

**Scientific Committee on Health, Environmental and Emerging Risks  
(SCHEER)**

**Revised request for a scientific opinion on proposed EU minimum quality requirements for water reuse in agricultural irrigation and aquifer recharge**

**1 Background**

Europe is facing increasing trends in water scarcity and droughts affecting many of its regions; water reuse can help address this issue but its potential remains largely untapped in the EU. The opportunity to take action at EU level with a view to increasing water reuse was identified in the 2012 Commission Communication "A Blueprint to Safeguard Europe's Water Resources"<sup>1</sup>. Water reuse for irrigation or industrial purposes is considered to have a potentially lower environmental impact and costs than other alternative water supplies (e.g. water transfers or desalination), but it is only used to a limited extent in the EU. Because of an inconsistent national legislation across Member States (MS) and a limited public awareness about actual risks and benefits, water reuse tends to be a costly practice subject to distrust from the general public; potential obstacles to the free movement of agricultural products irrigated with reused water is an additional risk deterring investments. The Commission's intention to address this issue, possibly by setting common EU-wide environmental/health standards, was noted with interest by the Council at that time<sup>2</sup>.

On 2 December 2015, the European Commission presented the new circular economy package "Closing the loop-An EU action plan for the Circular Economy"<sup>3</sup>. It includes a number of actions to promote further uptake of water reuse at EU level, in particular as a measure to address water scarcity as an integral part of efficient water resources management. These actions are planned to be developed in 2016-2017 and will focus on overcoming the main barriers to the untapped potential for water reuse wherever it is cost-efficient and safe for health and the environment. In particular, the Commission announced that it planned to table in 2017 a legislative proposal on minimum quality requirements for water reuse in irrigation and aquifer recharge.

An Inception Impact Assessment (IIA) for this initiative<sup>4</sup> was published by the Commission in April 2016 with the intention to inform stakeholders and citizens. This document describes the problem to be tackled and the objectives to be achieved, explain

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<sup>1</sup> COM(2012)673 <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0673&from=en>

<sup>2</sup> Council conclusions 17872/12  
[http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/envir/134398.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/envir/134398.pdf)

<sup>3</sup> COM(2015)614  
[http://eur-lex.europa.eu/resource.html?uri=cellar:8a8ef5e8-99a0-11e5-b3b7-01aa75ed71a1.0012.02/DOC\\_1&format=PDF](http://eur-lex.europa.eu/resource.html?uri=cellar:8a8ef5e8-99a0-11e5-b3b7-01aa75ed71a1.0012.02/DOC_1&format=PDF)

<sup>4</sup> [http://ec.europa.eu/smart-regulation/roadmaps/docs/2017\\_env\\_006\\_water\\_reuse\\_instrument\\_en.pdf](http://ec.europa.eu/smart-regulation/roadmaps/docs/2017_env_006_water_reuse_instrument_en.pdf)

why EU action is needed and its added value. It elaborates on issues related to subsidiarity, possible policy options and the likely impacts of each option.

DG Environment is leading this initiative in the Commission and mandated the Joint Research Centre (JRC) of the European Commission to elaborate the basis for the proposal. JRC will issue by the end of 2016 a (technical) report proposing minimum quality requirements for reuse categories on agricultural irrigation and aquifer recharge covering the relevant aspects (e.g. water quality, application, monitoring). These requirements should ensure a high level of health and environmental protection and thus provide public confidence in reuse practices.

As all initiatives by the European Commission are likely to have significant economic, environmental or social impacts, this proposal will undergo impact assessment. The proposal together with its impact assessment will be subject to an opinion by the Regulatory Scrutiny Board (RSB), tentatively in late spring 2017.

To ensure that the proposed EU minimum quality requirements appropriately address risks and ensure a high level of health and environmental protection, scientific advices of the European Food Safety Authority (EFSA) and of the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) are requested.

## **2 Methodology used in JRC's technical report**

The work to be conducted by JRC has resulted into a final technical report proposing minimum quality requirements for two specific reuse categories: agricultural irrigation and aquifer recharge. These requirements should ensure a high level of health (human and animal health) and environmental protection and thus provide public confidence in reuse practices. Health protection will consider potential public to be exposed, consumers and animals (e.g. livestock); environmental protection includes the no deterioration of surface and ground waters, soil, biota, and air.

The final JRC document includes the following requirements for water reuse practices in agricultural irrigation and aquifer recharge:

- Water quality parameters:
  - Physical parameters
  - Chemical parameters including sum parameters, heavy metals and organic pollutants.
  - Biological parameters considering bacteria, virus, protozoa, and helminths
- Monitoring requirements:
  - Sampling points
  - Frequencies

The minimum quality requirements for each type of use will consider the following aspects:

### **Agricultural irrigation**

- Type of crops to be irrigated
- Application conditions

### **Aquifer recharge**

- Type of groundwater use
- Application conditions

Existing reference guidelines for water reuse applications are to be considered and where possible adapted to the EU specific regulatory framework on health and environment protection. In particular, the minimum quality requirements need to ensure a full consistency with related EU legislation (i.e. Water Framework Directive, Drinking Water Directive, Urban Wastewater Directive, Groundwater Directive) and a high level of protection for human and animal health and the environment. The existing national legislations on water reuse in MS will be consulted and taken into account to develop the minimum quality requirements.

### **3 Terms of reference**

The SCHEER is requested to provide scientific advice on the minimum quality requirements for water reuse in agricultural irrigation and aquifer recharge as proposed by the JRC. More specifically, SCHEER is asked to express its opinion on the following points:

- Is the methodology used by the JRC to develop the minimum quality requirements on water reuse considered appropriate to address environmental risks associated to water reuse for agricultural irrigation and aquifer recharge, and human health safety for aquifer recharge?
- Do the proposed minimum quality requirements provide sufficient protection against environmental risks that may be associated to water reuse for agricultural irrigation and aquifer recharge?
- Do the proposed minimum quality requirements provide sufficient protection against the human health risks that may be associated to water reuse for aquifer recharge?
- Have any risks been overlooked, and if so how should they be taken into account?

### **4 Timeline**

- December-January 2016: Transmission of the final report by the JRC
- April-June 2017: Delivery of SCHEER opinion