

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

Attached some MAR-related news for 2022 May.

IAH MAR Commission Newsletter. 2022 May

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Whatsapp group on Aquifer Recharge Management

Previous IAH-MAR Newsletters

IAH-MAR Commission's Twitter

IAH-MAR Commission's sister sites:

11st International Symposium on Managed Aquifer Recharge, ISMAR 11. MOST OF THE RESULTS ARE ABOUT TO BE RELEASED!

From 2022 April 11th to 15th has taken place in Long Beach the 11ST International Symposium on Managed Aquifer Recharge (ISMAR 11), under the title: **“Managed aquifer recharge: A key to sustainability”**. The symposium counted on 350 delegates from 27 countries, and had 26 technical sessions, 123 oral presentations, 7 posters, 2 keynote presentations, side events, three first day short courses, two technical field trips... Please, visit <https://www.ismar11.net>



The organizers have informed that the technical and scientific releases from the conference (videos, presentations, abstracts collection) will be posted shortly at the conference’s site.

Once again: we thank organizers for such an outstanding event!

IAH-MAR Commission plenary during ISMAR 11

The last plenary has taken place in long Beach, Hilton hotel, last April 13th, 17 h. 54 in-person members of the MAR family were congregated and an undefined number of participants in streaming.

The plenary counted on an active participation from all the assistants, and several different topics were debated.

The plenary presentation has already been posted in our website:

https://recharge.iah.org/files/2022/05/IAH-MAR-Commission_plenary-ISMAR11.pdf




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

**IAH Commission on
Managing Aquifer Recharge**


Enrique Fernández Escalante
Catalin Stefan
Yan Zheng
IAH-MAR Commission co-chairs

Dave Kreamer
IAH President

<https://recharge.iah.org>



Catalin Stefan
Yan Zheng
Enrique Fernández Escalante
Co-chairs of the IAH-MAR Commission



ISMAR 11 plenary. 2022 April 13th



IAH-MAR Commission plenary at ISMAR 11

The plenary had live streaming for the whole MAR community and the video recorded will be available (hopefully for the next newsletter).



Adam Hutchinson, ISMAR 11 chairman, & Tim Parker, IAH USA chapter's President during ISMAR 11



Some ISMAR 11 presentations

NEW MAR PUBLICATIONS

Managed Aquifer Recharge. A key to sustainability. Journal Water special issue. Call for papers!!

Authors who did not attend ISMAR 11 are invited to participate.

Selected papers on MAR, specially presented at ISMAR 11 will be published in a Special Issue of the open-access journal WATER, continuing the tradition from previous symposia, including ISMAR 8 and ISMAR 10.

Submission is open for all ISMAR 11 participants, as well as all members of the international MAR community. EVERYONE IS INVITED TO SUBMIT!

The Special Issue "Managed Aquifer Recharge: A key to Sustainability" is already open for contributions. Papers will be available in electronic format and as part of a printed book. For more details, please visit:

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)

Special Issue "Managed Aquifer Recharge: A key to Sustainability"

- [Print Special Issue Flyer](#)
- [Special Issue Editors](#)
- [Special Issue Information](#)
- [Keywords](#)
- [Published Papers](#)

A special issue of *Water* (ISSN 2073-4441). This special issue belongs to the section "Water Resources Management, Policy and Governance".

Deadline for manuscript submissions: 18 September 2022.

Share This Special Issue

Special Issue Editors


Dr. Enrique Fernández Escalante [E-Mail](#) [Website](#) [SciProfiles](#)

Guest Editor

Tragsa R&D, UPM Lecturer, WB Consultant, Co-Chair IAH MAR Commission, Madrid, Spain

Interests: IWRM; hydrogeology; technical solutions for water management; design and construction criteria

Special Issues, Collections and Topics in MDPI journals




Dr. Catalin Stefan [E-Mail](#) [Website](#) [SciProfiles](#)

Guest Editor

Research Group INOWAS, Department of Hydrosiences, Technische Universität Dresden, 01069 Dresden, Germany

Interests: soil aquifer treatment (SAT); managed aquifer recharge (MAR)




Dr. Christopher J. Brown [E-Mail](#) [Website](#)

Guest Editor

School of Engineering, University of North Florida, Jacksonville, FL, USA

Interests: groundwater hydrology; surface water hydraulics; geotechnical engineering; dam safety




