

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

IAH MAR Commission Newsletter. 2024 March

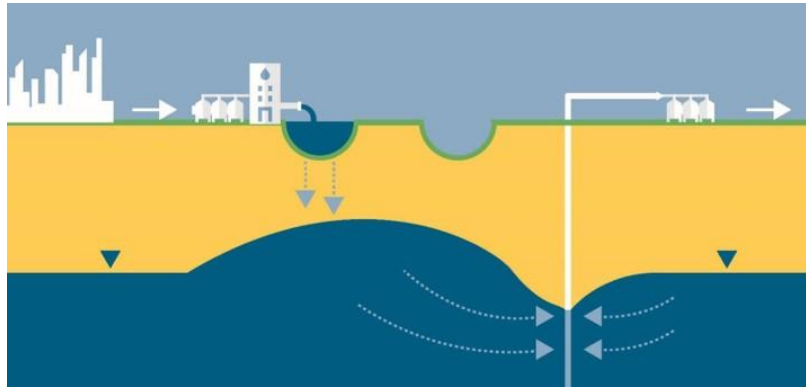
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PUBLICATIONS ABOUT MAR

Managed Aquifer Recharge (MAR-1). Technical Guidance Document and Training

The Managed Aquifer Recharge (MAR) Team finalized the production of a Technical Guidance Document and Training that evaluates the potential uses of MAR...



Read more and Guidance Document for 2023 December is on line at:
<https://itrcweb.org/itrcwebsite/teams/active/mar>

Thank you Dave Kreamer for reporting.

NEW MAR-RELATED PUBLICATIONS

HydroVisions | Winter 2024



Download:

https://issuu.com/hydrovisions/docs/2024_hydrovisions_-_winter_-_issuu/6

SWAM Special issue. Invitation to contribute


Sustainable Water Resources Management

Call for Papers for a Special Issue
Design and Operation of Riverbank Filtration Schemes




Bank filtration / riverbank filtration (BF/RBF) is an element of managed aquifer recharge and has been used by riverside communities for many decades as a natural water treatment process. RBF forms part of a multi-barrier approach to drinking water supply at numerous sites. With a growing and conscious use worldwide, RBF will become more important to safeguard future water supplies for drinking, irrigation and industries. The thematic focus is on RBF for drinking, industrial and irrigation water supply. Manuscripts are invited from the oral and poster presentations of the International RBF Conference in Dresden in October 2023 and from authors who were not able to attend. Manuscripts should be based on further development from discussions at the conference and additional research. There is included, but not strictly limited to, are clogging, hydraulic and design aspects of RBF schemes and their operation and management, water quality aspects, innovative site-investigation techniques including non-invasive techniques and post-treatment of RBF water. Furthermore, the application of RBF for environmental management is also included. The special issue is also aimed at including social, economic and policy/governance investigations revolving around the core theme of RBF. Contributions can include laboratory-scale investigations to worldwide case studies that have not been published elsewhere and are not under consideration for publication via any medium anywhere else.

Guest Editors

- **Thomas Grischek**, University of Applied Sciences Dresden, Germany
- **Cornelius Sandhu**, University of Applied Sciences Dresden, Germany
- **Gopal Krishan**, National Institute of Hydrology, Roorkee, India

<https://link.springer.com/collections/eddefcdahg>

Submission deadline: 31 March 2024



MAR AND MAR-RELATED CONFERENCES AND SEMINARS

ISMAR 12. Organizers are already working on heavily

Get ready for the largest event of the MAR community!



12th International Symposium on Managed Aquifer Recharge

“From Theory to Implementation and Operation”

28 April – 2 May 2025 – Stellenbosch, South Africa

<https://www.ismar12.org.za/> will soon have more information and timelines.

We all request your help to attend and publicise the event.



