

IAH MAR Commission Newsletter. Issue nº 48. 2025 February

Dear MAR family, please find attached some recent information about Managed Aquifer Recharge.

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- IWRA. XIX World Water Congress on "Water in a Changing World: Innovation and Adaptation". Call for abstracts open
- IMMINEENT. New IAH-MAR webinar series. Second, March 11st, 15 h CET
- IAH-MAR Commission satisfied with their first "ground zero" 2025 webinar
- Conference on nature-based solutions for groundwater management. March 18th (In Spanish)
- From the Desk of the CTA – CMDA Project Update. Workshop at Can Tho University's Dragon Institute
- ISMARs' photos collection. We still miss some from ISAR 1.
- Call for Papers: Global Water Security Issues Series by UNESCO IHP and i-WSSM - Issue 7
- Civil assembly for implementation of MAR agreements in Tunisia as part of the AGREEMAR project (www.agreemar.inowas.com)
- Successful PhD defense of Tiago N. Martins from LNEC: Decision making to support managed aquifer recharge – a study for southern Portugal
- Geophysical Imaging Partners have employed TEM in Anaheim MAR sites
- MARCLAIMED project partners have released their first newsletter
- Arizona.edu. The WRRRC is now accepting proposals for this year's federal WRRRA 104(b) and 104(g) grants
- Whatsapp group on Aquifer Recharge Management
- Previous IAH-MAR Newsletters
- IAH-MAR Commission on Twitter (X)
- IAH-MAR Commission's sister Web sites
- IAH MAR Commission Forum
- Whatsapp group on Aquifer Recharge Management
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ISMAR 12. Nine weeks left...

28 April – 2 May 2025

Stellenbosch, South Africa

Please, hurry up and get ready to attend the main conference on MAR:

“From Theory to Implementation and Operation”



12th International Symposium
on Managed Aquifer Recharge | STELLENBOSCH
SOUTH AFRICA
28 APRIL-2 MAY 2025

The full programme is already available on the website
<https://ismar12.org.za/programme/>

ISMAR12 SYMPOSIUM PRELIMINARY PROGRAMME	
28 April to 2 May 2025	
MONDAY	MONDAY 28 April 2025
	Venue 1 Workshop 1: Achieving Successful Groundwater Recharge and Recovery Through Wells - David Pyne
	08:30 - 10:30 Workshop
	10:30 - 11:00 COMFORT BREAK
	11:00 - 13:00 Workshop
	13:00 - 14:00 LUNCH
	Venue 1 Workshop 2: Technical solutions for IWRM by means of MAR schemes - Enrique Fernández Escalante
	14:00 - 16:00 Workshop
	16:00 - 16:30 COMFORT BREAK
	16:30 - 18:00 Workshop
	Venue 2 Workshop 3: Hydrogeochemistry and Managed Aquifer Recharge (MAR) - Speciation Modelling of Mixing Waters - Corné Engelbrecht
	08:30 - 10:30 Workshop
	10:30 - 11:00 COMFORT BREAK
	11:00 - 13:00 Workshop
	13:00 - 14:00 LUNCH
	Venue 2 Workshop 4: MAR Scheme Design Considerations for Bore Recharge (Science meets Engineering) - Russell Martin
14:00 - 16:00 Workshop	
16:00 - 16:30 COMFORT BREAK	
16:30 - 18:00 Workshop	

The symposium will feature four pre-symposium workshops, as well as three workshops integrated into the main three-day event, offering attendees a comprehensive and enriching experience.

Delegates will also have the opportunity to participate in field excursions, showcasing fascinating sites, and practical insights that complement the symposium themes.

Register for the Symposium to secure your attendance at the workshops, presentations, networking, and tours. To attend the symposium please visit <https://ismar12.org.za/registration/> More info: <https://ismar12.org.za/>

Thank you Fanus Fourie and team, for this huge effort...

Thank you sponsors and exhibitors too:

Sponsors



Exhibitors



ISMAR 12's IAH-MAR Commission plenary (AGM)

The next IAH-MAR Commission plenary will take place during ISMAR 12, April 30th, 16:30 to 17:30 (announced as Annual General Meeting (AGM) in the [ISMAR 12 program](#)).

The IAH-MAR Plenary program (draft) includes:

Agenda:

1. Welcome and Introductions- Co-chairs
2. Objectives of the IAH-MAR Commission - Co-chairs
3. UNESCO IHP context for IAH-MAR – UNESCO representative
4. Progress reports and plans of Working Groups
 1. New WGs proposal
5. Outcomes of ISMAR11, Adam Hutchinson, ISMAR 11 chairman
6. Invitation to ISMAR12, 2028
7. IAH [Certificates of Appreciation](#) – IAH Executive
8. Best Poster Prize – Fanus Fourie
9. Election of IAH-MAR Co-chairs – Julian Conrad, IAH Executive Officer
10. Information Sharing
 1. IGRAC MAR Portal
 2. Relevant on-going projects on MAR
 3. AH-Conference in Australia
 4. Etc.
11. Suggestions for new activities – anyone
12. Volunteers to participate in existing and new activities not covered elsewhere– anyone
14. Close of Plenary (Next Plenary tbd by co-chairs)

We kindly ask for your contributions. Newcomers, very welcome ☺

ISMAR 12. Call for nominations for IAH-MAR co-chair elections

Elections for IAH-MAR co-chairs will take place during the plenary (AGM), conducted by the IAH Executive member, Julian Conrad, Vice President of Finance and Membership.

Please, send Julian your proposal before March 31th: info@iah.org.za or vpfinance@iah.org

Proposals usually include:

Nominations for IAH-MAR Co-chairs:

1. Introduction of the candidate
2. Commitments
3. Motivation
4. Optionally, summarized CV.

Information about candidates and their proposals will be shared to all attendants before the IAH-MAR plenary (AGM). Every assistant will select a maximum of three names.

Future ISMAR 12 special issue. Still looking for a Journal

After each ISMAR, a special issue gathering the best contributions of the symposium has been published since ISMAR 8.

IAH-MAR co-chairs and local organizers keep looking for a journal to edit this ISMAR 12 special issue with advantageous terms. Some Journals are already in consideration.

Please, if you have any idea or proposal, contact [Catalin Stefan](#).

