

LEGISLATION ON INLAND WATER PROTECTION

Ilona Jančářová

INTERNATIONAL BACKGROUND

- Agreement on the protection of the Rhine against chemical pollution (Bonn 1976)
- Convention on the International Commission for the protection of the Elbe (Magdeburg 1990)
- Convention on the International Commission for the Oder River Protection against Pollution (Wroclaw 1996)
- Convention on Co-operation for the Protection and Sustainable Use of the Danube River
- Declaration on the Environment in the Danube River Basin (Sofia 1994)

INTERNATIONAL BACKGROUND

- Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki 1992)
- Convention on the Law of Non-Navigational uses of International Watercourses (New York 1997)

Water is life !

It is a precondition for human, animal and plant life as well as an indispensable resource for the economy.

Water also plays a fundamental role in the climate regulation cycle.

EU LEGISLATION

Development in 4 waves :

- Drinking Water Directive (1975)
- Groundwater Directive (1980)

- Urban Waste Water Directive (1991)
- Nitrates Directive (1991)

- Water Framework Directive (60/2000)

- Marine Strategy Framework Directive (2008)

WFD daughter directives

WFD 2000/60/EC

Completing key notions:

- **Directive 2008/105/EC** on environmental quality standards in the field of water policy (2013/39/EU)
- **Directive 2006/118/EC** on the protection of groundwater against pollution and deterioration

Completing scope:

- Floods Directive (2007/60/EC)
- Marine Strategy Directive (2008/56/EC)

- Directive 2006/7/EC concerning the management of bathing water quality
 - Directive (EU) 2020/2184 on the quality of water intended for human consumption (Drinking Water Direc.)
 - Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources (Nitrates Directive)
 - Directive 91/271/EEC concerning urban waste-water treatment
- relations to other directives (IED, EIA, ELD,..)

48% of European rivers are exposed to hydromorphological pressures



(alterations such as channelization, damming, regulation of water flow and level, embankments, etc.)

which have
significant negative impacts
on water ecosystems.

WATER FRAMEWORK DIRECTIVE

Objectives:

- Prevention and halt of further deterioration.
- Protection and enhancing of aquatic and terrestrial ecosystems.
- Promotion of sustainable water use.
- Progressive reduction of groundwater pollution.
- Mitigation of the effects of floods and droughts.

Pollution control

- waste water discharges,
- chemical substances emissions and losses.

Water use control

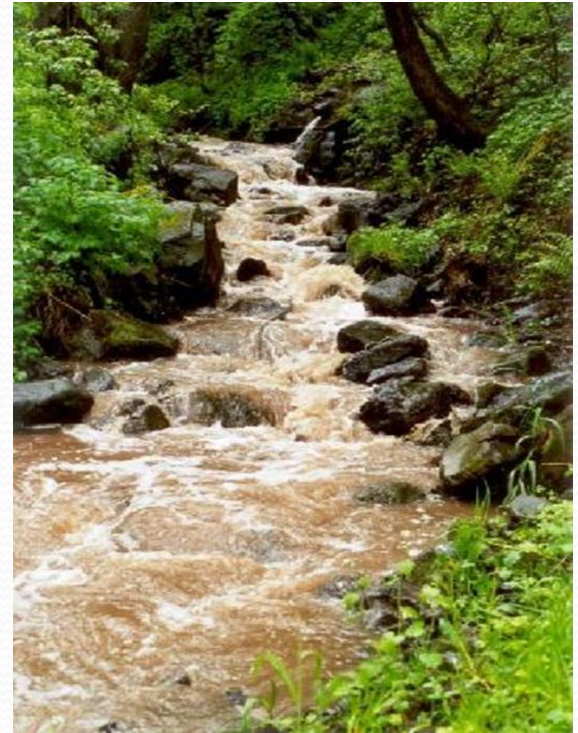
WATER FRAMEWORK DIRECTIVE

The scope of the directive:

- Surface waters
- Groundwaters
- Coastal waters



Aimed at protection of all waters, but does not cover marine waters



WATER FRAMEWORK DIRECTIVE

Regulation is based on **river basin approach**:



- MS have to organise their waters according to individual river basin districts
- the protection measures attach to those districts

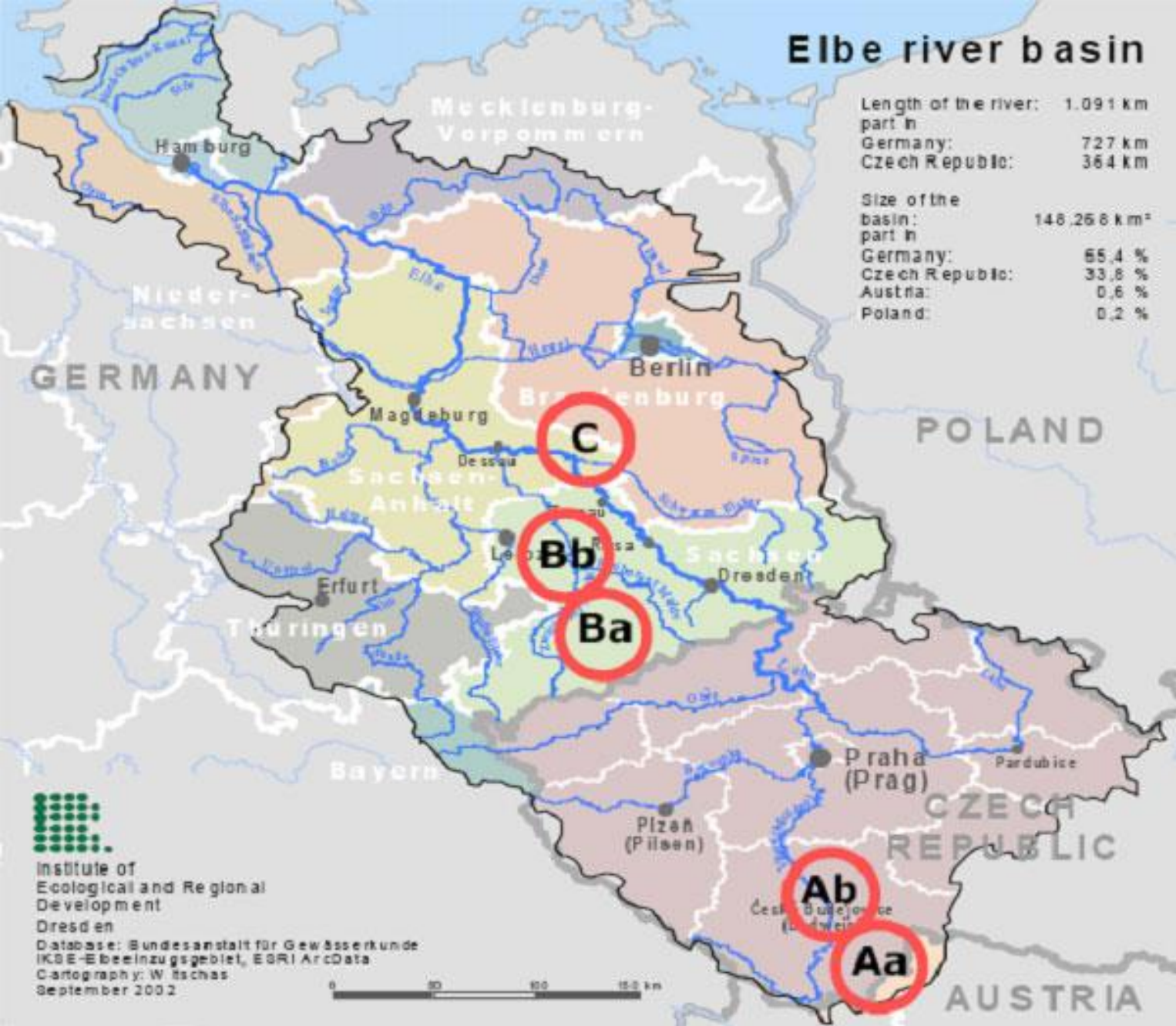


- Duty to designate: river basin districts
international river basin districts

