



Policy Brief 4 Risk Management in wastewater

Making reclaimed water safe for all

Wastewater governance

Public Perception

Wastewater Finance

Risk Management

SUWANU EUROPE is a H2020 project aiming to promote the effective exchange of knowledge, experience and skills among practitioners and relevant actors on the use of reclaimed water in agriculture. These policy briefs belong to a total of 4 factsheets aimed to overcome the identified challenges/barriers and facilitate take-up of innovative technologies and organizational solutions. These policy briefs set the basis for a future application for the “Innovation Deals for a Circular Economy Initiative”.

1. The task

The regulation EU 2020/741 includes the satisfaction of quality parameters defined in Annex of the Regulation and additionally, defines the requisite of a treatment validation and a risk assurance protocol, namely water reuse risk management plans.

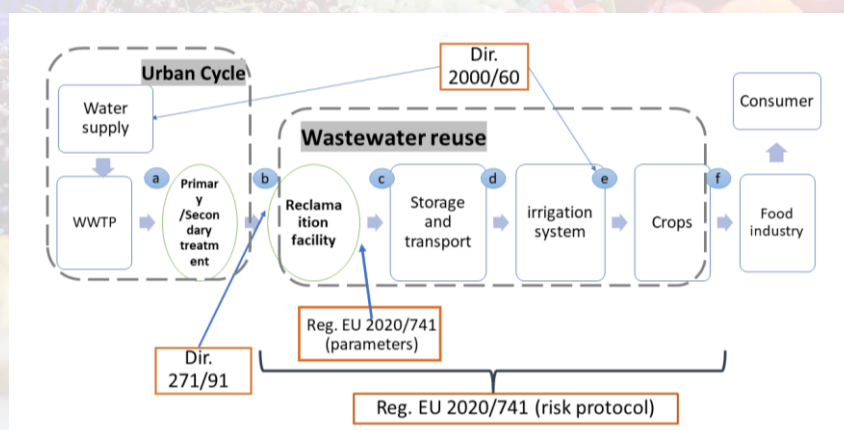
Risk management were already included in the Urban WWD 271/91 but the new regulation enlarges the role of risk management by the need for a detailed risk management plan described at local level (see Annex II) that should define crops, irrigation practices, local hydrology, soil type etc.

These requests combined (minimum requirements plus risk protocol) makes the EU regulation probably the most advanced norm in the field of water reuse for irrigation worldwide. Currently some EU Member States have a regulation (Spain, France, Italy Cyprus, Portugal and Greece). According to the EU, the existing normative will require minor changes to be adapted to EU Regulation 2020/741. The adaptation will imply a clearer definition of:

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|---|---|
| a) competent authorities to issue permits | b) classes and requirements for reclaimed water use |
| c) monitoring requirements | d) monitoring protocols validation |
| e) risk management plan | f) public information |

The last three (d, e, f) will require major changes since the first three (a, b, c) are already addressed by existing regulations in Southern Member States.

Figure 1: Critical points and task in water reclamation reuse



2. The risk assurance system

The risk of consumers reluctance to consume food products irrigated with reclaimed water has been identified as critical for the implementation and increase of reclaimed water use. This has been mentioned both by consumers and by producers (farmers and food industry). The risk protocol needs to be implemented by reclamation plants operators following the full water treatment chain shown in figure 1. Risk management system is necessary in the stages between [b] (the discharge of UWWTP) and [e] (the irrigation system in the farm) and requires the implementation of an assurance protocol. This point may be in the future the critical point for consumers acceptance. The Annex 2 of regulation EU 2020/741 defines the requirements for the risk system that must be designed according to local conditions including an assessment of environmental and health risks, additional requirements (e.g. pesticides, heavy metals, etc.) and preventive measures.

3. Recommendations

In order to facilitate the development of water reuse risk management plans required in the regulation we recommend that local risk protocols should be produced at regional or subregional level regions develop strategic plans, such as the Regional Action Plans available in Deliverable 2.6 of SUWANU EUROPE (e.g. Plan Regenera in Andalusia), that define roles of stakeholders and specific measures in different aspects such as: administrative procedures, financing, monitoring plan, public engagement, contingency measures, etc. Especial care should be taken in the identification of potential hazards for the environment and public health.



A continuous monitoring and transparent public information system should be part of the risk system so that critical parameters maybe recorded and monitored in real time. In this sense, cooperation between different government agencies and bodies is crucial and mechanisms to effectively share information and simplify administrative procedures shall be included in the regional plans.

4. Suggested reading

Berbel, Mesa and Simon (2021) Challenges for circular economy under the EU 2020/741 wastewater reuse regulation. WIREs Water,
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