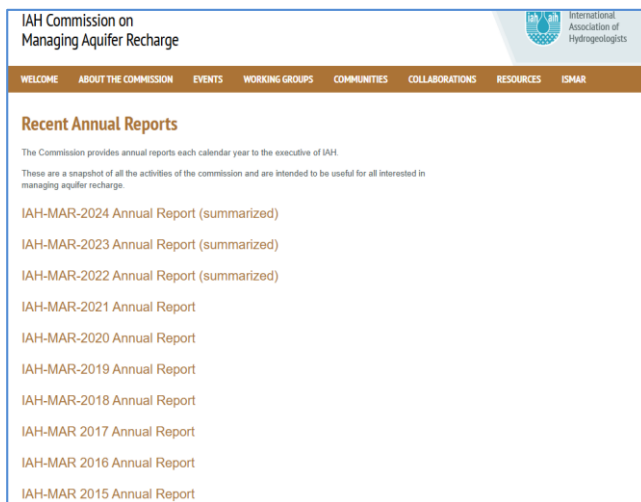
PUBLICATIONS ABOUT MAR

Call for action. IAH-MAR Commission 2024 memory of activities

As every year, IAH Executive request a memory of activities from Commissions. Ours is already on line:

IAH-MAR Commission 2024 memory of activities (summarized version, by request of IAH Executive, from 2022):

<https://recharge.iah.org/files/2025/02/IAH-MAR-Annual-Report-2024.pdf>



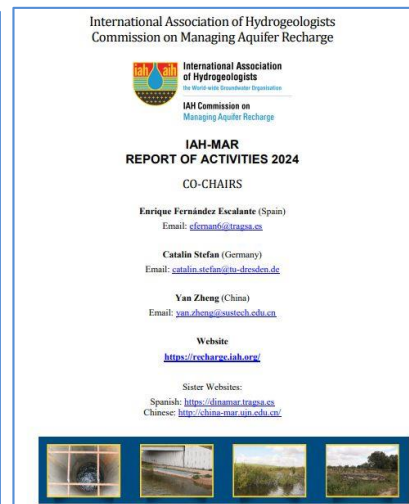
IAH Commission on Managing Aquifer Recharge

WELCOME ABOUT THE COMMISSION EVENTS WORKING GROUPS COMMUNITIES COLLABORATIONS RESOURCES IEMAR

Recent Annual Reports

The Commission provides annual reports each calendar year to the executive of IAH. These are a snapshot of all the activities of the commission and are intended to be useful for all interested in managing aquifer recharge.

- IAH-MAR-2024 Annual Report (summarized)
- IAH-MAR-2023 Annual Report (summarized)
- IAH-MAR-2022 Annual Report (summarized)
- IAH-MAR-2021 Annual Report
- IAH-MAR-2020 Annual Report
- IAH-MAR-2019 Annual Report
- IAH-MAR-2018 Annual Report
- IAH-MAR 2017 Annual Report
- IAH-MAR 2016 Annual Report
- IAH-MAR 2015 Annual Report



International Association of Hydrogeologists
Commission on Managing Aquifer Recharge

International Association of Hydrogeologists
IAH Commission on Managing Aquifer Recharge

IAH-MAR REPORT OF ACTIVITIES 2024 CO-CHAIRS

Enrique Fernández Escalante (Spain)
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Catalin Stefan (Germany)
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Yan Zheng (China)
Email: yan.zheng@sustech.edu.cn

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

Sister Websites:
Spanish: <https://dijamar.tragsa.es>
Chinese: <http://china-mar.iuh.edu.cn/>

IAH Technical insight Series. Co-MAR yellow sheet

The IAH have published the Yellow Sheet for the TIS series entitled: Co-Managed Aquifer Recharge (Co-MAR), (15 pg).



Technical Insight Series
Co-Managed Aquifer Recharge (CO-MAR)
JANUARY 2025 | ISSUE 2

International Association of Hydrogeologists
In World-wide Groundwater Organizations

Figure 1: Information board about IT Carrera-IRRI MAR system (San Antonio Aquifer, C.J., Spain), emphasizing the regulatory framework and management. Notice the topics addressed: governance, indicating that it has become an "Active" Managed Aquifer Recharge (MAR) system.

This series is designed both to inform professionals in other sectors of key interactions with groundwater resources and hydrogeological science, and to guide IAH members in their outreach to related sectors.

Key Messages

- Managed Aquifer Recharge (MAR) is a promising set of techniques to improve integrated water resources management (IWRM), and cope with a variety of water management-related issues.
- International multi-level governance is evolving, from a top-down to a mixed top-down and bottom-up approach.
- The participation of "irrigation communities" or groundwater user's associations can help improve IWRM planning and organization, reinforcing aspects of modern governance through co-design and co-management, i.e. a social inclusion approach.
- The obligation in some countries to formally involve irrigation communities is increasing, offering a valuable representative to discuss and negotiate with water authorities, and helping to create "spaces of trust". These modify the classical decision-making organization, leading to more socially inclusive water management, which can help change social perceptions on roles and responsibilities.
- The participation of stakeholders in decision-making can improve governance, rural development, water security, and therefore IWRM, opening the possibility of a new management approach: the co-managed aquifer recharge (Co-MAR) concept.
- Co-MAR is based on the co-management of end-users in the management of the resources that they use and benefit from within a multilevel structure and a teamwork approach.

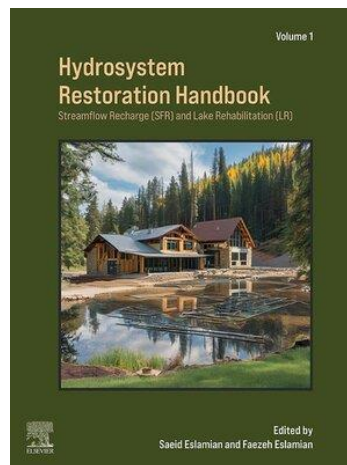
Co-Managed Aquifer Recharge | Technical Insight Series | 1

IAH TIS access: https://iah.org/education/professionals/technical_insight_series

NEW MAR-RELATED PUBLICATIONS

Hydrosystem Restoration Handbook. Two volumes already available

Streamflow Recharge (SFR) and Lake Rehabilitation (LR) comprises global case studies that encompass the most up-to-date management approaches in streams... The book offers deep analysis of techniques of flow restoration and “groundwater artificial recharge”. The editors are preparing the volume 3 by now.



More info: <https://www.overdrive.com/media/10756290/handbook-of-hydrosystem-restoration>

Thank you, Professor Saeid Eslamian, for reporting.

