Public consultation on policy options to set minimum quality requirements for reused water in the EU

Fields marked with * are mandatory.

Introduction

Europe's freshwater resources are under increasing stress, with a worrying mismatch between demand for, and availability of, water resources across both temporal and geographical (spatial) scales. Water stress is an issue for arid regions with low rainfall and high population density, but also for temperate areas with intense agricultural, tourism and industrial activities. Global climate change is already exacerbating these problems with projections indicating significant and widespread impacts over the medium to long term. Growing competition for water resources between different water using sectors is already emerging, while water resources need to be protected and reserved for drinking water supply and for the ecosystems with an appropriately high quality.

Europe’s ability to respond to the increasing risks of water scarcity and drought could be enhanced by wider reuse of treated wastewater for agricultural, industrial and urban uses in particular. At present, most wastewater originating from urban waste water treatment plants is discharged into water bodies without taking advantage of water reuse solutions’ potential. It has been pointed out that this may be due to the lack of common EU environmental/health standards for re-used water and the potential obstacles to the free movement of agricultural products irrigated with reused water.

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" (COM(2012)673). On 2 December 2015, the European Commission presented the new circular economy package (cf. Communication "Closing the loop – An EU action plan for the circular economy" (COM(2015)614). 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 and in addition to other water saving and efficiency measures. One of these actions is to table in 2017 a legislative proposal on minimum requirements for reused water for irrigation and groundwater recharge[1]. The development of this proposal has been subject of a number of studies[2] and will be subject to an Impact Assessment to evaluate the most suitable EU-level instrument/s to foster water reuse, while ensuring the health and environmental safety of water reuse practices and the free trade of food products. This Impact Assessment will focus on the reuse of treated wastewater covered by the Directive 91/271/EEC concerning urban waste water treatment.

This internet-based consultation is part of the European Commission's efforts to understand the citizens' and stakeholders' views on the need for and possible range of measures which could be undertaken in order to foster safe water reuse solutions. A first consultation was organised in 2014 on the broader promotion of water reuse in the EU; its results[3] fed into the development of the action plan mentioned above. This second consultation focuses on the more detailed policy options to set minimum requirements for reused water for irrigation and groundwater recharge. The results will be used as an input for the preparation of the Impact Assessment.

The consultation runs from 28 October 2016 to 27 January 2017.

Please note that this consultation and its results do not prejudge in any way the final outcome and the form of any decision to be taken by the European Commission on this topic.

[1] Inception impact assessment can be consulted at: http://ec.europa.eu/smart-regulation/roadmaps/docs/2017_env_006_water_reuse_instrument_en.pdf

[2] http://ec.europa.eu/environment/water/reuse.htm

[3] Report accessible at: http://ec.europa.eu/environment/water/blueprint/pdf/BIO_Water%20Reuse%20Public%20Consultation%20Report_Final.pdf

Questionnaire

Please note that the first questions are of general nature, and replies from question 3 onwards require some prior knowledge about EU water policy and risk management in water reuse practices. Questions marked with an asterisk (*) require an answer to be given. In general several answers are possible. Completing this questionnaire could take up to 30 minutes of your time. Once you start filling in this questionnaire, the maximum time allowed by the system to complete is 90 minutes. Partial responses will not be saved. It is therefore recommended to download the full questionnaire as a PDF and prepare your answers in advance. The PDF document can be found on the consultation page.

Thank you very much for taking the time to contribute to this consultation.

1. Information about you

*1.1 a Your full name

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FRAME project consortium
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*1.1 b Your email address

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polesello@irsa.cnr.it
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* *Important notice on the publication of contributions*

Replies to this public consultation will be published on the European Commission's website (for further information, please consult the privacy statement).

Please note: regardless of the option chosen below, your contribution may be subject to a request for access to documents under Regulation 1049/2001 on public access to European Parliament, Council and Commission documents. In such cases, the request will be assessed against the conditions set out in the Regulation and in accordance with applicable data protection rules.

