

Croatian View – Issues, Questions from an Accession Country

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and Water Management

Workshop on the Water Framework Directive & Urban Waste
Water Directive Implementation

INFRA 30092

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Legislative Framework

The provisions of Council Directive 91/271/EEC concerning urban waste water treatment (Urban Waste Water Treatment Directive, UWWTD) have been partially transposed into the national legislation through the Water Act (OG 107/95, 150/05), the Act on Water Management Financing (OG 107/95, 19/96, 88/98, 150/05), the Utilities Act (OG 26/03, 82/04, 178/04) and Ordinance on limit values of dangerous and other substances in waste water (OG 94/08).

Institutional Framework

Activities aimed at water protection and implementation of the UWWTD are carried out by the Ministry of Regional Development, Forestry and Water Management (MRDFWM), Hrvatske vode (HV), the Ministry of Environmental Protection, Physical Planning and Construction, the Ministry of the Sea, Transport and Infrastructure, local and regional self-government units, and utility companies.

Current Situation

Requests for urban wastewater treatment with implementation deadlines are based on the size of the agglomeration, i.e. wastewater treatment plant, and the receiving area into which wastewater is discharged.

The existing system of long-term monitoring is not fully aligned with the requirements of the UWWTD.

The Programme of monitoring the status of water in 2008 is ongoing.

Full alignment is expected within the framework of the adopted monitoring plan, prepared through the river basin management plans, which will be prepared by the end of 2009.

The start of implementation of the plan is envisaged for 2010.

Investment in the construction of systems for drainage and treatment of urban wastewater is a regular activity in the water and utility sectors.

Sources of Pollution and Assessment of Loads

The starting point for the planning of water protection measures is the assessment of the impact of pollution from point and non-point sources on water.

Point sources of pollution include pollution from sewerage systems and/or waste water treatment plants.

Non-point sources of pollution include pollution on the ground or in the ground which enters water through stormwater runoff (agricultural land, stormwater from various catchment areas, etc.).

Connection level to sewerage systems

Development of sewerage systems per settlements
>10,000 inhabitants, with connection level ranging between
75 and 80%

Size of the settlement	Covered	With sewerage system	Without sewerage system
Number of population	Number of settlements		
500 – 2,000	1,040	155	885
2,000 – 10,000	189	102	87
10,000 – 50,000	31	31	0
> 50,000	7	7	0
Total	1,267	295	972

Connection level to sewerage systems (2007)

Size of the settlement	Population				
	Connected		Not connected		Total
Number of population	Number	%	Number	%	Number
< 2,000	111,717	6	1,640,828	94	1,752,545
2,000 – 10,000	267,602	37	455,883	63	723,485
10,000 – 50,000	501,527	74	172,036	26	673,563
> 50,000	1,042,126	81	245,741	19	1,287,867
Total	1,922,972	43	2,514,488	57	4,437,460

295 settlements have a constructed sewerage system.

131 (44%) settlements have a waste water treatment plant (WWTP) as well. There are:

38 plants with preliminary treatment of wastewater,

24 plants with primary waste water treatment,

46 plants with secondary waste water treatment, and

1 plant with tertiary waste water treatment.

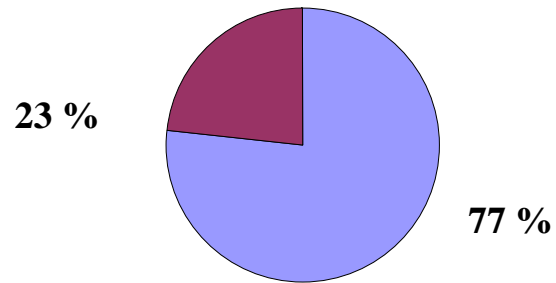
Out of 28% of household wastewater subject to treatment, 43% undergoes preliminary and primary treatment, and 57% undergoes secondary treatment.