MAR AND MAR-RELATED CONFERENCES AND WORKSHOPS

IAH Online Member Alert – February 2025

View more hydrogeology and groundwater community events at <https://iah.org/events> and submit your own at <https://iah.org/submit-an-event>

The 2025 February release includes two items on MAR.

Latest IAH news

IAH webinar for the International Year of Glacier Preservation and World Water Day 2025



The first World Day for Glaciers will be held on March 21, 2025, as part of the International Year of Glaciers' Preservation 2025 (YGP 2025). Additionally, World Water Day, held annually on March 22, will be dedicated in 2025 to the theme of 'Glacier Preservation'. Click [here](#) to find out how IAH has been involved so far. To mark the occasion, IAH is organising a webinar event to take place on **21st March at 14:00 (CET)**, titled "Glaciers and Groundwater Interactions: Challenges in a Changing Climate".

Find out more about the webinar [here](#).

New TIS Paper Produced by MAR Commission



The latest Technical Insight Series paper 'Co-Managed Aquifer Recharge' was produced by the Managing Aquifer Recharge (MAR) Commission. The paper discusses improving Integrated Water Resources Management (IWRM) with a new management approach: the co-managed aquifer recharge (Co-MAR) concept, in which stakeholders actively participate in the decision-making process, with the aim of improving governance, rural development and water security.

For more information and to read the paper click [here](#). If you would like to publish a paper in IAH's Technical Insight Series, let us know at info@iah.org.

Online MAR Seminars



The IAH-MAR Commission organises a series of monthly online seminars on different topics related to implementation and development of managed aquifer recharge applications. The seminars can be attended online free of charge. The next upcoming webinar is on **Tuesday 11th March at 15:00 (CET)**. [Click here to register for the webinar](#).

If you would like to hold a seminar, let us know at info@iah.org.

Access the latest IAH-MAR Enews:

<https://internationalassociationofhydrogeologists.cmail19.com/t/t-e-skyidkd-ttdudutuhi-r/>

UPCOMING EVENTS

IMMINENT. Seminar on Earth Science Perspective on Groundwater Sustainability - Recent Advances. IAH India

1-2 March 2025 at Jaipur, Rajasthan, India. (Hybrid Mode for Outside of India Researchers). MAR in session 2.



**Indian National Chapter of the International
Association of Hydrogeologists**

**Seminar
on
Earth Science Perspective on Groundwater
Sustainability - Recent Advances**

**1 -2 March 2025 at Jaipur, Rajasthan, India
(Hybrid Mode for Outside of India Researchers)**

In an era of climate change, rapid urbanisation and ecosystem degradation, groundwater sustainability has emerged as one of the most pressing challenges facing the Earth System. With approximately 2 billion people relying on groundwater resources for their daily needs, understanding its sustainability is crucial for ecosystems, economies, and communities alike. Join us for a comprehensive seminar that brings experts in Earth Science, hydrology, and sustainability management to the fore. Delving into the critical issues surrounding groundwater resource management, the Seminar provides an opportunity to learn about the latest scientific research and explore innovative strategies for ensuring the long-term viability of this vital resource.

Major Themes of the Conference:

- Integrated Hydrogeological Modelling
- Water Quality and Emerging Contaminants
- Coastal, Island and Inland Aquifer System and Aquifer Recharge- Natural & Managed
- Climate Change Impact on Groundwater Resources and Adaptation Strategies
- Innovative techniques, Practices and Policies for Sustainable Groundwater Resource Management
- Rock-Groundwater-Surface Water Interactions
- Geological and Geophysical Methods for Deeper Aquifers
- Land use, Groundwater Depletion and Recovery
- Community Engagement, Stakeholder Involvement and Education

Special Announcement for Young Researchers:

- ✓ A Special Session for Young Researchers below 40 Years.
- ✓ Assistance to a limited number of young researchers depending upon the availability of funds.

Abstract and Registration information:
We are inviting the original/review research from prospective students, researchers, academicians/scientists and professionals relevant to the conference's theme.

Call for abstract	up to 31 January 2025
Abstract format	Max. 250 words with max. five keywords in MS format mentioning the title, affiliations, authors and presenter name, email and mobile
Submission to	secretaryinciah@gmail.com
Registration	Open
Registration fee	Researchers Academician/Scientist outside of India: 100 US dollar
Account Name	JNC of IAH
Bank	Bank of Baroda
A/C No	26430200000544
IFSC Code	BARB0CGOPAR

Note: For Sponsorship/Advertisement, please get in touch with us

underground For more information, please contact us
Prof. A. K. Sinha [President, INC-IAH, E: groundwater2008@gmail.com, M. 9829010304]
Prof. B. S. Chaudhary [Secretary, INC-IAH, E: secretaryinciah@gmail.com, M. 7027666480]

Thank you, Professor Sinha, for the information.

IMMINENT. IGWC 2025 conference. Groundwater vision 2047. 2025 March 5-7

... The role of groundwater in contributing to water security and searching solutions for its conservation and sustainable management at present will play a crucial role to meet water demands of the population in future under a changing climate and to ensure food and water security for both the developed and developing countries...

MAR is distributed among several themes of the conference, and especially at: *Augmentation of groundwater resources.*

Scientific Themes

- IMPACT OF CLIMATE CHANGE ON GROUNDWATER AND ADAPTATION MEASURES
- ENVIRONMENTAL FLOW AND REJUVENATION OF RIVER GANGA
- MOUNTAIN HYDROLOGY AND SPRINGHEED MANAGEMENT
- WATER RESOURCES IN ARID AND SEMI-ARID REGIONS
- GROUNDWATER CONTAMINATION AND REMEDIATION
- GROUNDWATER MODELING AND MANAGEMENT
- ADVANCED TECHNIQUES FOR GROUNDWATER EXPLORATION AND ASSESSMENT
- AUGMENTATION OF GROUNDWATER RESOURCES
- COASTAL WATER RESOURCES MANAGEMENT
- APPLICATION OF AI, ML, IoT, CLOUD COMPUTING AND OTHER ADVANCED TECHNIQUES IN GROUNDWATER
- POLICY, REGULATION AND GOVERNANCE FOR GROUNDWATER MANAGEMENT
- VADOSE ZONE HYDROLOGY AND AGRICULTURE WATER MANAGEMENT
- PROTECTION OF GROUNDWATER DEPENDENT ECOSYSTEMS - RIVERS, WETLANDS, LAKES AND SPRINGS
- ISOTOPIC TECHNIQUES IN GROUNDWATER INVESTIGATIONS AND MANAGEMENT

IGWC 2025

INTERNATIONAL GROUNDWATER CONFERENCE

Groundwater Vision 2047:

Towards Water Security Under Changing Climate

Let's Meet In Roorkee!

