

Interreg Programme

Danube Region



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Securing Drinking Water Supply

Legislative framework for Water Safety Plan in Romania

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EU DWD

Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption

- *(14) The WHO Guidelines, which lay down the so-called '**Water Safety Plan**' approach... are internationally recognized principles on which the production and distribution of water intended for human consumption, and the monitoring and the analysis of parameters in such water, are based.*
- *Those first elements of a risk-based approach should be maintained in this Directive.*

EU DWD

Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption

- **Article 7: Risk-based approach to water safety**
- *3. Member States shall ensure that there is a **clear and appropriate distribution of responsibilities** between stakeholders, as defined by the Member States, for the implementation of the risk-based approach. Such distribution of responsibilities shall be tailored to their institutional and legal framework.*

EU DWD transposed into RO legislation

DWD was transposed (in January 2023) into Romanian legislation by the Government Ordinance on the quality of water intended for human consumption

Responsibilities for the implementation of the risk-based approach

- The assessment and management of the risks related to the **hydrographic basins** related to the water collection points intended for human consumption shall be carried out by the **competent water management authority** until July 1, 2027
- The assessment and management of risks related to the **supply system**, based on the assessment and management of the risks is carried out until January 1, 2029 by the **water supplier** as part of the water safety plans and is **approved by the local public health authorities**
- The assessment of the risks related to **internal distribution systems** is carried out until January 1, 2029 by the **local public health authorities and the National Institute of Public Health.**

RO legislation - timeline

- Ordinance no. 22/**2017** for the amendment and completion of Law no. 458/2002 regarding the quality of drinking water
- *In September 2017, an Order (22/30 August 2017) regarding the amendment of the Quality of drinking water Law (458/2002) transposed in our national legislation **the European Directive 1787 /2015 which required the elaboration of the water safety plan**, and according to it, the list of the drinking water parameters to be monitored.*
- *With a deadline of December, 2018, by a common order of the Ministry of Health, the Ministry of Waters and Forests and the Ministry of Regional Development, Public Administration and European Funds, **it was intended to approve a General Framework** for Water Safety Plans and also to establish the responsibilities of competent authorities and of water operators.*
- *A 3-years timeframe (until to 2021) was agreed to provide tools to support water producers but also to prepare the representatives of public authorities who will be involved in approving and auditing the water safety plans.*

RO legislation - timeline

- Order No. 2.721/2.551/2.727/2022 approving the General Framework for Water Safety Plans, as well as establishing the responsibilities of competent authorities and water producers and/or distributors regarding the development, evaluation, and approval of water safety plans.
 - Ministry of Health
 - Ministry of Environment, Waters, and Forests
 - Ministry of Development, Public Works, and Administration
- Published in the Official Gazette, Part I, No. 1056, November 1, 2022

Water Safety Plan

- The Water Safety Plan (WSP) is a **holistic approach** to drinking water quality based on **anticipation of the risk** what can occur in a water supply system, **from the source to the consumer.**
- Practically, WSP represents the framework for **hazard identification, risk assessment and risk management**, together with control measures, monitoring, plans for incident and emergency situations, in order to provide **safe water for human consumption.**

Who is responsible ?

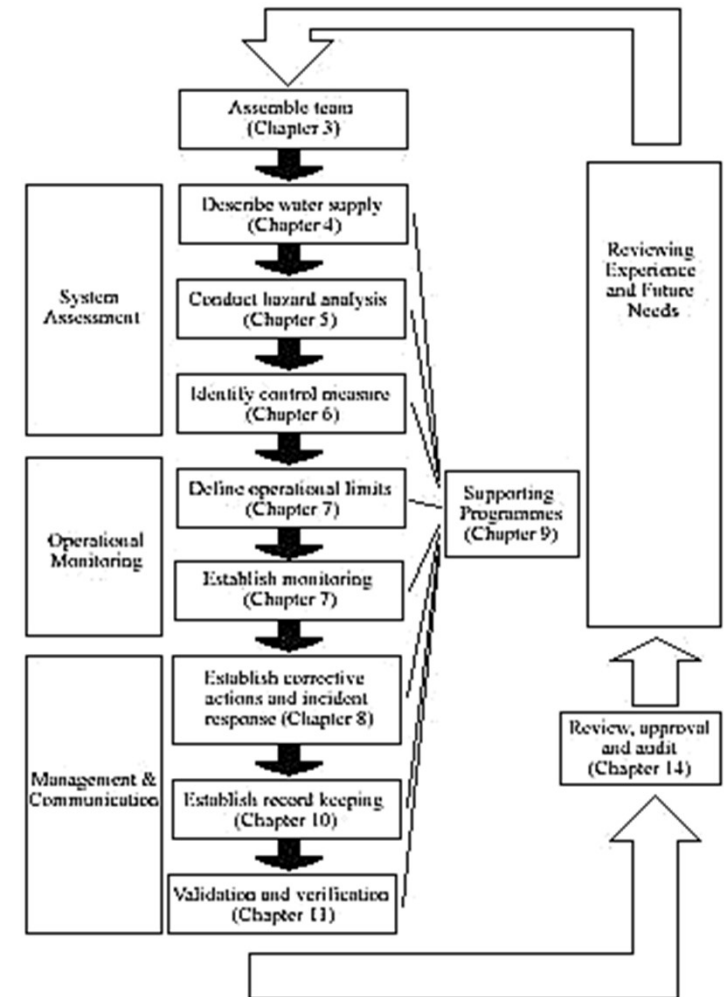
- The obligation *to draw up* the Water Safety Plan rests with **the water producer and/or distributor**,
- *the implementation* must be done by the water producer/distributor **with the support of the WSP team.**