Connection level to sewerage systems (2007)

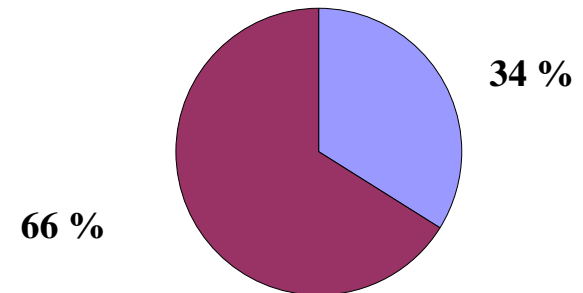
Size of the settlement	Settlements with a constructed sewerage system		
	With a WWTP	No WWTP	Total
Number of population	Number of settlements		
500 – 2,000	62	93	155
2,000 – 10,000	45	57	102
10,000 – 50,000	19	12	31
> 50,000	5	2	7
Total	131	164	295

Plants for pre-treatment and treatment of industrial/technological waste water

Discharges to collecting system



Discharges to water resources



- with pretreatment
- without pretreatment

WFD



UWWTD

Protected areas

- (a) areas designated for the abstraction of water intended for human consumption
- (b) areas designated for the protection of economically significant aquatic species
- (c) bodies of water designated as recreational waters, including areas designated as bathing waters
- (d) nutrient-sensitive areas, including areas designated as vulnerable zones and as sensitive areas
- (e) areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection

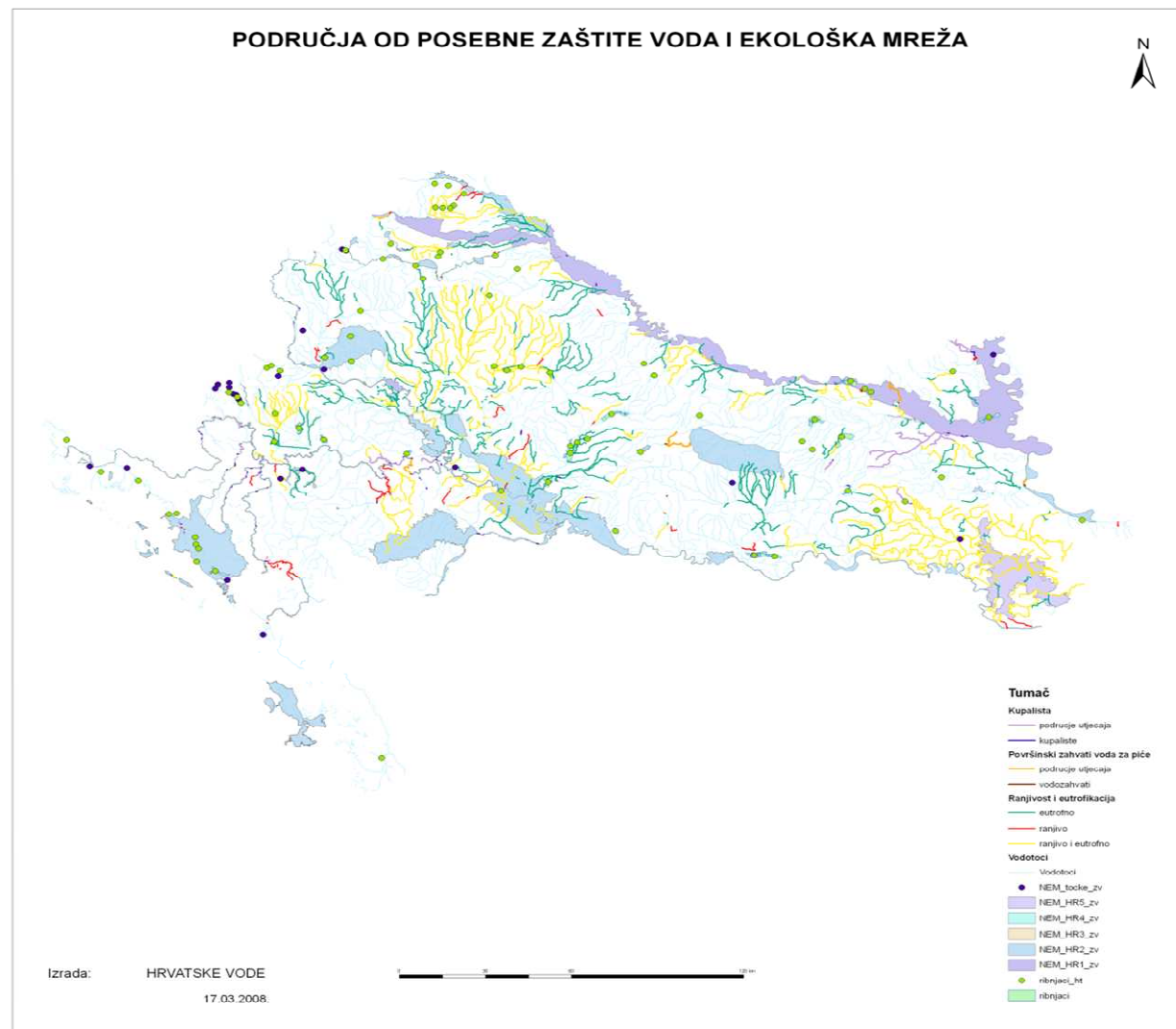
A. Sensitive areas

- (a) natural freshwater lakes, other freshwater bodies, estuaries and coastal water which are found to be eutrophic or may become eutrophic
- (b) surface freshwaters intended for the abstraction of drinking water
- (c) other areas where further treatment is necessary

