

Stéphane Isoard

Water and Marine – Head of Group

Stephane.Isoard@eea.europa.eu

European waters - Assessment of status and pressures

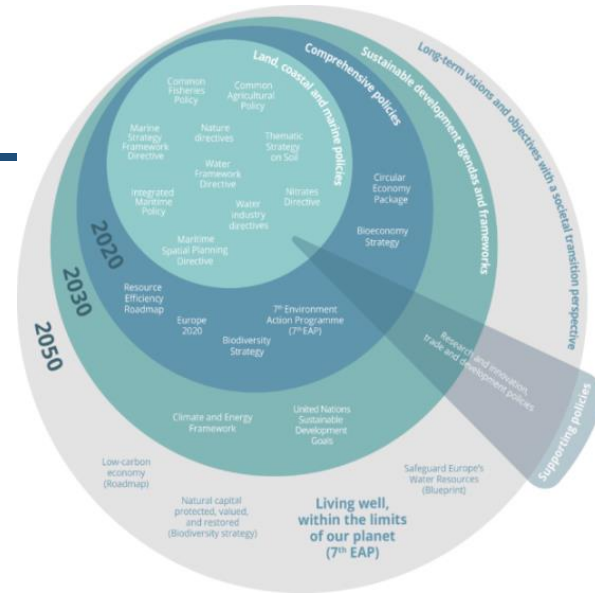
Water Resources Protection Conference

17-18 June 2019, Bratislava – Slovakia (remote presentation)



EU policy context

- 7th EAP (Priority Objectives 1, 2, 3)
- Water Framework Directive
- Floods Directive
- Water Industry Directives
- Nitrates Directive
- WS&D Strategy
- Marine Strategy Framework Directive
- Integrated Maritime Policy / Maritime Spatial Planning Directive
- Common Fisheries Policy
- 2020 EU Biodiversity Strategy (e.g. Target 2/Action 5)
- Nature directives
- Common Agricultural Policy
- European Neighbourhood Policy and Instrument (ENP/ENI)



The EEA, a knowledge provider - Recent reports

Assessments supporting the implementation and development of EU policies

Water and marine environment

Water use and environmental pressures

Why should we care about floodplains?

Rivers are much wider than the channels we associate them with. The areas next to rivers, which are only covered by water

1977-8449
EEA Report No 11/2018

EEA Report | No 18/2018

Chemicals in European waters

Knowledge developments

EEA Report | No 25/2018

Contaminants in Europe's seas

Moving towards a clean, non-toxic marine environment

EEA Report | No 7/2018

European waters and pressures 2018

European Environment Agency

1 4 Freshwater

Key messages

- Water is part of Europe's natural capital and an essential resource for human health, agriculture, energy production, transport and nature. Securing its sustainable use remains a key challenge globally and within Europe.
- Currently 40 % of Europe's surface waterbodies achieve good ecological status, wetlands are widely degraded, as well as 80-90 % of floodplains. This critically impacts the conservation status of wetland habitats and the species that depend on them. Although point source pollution and water abstraction have been reduced, freshwaters continue to be affected by diffuse pollution, hydromorphological changes and water abstraction.
- Diffuse pollution and water abstraction pressures are expected to continue in response to intensified agricultural practices and energy production. This requires balancing societal demands for water with ensuring availability for nature. Climate change is likely to change the amount of water available, increasing the need for flood protection or drought management, making this balance more difficult to achieve. Solutions like natural water retention measures, buffer strips, smart water pricing, more efficient irrigation techniques, and precision agriculture will continue to grow in importance.
- Managing water quality and quantity requires an ecosystem based approach together with detailed knowledge of water use and pressures on river basin scale. This knowledge is being developed nationally through the implementation of river basin management plans of the Water Framework Directive; and it is on the river basin scale that effective solutions for water management can be found.

Thematic summary assessment

Theme	Past trends (10-15 years)	Outlooks 2030	Prospects to meet policy objectives / targets	
Water ecosystems and wetlands	Trends show a mixed picture	Developments show a mixed picture	2020 🔴	Not on track
Hydromorphological pressures	Deteriorating trends dominate	Developments show a mixed picture	2020 🔴	Not on track
Pollution pressures on water and links to human health	Trends show a mixed picture	Developments show a mixed picture	2020 🔴	Not on track
Water abstraction and its pressures on surface and groundwater	Improving trends dominate	Developments show a mixed picture	2020 🔴	Not on track

Note: For the methodology of the summary assessment table, see the introduction to Part 2. The justification for the colour coding is explained in Section 4.3 Key trends and outlooks.

2

3

EEA Report | No 3/2019

European Bathing Water Quality in 2018

ISSN 2315-1846/1977-8449

1994-2019
European Environment Agency

European Environment Agency

Report: Antimicrobial resistance and urban waste water treatment

European Environment Agency, 2nd-3rd October 2018.