Dr. June Mirecki [E-Mail](#) [Website](#)

Guest Editor

U.S. Army Corps of Engineers-Jacksonville District, Jacksonville, FL, USA

Interests: groundwater geochemistry; geochemical modeling; groundwater quality; water-rock interactions





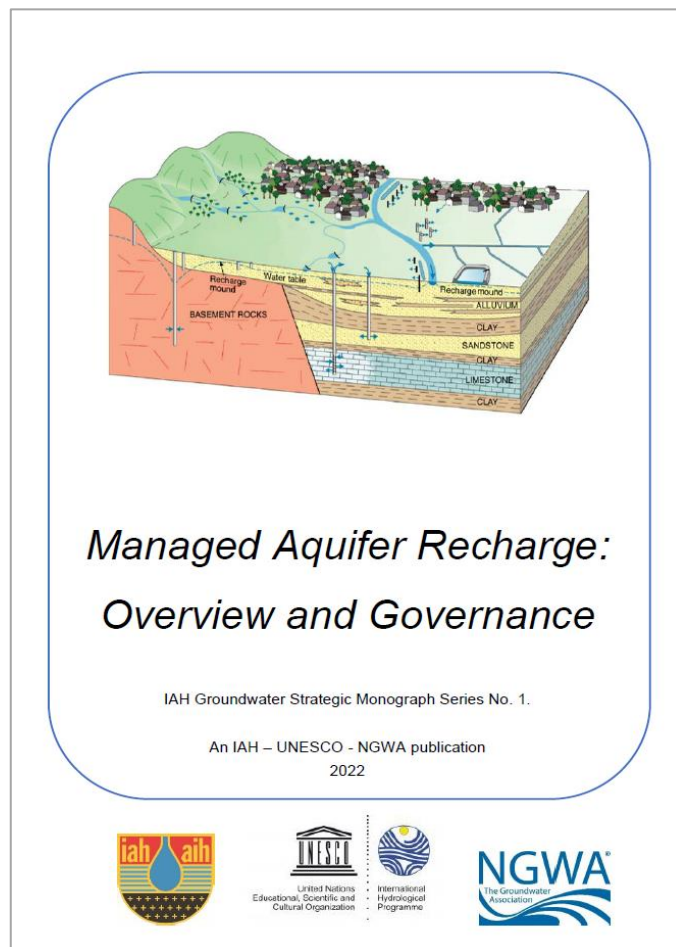
A Groundwater Project publication. Managed Aquifer Recharge: Overview and Governance

The mission of The Groundwater Project is to provide accessible, engaging, high-quality, educational materials, free-of-charge online in many languages, to all who want to learn about groundwater and understand how groundwater relates to and sustains ecological systems and humanity. Our current effort is focused on producing online books that have undergone rigorous reviews and editing.



Available soon for free download via The Groundwater Project initiated by John Cherry.
<https://gw-project.org/>.

Dillon, P., W. Alley, Y. Zheng, and J. Vanderzalm (editors), in press, Managed Aquifer Recharge: Overview and Governance. The Groundwater Project, Guelph, Ontario, Canada.



P-ISMAR 11. Mini-book gathering all the posters exposed at ISMAR 11

Despite the scarce amount of posters exposed at ISMAR 11 conference, IAH-MAR Commission co-chairs have gathered all of them, with the permission of the organizers and authors, and assembled a new number of the P-ISMAR series, holding the tradition from ISAR 4 to ISMAR 10.



The new publication is already accessible on the Internet. Download P-ISMAR 11:
<https://dinamar.tragsa.es/file.axd?file=/PDFS/P-ISMAR-11.pdf>

Previous numbers of the series:

P-ISAR 4: <https://dinamar.tragsa.es/private/p-ismar9/pismar4v1b.zip>

P-ISMAR 5: <https://dinamar.tragsa.es/private/p-ismar9/pismar5v3b.zip>

P-ISMAR 6: <https://dinamar.tragsa.es/private/p-ismar9/pismar6v1b.zip>

P-ISMAR 7: <https://dinamar.tragsa.es/private/ismar/pis-mar7-v8.pdf>

P-ISMAR 8: <https://dinamar.tragsa.es/pdf/P-ISMAR%208-v14.pdf>

P-ISMAR 9: <https://dinamar.tragsa.es/pdf/P-ISMAR%209-v6.pdf>

P-ISMAR 10: <https://dinamar.tragsa.es/pdf/P-ISMAR-10.pdf>

P-ISMAR 11 (mini): <https://dinamar.tragsa.es/file.axd?file=/PDFS/P-ISMAR-11.pdf>

More info: <https://recharge.iah.org/ismar>

MAR-related conferences and seminars

Groundwater, key to the sustainable development goals conference includes a MAR session (s. 4j).