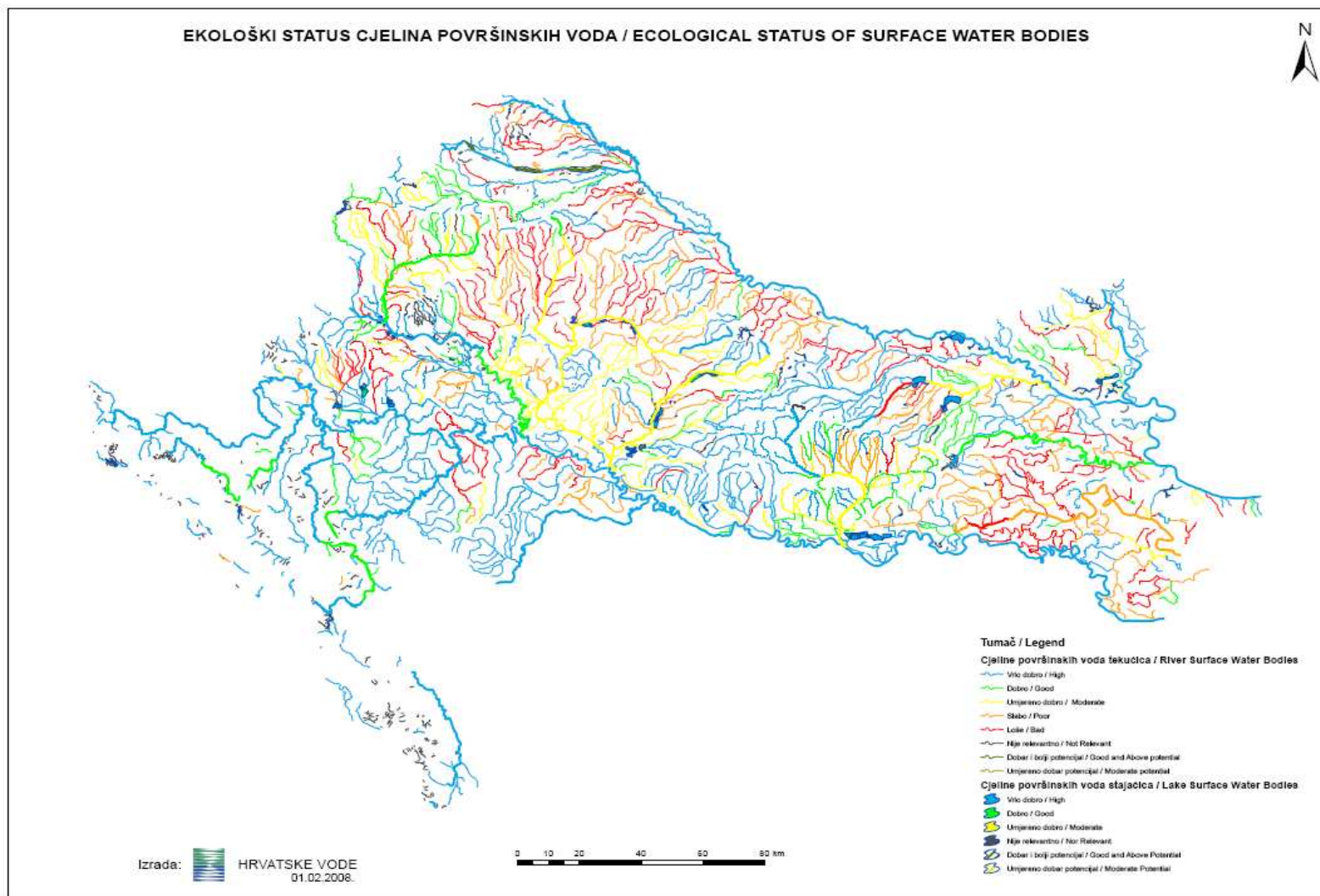
B. Less sensitive area

A marine water body or area if the discharge of waste water does not adversely affect the environment