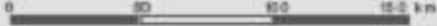
Elbe river basin

Length of the river: 1.091 km
 part in
 Germany: 727 km
 Czech Republic: 364 km

Size of the basin:
 part in
 Germany: 65,4 %
 Czech Republic: 33,8 %
 Austria: 0,6 %
 Poland: 0,2 %



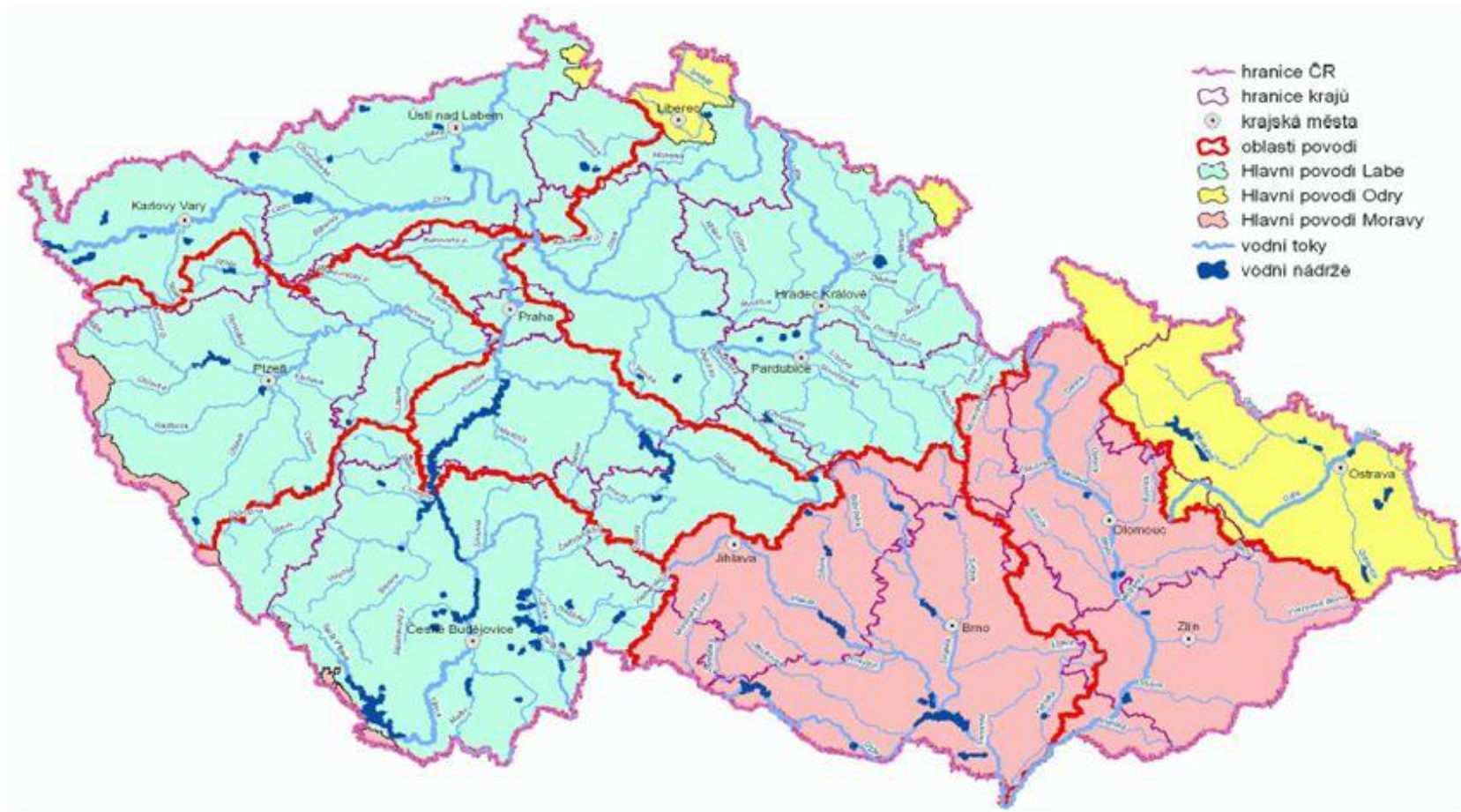
Institute of Ecological and Regional Development
 Dresden
 Database: Bundesanstalt für Gewässerkunde
 IKBE-Elbeeinzugsgebiet, ESRI ArcData
 Cartography: W. Itschas
 September 2002