MARCH 5-7, 2025

ROORKEE, INDIA

Top Ten Reasons to Join Us

- Learning what the top experts say
- Sharing your research
- Networking opportunities abound
- Case studies and real life examples
- Chance to promote your innovative technology
- Key note presentations and a panel of international groundwater experts
- Exposure to latest emerging techniques
- Be a participant in planning water security for future
- Contribute your bit for groundwater science
- Tours and social programs



igwc2025.nihroorkee.gov.in

Organized by

National Institute of Hydrology, Roorkee, India

(Ministry of Jal Shakti, Department of Water Resources, River Development and Ganga Rejuvenation)

in association with


National Institute of Hydrology, Roorkee, India


Central Ground Water Board, India


Association of Global Groundwater Scientists


National Mission for Clean Ganga, India


National River Conservation Directorate India


British Geological Survey United Kingdom


Hochschule für Technik und Wirtschaft Dresden, Germany


KTH Royal Institute of Technology, Stockholm

More info: igwc2025.nihroorkee.gov.in

Program: https://igwc2025.nihroorkee.gov.in/event-schedule/Final_IGWC-Conference%20Schedule-20-2-25-r5.pdf

Thank you, professor Sinha, for the information.

EUTOPIA Groundwater Workshop and Conference on Managed Aquifer Recharge 2025

TU Dresden will organize a three-days event on MAR between 12-14 March in Dresden, Germany. The meeting is organised in collaboration with VUB, Belgium, as part of the EUTOPIA University Alliance, a collaborative network of European and global partner universities co-funded by European Union aiming to develop a new model of higher education through transnational cooperation.

The event in Dresden includes a two-days training course in numerical modelling of MAR using the web-based INOWAS platform (www.inowas.com), followed by a one-day roundtable discussion about tools, methodologies and indicators for assessing the holistic societal impact of MAR.



Thank you, Catalin Stefan, for sharing.

IAH-MAR will have a specific session in IAH 2025 congress

Call for abstracts closed February 28th.

The detailed program is not published yet.



More info: <https://iah2025congress.com/>

Regional Hybrid Training Workshop on “Urban Flood Management: From Prevention to Adaptation”. May 13-14 , 2025, Tehran, Iran

Urban flooding has become increasingly frequent and severe due to climate change, rapid urbanization, and inappropriate infrastructure. This workshop aims to provide a comprehensive understanding of urban flood management, focusing on risk

assessment, adaptation of IFM techniques to urban settings, and strategies to reduce vulnerability while promoting resilience.

SUDS and MAR included in the conference's themes.



More information in the next newsletter.

Flowpath conference. Torino, Italy. 2025, June 11st-13rd



11th-13th June | National Meeting on Hydrogeology

The Italian Chapter of the International Association of Hydrogeologists (IAH) is pleased to invite you to the 7th Edition of FLOWPATH, the National Meeting on Hydrogeology. Following the tradition of the previous editions of FLOWPATH, the conference will be an opportunity for hydrogeologists and professionals to exchange ideas and discuss different issues on groundwater resources.

Before the Flowpath event, on June 9th and 10th, pre-congress technical-scientific courses will be held; more information will be provided during the subsequent announcements.

CONFERENCE SESSIONS

Session 1 – GROUNDWATER QUALITY AND PROTECTION

Session 2 – GROUNDWATER AND CLIMATE CHANGE: IMPACT AND OPPORTUNITY

Session 3 – GROUNDWATER MODELLING: DEVELOPMENT AND APPLICATION

Session 4 – HYDROGEOLOGICAL SYSTEMS AND PROCESSES: FROM LOCAL TO REGIONAL SCALE

Field Trip: 13th June

During the Congress, the «Premio Zuppi» to the best doctoral thesis in Hydrogeology will be awarded by IAH and IGAG.

KEY DATES

Opening abstract submission and opening registration: 15/12/2024
 Deadline for abstract submission: 15/02/2025
 Notification of abstract acceptance: 29/03/2025
 Deadline Early bird registration: 17/04/2025

Contact us: flowpath@iahitaly.it

1ST ANNOUNCEMENT CALL FOR PAPERS



TURIN
JUNE 11TH - 13TH 2025

CONFERENCE OBJECTIVES

The objectives of the conference are:

- To promote dialogue and exchange of scientific knowledge among young hydrogeologists;
- To deepen the theoretical and practical aspects of our understanding of groundwater in a changing climate;
- To update all the stakeholders, researchers and professionals on recent challenges in the hydrogeological sciences;
- To encourage researchers, professionals and administrators to contribute to the improvement of a sustainable water resources management.

More info: https://mcusercontent.com/fe661c111de3ac90597ac7878/files/c85799ac-88f6-fdea-48db-f2b970f31b07/Italy_Prima_Circolare_Flowpath.pdf

6th International Summer School on MAR in Dresden

The one-week “6th International Summer School on Managed Aquifer Recharge” (MARISS) will be organised by the Division of Water Sciences at the University of Applied Sciences in Dresden, Germany, in collaboration with the TU Dresden and partners of the MENAWAT project either in the calendar week 34 or 36. It will be the next summer school in the MARISS series of summer schools organised in Dresden after 2023.



MARISS will again be organised by HTWD and partner TUD in Dresden in August/September 2025 (for 1 week either in calendar week 34 or 36, eventually later). More information will be updated on www.htw-dresden.de/mariss

Thank you Dr. Cornelius Sandhu for reporting.

IWRA. XIX World Water Congress on "Water in a Changing World: Innovation and Adaptation". Call for abstracts open

Marrakech, Morocco, 1-5 December 2025. Call for papers and special sessions is now open.

Abstracts submission deadline March 1st. MAR is included in the thematic area 5.