Please indicate whether your reply:

- (●) Can be published, including your name or that of your organisation (I consent to publication of all information in my contribution and I declare that none of it is under copyright restrictions that prevent publication)
- ( ) Can be published in an anonymous way (I consent to publication of all information in my contribution except my name/the name of my organisation, and I declare that none of it is under copyright restrictions that prevent publication)
- ( ) Cannot be published but only used for statistical and analytical purposes

* 1.2 I'm replying as a(n):

- ( ) Interested individual/citizen/consumer
- (●) Stakeholder/expert

*If you are replying as stakeholder/expert you represent:

- ( ) Private company
- ( ) Utility / provider
- ( ) Non-governmental organisation (NGO)
- (●) Academic/scientist/research
- ( ) National authority
- ( ) Local/regional authority
- ( ) European Institution
- ( ) International body
- ( ) Industrial or trade association
- ( ) Consumer association
- ( ) Other associations
- ( ) Other

* If responding on behalf of a(n) organisation/association/authority/company/body, please provide the name:

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Consortium  of EU Water JPI project “FRAME” (A novel Framework to Assess and
Manage contaminants of Emerging concern in indirect potable reuse)
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* and its main sector(s) / field(s) of activity:

- [ ] Sanitation
- [ ] Drinking water
- [ ] Food Industry
- [ ] Agriculture
- [ ] Health
- [x] Environment / Climate
- [ ] Economics
- [ ] Other

*

Is your organisation registered in the Transparency Register of the European Commission and the European Parliament?

In the interests of transparency, organisations, networks, platforms or self-employed individuals engaged in activities aimed at influencing the EU decision making process have been invited to provide the public with relevant information about themselves, by registering in Transparency Register and subscribing to its Code of Conduct.

Please note: If the organisation is not registered, the submission is published separately from the registered organisations. During the analysis of replies to a consultation, contributions from respondents who choose not to register will be treated as individual contributions (unless the contributors are recognised as representative stakeholders through Treaty provisions, European Social Dialogue, Art. 154-155 TFEU). If your organisation is not registered, you have the opportunity to register now

- ( ) Yes
- (•) No

*1.3 Your country/ies:

- [ ] AT - Austria
- [ ] BE - Belgium
- [ ] BG - Bulgaria
- [ ] CY - Cyprus
- [ ] CZ - Czech Republik
- [ ] DE - Germany
- [ ] DK - Denmark
- [ ] EE - Estonia
- [ ] EL - Greece
- [ ] ES - Spain
- [ ] FI - Finland
- [ ] FR - France
- [ ] HR - Croatia
- [ ] HU - Hungary
- [ ] IE - Ireland
- [ ] IT - Italy
- [ ] LT - Lithuania
- [ ] LU - Luxembourg
- [ ] LV - Latvia
- [ ] MT - Malta
- [ ] NL - Netherlands
- [ ] PL - Poland
- [ ] PT - Portugal
- [ ] RO - Romania
- [ ] SE - Sweden
- [ ] SI - Slovenia
- [ ] SK - Slovakia
- [ ] UK - United Kindgdom
- [x] EU
- [ ] Other

2. Your perception of the benefits of and barriers to water reuse

2.1 Please indicate your views on the level of the following **potential benefits of water reuse in agriculture irrigation**?:

	High	Medium	Low	I don't consider this as a potential benefit	I don't know
*Improved resilience /adaptation to climate change	●	○	○	○	○
*Reduced water scarcity	●	○	○	○	○
*Reduced pressure on over-abstracted water resources	●	○	○	○	○
*Increased revenues and /or reduced costs for the agricultural sector (due to higher water availability, reliability and productivity)	○	●	○	○	○
*Increased revenues for other sectors (due to higher water availability)	○	●	○	○	○
*Reduced pollution discharge from urban waste water treatment plants into rivers	○	●	○	○	○
*Increased resource efficiency (nutrients recycling)	○	●	○	○	○
*Contribution to soil fertilisation	○	○	●	○	○
*Energy and carbon savings (in waste water treatment and irrigation)	○	●	○	○	○
*Cost savings for public authorities	○	●	○	○	○

