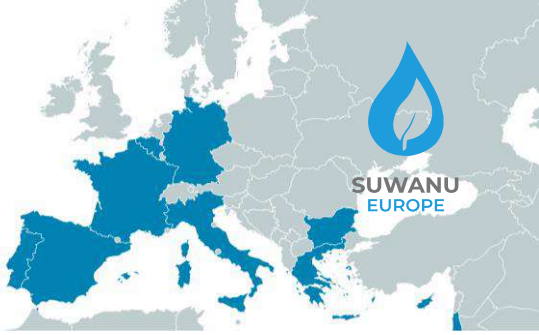
Sustainable **Water treatment** and
Agricultural reuse options in Europe

Info-package 6
Authorities and Policy Makers

Fact Sheet 6.2 – **Water Reuse Risk Management Plans.**



New EU Regulation on reclaimed water for agricultural irrigation | **Water Reuse Risk Management Plans** | Water resources governance | Strategic planning for the use of reclaimed water in agricultural irrigation | Confronting barriers and promoting synergies in geographical clusters

SUWANU EUROPE is a H2020 project aimed at promoting the effective exchange of knowledge, experience and skills among practitioners and relevant actors on the use of reclaimed water for agricultural irrigation. This is the second of the five Fact-sheet Series included in Info-package 6 that is addressed to authorities and policy makers to describe the provisions of the currently proposed EU Regulation concerning the risks involved in using reclaimed water for agricultural irrigation, and the elements to be included in the Water Reuse Risk Management Plan required by the Regulation.

1. Introduction.

The proposed "European Regulation on minimum requirements for water reuse" points out the need for including risk evaluation as a way to correct the limited extend that water reuse has had in the EU: "This appears to be partly due to the significant cost of waste water reuse system and the lack of common EU environmental and health standards for water reuse, and, as regards in particular agricultural products, the potential health and environmental risks and potential obstacles to the free movement of such products irrigated with reclaimed water".

Furthermore, water reuse activities should prevent deterioration of drinking water quality. "For this reason the risk management plan should pay special attention to the protection of bodies of water used for the abstraction of water intended for human consumption and/or relevant safeguards zones". The regulatory text also indicates that "Risk management should comprise identifying and managing risks in a proactive way and incorporate the concept of producing reclaimed water of a quality required for particular uses. The risk assessment should be based on key elements of risk management and should identify any additional water quality requirements necessary to ensure sufficient protection of the environment, human and animal health".

Finally, the Regulation highlights that "Education and training of the end-users are of primary importance as components of implementing and maintaining preventive measures. Specific human exposure preventive measures should be considered in the risk management plan, such as use of personal protective equipment, handwashing and personal hygiene", and proposes protective measures like "Supply of the reclaimed water should be suspended when non-compliance causes a significant risk to the environment or to human health".

2. Contents:

The proposed "Regulation of the European Parliament and of the Council on minimum requirements for water reuse" (December 2019) includes a set of provisions for identifying and quantifying the risks involved in using reclaimed water for agricultural irrigation, and particularly for elaborating the Water Reuse Risk Management Plan required by the Regulation. The following sections summarize the most relevant provisions devoted to risk issues, as required by the Regulation.

3. Articles:

Article 1 presents the subject matter and the purpose of the Regulation, with a very specific recognition of the role of risk management:

1. *"This regulation lays down minimum requirements for water quality and monitoring, as well as provisions for risk management, for the safe use of reclaimed water in the context of integrated water management".*

Article 2 presents a series of definitions specifically related to risk management:

1. *'risk' means the likelihood of identified hazards causing harm in a specified timeframe, including the severity of the consequences.*
2. *'risk management' is a systematic management that consistently ensures the safety of water reuse in a specific context.*
3. *'preventive measure' means appropriate action or activity that can be used to prevent or eliminate a health and environmental risk, or reduce it to an acceptable level.*
4. *'barrier' is any mean, including physical or process steps or conditions of use, that reduces or prevents the risk of human infection by preventing contact of the reclaimed water with the ingested produce and the directly exposed person, or other mean that, for example, reduces the concentration of microorganisms in the reclaimed water or prevents their survival on the ingested produce.*

Article 5 describes the objective of the Water Reuse Risk Management Plan (WRRMP) required by the Regulation, as well as the parties responsible for its preparation, the supporting information in which it should be based, its main regulatory provisions and the authority for future amendments:

1. *For the purpose of producing, supplying and using reclaimed water, the competent authority shall ensure that a Water Reuse Risk Management Plan is established.*
2. *The Water Reuse Risk Management Plan shall be developed by the reclamation facility operator, other responsible party(ies), and end-users as appropriate. The responsible party(ies) preparing the Water Reuse Risk Management Plan shall consult all other relevant responsible party(ies) and end-users, as appropriate.*
3. *The Water Reuse Risk Management Plan shall be based on all the key risk management elements set out in Annex II and identify the risk management responsibilities of the reclamation facility operator and other responsible party(ies). It may cover one or more water reuse systems.*
4. *The Water Reuse Risk Management Plan shall in particular:*
   a) Set out any necessary requirements for the reclamation facility operator.
   b) Identify hazards, risks and appropriate preventive and/or possible corrective measures.
   c) Identify additional barriers in the water reuse system, and set out any additional requirements after the point of compliance.

5. Annexes:

ANNEX II is entirely devoted to describe the key elements of risk management, the conditions relating to the additional requirements and the preventive measures. Key elements of risks management to be considered are: Risk management shall comprise identifying and managing risks in a proactive way to ensure that reclaimed water is safely used and managed and there are no risks to human and animal health and the environment. For this purpose, a Water Reuse Risk Management Plan is established based on the following elements:

1. *Description of the entire water reuse system.*
2. *Identification of the parties involved in the water reuse system and identification of their responsibilities.*
3. *Identification of potential hazards.*
4. *Identification of the environments and populations at risk and the exposure routes to the identified potential*
5. *Assessment of environmental risks and risks to human and animal health.*

Reference/further readings

Regulation of the European Parliament and of the Council on minimum requirements for water reuse, 2018.
Opinion of the European Council adopted in June 2019.
Position of the European Parliament published in February 2019.

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