THEMATIC AREAS:	
1. WATER GOVERNANCE, FINANCING, AND PLANNING DURING UNCERTAINTY	
2. WATER-ENERGY-FOOD-ECOSYSTEMS NEXUS (WEFE NEXUS)	
3. WATER SECURITY AND WATER-RELATED RISKS	
4. TOWARDS INNOVATION AND A SMART WATER FUTURE	+
5. GROUNDWATER CHALLENGES AND OPPORTUNITIES	-
<ul style="list-style-type: none"> - Groundwater Assessment: Innovate groundwater data collection methods, improve monitoring technologies, and develop policies to sustain groundwater as a key and strategic resource in water-scarce regions. - Groundwater Data: Explore mechanisms for encouraging and facilitating open sharing of data on groundwater resources, including available storage, flow rates and directions, chemistry, aquifer characteristics, recharge and discharge values, uses and allocations, and other traits. - Participatory Groundwater Management: Foster community and stakeholder involvement and inclusive governance in groundwater management, including in transboundary aquifer basins, to ensure equitable access and long-term sustainability. - Integrated Surface Water and Groundwater Management: Explore the interconnectedness of surface water and groundwater systems and identify mechanisms for implementing integrated management approaches that optimize the use and sustainability of both resources within basins and across borders. - Managed Aquifer Recharge (MAR): Accelerate the adoption of MAR techniques to replenish overdrawn aquifers, develop water banking opportunities, and promote sustainable water resource management. - Impacts of Climate Change on Groundwater Resilience: Examine the influence of climate change on groundwater recharge rates, storage capacity, and availability, identify strategies for enhancing the resilience of groundwater systems to climate variability and extreme weather events. 	
6. WATER FOR SUSTAINABLE DEVELOPMENT	+
7. WATER QUALITY AND ONE HEALTH OPPORTUNITIES	+



More info: <https://worldwatercongress.com/about-us/congress-theme/#1736332941814-6a357f08-d37d>

SEMINARS AND WEBINARS

IMMINENT. New IAH-MAR webinar series. Second, March 11st, 15 h CET

IAH-MAR webinar series. Second webinar: Tuesday March 11st. 15 – 16:30 h CET:

Registration: [Please register here to receive the link to the meeting.](#)

Invited speaker:

Vijay Matta (UNICEF)

Managed aquifer recharge in socially-sensitive environments



Online MAR Seminars
#2. MAR in humanitarian context
Tuesday, 11 March 2025, 3:00 – 4:30 pm CET
Registration: <https://recharge.iah.org/online-mar-seminars>

Invited Speaker:

JAY MATTA
UNICEF

Jay Matta is a seasoned hydrogeological expert with over 25 years of experience across local government, consulting firms, private industry, and global organizations. His expertise spans roles as a Hydrogeological expert, WASH (Water, Sanitation, and Hygiene) Manager, and IFRC (International Federation of Red Cross and Red Crescent Societies) Coordinator, particularly in the Asia Pacific region.

More recently, Jay has held significant global positions with organizations such as the **Global WASH Cluster**, **UNHCR** (United Nations High Commissioner for Refugees), and currently **UNICEF**, where he serves as the Principal Hydrogeologist addressing the global "Water Security for All" initiative.

He also extends his expertise to UNICEF country offices, offering in-depth support for water scarcity, resource assessments, and technical guidance, alongside contributing to global webinars, reports, and technical initiatives.

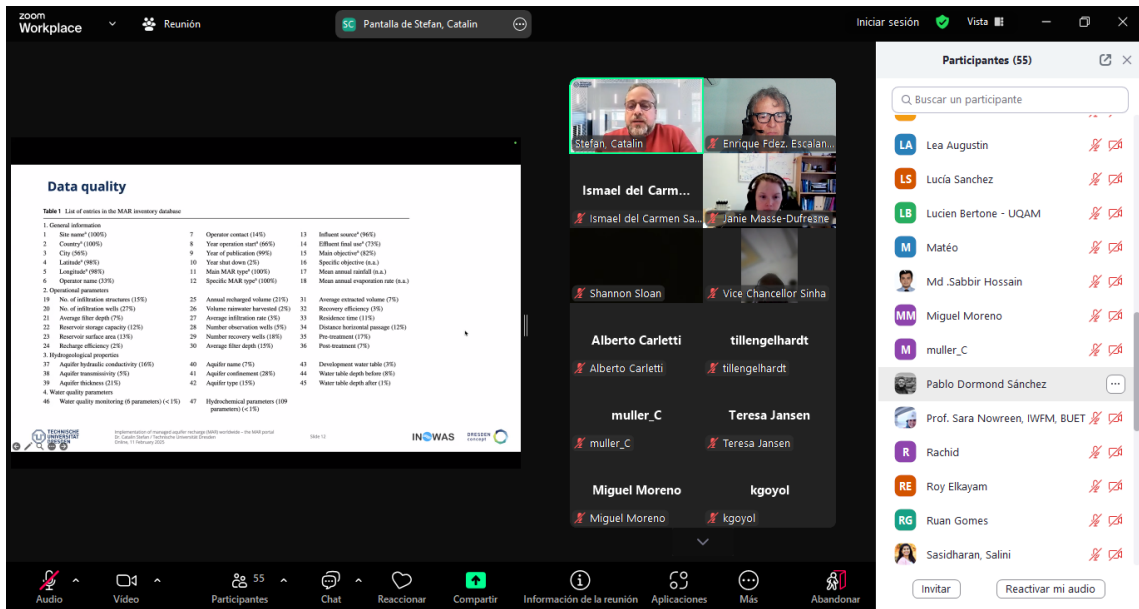
Map showing project countries (Sudan, Ethiopia, Somalia) and project sites (Khartoum, Addis Ababa, Mogadishu, etc.).

In this occasion, only one speaker will impart a presentation to intensify the debate. Please, share with interested "MARers".

IAH-MAR members are invited to participate in future webinars. Please, consider proposing a title for a future slot and send your suggestion to the coordinator, [Catalin Stefan](#).