WATER FRAMEWORK DIRECTIVE

- ‘**River basin**’ means the area of land from which all surface run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary or delta.
- ‘**River basin district**’ (RBD) is the **main unit for management of river basins**.

Hlavní povodí ČR

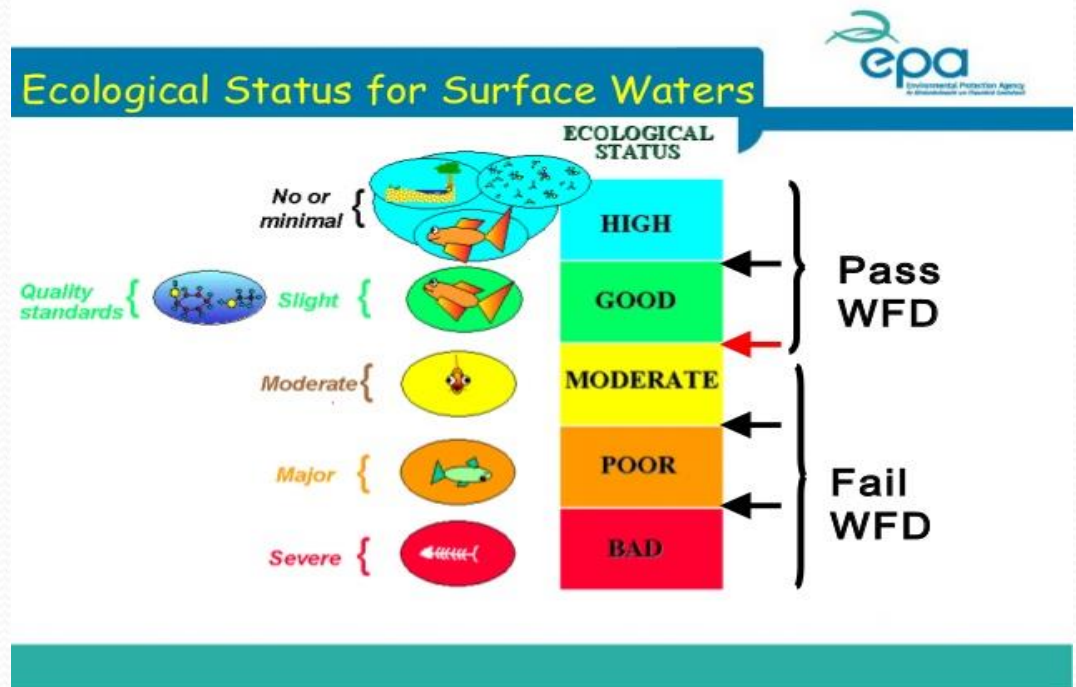


Povodí je oblast (plocha), ze které voda odtéká do jedné konkrétní řeky

WATER FRAMEWORK DIRECTIVE

Classification of surface waters– 5 status classes:

- high,
- good,
- moderate,
- poor,
- bad



‘High status’ is defined as the biological, chemical and morphological conditions associated with no or very low human pressure.