Managed aquifer recharge (MAR) is a low-cost, low-energy technique to increase groundwater resources, reduce the impacts of groundwater overexploitation, improve recharged aquifers' water quality, and protect groundwater dependent ecosystems. Therefore, MAR must be considered as a strategic technique to reach the 2030 United Nations Agenda for Sustainable Development Goals and its objective of improving water quality and increasing recycling and safe reuse... Read more: <http://www.gw-sdq2022.fr/index.php/en/topics> and https://lnkd.in/e_zUVWS4 Joel Podgorski French Water Partnership UNESCO IAH - International Association of Hydrogeologists

49th IAH Congress. Wuhan, China. 2022 September 18th to 23th

The IAH (International Association of Hydrogeologists) Congress bring the hydrogeological community together to share ideas, experiences and latest advancements in this field as well as supporting, training and encouraging early career colleagues.

The Organizing Committee have to determine that the meeting will be held in hybrid mode to take advantage of the best of both in-person and virtual formats.



More details on the IAH 2022 website: <https://www.iah2022.com/>

Session 15: Managed Aquifer Recharge. Please, submit your work.

New Meeting: Future of Managed Aquifer Recharge in the U.S. May 10th & May 11th | 11:00AM - 2:00PM EDT

The public session will feature speakers and panelists discussing the future of managed aquifer recharge in the United States, a topic with implications for a wide range of audiences, including geology, hydrology, climate science, ecology, and agriculture.



Additional information on the meeting: <https://bit.ly/3Lo6bZj>

Technical talk: Understanding geochemical responses to replenish Perth's deep aquifers. May 18th

The professor Henning Prommer (CSIRO Australia) will give a geochemical MSAR-related presentation. In case the speaker has recorded the video, the link will be posted in the next newsletter.

IAH WA TECH TALK


Understanding Geochemical Responses to Replenishing Perth's Deep Aquifers

— **Professor Henning Prommer**
University of WA and CSIRO Land and Water

Wed May 18, 5.30 pm -

This presentation will give an overview of the geochemical investigations that have accompanied the development of this water source over the last 20 years. The focus of the talk will be on the role that numerical modelling has played in assessing and managing the geochemical response to the injection of recycled water from early small-scale laboratory experiments, to the analysis of the Groundwater Replenishment Trial (GWRT), to the use of reactive transport modelling to assess injectant amendments that will minimise the risk of metal mobilisation.

To learn more about this great topic visit iah.org.au for details on the viewing on Team.



Ca_30 years

F_30 years

pH_30 years

JOIN ONLINE VIA MS TEAMS: <https://bit.ly/3MnGVDV>

6-Day MAR course organized by UNAM, Mexico City, 2022 June 6th-10th (in Spanish).

Acción formativa teórica y práctica sobre hidrogeología aplicada: Técnicas de recarga gestionada.

Mixta (presencial y virtual), incluye visita técnica a un proyecto de recarga gestionada en la Ciudad de México.

En este curso se van a presentar las tecnologías más comunes para recargar acuíferos de forma eficiente y segura, para lo cual se van a abordar desde los conceptos básicos de hidrogeología -con el fin de homologar los conocimientos de todos los asistentes-, hasta casos prácticos de reconocimiento mundial.

Se verán aspectos de calidad del agua, de modelización numérica aplicada (no se desarrollarán propiamente modelos) y de análisis de riesgo, principalmente.

Los aspectos legales y normativos se abordarán en una sesión adicional (6^a).