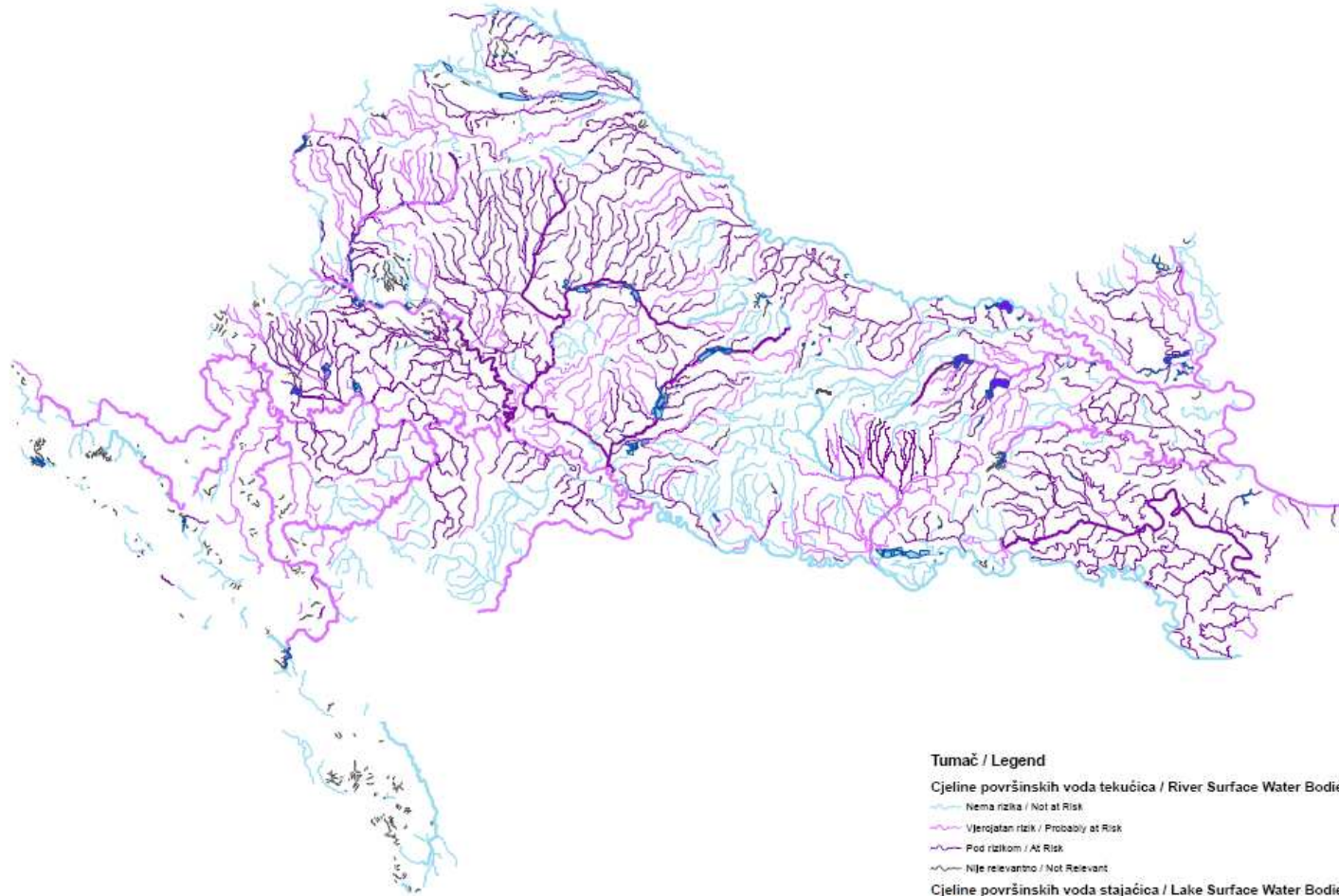
Specially water protection areas and ecological network



Ecological status of surface water bodies


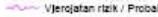
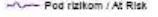



EKOLOŠKI RIZIK CJELINA POVRŠINSKIH VODA /
ECOLOGICAL RISK OF SURFACE WATER BODIES


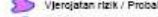




Tumač / Legend

Cjeline površinskih voda tekućica / River Surface Water Bodies

-  Nema rizika / Not at Risk
-  Vjerojatan rizik / Probably at Risk
-  Pod rizikom / At Risk
-  Nije relevantno / Not Relevant

Cjeline površinskih voda stajacica / Lake Surface Water Bodies

-  Nema rizika / Not at Risk
-  Vjerojatan rizik / Probably at Risk
-  Pod rizikom / At Risk
-  Nije relevantno / Not Relevant

Izrada:  HRVATSKE VODE
01.02.2008.