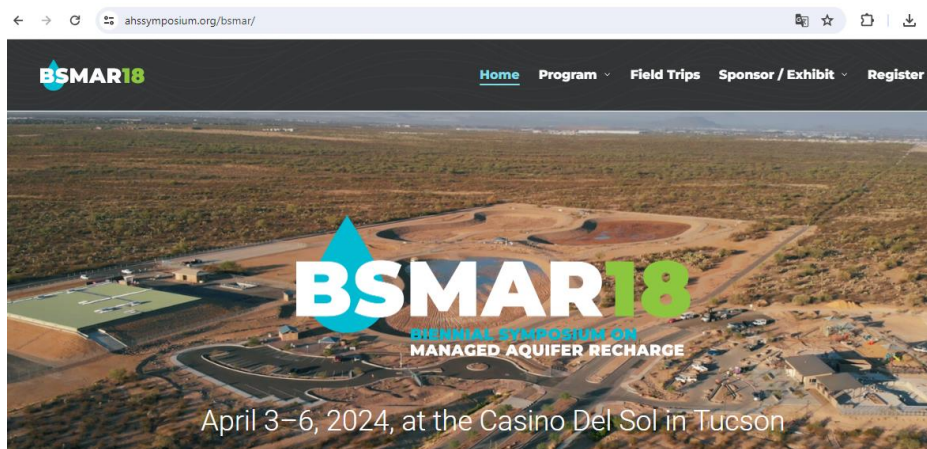
The IAH South African chapter's website includes some information on the International Symposium on Managed Aquifer Recharge. It will be in South Africa in April-May 2025.

More info: https://iah.org.za/files/2022/04/ISMAR25_PP_April.pdf

2024 BSMAR Symposium. Arizona, April 3-6

BSMAR 18 Symposium will take place in Arizona from April 3-6, 2024.

BSMAR18 will kick off with two concurrent panel sessions on surface recharge technologies and injection wells, featuring discussions about lessons learned and future MAR projects...



More info: <https://ahssymposium.org/bsmar/>

2024 Western Groundwater Conference

Call for abstracts for 2024 Western Groundwater Conference is live:

https://www.linkedin.com/posts/roohifakhartousi_2024-wgc-call-for-abstracts-activity-7164024091996270592-u1zq?utm_source=share&utm_medium=member_desktop

The Groundwater Resources Association is now accepting abstracts for the 2024 Western Groundwater Congress!



Abstracts are being sought for the following topic areas:

- Sustainable Groundwater Supplies & Storage
- Evolution of Groundwater Management Under SGMA
- Containment Assessment and Remediation
- Unique Challenges and New Opportunities

Please see the full list of session topics and descriptions online and submit your abstract today!

More Info: <https://www.grac.org/2024-wgc-call-for-abstracts/>

Regional Hybrid Training Workshop on “Groundwater governance: lessons learned, challenges and solutions”. April 23-24, 2024, Tehran, Iran

Contributing more than 50% in providing water for economic, social, and cultural processes, groundwater resources are highly valuable in Iran, However, climate change, prolonged droughts, and excessive overexploitation have threatened the sustainability of these strategic resources. Therefore, a paradigm shift towards conservation and optimal use of groundwater resources are vital.



IAH-MAR Commission has cooperated in the organization of the workshop.

More info, concept note, and program:

<https://rcuwm.ir/news/groundwater-governance-lessons-learned-challenges-and-solutions/>

The SGMA implementation summit & workshop

June 5- 6, 2024 at the Kimpton Sawyer Hotel in Sacramento
Day One: 8:30am - 6:00pm | Day Two: 8:30am - 12:00pm



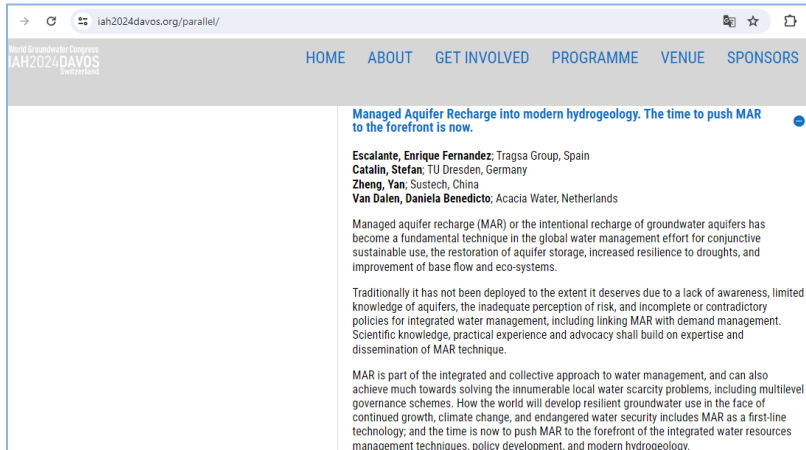
Once again, we are working in collaboration with the ACWA Groundwater Committee and SGMA Implementation Subcommittee to bring you this interactive collaborative event... Last year this event sold out!

