

Dear Ladies and Gentlemen, dear MAR family, good day!

Please, have a look on these MAR news for 2023 January and February

IAH MAR Commission Newsletter. 2023 January and February

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Whatsapp group on Aquifer Recharge Management

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IAH MAR Commission Forum

11st International Symposium on Managed Aquifer Recharge. Materials

11st International Symposium on Managed Aquifer Recharge (ISMAR 11), “**Managed aquifer recharge: A key to sustainability**”.

Videos and slides of the presentations (GRAC Website):
<https://www.grac.org/ismar-speaker-presentations/>

Some materials produced by the organizers, and by IAH-MAR co-chairs:

ISMAR 11 draft program <https://recharge.iah.org/files/2022/08/ISMAR-Draft-Program.pdf>
ISMAR-11-onsite-guide https://recharge.iah.org/files/2022/08/ISMAR-11-onsite-guide_c.pdf
ISMAR 11 abstract book (160 pg) <https://recharge.iah.org/files/2022/09/ISMAR11-abstracts-book.pdf>
ISMAR 11 presentations and videos (external link) <https://www.grac.org/ismar-speaker-presentations/>
P-ISMAR 11 mini-book (external link to DINAMAR, IAH-MAR’s sister site)
<https://dinamar.tragsa.es/file.axd?file=/PDFS/P-ISMAR-11.pdf>
ISMAR-11 field trips <https://recharge.iah.org/files/2022/08/ISMAR-11-Field-Trips2.pdf>

NEW MAR PUBLICATIONS

Managed Aquifer Recharge. A key to sustainability. Journal Water special issue. Deadline almost here!

Selected papers on MAR, specially presented at ISMAR 11, are published in this Special Issue of the open-access Journal WATER.

EVERYONE IS INVITED TO SUBMIT! Despite the official deadline is over, editors will accept papers for two months until **March 14th. Please, consider sharing your work!**

Two papers are currently in review. There are already five on line, and some others are coming... https://www.mdpi.com/journal/water/special_issues/Aquifer_Recharge.

Guest editors:

Enrique Fernandez Escalante (Spain)

Catalin Stefan (Germany)

Christopher J. Brown (USA)

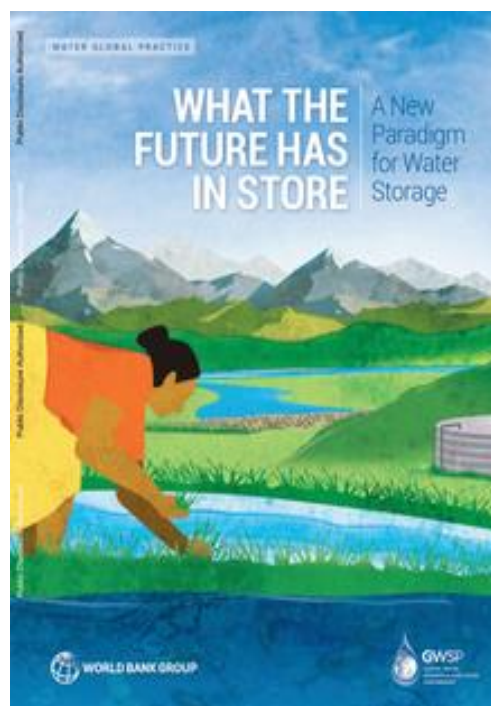
June Mirecki (USA)



Publishing cost: 50% of APCs, as exposed in the website.