SESION 5: 10 JUNIO	SESION 6: 17 JUNIO
<p>8:30 - 9:00 h Registro</p> <p>9:00 - 15:00 SESIÓN 5: CAPTACIÓN DE AGUA DE LLUVIA Y ESCURRIMIENTOS</p> <p>Captación de Agua (Water harvesting).</p> <p>Los Sistemas urbanos de drenaje sostenible (SUDS) en MAR y en la hidrogeología urbana</p> <p>Dimensión medioambiental de la técnica MAR. Efectos, condicionantes, indicadores ambientales y riesgos de la recarga gestionada.</p> <p>Presentación de Ebooks de proyectos de recarga gestionada. Presentación del repositorio sobre libros MAR.</p> <p>La Comisión de recarga gestionada de la AIH MAR. Presentación e invitación.</p>	<p>11:00 - 15:00 h Virtual</p> <p>SESIÓN 6: ECONOMÍA Y LEGISLACIÓN ESPECÍFICA SOBRE MAR. CASOS REALES, SAT-MAR, LÍNEAS DE ACCIÓN, COMUNICACIÓN.</p> <p>Aspectos económicos de la técnica MAR.</p> <p>La recarga gestionada en los planes de gestión y acción. La participación de los usuarios finales en la toma de decisiones: Co-gobernanza y Co-MAR.</p> <p>Difusión y transferencia de tecnología sobre MAR.</p> <p>Proyectos SAT-MAR: Recarga con efluentes de depuradoras.</p> <ul style="list-style-type: none"> - San Luis Río Colorado, México - SAT-MAR Alcazán, Los Arenales, España - Barrera Hidráulica Llobregat, Barcelona, España - Ocho casos de MAR en países mediterráneos. - Galerías en Perú. - Gestión integrada en Ica (Perú)



Curso

Acción formativa, teórica y práctica sobre HIDROGEOLOGÍA APLICADA:

Técnicas de recarga gestionada

Del
6 al 10
de junio
2022



Registro:

Envía tu solicitud de inscripción con los siguientes datos al correo apalman@ingen.unam.mx:

- Nombre completo
- Empresa u Organismo
- Cargo
- Teléfono (con clave de larga distancia)
- Correo electrónico

Modalidad:

Mixta (presencial y virtual), incluye visita técnica a un proyecto de recarga gestionada en la Ciudad de México

Costo:

Profesionales \$5,000
Estudiantes (sólo 5 lugares) \$2,500.
Se otorgarán dos becas a estudiantes.

Sede:

Salón de Seminarios Emilio Rosenblueth, Edificio 1, Instituto de Ingeniería, UNAM



Participan



For more information, please, contact the coordinator: M.I. Adriana Palma Nava, LatinMAR Community of Practice coordinator, IAH-MAR:
APalman@ingen.unam.mx

NEW MAR OR MAR-RELATED ACTIVITIES.

EU-China Groundwater Management Webinar to be held as 2 sessions on 17th May and 19th May

You are welcome to join the webinar series on "Aspects of Sustainable Groundwater Management and Use" organized by GEUS, supported by the EU Partnership Instrument and China - providing a focus on global and European/Chinese experiences. It is Tuesday 17 May and Thursday 19 May Both days 08:30 - 11:30 CET = 14:30 - 17:30 Chinese Time.

Download the full program bit.ly/3PoYAwZ, and register here: bit.ly/3a64bYX. China-English translation provided.




 Rural Water and Food Security
 An action supported by the European Union


 GEUS

Webinar 17 and 19 May 2022

Aspects of Sustainable
 Groundwater Management
 and Use
 可持續的地下水管理 and 使用

Get the updated program, press the button:

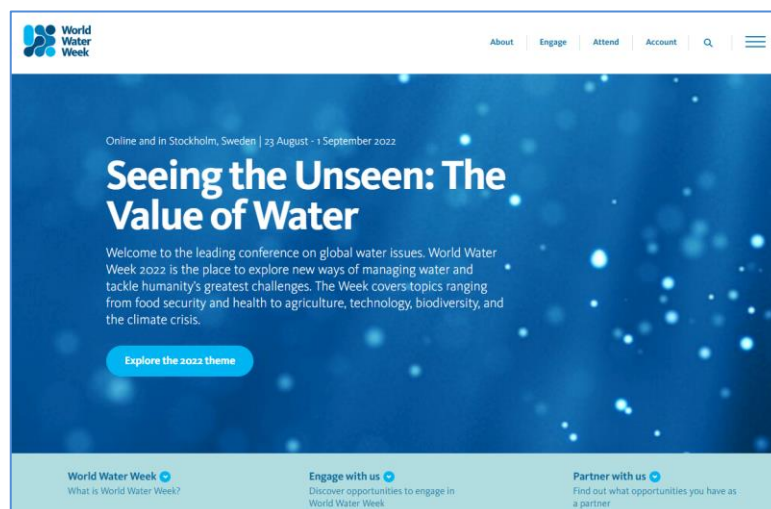
[Download full program](#) (Updated 25 April 2022)




CHINA
EUROPE
 Water Platform

2022 World Water Week in Stockholm, Aug 23 - Sept 1

In-Person & Hybrid Session: Valuing Groundwater.
 At least, two abstracts on MAR have been accepted.