Read more... [interactive collaborative event](#)

IAH 2024 Conference. Davos, Switzerland. September

The IAH 2024 conference will take place in Davos, 2024, September 8-13th.

There is a specific session on MAR: *“Managed Aquifer Recharge into modern hydrogeology. The time to push MAR to the forefront is now”*.



World Groundwater Congress
IAH2024 DAVOS
Switzerland

HOME ABOUT GET INVOLVED PROGRAMME VENUE SPONSORS

Managed Aquifer Recharge into modern hydrogeology. The time to push MAR to the forefront is now.

Escalante, Enrique Fernandez, Tragsa Group, Spain
Catalin, Stefan, TU Dresden, Germany
Zheng, Yan, Sustech, China
Van Dalen, Daniela Benedicto, Acacia Water, Netherlands

Managed aquifer recharge (MAR) or the intentional recharge of groundwater aquifers has become a fundamental technique in the global water management effort for conjunctive sustainable use, the restoration of aquifer storage, increased resilience to droughts, and improvement of base flow and eco-systems.

Traditionally it has not been deployed to the extent it deserves due to a lack of awareness, limited knowledge of aquifers, the inadequate perception of risk, and incomplete or contradictory policies for integrated water management, including linking MAR with demand management. Scientific knowledge, practical experience and advocacy shall build on expertise and dissemination of MAR technique.

MAR is part of the integrated and collective approach to water management, and can also achieve much towards solving the innumerable local water scarcity problems, including multilevel governance schemes. How the world will develop resilient groundwater use in the face of continued growth, climate change, and endangered water security includes MAR as a first-line technology, and the time is now to push MAR to the forefront of the integrated water resources management techniques, policy development, and modern hydrogeology.



More info: <https://www.iah2024davos.org/>

SEMINARS AND WEBINARS

Geological Society of America conference in Anaheim, CA, 2024, September

A “marer” of the IAH-MAR group has reported he plans to submit a session proposal for the upcoming Geological Society of America conference in Anaheim, CA, in September, entitled "Advances in Managed Aquifer Recharge."



"This session will present an interdisciplinary overview of the hydrological, geochemical, and geobiological processes and interactions associated with the practical implementation and operation of managed aquifer recharge strategies." More info: <https://s23.a2zinc.net/clients/corcexpo/gsa2024/public/enter.aspx>

IAH-MAR will endorse this session with pleasure.

Thank you Dr. Gordon Osterman for reporting.

NEW MAR OR MAR-RELATED ACTIVITIES

Groundwater Recharge California

Groundwater recharge is a key strategy throughout California to manage water through climate-driven weather extremes, including prolonged drought and periodic intense storm events...

<https://water.ca.gov/Programs/Groundwater-Management/Groundwater-Recharge>



Read more: https://www.linkedin.com/posts/california-department-of-water-resources_these-storms-are-providing-aid-to-the-groundwater-activity-7160698066335940608-VSwC?utm_source=share&utm_medium=member_desktop

MORE ACTION

Consulting IGRAC's GGMN information at the Los Arenales aquifer

Part of the data used for a 'global-scale' study of groundwater levels, published in [#Nature](#), is now available in our Global Groundwater Information System. The analysis is rooted in the analysis of millions of groundwater-level measurements in 170,000 wells from 1,693 aquifer systems in over 40 countries. Study in [Nature Portfolio](#) by: [Scott Jasechko...](#) (UC Santa Barbara) <https://lnkd.in/dkaDAyed>

Successful human interventions

Jasechko et al. (2024) also highlight some successful human interventions addressing groundwater depletion. For example, in Bangkok (Thailand), groundwater-level declines of the 1980s and 1990s were reversed following the implementation of regulations designed to reduce groundwater pumping. Meanwhile, in Albuquerque, New Mexico (USA), groundwater levels are recovering after an inter-basin transfer of surface water alleviated groundwater demand. And finally, a managed aquifer recharge scheme in the Avra Valley of Arizona (USA) is replenishing a depleted aquifer using water that has been diverted from the Colorado River.