New World Bank book on MAR. “What the future has in store. A new-paradigm for water storage”

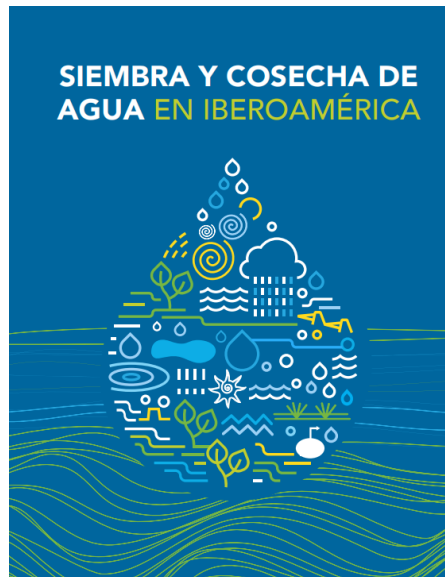
The World Bank has produced this report because we recognize that many of our clients around the world are in unprecedented situations, struggling to cope with water-related disasters and grappling with how to develop, operate, and maintain more—and more resilient—water services. Climate change, twinned with a growing water storage gap, means traditional approaches to water storage must evolve. In developing our understanding of what a twenty-first century approach to freshwater storage could look like, the Bank reflected on its own many decades of experience with natural and built water infrastructure, searched the world for examples of water storage solutions that are not otherwise accessible to water practitioners focused on their local regions in isolation, and looked at the variety of new science and tools that could be brought to bear to achieve results.



Read more and download the book: <https://reliefweb.int/report/world/what-future-has-store-new-paradigm-water-storage>

New book on water harvesting (in Spanish)

“Siembra y cosecha de agua en Iberoamérica” has been recently published by the Agencia Española de Cooperación Internacional para el Desarrollo (AECID). The book contains some water harvesting cases from Central and South America and Spain, becoming a good guide for hydro-tourism.



Download:

<https://intercoonecna.aecid.es/Gestin%20del%20conocimiento/Siembra%20y%20Cosecha%20del%20Agua-Enero%202023.pdf>

NEW MAR-RELATED PUBLICATIONS

The new issue of HydroVisions is here!

President's Mesage - R.T. Van Valer: Happy New Year! I can't believe it is already January 2023, another great year of important groundwater management activities. What a year we have had in GRAs 30th Anniversary! The 2022 year started off strong as we hosted GRA's largest event in our 30-year history, ISMAR11. Attendees joined us from all over the world both in person and virtually for the weeklong event including presentations, workshops, field trips, and lots of time for socializing and networking at our outstanding receptions.

Read More: <https://lnkd.in/grCb9BXv>

Within the pages of HydroVisions you'll be able to engage with live links, clip favorite articles, screenshot images and even download a PDF version of the publication.



Link: https://issuu.com/hydrovisions/docs/hydrovisions_-_2023_winter?fr=sNWY2MTU3Mzc2MDM

Thank you Adam Hutchinson for reporting.

Ya está disponible la edición n° 23 de la revista Vertiente de Alhsud Chile (in Spanish)

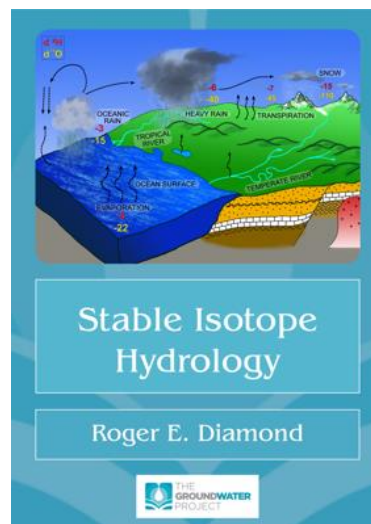
Although there are not specific articles on MAR, Vertiente includes Groundwater articles of extreme interest.



Download: <https://www.flipsnack.com/alhsudchile/revista-vertiente-2022/full-view.html>

The water Project. New outcome: Stable Isotope Hydrology

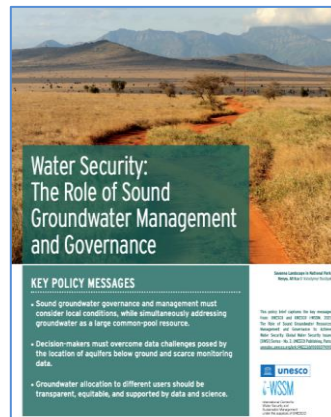
The stable isotopes of hydrogen and oxygen in the water molecule can provide insights into the movement of water that chemistry and physical methods (water levels, etcetera) sometimes cannot. Whether in the atmosphere, biosphere, hydrosphere or geosphere, stable isotope compositions can be used to trace flows of water, sometimes quantitatively. These flows include the key steps such as evaporation, condensation, precipitation, recharge, transpiration and discharge at springs or boreholes....



