

# IWA Working Group for Life Cycle Assessment of Water and Wastewater Treatment (LCA-Water WG)

Ll. Corominas<sup>1</sup>, J.S. Guest<sup>2</sup>, J.Hong<sup>3</sup>, A. Hospido<sup>4</sup>, J.Lane<sup>5</sup>, H.F. Larsen<sup>6</sup>, P. Roux<sup>7</sup>, A. Shaw<sup>8,9</sup>, M.Tawfic Ahmed<sup>10</sup>

- 1) ICRA, Catalan institute for water research, Spain ([lcorominas@icra.cat](mailto:lcorominas@icra.cat))
- 2) Department of Civil & Environmental Engineering, University of Illinois at Urbana-Champaign, USA ([jsquest@illinois.edu](mailto:jsquest@illinois.edu))
- 3) Shandong University, China ([hongjing@sdu.edu.cn](mailto:hongjing@sdu.edu.cn))
- 4) Department of Chemical Engineering, University of Santiago de Compostela, Spain ([almudena.hospido@usc.es](mailto:almudena.hospido@usc.es))
- 5) School of Chemical Engineering, University of Queensland, Australia ([j.lane1@uq.edu.au](mailto:j.lane1@uq.edu.au))
- 6) Research & Development, the Danish Road Directorate, Hedehusene, Denmark ([hfl@vd.dk](mailto:hfl@vd.dk))
- 7) Irstea, Montpellier, France. ([philippe.roux@irstea.fr](mailto:philippe.roux@irstea.fr))
- 8) Water Technology Group, Black & Veatch, Kansas City, USA ([ShawAR@bv.com](mailto:ShawAR@bv.com))
- 9) Department of Civil, Architectural, and Environmental Engineering, Illinois Institute of Technology, Chicago, USA
- 10) Suez Canal University, Ismailia, Egypt ([motawfic@tedata.net.eg](mailto:motawfic@tedata.net.eg))

**An IWA working group (WG) of researchers and practitioners covering a wide range of countries has been created. It aims at facilitating the exchange of ideas and the development of guidelines to promote better use of LCA applied to water and wastewater treatment**



## USE

The WG will include experts on the topic covering different applications (e.g. wastewater treatment, water supply) and different aspects of the ISO 14000 series methodology (goal and scope definition, inventory, impact assessment, interpretation)

**LCA of the Working Group**

Provide IWA-supported best practices and development of uniform databases

## END-OF-LIFE

## MATERIAL & ENERGY PROVISION

Ll. Corominas, J. Foley, J.S. Guest, A. Hospido, H.F. Larsen, A. Shaw (2011) Towards a Standard Method for Life Cycle Assessments (LCA) of Wastewater Treatment. 8th IWA Symposium on Systems Analysis and Integrated Assessment, WaterMatex 2011, San Sebastian, Spain.