WFD – SURFACE WATERS

The ultimate objective is to achieve „good ecological and chemical status“ for all Community waters by 2015



number of exemptions

- ‘Surface water status’ is the general expression of the status of a body of surface water, determined by the poorer of its **ecological status** and its **chemical status**.
- ‘Good surface water status’ means the status achieved by a surface water body when both its ecological status and its chemical status are at least ‘good’.
- only 40% of surface water bodies achieve good ecological status

WFD – GROUND WATERS

- ‘**Groundwater status**’ is the general expression of the status of a body of groundwater, determined by the poorer of its **quantitative status** and its **chemical status**.
- ‘**Good groundwater status**’ means the status achieved by a groundwater body when both its quantitative status and its chemical status are at least ‘good’.



Identification and analysis of waters (RBD)

Analysis should be revised every six years thereafter

Assessment of water status in the WFD

WFD Art. 4: Environmental objectives

C – 461/13

- 1. In making operational the programmes of measures specified in the river basin management plans:
 - (a) for surface waters
 - (i) Member States shall implement the **necessary measures to prevent deterioration of the status of all bodies of surface water**, subject to the application of paragraphs 6 and 7 and without prejudice to paragraph 8;
 - (ii) Member States shall **protect, enhance and restore all bodies of surface water**, subject to the application of subparagraph (iii) for artificial and heavily modified bodies of water, **with the aim of achieving good surface water status at the latest 15 years** after the date of entry into force of this Directive, in accordance with the provisions laid down in Annex V, subject to the application of extensions determined in accordance with paragraph 4 and to the application of paragraphs 5, 6 and 7 without prejudice to paragraph 8
 - (iii) Member States shall **protect and enhance all artificial and heavily modified bodies of water, with the aim of achieving good ecological potential and good surface water chemical status at the latest 15 years from the date of entry into force of this Directive**, in accordance with the provisions laid down in Annex V, subject to the application of extensions determined in accordance with paragraph 4 and to the application of paragraphs 5, 6 and 7 without prejudice to paragraph 8;

C – 461/13

- 3 projects concerning the development of the lower Weser (navigable channel)



- direct effects of excavation and consequent dredging can cause deterioration without that resulting in a change in the status class



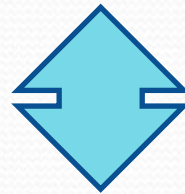
- 1) How to interpret „deterioration“?
- 2) Must EU MS – unless derogation is granted - refuse to authorize these projects?

C – 461/13

- 1. Article 4(1)(a)(i) to (iii) of Directive 2000/60/EC must be interpreted as meaning that the **Member States are required — unless a derogation is granted — to refuse authorisation for an individual project where it may cause a deterioration of the status of a body of surface water or where it jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical status by the date laid down by the directive.**
- 2. The concept of ‘deterioration of the status’ of a body of surface water in Article 4(1)(a)(i) of Directive 2000/60 must be interpreted as meaning that **there is deterioration as soon as the status of at least one of the quality elements, within the meaning of Annex V to the directive, falls by one class, even if that fall does not result in a fall in classification of the body of surface water as a whole.** However, if the quality element concerned, within the meaning of that annex, is already in the lowest class, any deterioration of that element constitutes a ‘deterioration of the status’ of a body of surface water, within the meaning of Article 4(1)(a)(i).

SYSTEM OF LEGISLATION

Water Framework Directive



- 1. Legislation on specific protection areas (Protection of drinking waters, vulnerable areas, sensitive areas, bathing waters, fresh water fish areas, shellfish areas)**
- 2. Regulation of discharges into aquatic environment**
- 3. Protection of groundwater against pollution**
- 4. Protection of surface water against pollution**

WATER FRAMEWORK DIRECTIVE + daughters directives

Regulatory instruments - overview:

- **regulation aimed at water quality**
 - river basin district management plans
 - programmes of measures
 - list of priority substances
- **areas requiring special protection**
- **regulation of sources of pollution**
 - emission limit values for discharges of waste water
 - authorization/permits
 - effective, proportionate and dissuasive penalties
- **economic instruments**
- **public participation**

WATER FRAMEWORK DIRECTIVE

River basin management plans aim to:

- prevent deterioration, enhance and restore bodies of surface water, achieve their good chemical and ecological status by 2015
- reduce pollution from discharges
- reduce emissions of hazardous substances
- protect, restore, enhance the status of all bodies of groundwaters
- preserve protected areas.