Read more and download: https://gw-project.org/books/stable-isotope-hydrology/?utm_campaign=new_free_book_stable_isotope_hydrology&utm_medium=email&utm_source=RD+Station

IWRA's Policy Brief on Water Security

IWRA has just published a Policy Brief on Water Security: The Sound of Groundwater Management and Governance.



Book Access: <https://www.iwra.org/iwra-policy-brief-no-23/>

Olive Oil Times. Groundwater Resources Recharge Faster than Estimated

New publication with certain MAR-related aspects. Groundwater Resources Recharge Faster than Estimated: <https://www.oliveoiltimes.com/world/groundwater-resources-recharge-faster-than-previously-estimated/115800>



MAR CONFERENCES

NGWA MAR conference.

Managed Aquifer Recharge: Unleashing Resiliency, Protecting Groundwater Quality (conference #5029)

Date: April 24-25, 2023

Location: San Antonio, Texas



More info:

<https://www.ngwa.org/detail/event/2023/04/24/default-calendar/23apr5029>

MAR-RELATED CONFERENCES AND SEMINARS

UNESCO-IWRA conference: Emerging Pollutants: Protecting Water Quality for the Health of People and the Environment. 2023 January 17th – 19th. RESULTS

The International Water Resources Association (IWRA), in partnership with UNESCO-IHP, organized the UNESCO-IWRA Online Conference on “Emerging Pollutants: Protecting Water Quality for the Health of People and the Environment”.

The Conference successfully brought together experts, researchers, practitioners, and organisations from different sectors that presented their work and explored the science, policy, law, economics, and other aspects of emerging pollutants. Furthermore, this event highlighted the ways the world can advance knowledge, research, and solutions for managing emerging pollutants to improve and protect water quality in a changing world.

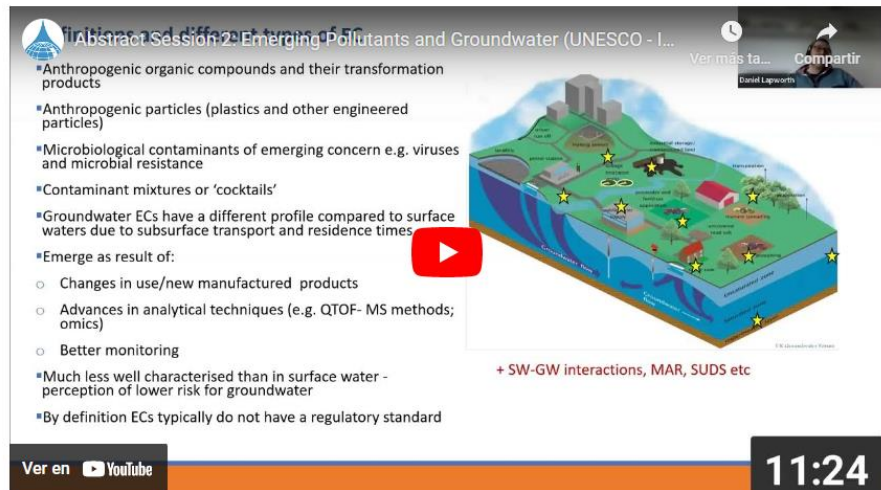
The programme consisted of more than 90 speakers, 27 moderators, co-moderators, and rapporteurs, and 14 sessions over 3 days, featuring 70 oral presentations, 100 poster presentations, and 4 plenaries (Opening and Closing Ceremonies; 2 High-Level Panels) showcasing the work and advances of some of the world’s leading experts on emerging pollutants. More than 2700 registered participants from 120+ countries actively engaged in these productive discussions!

In case you missed it, the presentations and proceedings of the sessions are available here.

