



**MARLICE 2022**

II International Forum on Marine  
Litter and Circular Economy



**AEBAM**  
ASOCIACIÓN ESPAÑOLA  
DE BASURAS MARINAS

**MARLICE 2022. SUMMARY OF SESSIONS**

# **RIVERINE INPUTS OF MARINE LITTER**



**MARLICE 2022**  
II International Forum on  
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Seville 18 – 20 May



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**2021  
2030** United Nations Decade  
of Ocean Science  
for Sustainable Development

# RIVERINE INPUTS OF MARINE LITTER (PART 1-2)



AQUARIUM OF SEVILLE - GUADALQUIVIR ROOM



19/05/2022



15:00-17:00



20/05/2022



10:00-13:00

Chairperson:

Daniel González (UCA)

Ignasi Mateo (ARC / SCP/RAC)

## DESCRIPTION

Rivers play an important role in transporting litter from inland to the sea. However, there are knowledge gaps to fill in monitoring to understand this critical issue, its impacts on the communities of the freshwater ecosystems as well as to find out measures to avoid entering litter in rivers. At European and Mediterranean level actions to integrate catchment-to-coast management, in some cases, following ecosystem-based approaches, are bases for potential regulation framework.

Objective of the session: To identify potential gaps in knowledge about the origin, monitoring methods and mitigation measures that can be implemented to avoid fluvial inputs of marine litter.



## CHAIRPERSON

PhD. Daniel González  
Fernández

Department of Biology,  
University of Cádiz

Research Fellow



Mr. Ignasi Mateo Rodríguez

ARC-SCP/RAC (Catalan  
Waste Agency-Regional  
Activity Centre for  
Sustainable Consumption  
and Production)

Project manager



## SECRETARY

Ms. María Plaza Arroyo

CEDEX - Center for Studies  
of Ports and Coasts

Chemical Researcher





# PROGRAMME

(See the available presentations of this session by clickyng on the presentation title)

## Part 1.1. Legislative and political framework: Looking for solutions to rivers as a source of marine litter.

**15:00 -15:05 h - Welcome and presentation of session objectives - Daniel González -**  
Postdoctoral Researcher Dept. Biology University of Cádiz (UCA)

**15.05 -15.15 h - UNEP and marine litter monitoring programmes in rivers - Christos**  
Ioakeimidis - Associate Programme Management Officer-United Nations Environment Programme (UNEP).

**15.15 - 15.25 h - The Marine Strategy Framework Directive (MSFD) and its relation with**  
**rivers as a source of marine litter - Pilar Zorzo -** Technician of the Marine Environment  
Directorate of the Ports and Coasts Study Centre of CEDEX.

**15.25- 15.35 h - The European Water Framework Directive (WFD) and its relationship with**  
**rivers as a source of marine litter - Cristina González Ruano -** Head of Service of the General  
Sub-Directorate for Water Protection and Risk Management of the DGA-MITERD

**15.35 - 16.00h - Debate: Harmonisation between the WFD and the WFD, a pending subject.**  
**"UCA/UNEP/JRC/DGA-MITERD/AEBAM".**

# SPEAKERS

PhD. Christos Ioakeimidis

UNEP/MAP

Associate Programme  
Management Officer



Ms. Cristina González Ruano

Ministry for Ecological  
Transition and the  
Demographic Challenge

Head of service



Ms. Pilar Zorzo Gallego

AEBAM - Spanish Marine  
Litter Association - CEDEX

AEBAM President -  
Technician at CEDEX



## Part 1.2. Wastewater and stormwater treatment as a solution to land-based sources of marine litter in rivers

**16.05 - 16.10 h - Introduction** - Ignasi Mateo - ARC-SCP/RAC

**16.10 - 16.20 h - Sewage Treatment Plants in search of alternatives for the mitigation of marine litter** - Rafael María Lloret Salinas - Water/Wastewater Engineer, GO – Global Omnium

**16.20 - 16.30 h - Problems of wet wipes and textiles in sewage networks** - Miguel Ángel Doval - Responsible for Dumping Inspection. EMASESA, commission V of AEAS.

**16.30 - 16.40 h - Containing the sewage monster. Control at source of marine litter.** - José Molina - Head of the Engineering and Innovation Area and Water and Sewerage Unit. EMATSA (Empresa Municipal Mixta de Aguas de Tarragona).