WATER FRAMEWORK DIRECTIVE

Management plans

- are produced for each river basin district for the period 2009-2015
- are revised in 2015 and every 6 years thereafter
- are complemented by programmes of measures

Programmes of measures

- are drafted for each river basin district
- are aimed at achieving objectives stated in the WFD

Exemptions (extensions of the 2015 deadline, temporary and permanent deterioration – justification needed)

WATER FRAMEWORK DIRECTIVE

List of **priority substances** (Annex X)

envi-quality standards are set for them in the EQSD



- subset of **priority hazardous substances**
- MS must meet EQS set for priority substances



- a) controls to **reduce** the emissions, discharges and losses of **all priority substances**
- b) controls to **phase out** the emissions, discharges and losses of the subset of **priority hazardous substances**

WATER FRAMEWORK DIRECTIVE

Areas requiring special protection (Annex IV)

- The **register** includes the following types of protected areas:
 - areas designated for the abstraction of **water intended for human consumption** under Article 7
 - areas designated for the **protection of** economically significant **aquatic species** (fish and shellfish areas)
 - bodies of water designated as **recreational waters**, including areas designated as bathing waters
 - **nutrient-sensitive areas** (vulnerable and sensitive areas)
 - areas designated for the protection of habitats or species including relevant Natura 2000 sites

WATER FRAMEWORK DIRECTIVE

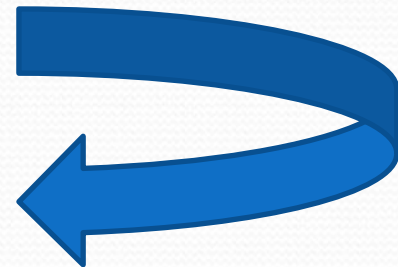
Regulation of sources of pollution:

- emission limit values for discharges of waste water
- authorization/permits
- effective, proportionate and dissuasive penalties

