# **COURSE: ENVIRONMENTAL FLOW**

DATE OF THE COURSE: from September, the 24<sup>th</sup>, to September, the 26<sup>th</sup>, 2019

**COURSE LOAD**: 24h/training

# VENUE OF THE COUSE:

National Water Agency's Training room – Brasilia, DF – Brazil

**REGISTRATION**: from July, the 29<sup>th</sup>, to August, the 18<sup>th</sup>, 2019, through the registration form available at the Capacity Building Website of the National Water Agency - ANA (<u>https://capacitacao.ead.unesp.br</u>).

# NUMBER OF QUOTAS: 30

PUBLICATION OF THE LIST OF THE SELECTED CANDIDATES: August, the 20<sup>th</sup>, 2019

# ORGANIZING INSTITUTIONS:

ANA – National Water Agency (Brazil)

UNESCO – United Nations Educational, Scientific and Cultural Organization

ABC/MRE – Brazilian Cooperation Agency/Foreign Affairs Ministry

# COURSE'S COORDINATOR:

Professor Walter Collischonn (Professor of Hydrology at the UFRGS Institute for Hydraulic Research)

### **INSTRUCTORS:**

Professor Walter Collischonn; Professor Christopher F. Souza (Associate Professor I of the Federal University of Alagoas); MSc. Sidnei G. Agra (Consultant in Water Resources Planning and Management).

### SCOPE:

Enable participants to understand the concepts of environmental flows.

### LANGUAGE:

The course will be conducted in **Portuguese** with simultaneous translation into **Spanish** and **English**.

### TARGET AUDIANCE:

The course is aimed at technicians and professionals from water and environment management agencies in Brazil, Latin American countries, the Caribbean and Portuguese-speaking countries responsible for the implementation of public policies on water resources and management instruments.

### METHODOLOGY

The course will be developed with a class load of 24 hours/training.









The classes cover theoretical questions and case studies on the management of water resources, according to the following schedule:

DATE	TIME	CONTENT	INSTRUCTORS
	8:30 am – 9:00 am	Reception of participants	
	9:00 am – 12:15 pm	<ol> <li>Conceptual bases on environmental flows</li> <li>1.1. The natural hydrological regime</li> </ol>	Prof. Walter Collischonn Ph.D.
	12:30 pm – 2:00 pm	Lunch	
09/24/2019	2:00 pm – 3:45 pm	1.2. Natural hydrological regime changes	Prof. Sidnei Agra MSc.
	3:45 pm – 4:00 pm	Coffee-break	
	4:00 pm – 6:00 pm	<ul><li>1.3. Ecological impacts of changes in the natural hydrological regime</li><li>1.4. Ecological basis for the definition of environmental flows</li></ul>	Prof. Christopher Souza Ph.D.
09/25/2019	09:00 am – 10:00 am	<ol> <li>Methodologies and tools for environmental flows</li> <li>1. Methodologies</li> </ol>	Prof. Sidnei Agra MSc.
	10:00 am – 12:30 pm	2.2. IHA – Indicators of Hydrologic Alteration	Prof. Walter Collischonn Ph.D
	12:30 pm – 2:00 pm	Lunch	
	2:00 pm – 3:45 pm	Practice with IHA	Prof. Christopher Souza Ph.D.
	3:45pm – 4:00 pm	Coffee-break	
	4:00 pm – 6:00 pm	2.3. HEC-RPT	Prof. Christopher Souza Ph.D.

	DATE	TIME	CONTENT	INSTRUCTORS
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09/26/2019	09:00 am – 10:00 am	3. ENVIRONMENTAL FLOWS IN WATER RESOURCE MANAGEMENT 3.1. Environmental flows in legislation (Brazil, States and other countries?)	Prof. Sidnei Agra MSc.
	10:00 am – 12:30 pm	<ul><li>3.2. Management instruments and environmental flows</li><li>3.3. Economic instruments and environmental flows</li></ul>	Prof. Sidnei Agra MSc.
	12:30 pm – 2:00 pm	Lunch	
	2:00 pm – 3:45 pm	3.4. Case Studies in Brazil	Prof. Walter Collischonn Ph.D, Prof. Sidnei Agra MSc.
	3:45pm – 4:00 pm	Coffee-break	
	4:00 pm – 6:00 pm	3.4. Case Studies in Brazil	Prof. Christopher Souza Ph.D., ANA Professionals

# **REGISTRATION AND LOGISTIC ASPECTS**

- Registration dates from July the 29<sup>th</sup> to August the 18<sup>th</sup>, 2019, by filling up the registration form available at the Capacity Building Website of the Agency (<u>https://capacitacao.ead.unesp.br</u>).

- **Selection Parameters**: The main parameter used for selection is that candidates are employees who act directly, in their respective institutions, in the area of expertise of the course, namely in determining environmental flows. In addition, to be eligible to participate in the course, candidates should, preferably:

a) have ties with water resources management bodies, at a national, state or municipal level;

b) be the local manager and / or technician of the water resources area and responsible for implementing the main theme of the course;

c) have more than three (3) years of experience in the related area;

d) be less than fifty (50) years old.

- The costs of participation in the course, for the selected candidates, will be covered by the organizing institutions, **including**:

- ✓ Course's costs;
- ✓ Transfer from Brasilia's Airport to the hotel ( to be defined) and vice versa;
- ✓ Accommodation (exclusively for candidates from Latin American, the Caribbean and CPLP countries);
- ✓ Meals, namely:
  - Breakfast at the hotel (exclusively for candidates from Latin American, the Caribbean and CPLP countries);









- Lunch, in the location of the course;
- Dinner at the hotel (including dinner on September the 23<sup>th</sup>, 2019, exclusively for Latin American, Caribbean and CPLP applicants)
- Coffee-break;
- ✓ Transfer between the hotel (to be defined) and ANA's headquarters and vice versa.

- The following costs are **NOT** covered by the organizing institutions:

- ✓ Extra costs, such as taxi, phone calls, minibar, etc.
- ✓ In the case of Brazilian participants, the trip to Brasilia (DF) and the return to their city of origin; and
- ✓ For candidates of all nationalities, including Brazilians, transfer from their home city to the airport / bus station / train station and vice versa.

Finally, it is recommended that participants bring their own computer (Laptop).