**16.40 - 16.50 h - The sea starts here** - Antonio Ramírez - Technician AEOPAS (Spanish Association of Public Water Supply and Sewerage Operators)

**16.50 - 17.00 h - Debate: Solutions from the water treatment sector to fluvial inputs of marine litter.** - GLOBAL OMMIUM/ EMASESA/EMATSA/AEOPAS

## SPEAKERS


**Mr. Rafael María Lloret Salinas**

 GO - Global Omnium

 Water/Wastewater Engineer



**Mr. Miguel Ángel Doval Aguirre**


 Asociación Española de Abastecimientos de Agua y Saneamiento (AEAS)

 Discharges Monitoring Manager




**Mr. Jose Molina Onate**

 Empresa Municipal Mixta de Aguas de Tarragona

 Responsible of the Engineering, Innovation and Operations Department



**Mr. Antonio Ramírez Ramírez**

 AEOPAS - Asociación Española de Operadores Públicos de Abastecimiento y Saneamiento

 Technician





## Part 2. Origin, monitoring and mitigation measures of fluvial inputs of marine litter

**10:00 - 10:05 h - Welcome and explanation of the session dynamics** - Ignasi Mateo - Technician ARC- SCP/RAC & Christos Ioakeimidis - Associate Programme Management Officer- Programa de las Naciones Unidas para el Medio Ambiente (UNEP)

**10.05 - 10.15 h - Microplastics in wastewater treatment plants.** - Francisco Javier Bayo Bernal - Professor and Secretary of the Department of Chemical and Environmental Engineering of the Polytechnic University of Cartagena (UPCT).

**10:15 - 10:25 h - From source to sink - Remote observation for modelling waste transport in rivers** - Estíbaliz López-Samaniego - AEBAM Research Member

**10:25 - 10:35 h - Status and dynamics of pellet pollution in the Western Mediterranean (MEDPELLETS)** - Jordi Oliva - Co-founder & Programme Coordinator Good Karma Projects

**10:35 - 10:45 h - Microbubble curtains. Protection of the Environment and Marine Ecosystems** - Ramiro Cercós - CEO PSP Water Engineering

**10:45 - 10:55 h - Mitigation measures for waste retention in collectors** - David Barquet - Technical Director of TecnoConverting Engineering

**10:55 - 11:05 h -LIFE iBATHWATER project. Retention of waste at sewage overflow points on the beaches of Barcelona.** - Anna Llopart-Mascaró - Environmental Service and External Relations Technician. Barcelona Ciclo del Agua SA (BCASA) y Josep Garriga - Head of Inspection and Cleaning Service. Barcelona Ciclo del Agua SA (BCASA)

## SPEAKERS

PhD. Javier Bayo

Technical University of  
Cartagena

Associate Professor



PhD. Estíbaliz López-  
Samaniego

Asociación Vertidos Cero

Project Management



Mr. Jordi Oliva Farriol

Good Karma Projects

Co-founder & Projects  
director



Mr. Ramiro Cercós Coullaut-  
Valera

PSP WATER ENGINEERING

CEO



11:05 - 11:30 h - Coffee Break

11:30 - 12:40 h - Working tables

Table 1-ORIGEN: Estíbaliz López-Samaniego (Asociación Vertidos Zero)

Mesa 2-MONITORING: María Plaza (CEDEX)

Mesa 3-MESURES: Ignasi Mateo (ARC-SCP/RAC)

12:40 -13:30 h - Conclusions by the working groups and debate

SPEAKERS

Mr. David Barquet Claret

TecnoConverting  
Engineering

Technical Manager



Ms. Anna Llopart-Mascaró  
Bassols

Barcelona Ciclo del Agua SA  
(BCASA)

Technician and researcher of  
the Environmental and  
External Relations Service



Mr. Josep Canals-Molina

MedCities

Secretary General





## Meeting objective - Expected output

Recommendations about the appropriateness and pertinence of the integration in river basin management instruments of specific guidance and/or measures against litter (prevention and mitigation actions).