16:30-18:00 - Abstract Session 2: Emerging pollutants and groundwater

Moderator:
Robert Kalin
 Professor, Strathclyde University, Glasgow
 Scotland

Co-Moderator:
Malcolm Gander
 Environmental Manager, United States
 Department of Defence



Abstract Session 2: Emerging Pollutants and Groundwater (UNESCO - I... Ver más ta... Compartir

- Anthropogenic organic compounds and their transformation products
- Anthropogenic particles (plastics and other engineered particles)
- Microbiological contaminants of emerging concern e.g. viruses and microbial resistance
- Contaminant mixtures or 'cocktails'
- Groundwater ECs have a different profile compared to surface waters due to subsurface transport and residence times
- Emerge as result of:
 - Changes in use/new manufactured products
 - Advances in analytical techniques (e.g. QTOF- MS methods; omics)
 - Better monitoring
- Much less well characterised than in surface water - perception of lower risk for groundwater
- By definition ECs typically do not have a regulatory standard

+ SW-GW interactions, MAR, SUDS etc

Ver en YouTube 11:24

More info and results: <https://iwraonlineconference.org/>

Results: Some of the recordings are already on line:

<https://iwraonlineconference.org/recordings-23/>

Some MAR presentations were interspersed in sessions 2 and 4, Emerging pollutants and Groundwater: <https://iwraonlineconference.org/recordings-23/>

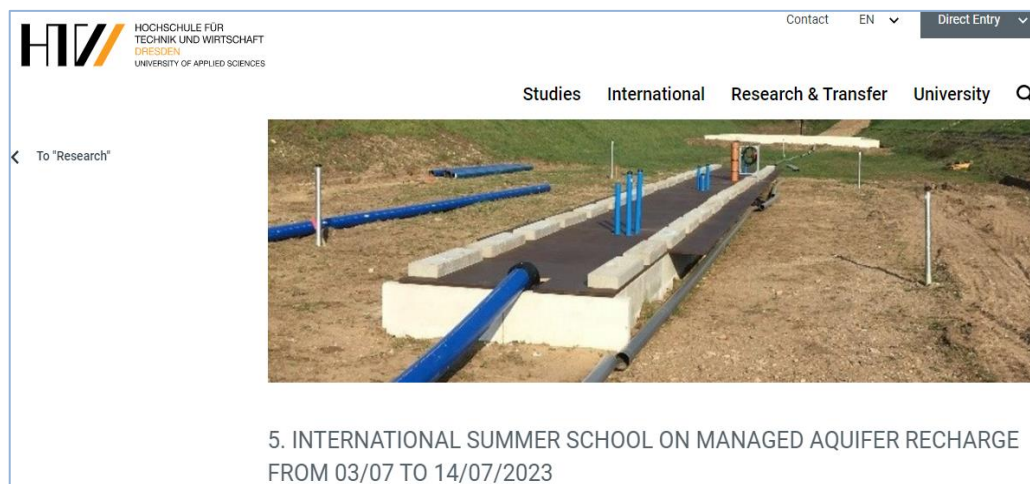
5 International Summer School on Managed Aquifer Recharge, MARISS, from 3 July to 14 July 2023

The next and last free-of-charge summer school, MARISS 2023, will take place from 3 July to 14 July 2023. The deadline for registration is 28 February 2023.

Organizers would appreciate it if you could inform your colleagues, friends, and co-workers about this.

More info:

<https://www.htw-dresden.de/en/university/faculties/civil-engineering/studies/subject-areas/water-sciences/research/planned-research-topics>



HTW HOCHSCHULE FÜR TECHNIK UND WIRTSCHAFT DRESDEN UNIVERSITY OF APPLIED SCIENCES

Contact EN Direct Entry

Studies International Research & Transfer University

To "Research"

5. INTERNATIONAL SUMMER SCHOOL ON MANAGED AQUIFER RECHARGE FROM 03/07 TO 14/07/2023

UN 2023 water Conference. 22 to 24 March 2023

Conference on the Midterm Comprehensive Review of the Implementation of the Objectives of the International Decade for Action, “Water for Sustainable Development”, 2018–2028 from **22 to 24 March 2023** at the United Nations Headquarters in New York.