<https://doi.org/10.1038/s41586-023-06879-8>

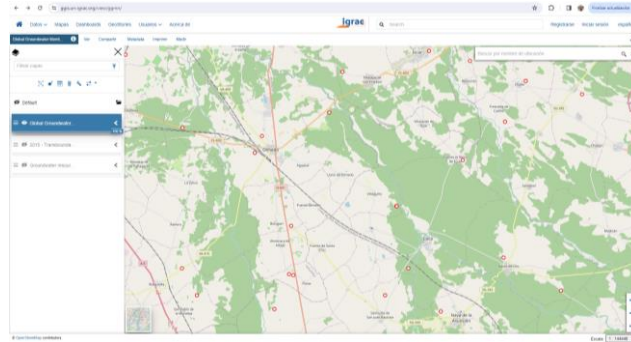
IGRAC have incorporated this system in their GGMN server

IGRAC's link shared by Arnaud Sterckx (arnaud.sterckx@un-igrac.org): <https://ggis.un-igrac.org/view/ggmn/>

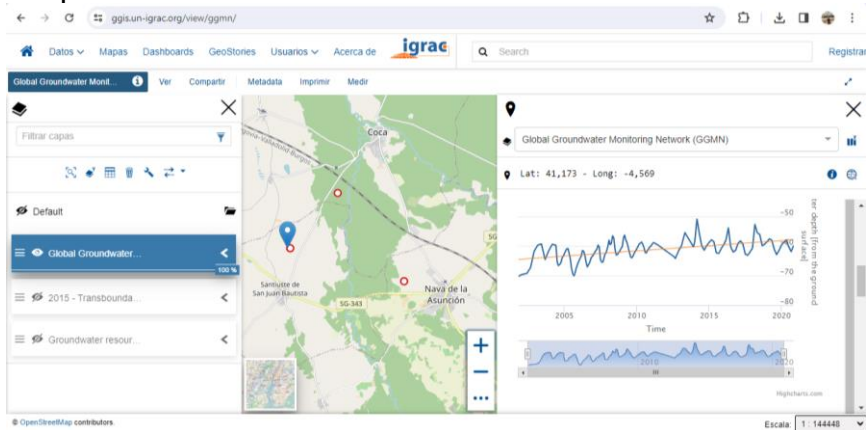
We have consulted the IGRAC site for Los Arenales aquifer, to check happily that the trends of the piezometers closest to the recharge areas are coming up for the groundwater level; but other piezometers nearby are still coming down. Results: <https://dinamar.tragsa.es/post/consulting-igrac-s-ggmn-at-the-los-arenales-aquifer-in-english>

In summary, MAR is working well in the Los Arenales aquifer regarding groundwater level rise, but obviously, more in the intervention areas than in the whole aquifer. Thanks IGRAC and Jasechko *et al.* for such an interesting tool...

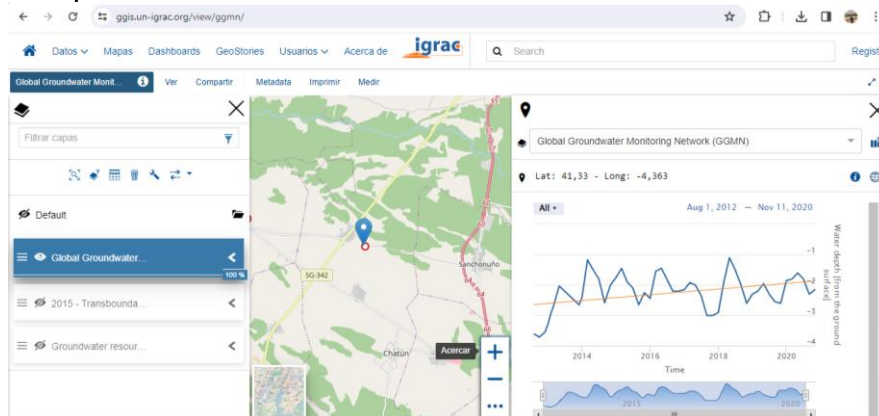
Los Arenales MAR sites:



