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Instituto Geológico  
y Minero de España

International Symposium on Managed Aquifer Recharge ISMAR10

## Third circular

2019 April 23<sup>th</sup>



**ismar<sub>10</sub>**

INTERNATIONAL SYMPOSIUM ON MANAGED AQUIFER RECHARGE

Madrid, 2019 May



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GrupoTragsa



INTERNATIONAL SYMPOSIUM ON MANAGED AQUIFER RECHARGE

Madrid, 2019 May



INTERNATIONAL SYMPOSIUM ON  
MANAGED AQUIFER RECHARGE

MADRID, MAY 20-24, 2019

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2019 April

## ISMAR 10

Everyone is invited to this International Symposium on Managed Aquifer Recharge, ISMAR10, Madrid 2019 20-24 May.

ISMAR10 is held under the joint auspices of the International Association of Hydrogeologists (IAH), American Society of Civil Engineers (ASCE) and United Nations Educational, Scientific and Cultural Organisation (UNESCO) plus local organizers (Tragsa, IGME, IWRA GE).

### Basic Information

Website: <http://ismar10.net>

Time: May 20-24, 2019

Location: Madrid, La Nave

Organizer: Tragsa Group

Co-organizers: Spanish Geological Survey, IAH, UNESCO, ASCE

Institutional Support: Ministry of Agriculture, Fisheries and Food, Ministry for the Ecological Transition, Ministry of Science, Innovation and Universities, Madrid City Council.

Contact: [info@ismar10.net](mailto:info@ismar10.net) / [ismar10@tragsa.es](mailto:ismar10@tragsa.es)

Tragsa Group, with the assistance of the invited co-organizers Spanish Geological Survey (IGME), the Spanish chapter of the International Water Resources Association (IWRA) and the IAH Spanish Chapter host the International Symposium on Managed Aquifer Recharge (ISMAR10) in Madrid.



## Latest news

Mr. Luis Planas Puchades, Minister of Agriculture, Fisheries and Food of Spain, accepts to support ISMAR 10 and to take part in the Committee of Honor.



The Spanish Minister of Science, Innovation and universities Mr. Pedro Duque accepts to support ISMAR 10 and to take part in the Committee of Honor.



Mr. Manuel Menéndez Prieto, Water General Director of the Spanish Ministry for the Ecological Transition, has supported ISMAR 10 and expressed his willingness to contribute to the Symposium's Scientific and Technical aspects.



## ISMAR 10 Committee of Honor

The personalities who compose the Committee of Honor are:

- Minister of Agriculture, Fisheries and Food, Mr. Luis Planas
- Minister of Science, Innovation and Universities Mr. Pedro Duque
- Madrid City's Mayor, Ms. Manuela Carmena
- Spanish Water General Director. Mr. Manuel Meléndez
- IAH President. Mr. António Chambel
- Tragsa Group President. Mr. Jesús Casas

## Conference venue

LA NAVE. MADRID CITY COUNCIL'S SPACE FOR INNOVATION. La Nave is the center of inspiration, education and open innovation of Madrid City. It was built in 2015 to transform the economic and social future of the citizenship. The project is based upon two combined inspiring concepts, a virtuous circle of open innovation and the collaboration between all the Innovation Agents and the Society.

Address: 5<sup>th</sup> Cifuentes Street, 28021 Madrid, Spain

District: Los Angeles / Villaverde, Madrid South

Metro: Line 3, (Yellow color), South sector, Station: Villaverde Bajo, Cruce (Santiago Amón exit)

Train (Renfe): Puente Alcocer Station (C5 line).



## General information

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Contact: [info@ismar10.com](mailto:info@ismar10.com) / [ismar10@tragsa.es](mailto:ismar10@tragsa.es)

The official language of the Conference will be English for all printed material, presentations and discussions. There will be simultaneous Spanish-English translation during the most important events of the Symposium (full time in salas 1 and 2).

## Workshops

### 1<sup>st</sup> Day Workshops and Short Courses

As the tradition of ISMAR conferences, several pre-conference seminars have been offered. Short courses require a registration fee; workshops are free for booked ISMAR 10 delegates.

Official language: English. No simultaneous translation available.

<https://www.ismar10.net/en/pre-and-post-conference-seminars/>

### SEMINARS PROGRAM:

Monday, 2019 May 20<sup>th</sup>

Place: IGME headquarters.