0 10 20 40 60 80 km

Preliminari designation of protected areas of the Adriatic Sea



Future Legal Framework

Further transposition of the provisions of the UWWTD into the national legislation will be carried out by the adoption of the new Water Act and the new Act on Water Management Financing and accompanying subordinate legislation by the end of 2008.

In addition to these acts, plans are to adopt the Implementation Plan for the UWWTD by the end of 2008. This Plan, along with the provisions of the UWWTD, shall harmonise business operations and activities in the field of wastewater collection and treatment.

Estimated deadlines for the construction of wastewater collection and treatment systems

PE	2,000-10,000	10,000-15,000	15,000-150,000	>150,000
sensitive areas	wastewater collection 31 December 2030 secondary (or suitable*) treatment	wastewater collection 31 December 2018 tertiary treatment	wastewater collection 31 December 2018 tertiary treatment	wastewater collection 31 December 2018 tertiary treatment
normal areas	wastewater collection 31 December 2030 secondary (or suitable*) treatment	wastewater collection 31 December 2030 secondary treatment	wastewater collection 31 December 2023 secondary treatment	wastewater collection 31 December 2023 secondary treatment
less sensitive areas	wastewater collection 31 December 2030 suitable treatment	wastewater collection 31 December 2030 primary or secondary treatment	wastewater collection 31 December 2023 primary or secondary treatment	wastewater collection 31 December 2023 secondary treatment
* in coastal areas				

TIMETABLE FOR IMPLEMENTATION

Actual or estimated date for:	Day/month/year
1. Identifying sensitive areas	31/12/08
2. Identifying agglomerations:	31/12/10
3. Establishing technical and financial programme for implementation of the directive	31/12/08
4. Requiring specific regulation and/or authorisation (permit procedure) and ensuring that treatment plants are designed, constructed, operated and maintained to meet specified performance requirements	31/12/08
5. Requiring specific regulation and/or authorisation (permit procedure) and pre-treatment for industrial discharges into urban/municipal sewage collecting systems	31/12/08
6. Ensuring that treatment plants are designed, constructed, operated and maintained to meet specified performance requirements	31/12/08
7. Providing collecting systems for sensitive areas of > 10,000 pe	31/12/18
8. Providing collecting systems for agglomerations greater than 15 000 p.e.	31/12/23
9. Providing collecting systems for agglomerations 2 000 – 15 000 p.e.	31/12/30
10. Requiring UWW entering collecting systems to be subject to secondary or equivalent treatment for agglomerations more than 15 000 p.e.	31/12/23
11. Requiring UWW entering collecting systems to be subject to secondary or equivalent treatment for agglomerations 10 000 – 15 000 p.e.	31/12/30
12. Requiring UWW entering collecting systems to be subject to secondary or equivalent treatment for discharges to fresh water and estuaries for agglomerations 2 000 – 10 000 p.e.	31/12/30

13. Requiring UWW entering collecting systems for discharge to sensitive areas to be subject to more stringent treatment for agglomerations greater than 10 000 p.e.	31/12/18
14. Requiring UWW entering collecting systems for discharges to fresh waters, estuaries and coastal waters to be subject to appropriate treatment	31/12/30
15. Requiring prior regulation/ specific authorizations for industrial waste water discharges	31/12/08
16. Requiring prior regulation/ specific authorizations for disposal of waste water from UWWT plants	31/12/08
17. Requiring prior regulation/ specific authorizations for biodegradable industrial waste water discharges	31/12/08
18. Regulating management of sludge: ensuring its treatment and environmentally sound disposal and/or re-use	31/12/08
19. Establishing an effective monitoring and enforcement system and considering accreditation schemes for laboratories, ensuring the use of standard laboratory methods and regular QA/QC	31/12/10
20. Establishing a mechanism to provide information to the public considering publication of regular situation reports	31/12/08
21. Establishing a mechanism to report to the Commission	done
22. Establishing protocols for notifying neighboring Member States	31/12/10
Full implementation	31/12/30