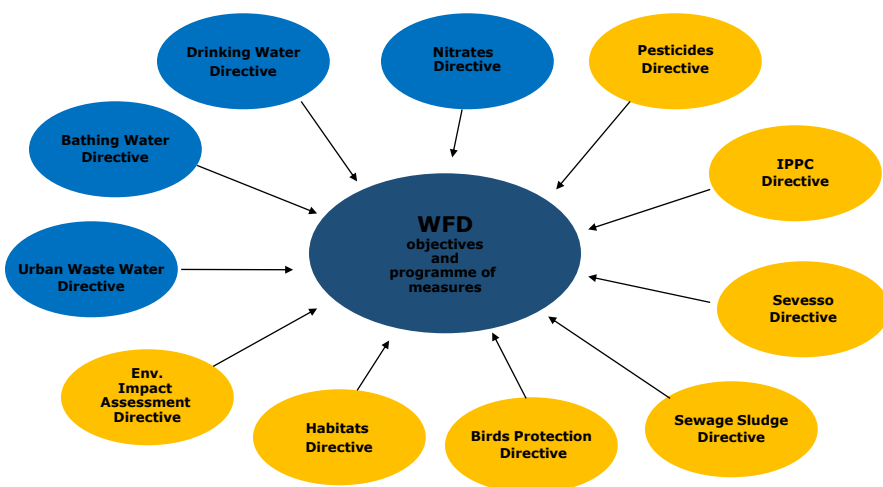


Integration of the other water directives in the development of PoM.

Gheorghe Constantin
Director
Ministry of Environment, Water and Forests

ECRAN Screening Workshop, Sarajevo, 17-19 November 2015

A coherent framework





Drinking Water Directive



Application of the Directive

- Distribution systems serving more than 50 people or supplying more than 10 m³/day;
- Drinking water from tankers;
- Drinking water in bottles or containers;
- Water used in the food-processing industry

Main provisions of the Drinking Water Directive

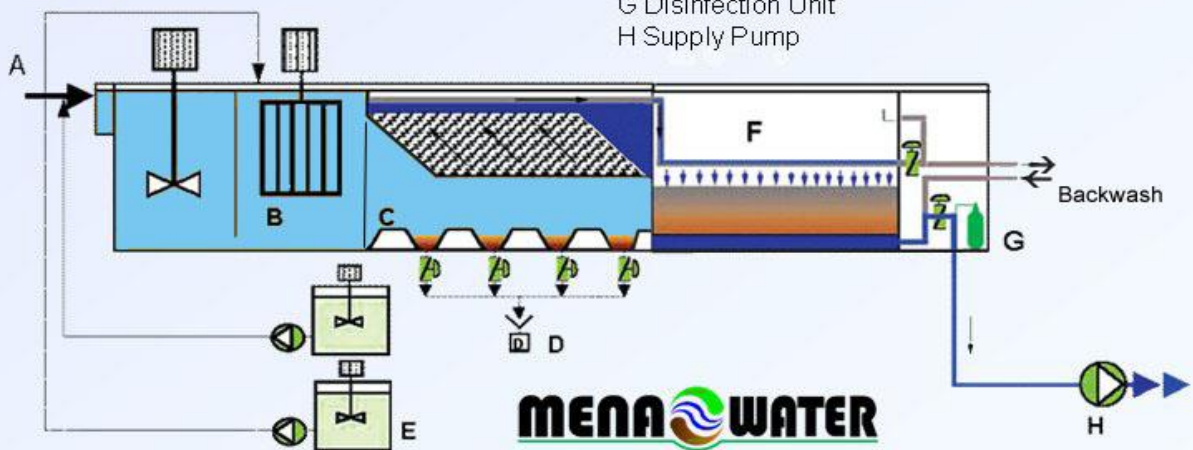
- Ensure that drinking water quality is controlled through standards based on the latest scientific evidence;
- Secure an efficient and effective monitoring, assessment and enforcement of drinking water quality;
- Provide the consumers with adequate, timely and appropriately information;
- Contribute to the broader EU water and health policy;

Main measures for Drinking Water

- Improvement of the drinking water monitoring
- Improvement of the analytical capacity of the drinking water producers
- Improvement of the technologies and extension of the water treatment
- Extension of the drinking water distribution network
- Replacement of the domestic distribution systems
- Ensuring the protection areas around water intakes

CONTAINERIZED PLANT

FLOW DIAGRAM



Cost of implementation of the Drinking Water Directive in Romania

Purpose	Amount	Time period
Country-wide monitoring of drinking water quality – new analytical equipment for 5 regional and 42 territorial laboratories of the MH	EUR 2.5 million	2004 - 2005
Investment in equipment for control monitoring performed by the producers	EUR 5.6 million	2004 - until the rehabilitation of the water treatment plants
Improvement of technologies and extension of the water treatment	EUR 2,000 million	2004 – 2015
Rehabilitation and extension of the water supply networks	EUR 3, 600 million	2004 - 2015
Replacement of the domestic distribution systems	Not estimated yet	2004 - 2015
TOTAL	EUR 5,608.1 million	2004-31.12.2015

