

**IAHR-SPAIN WATER DAY**

# **LAKES: SENTINELS AND GLOBAL CHANGE SENSORS. PRIORITIES IN RESEARCH AND MANAGEMENT**

**Wednesday, 6 October 2021 (10:00 - 13:00 CEST). Online**

**[Free registration](#) until full capacity is reached**

**6 OCTOBER, 2021 • 10:00 - 13:00 CEST • ONLINE**



## **INTRODUCTION**

Changes in the climate and their effects on the hydrological cycle as shown in the recent report of the Intergovernmental Group of Experts on Climate Change (IPCC, 2021), are unprecedented in hundreds of thousands of years, with some of them being barely reversible and taking place on a large scale if we do not act quickly. The interaction of these climate changes with pressures derived from human activities such as the excessive contribution of nutrients, water regulation in hydrographic basins, or the introduction of exotic species, among others, are endangering many aquatic ecosystems and exceeding their resilience capacity. In this worrisome context, lakes play a crucial role as sensors or sentinels of these changes, since they are key pieces in the water cycle and carbon cycles and in protecting biodiversity. The signals that have been observed in recent decades in many of these lakes all over the planet attest to the magnitude of those changes.

On this day, in the continuing tradition of other such events that are periodically held within the framework of the agreement between the IAHR and SPAIN WATER – the General Directorate of Water, the Directorate of the Coast and Sea and CEDEX, a small group of scientists or experts in the field will present their recent experiences and knowledge in some of the areas related to this problem: how the cultural eutrophication of lakes or water regulation in their basins has found a perfect ally in climate change to drastically alter their functioning, thereby threatening the integrity of these ecosystems; or how the crucial role they play as sinks or carbon sources can be altered.

In this time of unprecedented changes, we must act without delay in the management of these ecosystems and their basins, both locally and regionally, with scientists, managers, and other social agents all working in unison and together, and relying on effective long-term monitoring programs that will provide us with a better understanding of ecological processes, identify the cause-effect relationships with greater precision, and allow us to adopt the necessary measures to effectively minimize impacts and changes, and design appropriate restoration programs.

Finally, the day will include a colloquium among all the participants to discuss and ask questions to the speakers on the topics presented. The whole event, due to the current circumstances of the COVID-19 pandemic, will take place online.

## **PROGRAMME**

### **Opening** (10:00 – 10:20)

Ms [Áurea Perucho Martínez](#). Director of CEDEX (to be confirmed)

Mr [Francisco Javier Sánchez](#). General Directorate for Water

Mr [Tom Soo](#). IAHR Executive Director

### **Presentations** (10:20 – 12:00)

#### **The critical intersection of water quantity and quality for lakes subject to global change**

Prof. [David Hamilton](#). Deputy Director Australian Rivers Institute and Professor at Griffith University

#### **Intensive limnological study program of Lake Sanabria and its basin: Factors that determine its recent changes**

[Manuel Toro Velasco](#). Head of the Water Environment Area. Center for Hydrographic Studies of CEDEX

#### **The lake, as an ecosystem, does not start in the basin: The Importance of atmospheric influence on external and internal loads**

[Jordi Catalán](#). CSIC Research Professor, CREAM

**Beyond adaptation to climate change. Wetlands in climate change mitigation, and their relationship to hydrology and ecological status**

[Antonio Camacho](#). Professor of Ecology at the University of Valencia

**Colloquium** (12:00 – 12:30)

Moderator: [Fernando Magdaleno Mas](#). Deputy Director General for Water Protection and Risk Management. General Directorate of Water - Ministry for the Ecological Transition and the Demographic Challenge

**Presentation of the 39th edition of the IAHR World Congress 2022 in Granada** (12:30 – 12:35)

[Miguel Ortega](#). Director of the Organising Committee of the Congress. University of Granada

**Closing** (12:35 – 12:40)

[Federico Estrada Lorenzo](#). Director of the Center for Hydrographic Studies of CEDEX

**Coordinator of the day:**

[Manuel Toro Velasco](#). Head of the Water Environment Area. Center for Hydrographic Studies of CEDEX

**Organisation and contact:**

IAHR and SPAIN WATER World Secretariat (DGA, DGC and CEDEX)

Center for Hydrographic Studies of CEDEX

Paseo Bajo Virgen del Puerto 3

28005 Madrid

91 335 79 08

[iahr@iahr.org](mailto:iahr@iahr.org)

[www.iahr.org](http://www.iahr.org)