 World Water Week

About Engage Attend Account Q

Online and in Stockholm, Sweden | 23 August - 1 September 2022

Seeing the Unseen: The Value of Water

Welcome to the leading conference on global water issues. World Water Week 2022 is the place to explore new ways of managing water and tackle humanity's greatest challenges. The Week covers topics ranging from food security and health to agriculture, technology, biodiversity, and the climate crisis.


[Explore the 2022 theme](#)

World Water Week What is World Water Week?
Engage with us Discover opportunities to engage in World Water Week
Partner with us Find out what opportunities you have as a partner

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

MAR Postdoctoral Scholar call at Oregon State University

Dr. Salini Sasidharan (Assistant Professor in the Department of Biological and Ecological Engineering, Oregon State University, Corvallis, Oregon, USA) seeks to hire a Full-Time 12-month postdoc (renewable for a second year based on satisfactory performance)... read more:



**Oregon State
University**

COLLEGE OF AGRICULTURAL SCIENCES »
Biological & Ecological Engineering

We are Hiring a Postdoctoral Scholar

Developing Pretreatment Engineering Device for Managed Aquifer Recharge

Dr. Salini Sasidharan (Assistant Professor in the Department of Biological and Ecological Engineering, Oregon State University, Corvallis, Oregon, USA) seeks to hire a Full-Time 12-month postdoc (renewable for a second year based on satisfactory performance). The Postdoc will develop a pretreatment engineering device for stormwater, floodwater, or recycled wastewater treatment applicable to managed aquifer recharge (MAR) operations across Oregon and California. This research aims to develop low-cost pretreatments for MAR sites to mitigate clogging and reduce contaminant loads. In addition, this USDA-NIFA-funded project will examine the independent and joint use of Ag-MAR and drywells with pretreatments (to remove sediments and contaminants) to overcome the limitations of both approaches synergistically, thereby increasing groundwater sustainability and the long-term viability of irrigated agriculture.

Qualifications

- a Ph.D. in engineering or relevant discipline (environmental, chemical, water resource, biological, ecological, or a related field)
- Strong laboratory (contaminant fate and transport) and field experiment (sample collection, monitoring sensors) skills.
- Field-scale instrumentation for various managed aquifer recharge operations (infiltration basin, drywell, ASR, etc.)
- Strong analytical skills and experience with mathematical modeling and data analysis
- Proven track record of independent research, critical thinking, and successful academic publications.
- Demonstrated ability to work collaboratively as part of a research team, supervise undergraduate or graduate students, and lab management.
- Drive an Oregon State University-owned or personal vehicle on behalf of the University.
- Commitment to promoting and enhancing diversity

Benefits

Salary and Benefits: Commensurate with qualifications and experience as per OSU guidelines
<https://gradschool.oregonstate.edu/postdocs/stipends-and-benefits>

Equal Opportunity Employer: <https://eoa.oregonstate.edu/affirmative-action>

Collaboration: The postdoc will have opportunity to collaborate with researchers from various Departments at OSU, USDA, University of California, and international collaborators from Australia, India, and Spain.

Oregon: Oregon is a beautiful state in the U.S. with access to the ocean and the mountains for fun outdoor activities. The postdoc will be located at Corvallis, OR.

HOW TO
APPLY

↓

Please send a single PDF file (word document will not be opened) of the following documents to **Dr. Salini Sasidharan** at (Salini.sasidharan@oregonstate.edu) with reference "**Postdoc Application Pretreatment-Your Last Name**" in the subject line.

1. a detailed curriculum vitae and academic transcript
2. cover letter describing how your qualifications and experiences have prepared you for this postdoctoral position (1 page)
3. statement of research interests and experience (1 page)
4. contact information for three references : one must be your Ph.D. advisor and Postdoc advisor (for candidate with prior Postdoc experience).