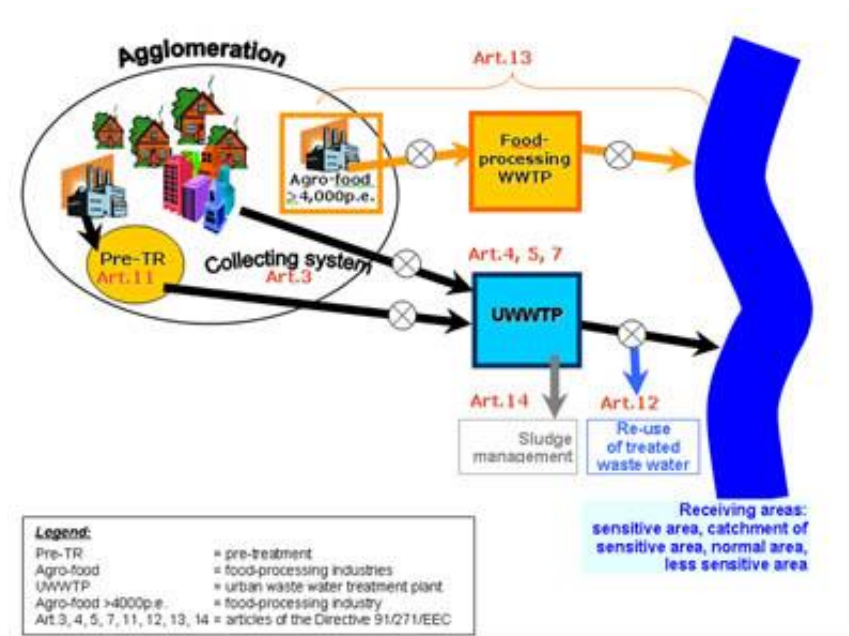


Urban Waste Water Treatment Directive



Requirements of the UWWTD

- The collection and treatment of waste water in all agglomerations of >2000 population equivalent (i.e.);
- Secondary treatment of all discharges from agglomerations of > 2000 i.e., and more advanced treatment for agglomerations >10 000 population equivalent in designated sensitive areas and their catchments;
- A requirement for pre-authorisation of all discharges of urban wastewater, of discharges from the food-processing industry and of industrial discharges into urban wastewater collection systems;
- Monitoring of the performance of treatment plants and receiving waters; and
- Controls of sewage sludge disposal and re-use, and treated waste water re-use whenever it is appropriate



Main Measures for UWWT Directive

- Building new urban wastewater treatment plants
- Upgrading the existing urban wastewater treatment plants
- Upgrading the existing local industry wastewater treatment plants
- Rehabilitation of the existing urban sewerage
- Building and/or extension of the urban sewerage.

Approach for Definition of Agglomerations

- Definition in the Implementation Plan
- Definition in the Master Plan
- Detailed boundaries in the Feasibility Study

Agglomerations in the Implementation Plan

- Preliminary definition
- Mainly based on administrative borders
- Rough estimate of investment costs
- Inventory of agglomerations(annexes of Implementation Plan)

15

Definition of agglomerations in the Master Plan

- **Identification** of all settlements at the county level (maps and data base)
- **Defining** of agglomerations based on techno-economic assessment
- **Option Analysis** (central/de-central)
- Discussion with **stakeholders**
- Preparation of Long-term investment plan

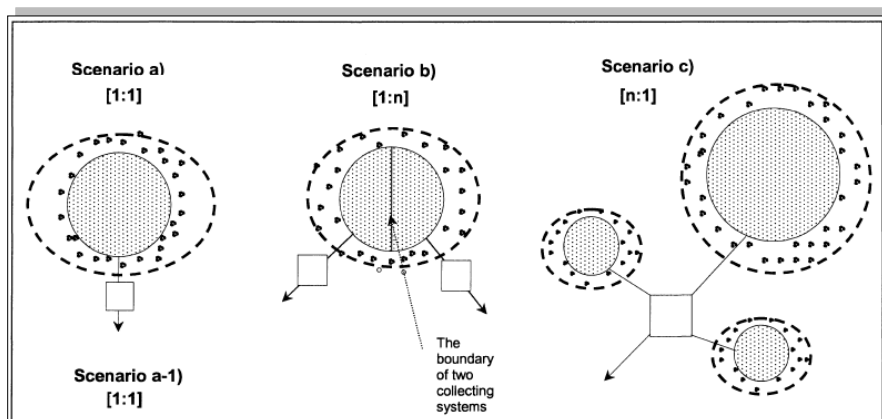
16

Final Definition of Agglomerations in the Feasibility Study

- More **detailed definition** of boundaries for **selected agglomerations** (priority investments) based on technical and economic cost analysis
- Detailed **option analysis**
- Preparation of **final/detailed maps** and data base on agglomerations