IAH-MAR Commission satisfied with their "ground zero" webinar

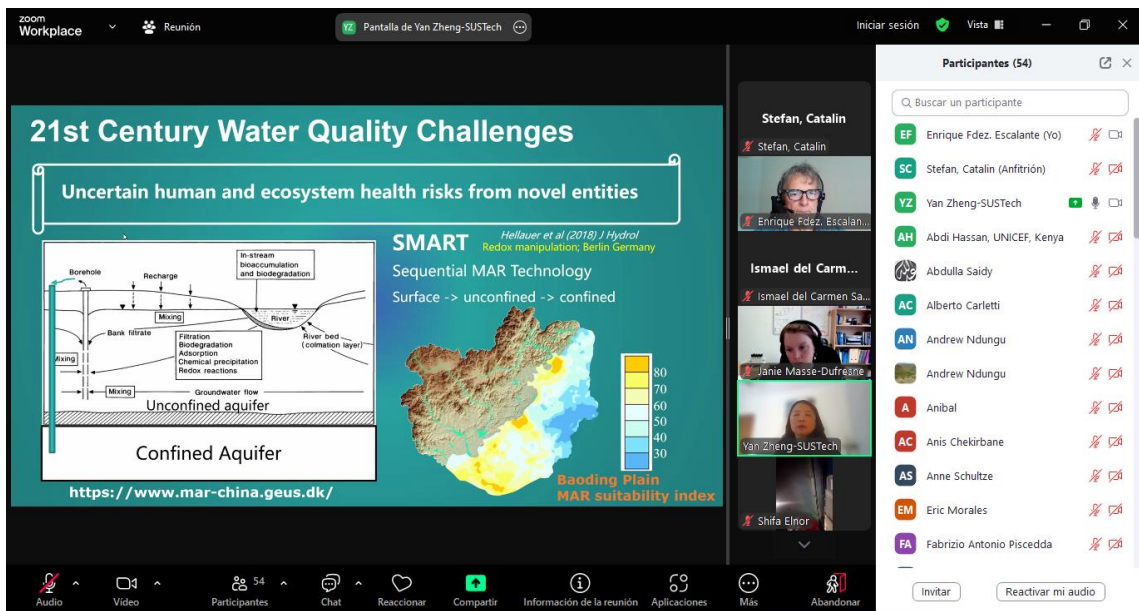
61 participants attended the first IAH-MAR webinar of the 2025 series, with several questions, and suggestions to improve.



Data quality

Table 1. List of entries in the MAR inventory database

1. General information	7. Operator contact (1475)	13. Inherent water (1967)
1.1. Site name (10095)	8. Year operation start (6095)	14. Effluent feed use* (179)
2. Country (10095)	9. Year of publication (995)	15. Main objective (429)
3. City (265)	10. Year start date (25)	16. Specific objective (6)
4. Latitude (995)	11. Main MAR type (10095)	17. Mean annual rainfall (6)
5. Longitude (995)	12. Specific MAR type (10095)	18. Mean annual evaporation rate (6)
6. Operator name (135)		
2. Operational parameters	25. Annual biological volume (215)	31. Average retention volume (275)
19. No. of infiltration structures (175)	26. Volume retained harvested (25)	32. Recovery efficiency (35)
20. No. of infiltration wells (275)	27. Average infiltration rate (15)	33. Residence time (115)
21. Average filter depth (75)	28. Number observation wells (35)	34. Distance horizontal passage (125)
22. Reservoir storage capacity (125)	29. Number recovery wells (185)	35. Pre-treatment (175)
23. Reservoir surface area (135)	30. Average filter depth (125)	36. Post-treatment (15)
24. Retention efficiency (25)		
3. Hydrogeological properties	40. Aquifer name (75)	41. Development water table (37)
31. Aquifer hydraulic conductivity (105)	41. Aquifer confinement (285)	44. Water table depth before (35)
32. Aquifer transmissivity (75)	42. Aquifer type (175)	45. Water table depth after (15)
4. Water quality parameters		
44. Water quality monitoring (0 parameters) (15)	47. Hydrochemical parameters (109 parameters) (15)	



21st Century Water Quality Challenges

Uncertain human and ecosystem health risks from novel entities

SMART *Hellauer et al (2018) J Hydrol*
Redox manipulation; Berlin Germany

Sequential MAR Technology
Surface -> unconfined -> confined

Groundwater flow
Unconfined aquifer
Confined Aquifer

Baoding Plain
MAR suitability index

<https://www.mar-china.geus.dk/>

Please, visit the new section on the MAR-site: <https://recharge.iah.org/online-mar-seminars> and access the pdfs of the presentations.

Please, notice that future presentations will be posted only in case of the presenter will give us permission.

Conference on nature-based solutions for groundwater management. March 18th (In Spanish)

1st Conference on nature-based solutions for groundwater management. Taking advantage of the World Water Day celebrations, the event will feature 12 speakers who will explain their experience in different types of natural solutions such as aquifer recharge, green filters, forestry management, wetlands, etc.

The conference will be held in Madrid, in the auditorium of the Confederación Hidrográfica del Tajo on Tuesday 18 March, from 9:00 to 15:00 (CET).

Information: <https://aih-ge.us15.list-manage.com/track/click?u=fe661c111de3ac90597ac7878&id=45738751f6&e=9bc3072c4b>

Booking: <https://aih-ge.us15.list-manage.com/track/click?u=fe661c111de3ac90597ac7878&id=bb081f6de5&e=9bc3072c4b>



I JORNADAS DE SOLUCIONES BASADAS EN LA NATURALEZA PARA LA GESTIÓN DEL AGUA SUBTERRÁNEA - Proyecto WaSha
Martes, 18 de Marzo de 9:00 a 15:00
Salón de actos de la Conf. Hidrog. Tajo
Avd. Portugal 81, Madrid