#### MORNING PROGRAM

**09:30 – 14:00 Seminars 1 to 3 and 7:**

##### Short course nº 1

*State of the Art Techniques in Characterizing, Constructing and Operating Optimum Surface Spreading Groundwater Recharge Projects*

Instructors: Dr. Michael Milczarek, President GeoSystems Analysis, Inc. and Dr. Greg Woodside, Executive Director of Planning and Natural Resources (USA)

##### Short course nº 2

*Addressing the challenges to achieve successful groundwater recharge and recovery through wells. Comprehensive coverage of investigations required for ASR projects and their operation*

Instructors: Dr. D. Pyne, (ASR Systems, USA) and Dr. Russell Martin (Wallbridge Gilbert Aztec, Australia)

##### Workshop nº 3

*MAR site suitability mapping. Utilization of spatial analysis techniques for the identification of potential MAR areas: challenges and opportunities*

Instructors: Dr. José Pablo Bonilla (AyA, Costa Rica), Dr. Dan Goode (USGS, USA), Jana Sallwey (TU Dresden, Germany), Dr. Catalin Stefan (TU Dresden, Germany) and Dr. Arnaud Sterck (IGRAC, the Netherlands)

##### Short course nº 7

*Water quality aspects of Managed Aquifer Recharge systems*

Instructor: Prof. Dr. P. Stuyfzand, KWR, Watercycle Research Institute. The Netherlands

#### AFTERNOON-EVENING PROGRAM

**14:30 – 19:00 Seminars 4 to 6 and 8:**

##### Short course nº 4

*Technical solutions to increase Managed Aquifer Recharge effectiveness. MARSOL project findings and Tragsa Group Experience regarding design and construction criteria, operation and management*

Instructors: Prof. Dr. Enrique Fernández Escalante and Dr. Jon San Sebastián Sauto (Tragsa)



Group, Spain)

### **Short course nº 5**

*Web-based numerical modeling and optimisation of MAR applications using the free INOWAS platform*

Instructors: Prof. Dr. Catalin Stefan, Jana Glass, Ralf Junghanns (TU Dresden, Germany) and Russel Martin (WGA, Australia)

### **Workshop nº 6**

*Sustainable MAR in developing countries. Developing managed aquifer recharge in Latin America*

Instructors: Dr. Edmundo Claro (CSIRO, Chile); Mr Tatsuo Shubo (Fundação Oswaldo Cruz – Fiocruz, Brazil); Dr. Declan Page (CSIRO, Australia) and Mr. Dennis Gonzalez (CSIRO, Australia)

### **Short course nº 8**

*Modelling MAR facilities design and operations using the free and open source FREEWAT plugin*

Instructors: Dr. Rudy Rossetto and Dr. Giovanna De Filippis (Institute of Life Sciences, Scuola Superiore Sant'Anna, Italy).

After the short courses will take place the **Ice breaking party**.

IGME headquarters Hall, 19:30 h. Ríos Rosas 23 St, 28003 Madrid

## **Field trips**

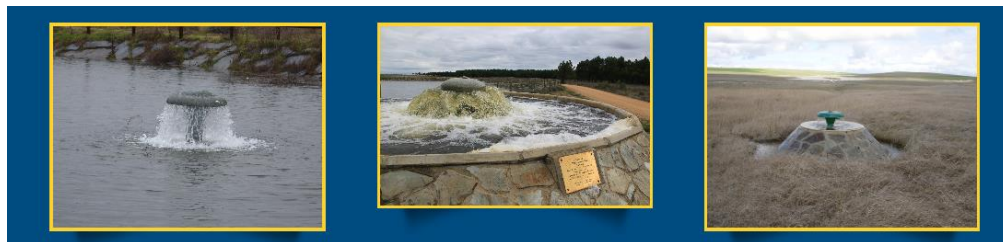
Three different excursions are envisaged within a distance closer than 180 km from the venue site. More info: <https://www.ismar10.net/en/technical-tours/>

### **1- LOS ARENALES AQUIFER FACILITIES IN SEGOVIA PROVINCE**

It is a full day trip to visit different facilities of MAR for irrigation and environmental uses. The activity is closely linked to the agro-industry in the area, and there is a consolidated cooperation scheme between scientists and practitioners with the farmers in the irrigation communities.

There is a vast amount of dams specifically designed for MAR, infiltration ponds, canals, artificial wetlands, salt lakes restored by means of MAR, covered wells...

This is the main living lab for DINA-MAR project and the biggest MARSOL demo-site. In the way back, it is feasible to visit the Roman aqueduct in Segovia town.



## 2- GUADIANA CHANNEL AND DAIMIEL NATIONAL PARK

In the same distance but the opposite direction than the previous visit, there is a battery of 25 MAR wells and boreholes along a canal for temporal and intermittent recharge. The design is unique and is an example of quick recharge to store winter water surpluses.