IAH-MAR are already proposing any participation in the UN 2023 conference, that will take place in 2023 October.

More info:

<https://indico.un.org/event/1001019/> and <https://sdgs.un.org/conferences/water2023>

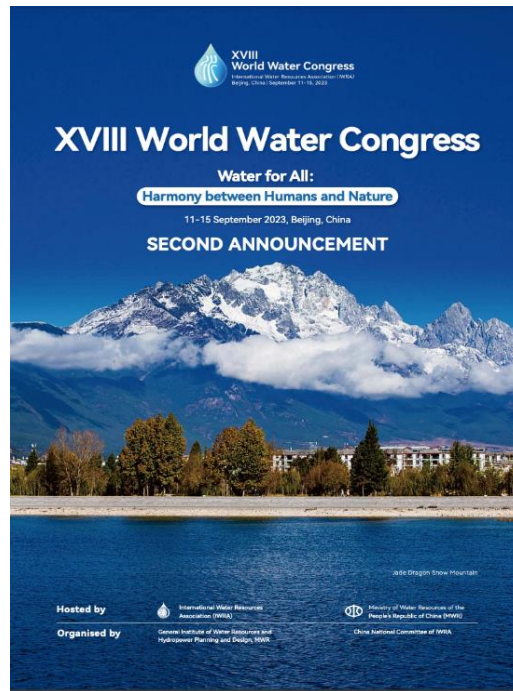


XVIII World Water Congress. 11–15 September 2023. Beijing. Call for abstracts still open

IWRA's [XVIII World Water Congress](#) (11–15 September 2023), taking place in Beijing, People's Republic of China, is just over seven months away!

Under the overarching theme on "Water for All: Harmony between Humans and Nature", the XVIII World Water Congress will focus on promoting the coordination and balance between the water needs of humans and nature.

We invite you to read the [Second Announcement brochure](#) to find out more about the upcoming XVIII World Water Congress, including the benefits of attending, key milestones on the road to Beijing, the High-Level Panels, themes and sub-themes, information on the call for abstracts, special sessions, and side events, as well as key dates to keep in mind, the tentative programme, registration fees, and the latest news about travelling to China...



SEMINARS

The 21st Century Water Quality Challenges for Managed Aquifer Recharge

Speaker: Yan Zheng, PhD, Chair Professor, School of Environmental Science and Engineering, Southern University of Science and Technology, and Co-Chair for the International Association of Hydrogeologists' Managing Aquifer Recharge Commission.



BROWN BAG WEBINARS



wrrc.arizona.edu

The 21st Century Water Quality Challenges for Managed Aquifer Recharge

Date: Wednesday, January 18, 2023
Time: 12:00 pm – 1:15 pm Arizona Time

Speaker: Yan Zheng, PhD, Chair Professor, School of Environmental Science and Engineering, Southern University of Science and Technology, and Co-Chair for the International Association of Hydrogeologists' Managing Aquifer Recharge Commission

The sustainability of groundwater is threatened by overexploitation and by pollution, exacerbated by perturbations of hydrological cycle stemming from climate change exerting poorly understood water quantity and quality risks with uncertain outcomes. A recent UNESCO publication on managed aquifer recharge (MAR) has provided unequivocal evidence that MAR is a sustainable nature-based engineering approach for enhancing climate resilience and other social, economic, and environmental benefits of groundwater. However, continued MAR implementation is challenged by over 80,000 synthetic chemicals in use by today's society, and emerging biohazards including viruses. This WRRRC Brown Bag presentation discusses how MAR professionals may tackle the 21st century water quality challenges. New findings on incomplete biodegradation of antibiotics, a type of trace organic pollutants, will be described. Given the threat of a large number of novel chemical and biological entities, it is suggested that groundwater monitoring programs pay more attention to them when justified, especially when MAR is used to bank large quantities of groundwater. Policy recommendations will be presented.