INSCRIPCIONES



9:00 APERTURA
9:30 SOLUCIONES BASADAS EN LA NATURALEZA . UNA HERRAMIENTA PARA LA GESTIÓN SOSTENIBLE MEDITERRÁNEA
Andrés Alcántara - IUCN
9:50 SOLUCIONES BASADAS EN LA NATURALEZA ANCESTRALES PARA LA RECARGA DE ACUÍFEROS: EL PROYECTO WaSha
Nuria Naranjo - IGME-CSIC
10:10 LA CONTRIBUCIÓN DEL MANEJO TRADICIONAL DEL AGUA A LA CONSERVACIÓN DE LA BIODIVERSIDAD EN SIERRA NEVADA
Javier Cabello - UAL
10:30 DESCANSO
11:00 EL TRINOMIO MAR-NBS-WS EN LA GESTIÓN HÍDRICA. CUATRO CASOS DE ÉXITO EN ESPAÑA
Enrique Fernández Escalante - Tragsa
11:20 ALTERNATIVAS NATURALES PARA LA SOSTENIBILIDAD AGROAMBIENTAL: DESDE LA OPTIMIZACIÓN DE LA FERTILIZACIÓN Y REUTILIZACIÓN DE RETORNOS DE RIEGO, HASTA SU DEPURACIÓN EN FILTROS VERDES
Jesus Causapé - IGME-CSIC
11:40 EL POTENCIAL DE LOS RIEGOS INVERNALES EN LA RECARGA DE ACUÍFEROS: DE CONSUMIDORES A PROVEEDORES HÍDRICOS
Margarita Garcia Vila - IAS-CSIC
12:00 UNA GESTIÓN FORESTAL QUE MIRA AL AGUA: DE LOS PROCESOS ECOHIDROLÓGICOS A LAS OPORTUNIDADES Y POTENCIALES BENEFICIOS DE SU IMPLEMENTACIÓN
Antonio Molina - UCO
12:20 UNA TECNOLOGÍA VERDE PARA LA RECARGA DE ACUÍFEROS Y PRODUCCIÓN DE BIOMASA
Irene de Bustamante - UAH-IMDEA Agua
12:40 DESCANSO
13:00 SOLUCIONES BASADAS EN LA NATURALEZA COMO TRATAMIENTO CUATERNARIO PARA REDUCIR CONTAMINANTES EMERGENTES DE LAS AGUAS RESIDUALES
Enriq Vázquez - IDAEA-CSIC
13:20 PAPEL DE LOS HUMEDALES ARTIFICIALES DE FLUJO SUPERFICIAL EN LA ELIMINACIÓN DE NITRATOS DE AGUAS SUPERFICIALES Y SUBTERRÁNEAS EN L'ALBUFERA DE VALENCIA
Miguel Martín Moneris - UPV
13:40 ESTUDIO HIDROGEOLÓGICO Y MODELACIÓN NUMÉRICA PARA LA AYUDA AL DISEÑO DE UN HUMEDAL EN SAN CRISTOBAL DE LA LAGUNA (TENERIFE) COMO MEDIDA NATURAL DE RETENCIÓN DE AGUA
Elena Abarca - Amphos 21
14:00 RENATURALIZACIÓN DEL AGUA MEDIANTE SOLUCIONES BASADAS EN LA NATURALEZA
Cristina Valhondo - IDAEA-CSIC
14:20 PREGUNTAS-DEBATE

Organiza:  **Asociación Internacional de Hidrogeólogos Grupo Español**

Colabora: 

Con el apoyo de: 

Coordina: 

El proyecto WaSha cuenta con el apoyo de la Fundación Biodiversidad del Ministerio para la Transición Ecológica y el Reto Demográfico, a través de la Convocatoria de subvenciones para la realización de proyectos que contribuyan a implementar el Plan Nacional de Adaptación al Cambio Climático (2023-2030).

Thank you, IAH-GE and Sergio Martos, for reporting.

From the Desk of the CTA – CMDA Project Update. Workshop at Can Tho University's Dragon Institute

On 12 February 2025, Bob Bower, CMDA Chief Technical Advisor for IUCN, travelled with Minh Le Viet (National Coordinator) and Thu PHAM Thi Minh Thu (CMDA Administrative Leader) to Can Tho University's Dragon Institute, located on the Vietnam side of the Cambodia-Mekong Delta Aquifer (CMDA) area. This visit included a workshop-style meeting to discuss sustainable groundwater management and the

critical role of Managed Aquifer Recharge (MAR) in addressing groundwater depletion, saline intrusion, and ecosystem impacts in the transboundary aquifer shared by Vietnam and Cambodia.



More info (Linked-in): <https://www.linkedin.com/pulse/from-desk-cta-cmda-project-update-bob-bower-ey09c/?trackingId=GJeh9PmGSDWberhYI1Ri4Q%3D%3D>

Thank you Bob Bower for reporting.

NEW MAR OR MAR-RELATED ACTIVITIES

ISMARs´ photos collection. We still miss some from ISAR 1.


The IAH MAR commission website includes an ISMAR-related section in which all information gathered from our eminent conferences.

IAH-MAR co-chairs, and thanks to the suggestion of ISMAR 12 organizers, have already posted on line a photo album from each edition (attending carefully IPRs – license CC BY-NC), and exposing a disclaimer. You can use them giving credits and for non-commercial purposes.

We kindly request contributions, especially from ISAR 1, Anaheim, 1988.

Photo-album of the whole ISMAR series. IPRs.

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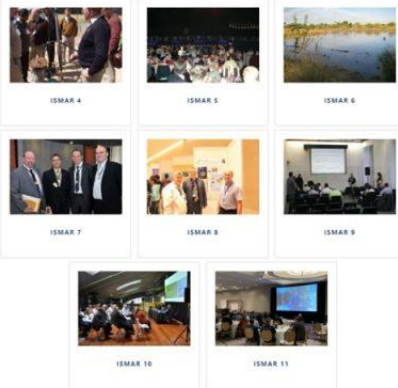
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By the moment, and due to the large amount of Mb required, photos are in an external repo (Google Photos), accessible clicking each link posted at each ISMAR section: <https://recharge.iah.org/ismar>

All the current photos were taken by the co-chair Enrique F. Escalante from ISAR 4 to ISMAR 11. Special thanks to Mario Lluria for his kind contribution sharing photos from ISAR 2 and TISAR 98. Thank you, Mario ;). We are also grateful to Adam Hutchinson, who has made available his ISMAR 11 collection of photos.

Call for Papers: Global Water Security Issues Series by UNESCO IHP and i-WSSM - Issue 7

The [United Nations Educational, Scientific and Cultural Organisation \(UNESCO\) Intergovernmental Hydrological Programme \(IHP\)](#) and the [International Centre for Water Security and Sustainable Management \(i-WSSM\)](#), under the auspices of UNESCO, cordially invite research scientists, practitioners, and experts from international organisations, government agencies, non-profit institutions, and the private sector to [submit proposals/abstracts](#) for the upcoming **Issue 7** of the [Global Water Security Issues \(GWSI\) Series](#).

Planned for publication in **2026-2027**, Issue 7 will focus on the theme **“Water and Gender”**, with a particular emphasis on **women’s rights and equal opportunities** in the context of water resources access and management.

Proposals (abstracts) should be submitted using this [proposal template](#). Selected authors will be invited to further develop their submissions into full draft chapters. These chapters will undergo a rigorous peer-review process, with only accepted submissions included in **GWSI Issue 7**.

MORE ACTION

Civil assembly for implementation of MAR agreements in Tunisia as part of the AGREEMAR project (www.agreemar.inowas.com)

As part of the AGREEMAR project, a stakeholder workshop was co-organized on 29 January 2025 in Tunis by project partners Adelphi (Germany) and INAT (Tunisia). The event presented outcomes of the AGREEMAR project for the Tunisian case study in the Chiba basin (CapBon peninsula). The aim of the workshop was to foster dialogue on the environmental, social, and economic benefits of MAR systems in Tunisia. The specific purpose of this civil assembly was to engage stakeholders in exploring the potential of MAR systems for improving groundwater availability, mitigating climate change impacts, and supporting sustainable water resource management in Tunisia. The event also addressed critical issues related to groundwater restoration, sustainability, and saline intrusion prevention. A dynamic exchange between scientists and decision-makers helped to draft the proposed “MAR agreements”, a set of governance-based guidelines and principles summarized in a document that is expected to support further development of MAR projects in Tunisia.

