Bower, Peter Dillon, Thomas Grischek, Sharon Megdal, and Karen G. Villholth
- **Other dissemination activities**
 - Publication of 10 newsletters (almost on monthly basis) with MAR-related activities: <https://recharge.iah.org/newsletters>
 - IAH-MAR Commission on Twitter: <https://twitter.com/IAHMARCom>
 - WhatsApp group on MAR:
 - <https://chat.whatsapp.com/I4K5HclxszyEbrszDj1HQd>
 - Various posts on personal LinkedIn pages of Commission's co-chairs



Example of managed aquifer recharge application
(source: Zheng et al., 2022 <https://doi.org/10.1007/s10040-022-02543-z>)

Note: The list above is only a selection, and it does not include the numerous activities resulted from different projects on managed aquifer recharge such as project-related workshops, training courses, field trips etc. For a much more detailed report of MAR-related activities see the series of newsletters of the IAH-MAR Commission: <https://recharge.iah.org/newsletters>.