Dr. Yan Zheng became a Chair Professor at Southern University of Science and Technology (SUSTech), in Shenzhen, China in 2016. Her multi-disciplinary research contributed to the reduction of exposure to arsenic among private well households in Bangladesh, China, and USA. Dr. Zheng has published extensively in geochemistry, hydrogeology, environmental health, and policy. She obtained her PhD from Columbia University in 1999. Between 1998 and 2016, she held tenured faculty and administrative appointments at the City University of New York and research appointments at Columbia University. Dr. Zheng was a water and sanitation specialist with UNICEF Bangladesh between 2009 and 2011. Currently, she serves as the Editor-in-Chief for Environmental Earth Sciences, and as a Co-Chair for the International Association of Hydrogeologists – Managing Aquifer Recharge Commission. Dr. Zheng was elected a fellow of the Geological Society of America in 2010, and a fellow of the American Geophysical Union in 2021.

Registration Information:
Register for and join this webinar: <https://lnvurl.com/Water-Quality-Challenges>

The WRRRC hosts its Brown Bag Webinars using Zoom. Attendees will be able to ask questions using the Zoom chat function.

To request an alternate format of this webinar for disability-related access, please contact us: wrrc@arizona.edu
<http://wrrc.arizona.edu/brown-bag-seminars>

View the recorded webinar:

<https://wrrc.arizona.edu/events/brown-bag/wrrc-brown-bag-webinar-21st-century-water-quality-challenges-managed-aquifer>

Reflections: Thoughts at the Start of 2023 About Pathways to Water Solutions

Read this Sharon B. Megdal's essay.



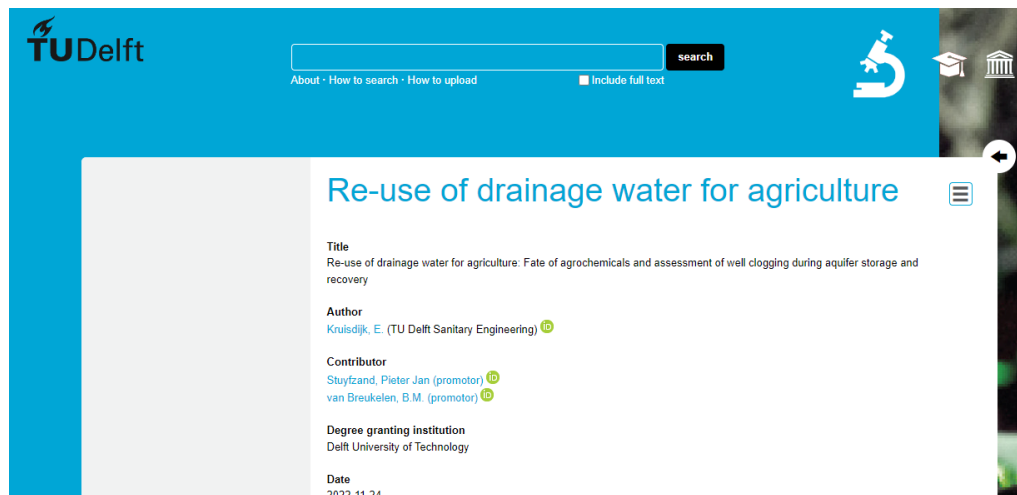
Read more:

<https://wrrc.arizona.edu/reflections-thoughts-start-2023-about-pathways-water-solutions>

NEW MAR OR MAR-RELATED ACTIVITIES

New dissertation on MAR. water quality changes and well clogging during Agricultural Aquifer Storage and Recovery

On the 24th of November, Emiel Kruisdijk defended his PhD dissertation on water quality changes and well clogging during Agricultural Aquifer Storage and Recovery. Agricultural Aquifer Storage and Recovery is a method to store water when abundantly available and re-use this water for crop irrigation when needed during droughts. The fresh injected water is collected from tile drainage water systems in the soil of agricultural fields. Pesticides and nutrients are found in the collected water originating from agricultural practice. This water is injected and stored into the underlying aquifer. Two Agricultural Aquifer Storage and Recovery sites were studied in the coastal region of the Netherlands to investigate the fate of pesticides and nutrients and the effect of tile drainage water on well clogging.