Economic instruments

Adequate incentives

- to use water resources efficiently
- to recover costs of water services



WATER FRAMEWORK DIRECTIVE

Participation of the public in WFD implementation



participation especially with regards to management plans



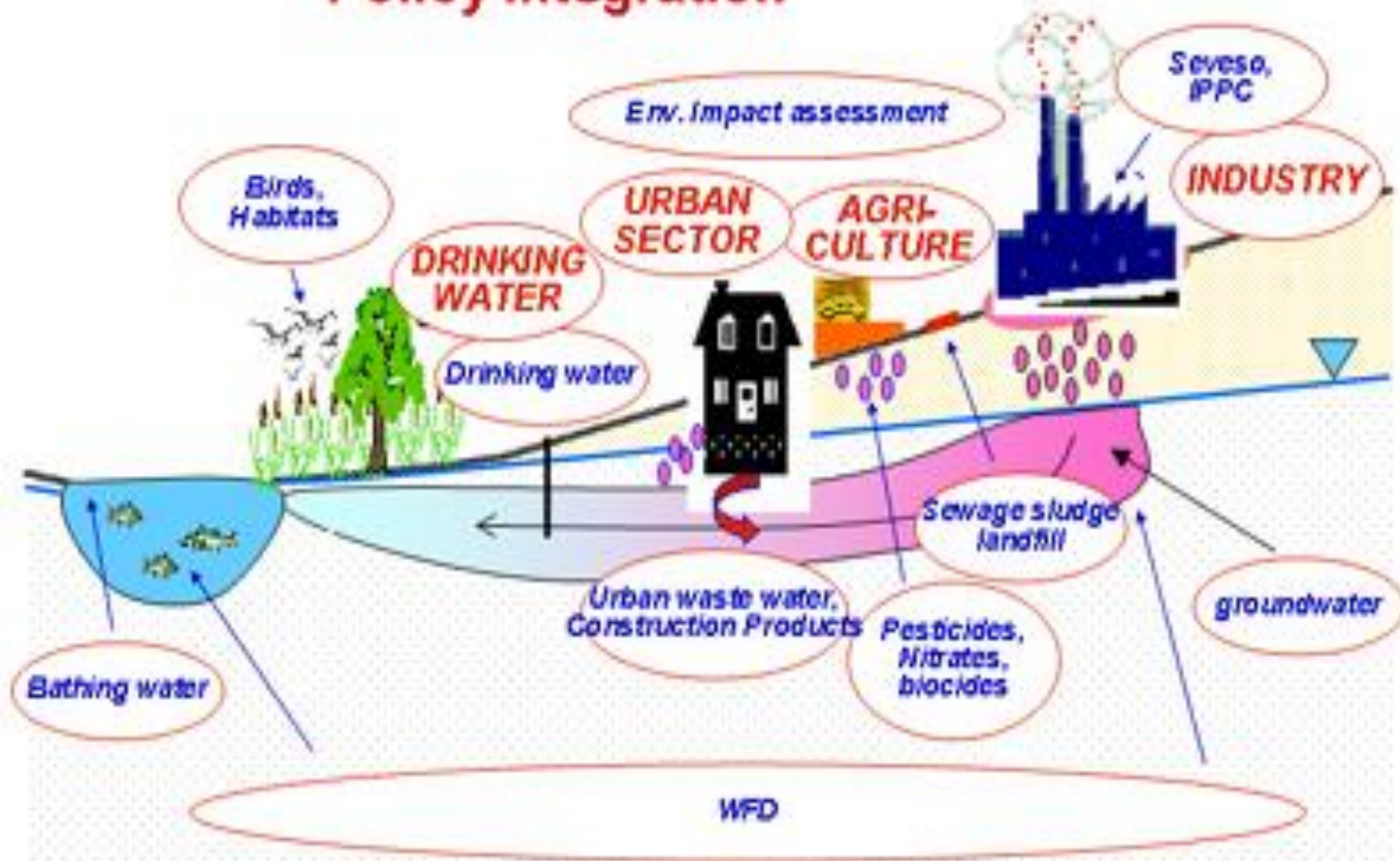
WATER FRAMEWORK DIRECTIVE

Enforcement measures

- MS must introduce arrangements to ensure that effective , proportionate and dissuasive penalties are imposed in the event of breaches of the provisions of this WFD



Policy integration



1) LEGISLATION ON PROTECTION OF SPECIFIC AREAS/WATERS

Register of Protected Areas (Annex IV WFD):

- **Waters used for the abstraction of drinking water**
 - Directive (EU) 2020/2184 on the quality of water intended for human consumption (**Drinking Water Directive**)
- **Areas designated to protect economically significant aquatic species (fish and shellfish areas)**
- **Recreational Waters**
 - Directive 2006/7/EC concerning the management of bathing water quality (**Bathing Water Directive**)
- **Nutrient Sensitive Areas** (vulnerable and sensitive areas)
 - Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources (**Nitrates Directive**)
- **Areas designated for the protection of habitats or species**

Drinking water quality in the EU is in general very good.