Responsibility of Water Producers/Distributors

- *Requirement for producers/distributors serving more than 1,000 cubic meters of water/day or serving more than 5,000 people.*
- Constituting the multidisciplinary WSP team.
- Collaboration with specialists in hygiene/public health, local administration, water management and environmental protection.
- Team coordination under the technical supervisor from the water operator.

Mandatory Stages in WSP Development

- Constituting the **WSP team**.
- **Describing the water supply system** and creating a **flow diagram**.
- Identifying possible **hazards** and evaluating **risks**.
- **Control measures**: Identifying appropriate measures for risk control.
- **Monitoring** measures, **management** procedures, **audit**.
- **Support** programs and documentation.



1. WSP team

It's a **multidisciplinary team** with expertise in the key areas for development of the plan :

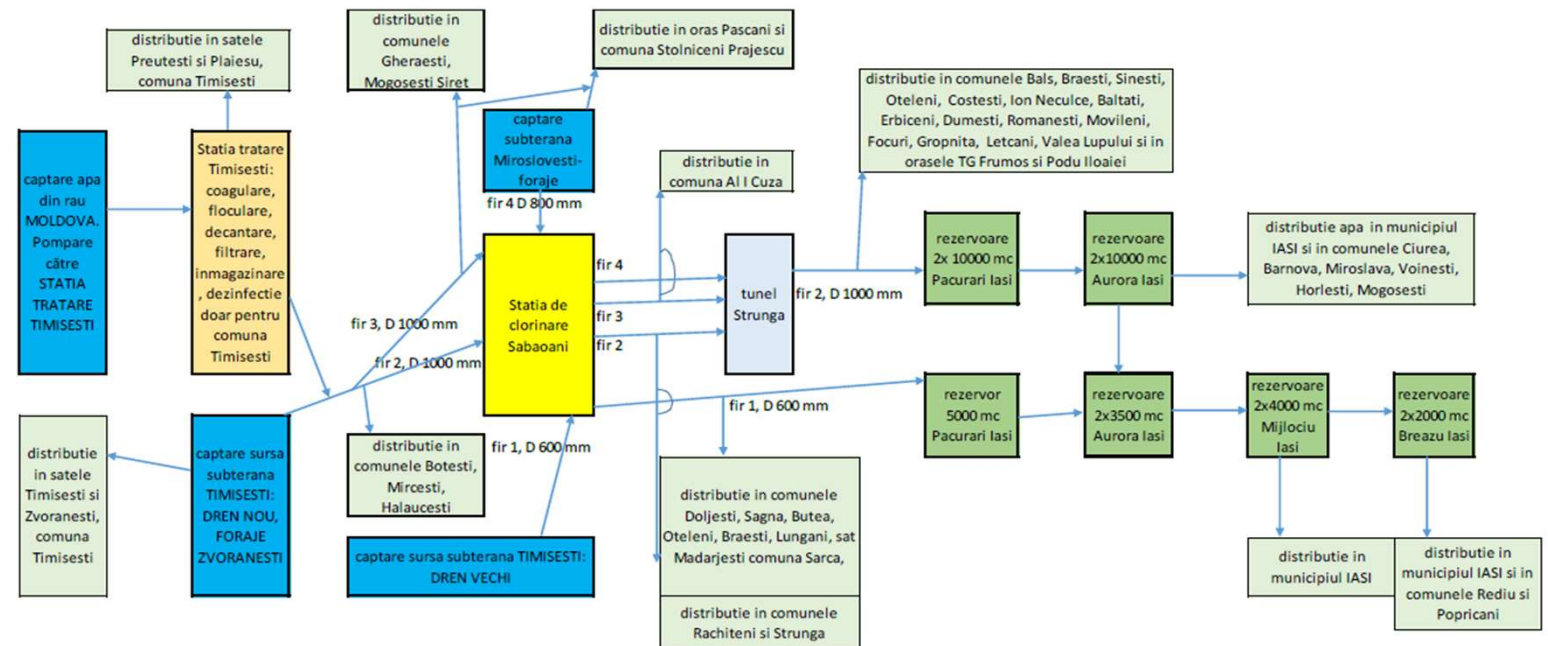
- Managers lead a **technical team**, including engineers in operations, maintenance, design, and capital investments, along with technical staff dedicated to servicing the system.
- **Laboratory personnel** specialized in analyzing water quality, including microbiologists and chemists.
- **Specialists** in hygiene/public health, representatives from EPA, *Romanian Waters*, and local public authorities with responsibilities in organizing and overseeing public water supply and sewage services.