The dissertation can be downloaded via the link below:

<https://doi.org/10.4233/uuid:02dc1861-4971-42cb-8da7-c776dd10a884>

CONGRATULATIONS AND THANK YOU, EMIEL KRUISDIJK!!! 😊

New section at IAH-MAR Commission website. Certificates of appreciation.

The new section includes the name of the 26 “MARers” who have been awarded by IAH during the six last ISMAR conferences. It is a symbolic gesture of recognition and a motivation system for MAR promoters. Please, keep working on MAR and get the message out.

Visit the new section: <https://recharge.iah.org/certificates-of-appreciation>

Thank you Bob Bower for the suggestion.

Certificates of appreciation

The Commission on Managing Aquifer Recharge is recognising the important contribution of its members to the promotion and advancement of managed aquifer recharge around the world. As symbolic gesture of recognition, certificates of appreciation are awarded by the IAH President, at the recommendation of IAH-MAR Co-Chairs, every three years (usually during the plenary session of each ISMAR). The recipients of past IAH certificates are listed below (in alphabetical order):

2022

- Robert Bower (New Zealand)
- Peter Dillon (Australia)
- Thomas Griscochek (Germany)
- Adam Hutchinson (USA)
- Sharon Megdal (USA)
- Karen G. Villholth (South Africa)

2019

- Doug Bartlett (USA)
- Adriana Palma Nava (Mexico)
- Andrew Ross (Australia)
- Catalin Stefan (Germany) and IGRAC (The Netherlands)
- Yan Zheng (China)

2016

- Mario Lloria (USA)
- Paul Pavelic (Laos)
- Gabriel Pérez de los Cobos (Switzerland)
- Albert Tuinhof (The Netherlands)
- Weiping Wang (China)

2013

- Devinder K. Chadha (India)
- Enrique Fernández Escalante (Spain)
- Russell Martin (Australia)
- Ricky Murray (South Africa)
- Xuan Zhao (China)

2010

- Ian Gale (UK)
- David Pyne (USA)
- Pieter Stuyfzand (The Netherlands)

2007

- Herman Bouwer (USA)
- Ivan Johnson (USA)

New River Basin Plan in Spain. Tercer ciclo de planificación (in Spanish).

The new river basin's plans have been published, including about 15 new MAR activities planned until 2027.



Read more: <https://lnkd.in/deR-V3vV>

MORE ACTIONS

Whatsapp group on Aquifer Recharge Management

This is the link to join the group, with about 150 participants:

<https://chat.whatsapp.com/CGANGEdciw4V4zqc1I09r>

Previous IAH-MAR Newsletters

Please, remember that you can access the previous newsletters in our website:

<https://recharge.iah.org/newsletters>

That's all by now... **please, keep reporting (dinamar@tragsa.es)**.
Thank you in advance...

...and all the best...

Dr. Enrique Fernández Escalante, on behalf of the IAH MAR Commission co-chairs,
Dr. Catalin Stefan and Dr. Yan Zheng.

2023 February 12nd

IAH-MAR Commission on Twitter



@IAHMARCom

<https://twitter.com/IAHMARCom>

IAH-MAR Commission's sister Web sites

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



濟南大學

University of Jinan



<https://dinamar.tragsa.es/>



@4dina_mar

Linked-in groups on MAR

Managed Aquifer Recharge, DINA-MAR

<https://www.linkedin.com/groups/4690290/>

Aquifer Storage and Recovery (ASR)

<https://www.linkedin.com/groups/2183513/>

MARSoluT - MAR Solutions Training Network

<https://www.linkedin.com/groups/7453856/>

IAH MAR Commission Forum

Please, remember you can book freely in the IAH MAR Commission Forum:

<https://lists.flinders.edu.au/mailman/listinfo/iah-mar.listcgs>