At the end of this battery, there are four boreholes more for environmental purposes, recharging Tablas de Daimiel National Park. The visit might be complemented with a visit to the Park before returning to Madrid.



## 3- ASR/ASTR/DEPTH INJECTION BOREHOLES IN MADRID (TBC)

Managed by the Madrid Water supply company (CYII) there are three different batteries of boreholes with a specific and unique design in less than 12 km from the venue site.

Boreholes are until 500 m depth and recharge the semiconfined aquifer. These facilities could be visited in a half-day trip for those attendants with time limitations.



## Milestones and Deliverables

Before		ISMAR 10	
January 31, 2018			
June 15, 2018			
September 10, 2018			
November 25, 2018			
December 5, 2018			
December 20, 2018			
March 1, 2019			
April 1, 2019			
April 15, 2019			
April 20, 2019			
SCHEDULE		DATES	
First announcement		January 31, 2018	
Second announcement. Workshop instructors call		June 15, 2018	
Call for abstracts		September 10, 2018	
Deadline for abstracts submission		November 25, 2018	
Registration opens		December 5, 2018	
Notification of abstracts acceptance		December 20, 2018	
Submission of final manuscript. Deadline		March 31, 2019	
<b>Submission of final posters. Deadline</b>		<b>April 15, 2019</b>	
Third circular		April 23, 2019	
Notification of final papers acceptance		April 26, 2019	
ISMAR 10 Symposium		20-24 May 2019	

## Detailed Program

The draft program es available on line, with a huge amount of technical contributions and parallel events.

[https://www.ismar10.net/wp-content/uploads/2019/04/20190416\\_RESUMEN-PROGRAMA-ISMAR-10-v21-SUMM-AND-DETAIL\\_EN.pdf](https://www.ismar10.net/wp-content/uploads/2019/04/20190416_RESUMEN-PROGRAMA-ISMAR-10-v21-SUMM-AND-DETAIL_EN.pdf)

### PROGRAM AT A GLANCE

<p><b>Monday, 2019 May 20<sup>th</sup></b>  Place: IGME headquarters  09:30 – 14:00 Workshops 1 to 3 and 7  14:30 – 19:00 Workshops 4 to 6 and 8  19:30 h. Ice braking party</p> <p><b>Tuesday, 2019 May 21<sup>th</sup></b>  Opening ceremony  Key Speaker 1  Sessions 1 – 6  Poster Session 1  Special sesión 1  Round Table 1</p> <p><b>Wednesday, 2019 May 22<sup>th</sup></b>  Key Speaker 2  Sessions 7 – 10  Round Table 2  Flash Session 1  Poster Session 2  IAH MAR Plenary  Gala Dinner</p>	<p><b>Thursday, 2019 May 23<sup>th</sup></b>  Key Speaker 3  Sessions 13 – 17  Round Table 3  Info on Technical tours + Post-conference field trips info  Flash Session 2 + Slot for ISMAR 11 organizers  Round Table 4  Special session 18  Sessions 19 – 20  Closing Ceremony</p> <p><b>Friday, 2019 May 24<sup>th</sup></b>  Technical tours 1, 2 and 3</p> <p><b>Post-conference tours (TBD)</b></p>
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### CONTRIBUTIONS (by 2019 April 16<sup>th</sup>)

There have been received 258 contributions from 54 countries.

<https://www.ismar10.net/wp-content/uploads/2019/04/tabla-internet-15-04-2019-V3.pdf>

### POSTERS LIST

There are 113 abstracts which were selected as posters.

<https://www.ismar10.net/wp-content/uploads/2019/04/posters-list-16-04-2019.pdf>

**We would like to welcome you in Madrid in May. ISMAR 10 LOC.**



## ISMAR 10 sponsors

### Platinum sponsor



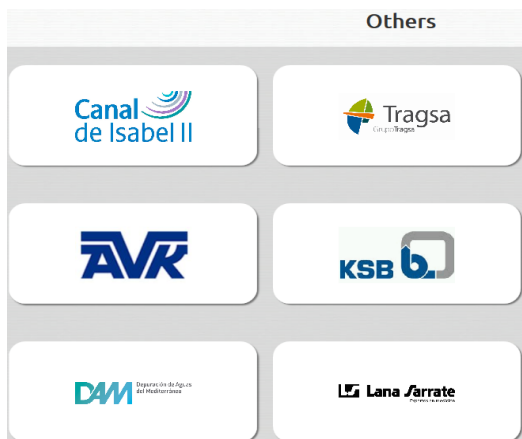
### Silver Sponsors



### Bronze Sponsors



### Others



### Collaborators

Space reserved for **Collaborators** related to the Conference topic who contribute in the event.



Receive our most sincere gratitude...