Cooperation and information sharing within the team is vital

2 . Description of the water supply system :

- Capture - surface or underground water sources
- Treatment systems
- Storage tanks and distribution network

- *Flow chart*



3. Hazard assessment

- identification of possible hazards **for each stage** of the water supply chain from the catchment to the tap

and how the identified hazards could affect the system;

- **establishing critical points**, similar to the HACCP procedure



4. Risk assessment

- assessment **of the probability**, (the frequency of occurrence for each identified hazard that affects the system)
- and **the severity** of the effect (its consequences).

	Severitatea consecințelor asupra sănătății publice				
Probabilitatea (frecvența)	Nesemnificativă sau fără impact 1	Impact minor Posibil dăunător pentru o populație aprovizionată de sisteme mici 2	Impact moderat Posibil dăunător pentru o populație aprovizionată de sisteme mari 3	Impact major Posibil letal pentru o populație aprovizionată de sisteme mici 4	Impact catastrofal Posibil letal pentru o populație aprovizionată de sisteme mari 5
Aproape sigură O dată/zi - scor 5	5	10	15	20	25
Probabilă 1 / săptămână – scor 4	4	8	12	16	20
Probabilitate moderată 1/lună –scor 3	3	6	9	12	15
Improbabilă 1/an – scor 2	2	4	6	8	10
Rară O dată/5 ani – 1	1	2	3	4	5

5. Control measures

- *identifying* appropriate control measures for each identified risk
- and *validating* the effectiveness of the measures by monitoring the relevant parameters
- establishing *the monitoring plan*, including the monitored parameter, the frequency and the criterion for assessing an adequate performance.

6. Corrective action

-represents the action to be taken when the monitoring results indicate a deviation from the limits imposed by the standards/legislation.

7. WSP verification and auditing

- ***monitoring program***, including parameters and frequency of sampling and analysis,
- the ***internal audit*** of operational activities
 - ***periodically***, at certain time intervals (the frequency of routine audits is determined according to factors such as the size of the population served and the quality of the water source, the capacity and complexity of the treatment and distribution facilities);
 - in case of ***important changes*** occurring at the level of the source, the distribution system or the storage tank or the treatment process;
 - after ***significant incidents*** .
- verifying the ***satisfaction of consumers***

8. Management procedures

- preparation of ***action procedures***, including communications, investigations and remedial measures,
 - in the situation where a control measure *is not effective*
 - during ***incidents and emergencies***
 - or under ***normal operating*** conditions

9. Support programs

- training programs
- research and development activities
- tools for organizing/managing staff activity
- Information, education, awareness in the communities
- ...

10. Documentation

- preparation of documents for all WSP stages
- *the WSP Manual, other supporting documents* (written procedures)

11. The review of Water Safety Plan

- *Reviewing records* to ensure that system management is carried out in accordance with the WSP;
- *verification of compliance with the monitoring of the operational parameters* specified in the standard operating procedures;
- ensuring that the *monitoring programs* (operational and audit) are managed by the water producer, through internal expertise or subcontracting;
- evaluation of implementation programs and development *of strategies to improve and update* the Water Safety Plan

Responsibilities of Public Health Authorities

- **cooperate** with the water producer to *identify health risks*
- **audits** the water supply system (through audit monitoring, supervision and control of operational monitoring and sanitary inspection)
- **investigate** possible water-related diseases and outbreaks
- **informs the population** about the maintaining the safety of water supply in homes and public buildings

Responsibilities of PHA

- **supervises and monitors the quality of drinking water** distributed *in the centralized systems* within water supply areas, in accordance with the legal regulations;
- **analyzes and approves** water safety plans, with a specific focus on risk assessments;
- **publishes** on its website *the list of approved water safety plans* and a *brief summary* of the results of the risk assessments carried out by the water operator;
- **Provides** monthly reports to the Ministry of Health, detailing the status of approved Water Safety Plans.

Conclusions

- In Romania, we now have a suitable legislative framework for the implementation of the WSP.
- WSP are mandatory for large water supply systems (serving over 1000 m³ / 5000 inhabitants) and (for now) are optional for small systems.
- Currently, the big operators have developed the plans and sent them to the PHA for review.

Thank you for your attention !