*Innovation potential in the water industry	○	◉	○	○	○
*Job creation	○	◉	○	○	○

If you identify **other important benefits**, please specify them:

500 character(s) maximum

In many European areas, surface waters have bacterial quality worse than that of a secondary-treated wastewater, and some agricultural areas are irrigated with self-abstracted water worse than secondary-treated water. This is caused mainly by unplanned (or de facto) reuse which corresponds to uncontrolled reuse of wastewater after discharge. On the contrary planned reuse corresponds to planned and controlled water reuse schemes that are developed with the goal of reusing a recycled water supply.

2.2 Please indicate your views on the level of the following **potential benefits of water reuse in aquifer recharge**?:

	High	Medium	Low	I don't consider this as a potential benefit	I don't know
*Improved resilience /adaptation to climate change	◉	○	○	○	○
*Reduced water scarcity	◉	○	○	○	○
*Reduced pressure on over-abstracted water resources	◉	○	○	○	○
*Protection of (coastal) aquifers against salt intrusion	◉	○	○	○	○
*Increased revenues and /or reduced costs for economic sectors using water (due to higher water availability)	◉	○	○	○	○
*Reduced pollution discharge from urban waste water treatment plants into rivers	○	◉	○	○	○
*Energy and carbon savings	○	◉	○	○	○
*Cost savings for public authorities	○	◉	○	○	○
*Innovation potential in the water industry	◉	○	○	○	○
*Job creation	○	◉	○	○	○

If you identify **other important benefits**, please specify them:

500 character(s) maximum

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•        diversifying local water resource portfolios
•        reducing the demand for conventional freshwater supplies
•        minimizing the risks associated with emerging chemical and microbial
contaminants
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2.3 Please indicate the importance of the following **main barriers to a wider uptake of water reuse solutions in agriculture irrigation**:

	High	Medium	Low	I don't consider this as a barrier	I don't know
*High cost of treatment for production of reused water	○	○	○	◉	○
*Distance between waste water treatment plants and irrigation fields – need for conveyance infrastructure	○	◉	○	○	○
*Low price of freshwater compared to price of reused water	○	○	○	◉	○
*Insufficient control on (freshwater) water abstractions	○	○	○	◉	○
*Administrative burden for water operators and users and for public authorities (e.g. specific permits for water reuse)	◉	○	○	○	○

*Insufficient consideration for water reuse in integrated water management (e.g. in scarce areas no incentives to develop water reuse projects)	●	○	○	○	○
*Fear of potential trade barriers (e.g. import bans) for food products irrigated with reused water	○	●	○	○	○
*Insufficient awareness on benefits of water reuse	○	●	○	○	○
*Negative public perception on the quality of reused water	○	●	○	○	○
*Insufficient clarity in the regulatory framework to manage risks associated with water reuse	○	●	○	○	○
*Stringent national water reuse standards	●	○	○	○	○
*Absence of national water reuse standards	○	○	●	○	○
*Low availability of technical solutions to produce safe reused water	○	○	○	●	○
*Low awareness of technical solutions to produce safe reused water	○	○	●	○	○
*Scientific uncertainties as regards potential risks	○	○	●	○	○

If you identify **other important barriers**, please specify them:

500 character(s) maximum

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-        Lack of awareness of scarcity of groundwater resources and/or lack
of awareness  of environmental damage caused by over-extraction
-        Lack of awareness of quality of some groundwater/surface water
sources (e.g. due to uncontrolled de facto reuse)
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2.4 Please indicate the importance of the following **main barriers to a wider uptake of water reuse solutions in aquifer recharge**:

	High	Medium	Low	I don't consider this as a barrier	I don't know
*High cost of treatment for production of reused water	○	○	○	◉	○
*Low price of freshwater compared to price of reused water	○	○	○	◉	○
*Administrative burden for water operators and users and for public authorities (e.g. specific permits for water reuse)	◉	○	○	○	○
*Insufficient consideration for water reuse integrated water management (e.g. in scarce areas no incentives to develop water reuse projects)	○	◉	○	○	○
*Insufficient awareness on benefits of water reuse	○	◉	○	○	○

*Negative public perception on the quality of reused water	○	●	○	○	○
*Insufficient clarity in the regulatory framework to manage risks associated with water reuse	○	●	○	○	○
*Stringent national water reuse standards	●	○	○	○	○
*Absence of national water reuse standards	○	○	●	○	○
*Low availability of technical solutions to produce safe reused water	○	○	○	●	○
*Low awareness of technical solutions to produce safe reused water	○	○	○	●	○
*Scientific uncertainties as regards potential risks	○	○	●	○	○

If you identify **other important barriers**, please specify them:

500 character(s) maximum

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Concern that contaminants of emerging concern (CECs) (e.g., pharmaceuticals,
household chemicals) as well as pathogens and antibiotic-resistant bacteria
and genes can adversely affect human health when WWTP effluents are reused
intentionally or unintentionally, to augment drinking water supplies
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2.5. Do you consider that **reusing treated waste water for agriculture irrigation nowadays in the EU is**…?:

	less safe than	safer than	as safe as	I don't know
*using water abstracted from rivers	○	○	●	○

and...

	less safe than	safer than	as safe as	I don't know
*using water abstracted from groundwater	◉	○	○	○

2.6 Do you think that **reusing treated waste water for aquifer recharge nowadays in the EU is**…?

	less safe than	safer than	as safe as	I don't know
*using water abstracted from rivers	◉	○	○	○

and...

	less safe than	safer than	as safe as	I don't know
*using water abstracted from (non-recharged) groundwater	◉	○	○	○

3. Your opinion on possible EU minimum quality requirements for water reuse

Important notice on the envisaged new EU legislation:

In order to foster the development of safe reuse of treated wastewater, the European Commission is looking into the possibility of establishing a common approach on water reuse across the EU providing clarity, coherence and predictability to market operators who wish to invest in water reuse in the EU under comparable regulatory conditions. In particular, the Commission envisages regulation on minimum quality requirements for reused water in irrigation and aquifer recharge. This could encompass elements such as risk management plans, treatment standards, treatment process controls, application controls and water quality benchmarks. In any event the decision on whether or not to develop water reuse and the extent to which water reuse is to be encouraged, will remain untouched a Member State's prerogative.

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* 3.1 What **kind of instrument** should be used to set EU minimum quality requirements for water reuse in **agriculture irrigation**?:

- (●) EU regulation (binding)
- ( ) Commission recommendation (not binding)
- ( ) CEN standards (not binding)
- ( ) Other – please specify in the box below
- ( ) I don't know

If you identify **other types of instruments**, please specify them:

500 character(s) maximum

* 3.2 What **kind of instrument** should be used to set EU minimum quality requirements for water reuse in **aquifer recharge**?:

- (●) EU regulation (binding)
- ( ) Commission recommendation (not binding)
- ( ) CEN standards (not binding)
- ( ) Other – please specify in the box below
- ( ) I don't know

If you identify **other types of instruments**, please specify them:

500 character(s) maximum

* 3.3 Beyond fostering the development of reuse, which **specific objectives** should be addressed by EU minimum quality requirements for water reuse in **agriculture irrigation**?(several answers possible):

- [x] Protection of human health of consumers (safety of agricultural products placed on the EU common market)
- [x] Protection of human health of public directly exposed to reused water (e.g. workers…)
- [x] Protection of water resources and dependant ecosystems
- [x] Protection of the wider environment (e.g. soil)
- [ ] Protection of agricultural productivity (crop yield)
- [ ] Other – please specify in the box below
- [ ] I don't know