For full consideration, apply by: 20 May 2022
Start Date: TBD

Applications after this date may be considered if position is not filled. Please note that only candidates that meet the required skills and expertise will be contacted.

Thank you Dr. Salini Sasidharan for reporting.

Another drop of nostalgia

The selected publication for this newsletter has been:

Chapter 8 Managed Aquifer Recharge as a component of sustainable water strategies.

INTRODUCTION

Water reuse as water stress mitigation option

The benefits of water reclamation and reuse within an integrated water management framework are well documented in the literature (Anderson, 2003; Asano et al. 2006; EC, 2006). Water recycling provides additional drought-proof water supply, favours a more local sourcing of water and avoids the use of drinking water quality sources where such high quality is not needed. Reclaimed wastewater is a potential source for all the various purposes that freshwater is used for, appropriate pre-treatment presupposed. Types of water reuse include agricultural irrigation, urban and domestic applications, industrial uses, such as cooling water and boiler feed make-up, environmental application aimed at flow augmentation or wetland restoration as well as groundwater recharge. The anthropogenic water cycle as illustrated in Figure 8.1, involves regular though unintended reuse of wastewater. Once discharged to the aquatic environment, wastewater treatment plant effluents are either withdrawn for various purposes or may contribute to environmental flows or the recharge of aquifers. This fact has to be acknowledged in evaluating any direct and planned reuse activities.



Figure 8.1 The anthropogenic water cycle with direct and indirect water reuse (modified from Veolia Water, Durham 2005, where : indirect reuse : direct reuse, GWR: groundwater recharge, IRR: irrigation, POT: potable reuse, IND: industrial reuse, URB / DOM: urban & domestic reuse, ENV: environmental enhancement)

Download:

https://circabc.europa.eu/sd/a/049c2aba-fe3e-481a-95f3-d956be4e52e4/RECLAIM_WATER_Policy_Brief_Final.pdf

More actions

Whatsapp group on Aquifer Recharge Management

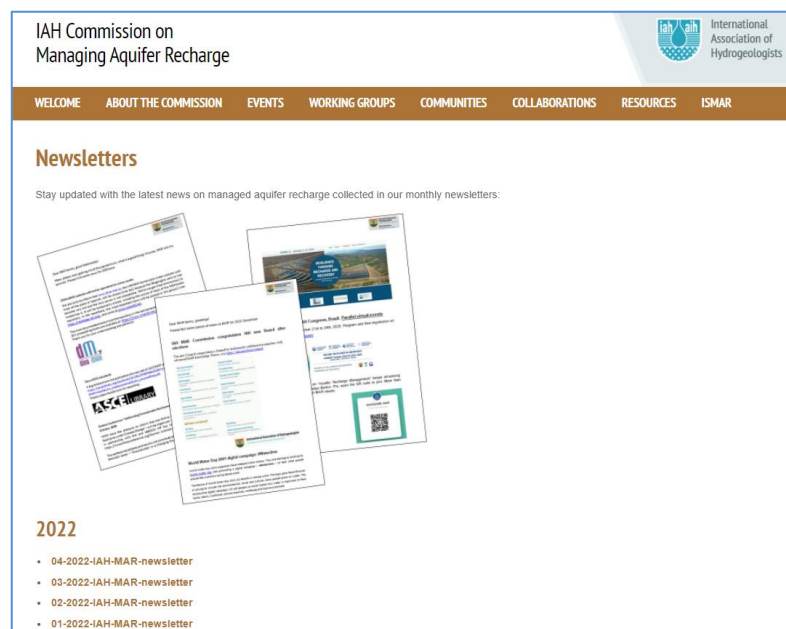
Since the previous QR code to join the group was changed, the appearance of trolls has been zero. This is the new link to join the group:

<https://chat.whatsapp.com/BxYZq7wERpc7nDeTRIYN63>

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 very much for your kind attention
All the best...

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

2022 May 23th

Please, remember you can book freely in the IAH MAR Commission Forum:
<https://lists.flinders.edu.au/mailman/listinfo/iah-mar.listcgs>
to stay informed on MAR issues and to share your info.

IAH-MAR Commission on Twitter:



@IAHMARCom

<https://twitter.com/IAHMARCom>

IAH-MAR Commission's sister Web sites:

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



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



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