For the large supplies,
the vast majority
of EU Member States
show **compliance rates**
for **microbiological**
and **chemical parameters**



between **99%** and **100%**



DRINKING WATER DIRECTIVE

Directive 98/83/EC



repealed by 2020/2184

- Aim  to protect human health by laying down healthiness and purity requirements which must be met by drinking water within the European Union



- Quality standards and general requirements on drinking water quality
- Monitoring programmes
- Corrective action and restrictions on use
- Exceptions
- Reporting requirements
- Protected areas of waters used for the abstraction of drinking water

BATHING WATER DIRECTIVE

<https://www.eea.europa.eu/data-and-maps/explore-interactive-maps/state-of-bathing-waters-in-2022>

Aim  **to improve bathing water quality :**

- Identifying and monitoring of bathing waters
- Reporting requirements
- Determining bathing water quality
- Measures to eliminate pollution
- Bathing water profiles
- Exceptional measures
- Information to the public

95.9% meet minimum water quality standards

Aim  **to attain good bathing water quality**

More than 90%



of the EU Member States river basin
management plans indicate



that **agriculture**
is a **significant**
pressure on water

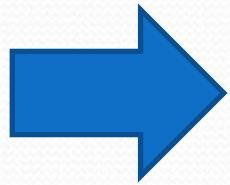


mainly because
of **over-abstraction** and **pollution**
by **fertilisers** and **pesticides**



NITRATES DIRECTIVE

Aim



to protect water quality :

- a) by preventing nitrates from agricultural sources polluting ground and surface waters and
- b) by promoting the use of good farming practices



- Identification of water polluted, or at risk of pollution
- Nitrate Vulnerable Zones (NVZ)
- Codes of Good Agricultural Practice (voluntary)
- Action programmes to be implemented by farmers (NVZ)
- National monitoring and reporting

2) DISCHARGES INTO AQUATIC ENVIRONMENT

- Directive 91/271/EEC of 21 May 1991 concerning **urban waste water treatment**
- Directive 2010/75/EU on **industrial emissions (IED)**

URBAN WASTE WATER DIRECTIVE

Aim  to protect the environment from any adverse effects caused by the discharge of such waters.

Relates to the collection, treatment and discharge of urban waste water and the treatment and discharge of waste water from certain industrial sector:

- Authorization
- List of sensitive areas
- Requirements for proper collection and treatment systems
- Requirements for discharges monitoring
- National programmes

INDUSTRIAL EMISSIONS DIRECTIVE

Aim  to prevent and control pollution into the air, water and land and to avoid generating waste from large industrial installations.

Tools:

- Integrated permitting of certain industrial activities
- Duty to apply the best available techniques* (BATs)
- Emission limit values for discharges of pollutants
- Regular inspections of the installations
- Participation of the public in permitting procedure

3) PROTECTION OF THE QUALITY OF WATERS

- Directive 2006/118/EC on the protection of groundwater against pollution and deterioration



Quality of groundwater


- Directive 2008/105/EC on environmental quality standards in the field of water policy



Quality of surface water

PROTECTION OF GROUNDWATER

AGAINST POLLUTION (Directive 2006/118/EC)

Aim  to prevent and combat groundwater pollution
to protect groundwater against pollution and
deterioration:

- criteria for assessing the chemical status of groundwater;
- criteria for identifying significant and sustained upward trends in groundwater pollution levels, and for defining starting points for reversing these trends;
- preventing and limiting indirect discharges (after percolation through soil or subsoil) of pollutants into groundwater.

PROTECTION OF GROUNDWATER AGAINST POLLUTION (Directive 2006/118/EC)

- **Provisions related to groundwater quality:**
 - Threshold values for pollutants
 - Threshold values must be included in River Basin District Management Plans
 - Identification of any significant and sustained upward trend in levels of pollutants found in bodies of groundwater
 - Monitoring programmes
- **Provisions related to discharges/emissions of pollutants:**
 - Prevent indirect discharges of hazardous pollutants
 - Limit pollutants not listed as hazardous

PROTECTION OF SURFACE WATER

AGAINST POLLUTION (Directive 2008/105/EC)

Aim  to limit the concentrations of certain chemical substances that pose a significant risk to the environment or to human health in surface waters in the European Union



- Environmental quality standards (priority substances)
- Inventories of the discharges of chemical substances, emissions and losses of these substances

MS must ensure compliance with those standards to achieve a good surface water chemical status