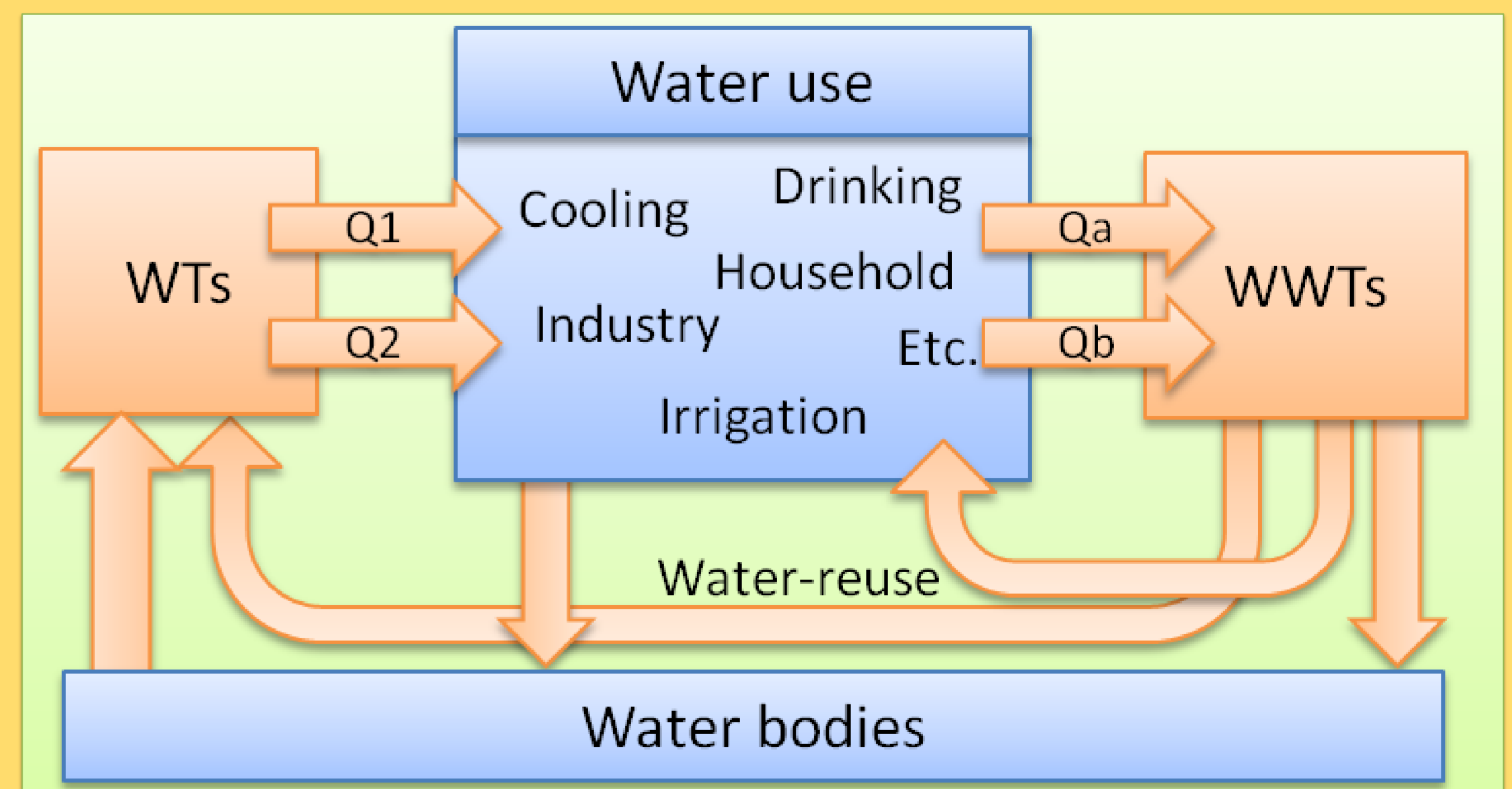
## CONSTRUCTION

### LCA issues considered

LCA stages (cf. ISO 14044)	Water specific issues	Generic water issues	Generic LCA issues
1 - LCA goal & scope, FU, syst. Boundary ...	Included in WG goal & scope	Not directly included in WG goal & scope	Excluded from WG goal & scope
2 - Life Cycle Inventory (LCI)			
3 - Life Cycle Impact Assessment (LCIA)	(*)	WG will interact with other existing groups/institutions	Out of WG scope since it is covered by LCA groups/institutions such as UNEP/Setac, Life Cycle Initiative, JRC, ISO standards, etc.
4 - LCA interpretation	Not yet decided		

(\*) Outside the goal & scope of the WG. Nevertheless, the LCA-Water WG may consider some very specific issues such as the calculation of characterization factors that are related to water and wastewater treatment (e.g. for emerging pollutants, pathogens) or site-specific factors for freshwater impact categories (e.g. eutrophication).

### Scope of the WG



**LEGEND:**  
Core WG scope  
Not directly in WG scope



International Water Association

The WG has been created under the umbrella of the **MIA (modeling and integrated assessment)** IWA specialist group.