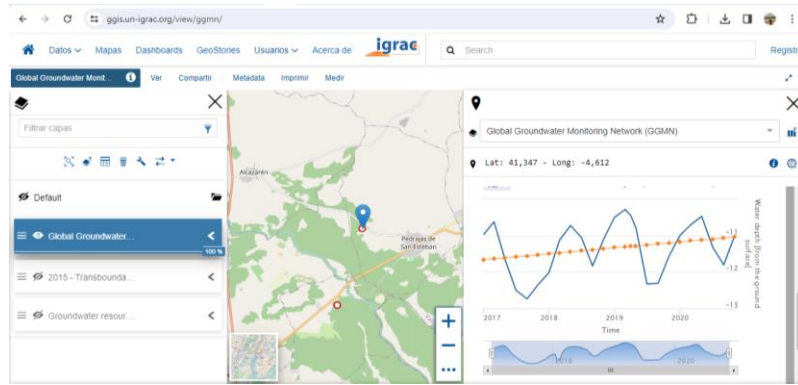
Los Arenales Aquifer: Santiuste basin



Los Arenales Aquifer: El Carracillo



Los Arenales Aquifer: Pedrajas-Alcazarén



Borehole heroes: Help increase the lifespan of water Wells (WB blog)

Did you know that a quarter of the world's urban population depends on groundwater for their daily water supply? This dependence underscores the vital role that durable and reliable water wells and boreholes play in ensuring community water security. **Let's work together to make sure our boreholes last as long as they should!**



Read more:

<https://blogs.worldbank.org/water/borehole-heroes-help-increase-lifespan-water-wells>

MARSOLut Project is getting closer to an end

Tragsa has finished their tasks in the Project. Other institutions still on going...



<https://www.corresponsables.com/actualidad/proyecto-marsolut-soluciones-tecnologicas-recarga-gestionada-acuiferos-tragsa>

More Info: www.marsolut-itn.eu

MARCLAIMED European Project have announced their kick-off

Gathering the unique expertise of 12 partners, this EU-funded project will be a breakthrough addressing water scarcity and water stress mitigation in an efficient, sustainable, and trustworthy way.

MARCLAIMED will support decision makers to integrate Managed Aquifer Recharge (MAR) with Alternative Water Resources (AWR) in River Basin and Drought Management Plans supporting the adaptation and resilience of structural supply systems in the context of climate change




More Info:

https://www.linkedin.com/posts/marclaimed-eu_droughtmanagement-climatechangeadaptation-activity-7165656545249206272-lahM?utm_source=share&utm_medium=member_desktop

Orange County water district captures enough water for 204,000 people during february storms. Press release

OCWD has successfully captured 25,500 acre-feet of water during February storms so far, equivalent to 8.3 billion gallons—enough water for 204,000 people for a year. This significant achievement comes in the wake of a powerful series of storms...

 **PRESS RELEASE**
ORANGE COUNTY WATER DISTRICT | WWW.OCWD.COM

Media Contact:
Kira Erquiaga, (714) 378-3362 or kerquiaga@ocwd.com

ORANGE COUNTY WATER DISTRICT CAPTURES ENOUGH WATER FOR 204,000 PEOPLE DURING FEBRUARY STORMS

FOUNTAIN VALLEY, Calif. (February 16, 2024) – The Orange County Water District (OCWD, the District) has successfully captured 25,500 acre-feet of water during February storms so far, equivalent to 8.3 billion gallons—enough water for 204,000 people for a year. This significant achievement comes in the wake of a powerful series of storms that brought 7.28 inches of rain to the region, totaling 13.54 inches of rain since July 1, the beginning of the water year.

OCWD's ability to capture this water stems from meticulous planning, substantial investments in water infrastructure, a robust partnership with the U.S. Army Corps of Engineers (Corps), and the dedication of its staff, who worked tirelessly through inclement weather to ensure the maximum capture of stormwater.

Read more:

<https://www.ocwd.com/wp-content/uploads/OCWD-Captures-Enough-Water-For-204000-People-During-February-Storms.pdf>

Thank you Cary Talbot for reporting

Whatsapp group on Aquifer Recharge Management

This is the link to join the group, with 185 participants today:



<https://chat.whatsapp.com/KL97KCIJTLI6XQtPMEKZaO>

Previous IAH-MAR Newsletters

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

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

IAH-MAR Commission on Twitter (X)



@IAHMARCom

<https://twitter.com/IAHMARCom>

IAH-MAR Commission's sister Web sites

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



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



@4dina_mar

<https://www.linkedin.com/groups/4690290/> (536 members)

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>

That's all by now... **please, keep reporting** (dinamar@traqsa.es). We miss pieces of news, especially from Asia

Dr. Enrique Fernández Escalante, on behalf of the IAH MAR Commission co-chairs.

2024 March 26th