If you identify **other specific objectives**, please specify them:

500 character(s) maximum

* 3.4 Beyond fostering the development of reuse, which **specific objectives** should be addressed by EU minimum quality requirements for water reuse in **aquifer recharge**? (several answers possible):

- [x] Protection of human health of consumers (in case the recharged aquifer is abstracted for drinking water purposes)
- [x] Protection of water resources and dependant ecosystems
- [ ] Other – please specify in the box below
- [ ] I don't know

If you identify **other specific objectives**, please specify them:

500 character(s) maximum

* 3.5 Which **specific aspects** should be covered by EU minimum quality requirements for water reuse in **agriculture irrigation**? (several answers possible):

- [x] Microbiological contaminants
- [x] Nutrients
- [x] Other chemicals already addressed by EU legislation on water quality in the environment or on discharges to water (Directive 91/271/EEC concerning urban waste water treatment, Directive 2006/118/EC on the protection of groundwater against pollution and deterioration, Directive 2008/105/EC on environmental quality standards in the field of water)
- [x] Other chemicals not addressed by existing EU legislation
- [x] Monitoring
- [x] Waste water treatment techniques
- [ ] Handling of treated water at farm level (e.g. irrigation practices)
- [x] Risk-based management (e.g. water safety plan)
- [ ] Other – please specify in the box below
- [ ] I don't know

If you identify **other specific aspects that should be covered**, please specify them:

500 character(s) maximum

* 3.6 Which **specific aspects** should be covered by EU minimum quality requirements for water reuse in **aquifer recharge**? (several answers possible):

- [x] Microbiological contaminants
- [x] Nutrients
- [x] Other chemicals already addressed by EU legislation on water quality in the environment or on discharges to water (Directive 91/271/EEC concerning urban waste water treatment, Directive 2006/118/EC on the protection of groundwater against pollution and deterioration, Directive 2008/105/EC on environmental quality standards in the field of water)
- [x] Other chemicals not addressed by existing EU legislation
- [x] Monitoring
- [x] Waste water treatment techniques
- [x] Artificial recharge techniques
- [x] Risk-based management (e.g. water safety plan)
- [ ] Other – please specify in the box below
- [ ] I don't know

If you identify **other specific aspects that should be covered**, please specify them:

500 character(s) maximum

3.7 Which **other uses of treated waste water** do you think EU minimum quality requirements for water reuse should cover?

	Should be covered by EU minimum quality requirements for water reuse	Could be covered by EU minimum quality requirements for water reuse	Should not be covered by EU minimum quality requirements for water reuse	I don't know
*Irrigation of sport fields (incl. golf courses)	◉	○	○	○
*Irrigation of urban green spaces	◉	○	○	○
*Other urban uses (street cleaning, firefighting…)	○	○	◉	○
*Industrial uses	○	○	◉	○

If you identify **any particular industrial sector** or **any use of treated waste water** that should be covered by EU minimum quality requirements for water reuse, please specify them:

500 character(s) maximum

4. Additional comments

4.1 If you have any **additional comments**, please provide them in the box below:

1000 character(s) maximum

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1)        It is not clear which parts and parameters will be included in the
future regulations and proposed as mandatory. While we agree with some
criteria, i.e. innovative ones such as CEC, bioassays, ARB-ARG, it remains
unclear in the draft how they will be used for compliance
2)        Lack of transparency in the criteria adopted for  the parameter
choice
3)        No distinction between potable and not potable aquifers because in
the future any GW source might be used as a potable source
4)        The monitoring should not be limited to end of pipe points of
compliance, but it should also consider mandatory source control monitoring.
When there is a significant exceedance of the limits, a program of measures
is needed
5)        How to perform risk assessments is lacking in the document
6)        CEC should be chosen among those frequently found and relevant for
human health, but with different modes of action regarding available bioassays
7)        Bioassays addressing mutagenicity and genotoxicity should be
included
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Contact

ENV-WATERREUSE@ec.europa.eu