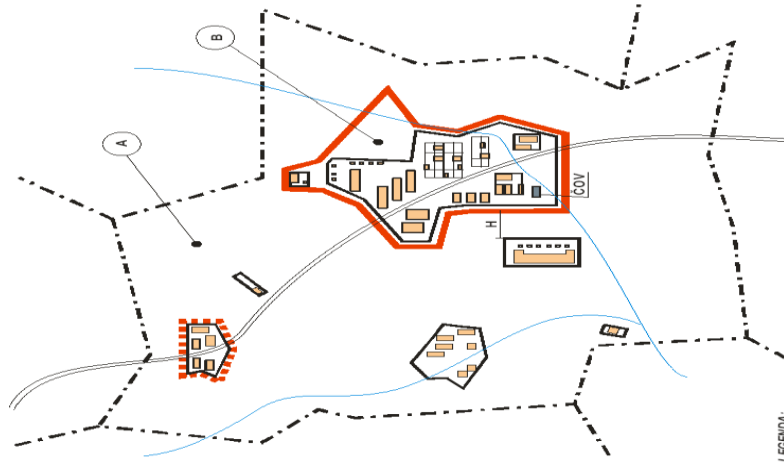
17

➡ Scenarios “Definitions of UWWTD”



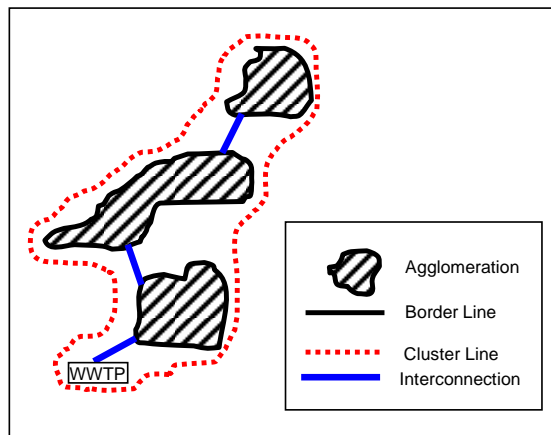
18

Analysis of an agglomeration



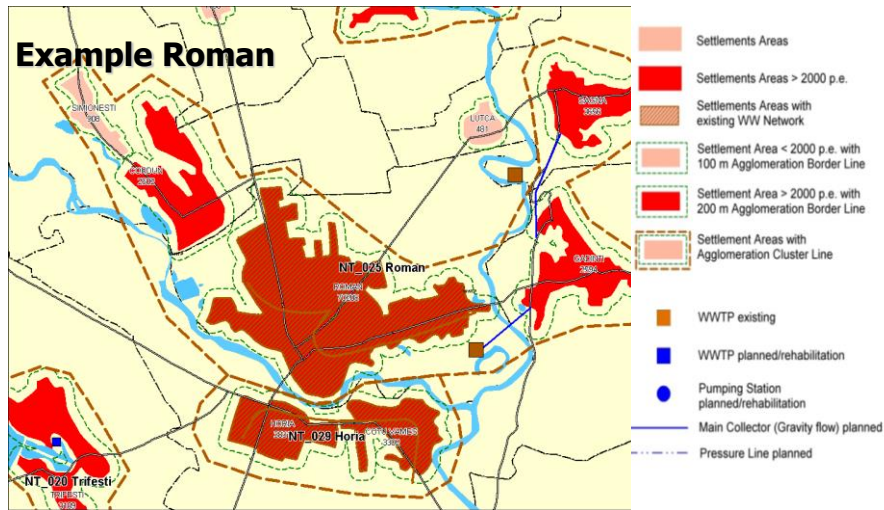
19

Defining of a agglomeration



20

Example for Agglomerations – Detailed Definition of Boundaries



page 21

Regionalisation

- Regionalisation of water services - mainly driven by pre-accession programmes (FOPIP and ISPA)
- Slightly different approach, but the same final objective
- Intend to best use of available resources

Advantages of regionalization

- Improved technical capacity
- Improved financial capacity
- Improved lending capability
- Improved investment planning
- Optimization of available resources
- Capacity to operate of existing regional systems
- Capacity to meet EU W & WW Directive
- Tariffs leverage around the region