The workshop concluded with Prof. Hamadi Habaieb, State Secretary at the Ministry of Agriculture, Water Resources, and Fisheries, emphasizing Tunisia’s ongoing efforts to address water stress caused by persistent drought and rising demand. He highlighted the importance of MAR and innovative solutions, particularly the use of treated wastewater, in securing Tunisia’s water future. The AGREEMAR project remains committed to bridging research and policy, fostering regional cooperation, and advancing sustainable water management strategies across the Mediterranean.



Participants in the AGREEMAR civil assembly workshop in Tunis, 29 January 2025

Reported by Anis Chkirbene.

Successful PhD defense of Tiago N. Martins from LNEC: *Decision making to support managed aquifer recharge – a study for southern Portugal*

Tiago is a seasoned researcher from LNEC, Portugal, who gained experience in MAR planning and optimisation by working in several international MAR projects like MARSOL, AGREEMAR, WARBO, etc.

His thesis aimed at developing and applying a methodological set of procedures for supporting the implementation of MAR in southern Portugal.

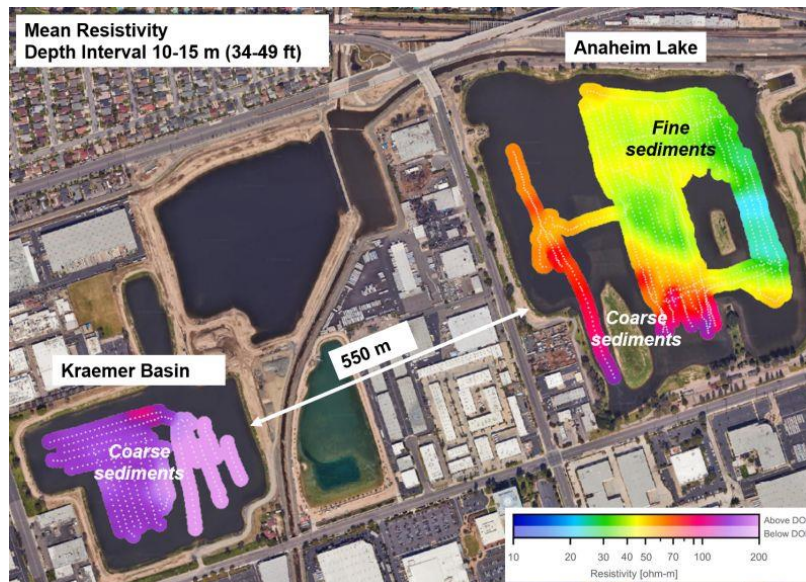


Photo: Teresa E. Leitão.

We congratulate Tiago and wish him all the best for his future career.

Geophysical Imaging Partners have employed TEM in Anaheim MAR sites

In a recent project for the Orange County Water District (OCWD), we used the TEM geophysical method to gain insight into the geology beneath Anaheim Lake in Anaheim, California. OCWD has observed significantly different infiltration rates between Anaheim Lake and the nearby Kraemer Basin. Both basins are being used for Managed Aquifer Recharge. They have conducted modeling and studies to determine if OCWD's hypothetical subsurface model of Anaheim Lake matches the TEM method results.

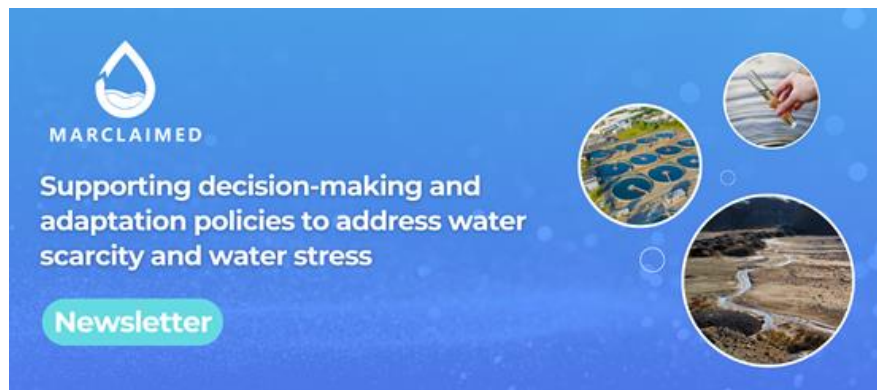


More info (Linked-in link, therefore, temporal): https://www.linkedin.com/posts/adam-hutchinson-pg-chg-6891b89_ocwd-ttem-mar-activity-7290046232901627905-f2r9?utm_source=share&utm_medium=member_desktop

Thank you Adam Hutchinson for reporting.

MARCLAIMED project partners have released their first newsletter

The EU-funded project MARCLAIMED has reached one year of activities since its launch. In this first edition of our newsletter, you will get a glimpse of what we do and explore exclusive updates on case studies and general developments. Dive into the world of MARCLAIMED.



Newsletter access: <https://marclaimed.eu/first-marclaimed-newsletter-released-check-it-out/>

Arizona.edu. The WRRRC is now accepting proposals for this year's federal WRRRA 104(b) and 104(g) grants

Applications must be submitted through the Arizona Water Resources Research Center (WRRRC).



Faculty and research personnel at any of Arizona's three state universities may submit proposals to either or both programs. Guidelines for both programs require that there

be a 1:1 match of non-federal to federal dollars. Proposal instructions can be found at the links below.

*The deadlines listed above are subject to change as the funding availability and dates from USGS have not been released. The 2025 Request for Proposals (RFP) from USGS has not yet been released. The WRRC will provide updates as they become available.

More Information at Water Resources Research Act Program:

104(B) SMALL RESEARCH GRANTS

104(G) NATIONAL COMPETITIVE GRANTS

Whatsapp group on Aquifer Recharge Management

The group congregates 191 participants today. Ask the invitation link by [email](#), pls, as it changes eventually.



Previous IAH-MAR Newsletters

Previous newsletters access: <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.tragsa.es/>



@4dina_mar

<https://www.linkedin.com/groups/4690290/> (552 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>

The IAH MAR list has 356 members today... you are invited to join!

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

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

2025 February 25th