### Session PART 1.1. LEGISLATIVE AND POLITICAL FRAMEWORK: LOOKING FOR SOLUTIONS TO RIVERS AS SOURCES OF MARINE LITTER

- 1) Harmonization between the Marine Strategy Framework Directive (DMEM) and the European Water Framework Directive (WFD) is a pending issue.
- 2) Integration of policies is easy to say, but difficult to implement
- 3) Lack of coordination between coastal and river basin legislation regarding monitoring riverine inputs of marine litter.
- 4) The expertise in marine litter monitoring programs should be used to create the monitor littering programs in rivers in order to achieve methodologies with comparable results.
- 5) A strategy against littering (macro and micro) must be present in the hydrological plans.
- 6) The European Water Framework Directive (WFD) would include microplastics as emerging pollutants in the future
- 7) At the Mediterranean level (UNEP MAP), the Integrated Monitoring and Assessment Program (IMAP) does not include specific indicators for riverine inputs to marine litter.
- 8) A draft guideline for the sampling of Litter in rivers will be discussed shortly within the UNEP-MAP ML monitoring group (end of May 2022).



**SESSION CONCLUSION:** Our proposal is to create a working group for the coordination of riverine inputs of marine litter with the competent administrations in the implementation of the WFD and the DMEM. This working group would cover one of the gaps that has been most urgent to solve: no interaction and communication between the administrations involved in the solution of the points previously described.





## PART 1.2. TREATMENT OF WASTEWATER AND RAINWATER AS A SOLUTION TO RIVERINE INPUTS OF MARINE LITTER

- 1) A strategy to tackle littering in river basins can be a useful tool.
- 2) Wipes and other residues that are flushed into the toilet are a problem in wastewater management systems and facilities.
- 3) Greater involvement of wipe manufacturers in the solution is needed. And wipes labeling on how to dispose them of does not help to solve the problem, creating confusion in the citizen (debate between the needs created by large corporations and the responsibility of the citizen in solving the problem).
- 4) There are relatively cheap and easy to install solids retention systems. Wastewater maintenance operators are already installing them, but prevention is the key to avoid the issue.
- 5) The costs of removal and management of waste in wastewater management systems should be explained more clearly to citizens.
- 6) Awareness campaigns and waste management must be financed by the manufacturers.

**SESSION CONCLUSION:** Spanish Law 7/2022 on waste establishes extended producer responsibility (RAP) regimes (before January 1, 2025) for wet wipes and other single-use plastic waste that obliges manufacturers to cover the costs of communication campaigns, cleaning (including infrastructure), transport and management of this waste. These tools, which are not yet clear how they will be implemented, should be used to reduce the amount of river inputs of marine litter.



## **PART 2. SOURCES, MONITORING AND MITIGATION MEASURES OF RIVERINE INPUTS OF MARINE LITTER. Some of their conclusions:**

### **1) Monitoring:**

- The harmonization of protocols is crucial, with a standardized format and a common database, to achieve comparable results.
- The hydrological plans (and competent administrations) must have specific personnel and promote a strategy to combat riverine inputs of marine litter.
- A specific expert coordinating body is needed, with trained people to give rapid responses and expedite permits for river monitoring.

### **2) Sources:**

- Sources of riverine inputs are anthropogenic and the different actors/stakeholders must assume their responsibility (each one their own)
- A change of mentality is necessary: from the linear to the circular economy.
- Training, regulation and voluntary commitments of the companies that generate riverine contributions of marine litter are some of the ways to detect the sources and prevent it.

### **3) Mitigation Measures:**

- Measures are different for micro or macroplastics.
- Maintenance, monitoring and installation costs must be considered before installation, as well as its capacity and retention volume.
- Costs of the measures must be shown more clearly to citizens as a way to raise awareness and learn about the problem.
- Producer must report correctly and clearly on the management of their product when it becomes waste.
- Producer must participate in the installation of mitigation, prevention or awareness measures.

**SESSION CONCLUSION:** In the discussion tables, the gaps in monitoring, sources and measures have been detected. We propose to discuss and share it in the working group for the coordination of riverine inputs of marine litter and taking into account the coordination between the WFD and the DMEM and the tools proposed by Law 7/2022 on waste (EPR), which must be defined through specific guidelines and regulations.





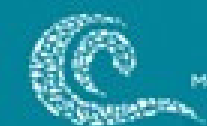












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