Harta Operatorilor Regionali de Servicii de Apa



**Evolution of Consumption Index Prices per services categories,
between 2003 - 2013**

Year	Total CIP per year	CIP drinking water	CIP sewerage
2003	112,70%	127,52%	129,00%
2004	108,10%	119,72%	120,54%
2005	107,80%	125,22%	130,58%
2006	103,80%	117,23%	122,25%
2007	106,35%	106,54%	111,06%
2008	105,40%	110,58%	115,41%
2009	103,46%	113,08%	124,12%
2010	104,49%	113,34%	123,93%
2011	103,14%	115,79%	131,22%
2012	104,95%	106,27%	110,75%
2013	101,55%	109,74%	120,74%

Source : National Statistics Institute

Transition periods

- Till **31 December 2013** for collection of wastewater in 263 agglomerations (61,9 % from biodegradable load)
- Till **31 December 2018** for collection in 2346 agglomerations (38,1 % from biodegradable load)
- Till **31 December 2015**, for urban wastewater treatment in 263 agglomeration with more than 10000 i.e. (including P and N removal)
- • Till **31 December 2018**, for urban wastewater treatment for 2346 agglomerations with less 10000 i.e.
- **Estimated cost:9.5 billions Euro**

Financing Strategy(1)

- Total amount needed 9.5 billions Euro

- Financing sources:

-EU funds	40%
-National and local budget	30%
-Loans and PPP	20%
-Environmental Fund	3%
-Consumers (Operators)	7%

Existing financing of the water infrastructure

- **Total 4.621,255 millions Euro out of which:**

3.025,798 mil. Euro (65,47%) from EU funds through:

- FEADR - 454,063 mil. Euro
- Coezion Fund - 1624,403 mil. Euro;
- ISPA, World Bank, EBRD, EIB, SAPARD - 947,113 mil. Euro

1.023, 812 mil Euro (22,15%) from the State Budget through:

- Environmental Fund - 227,560 mil. Euro
- State Budget through the MRDPA - 559,132 mil. Euro
- State Budget through the MARD 237,120 mil. Euro

466,748 mil. Euro (10,1%) from the local budets

105,118 mil. Euro from Operators / Public-Private Partnership



Nitrate Directives



REQUIRMENTS OF NITRATE DIRECTIVES

- Assessment surface water and groundwater quality
- Establishment of the Nitrate Vulnerable Zones

Reduction of nitrate pollution coming from agricultural sources by:

- Development of the Action Plans
- Proper manure management
- Implementation of the Code of Good Agricultural Practices
- Limitation of fertilizers application to 170 Kg N/ha (210 kg N/ha)

Estimated costs: **1,8 billions Euro**

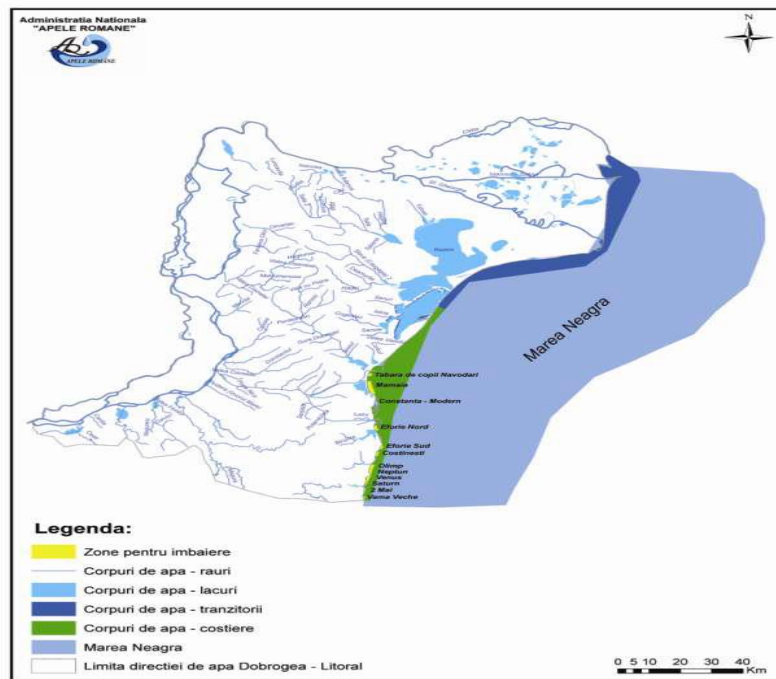


Bathing Directive



Requirements of the Bathing Directive

- Monitoring and classification of bathing water quality
- Management of bathing water quality
- Provision of information to the public on bathing water quality



Measures for the Bathing Directive

- Improvement of the monitoring systems
- Establishment of the bathing waters
- Improvement of the waste water treatment (microbiological pollution)
- Phase out discharges of priority substances
- Public consultation and information

Thank you for the attention!



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