Report No 1 | No 2018

Qualité des eaux de baignade européennes en 2017

ISSN 2315-0807

Report No 2 | No 2018

Qualität der europäischen Badegewässer 2017

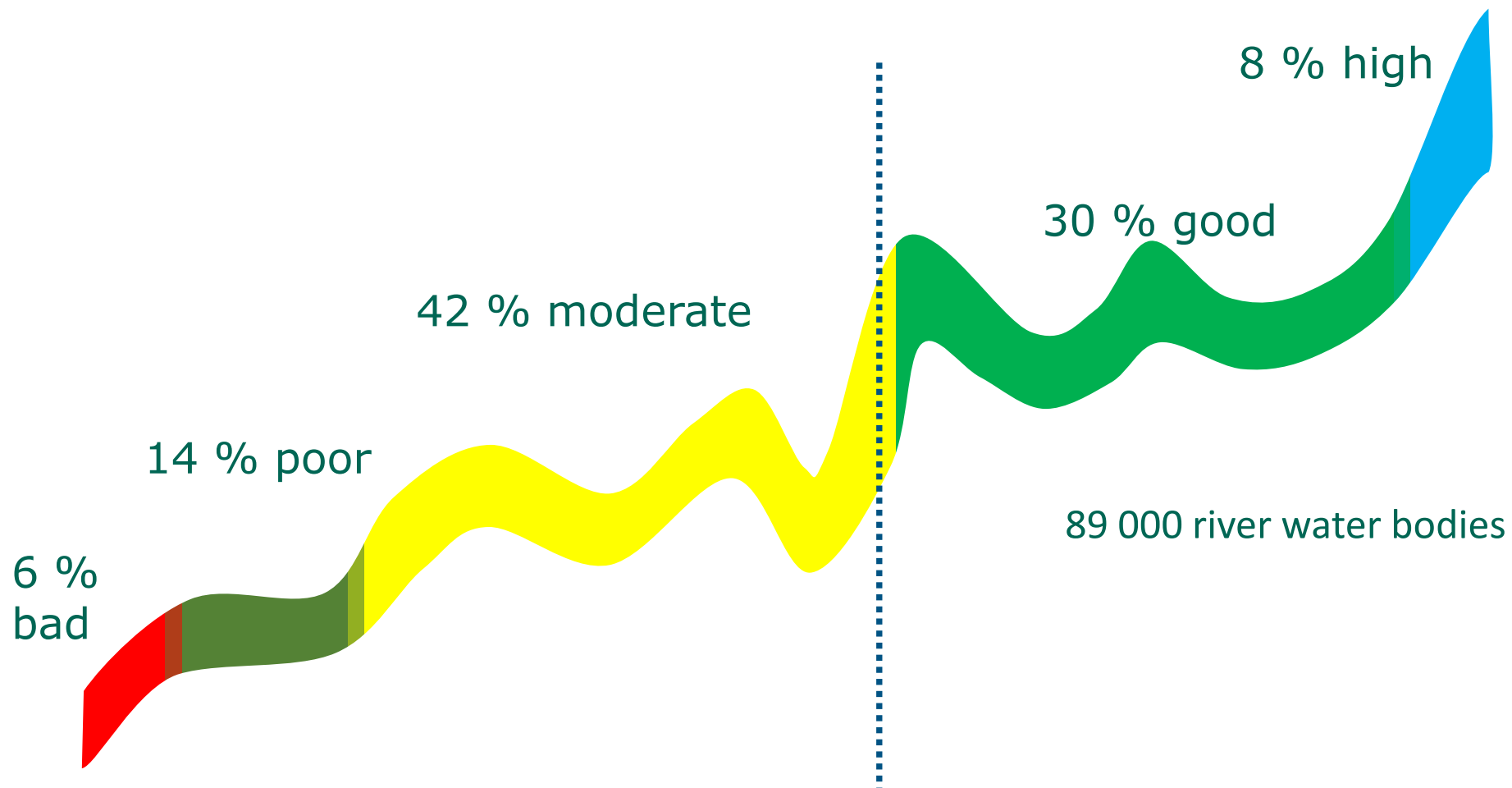
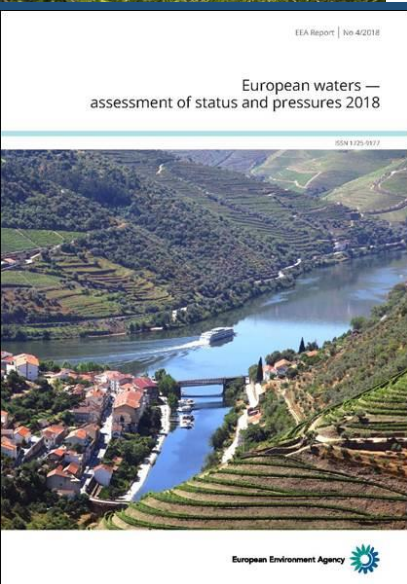
ISSN 2315-0807

Environment Agency

European Environment Agency

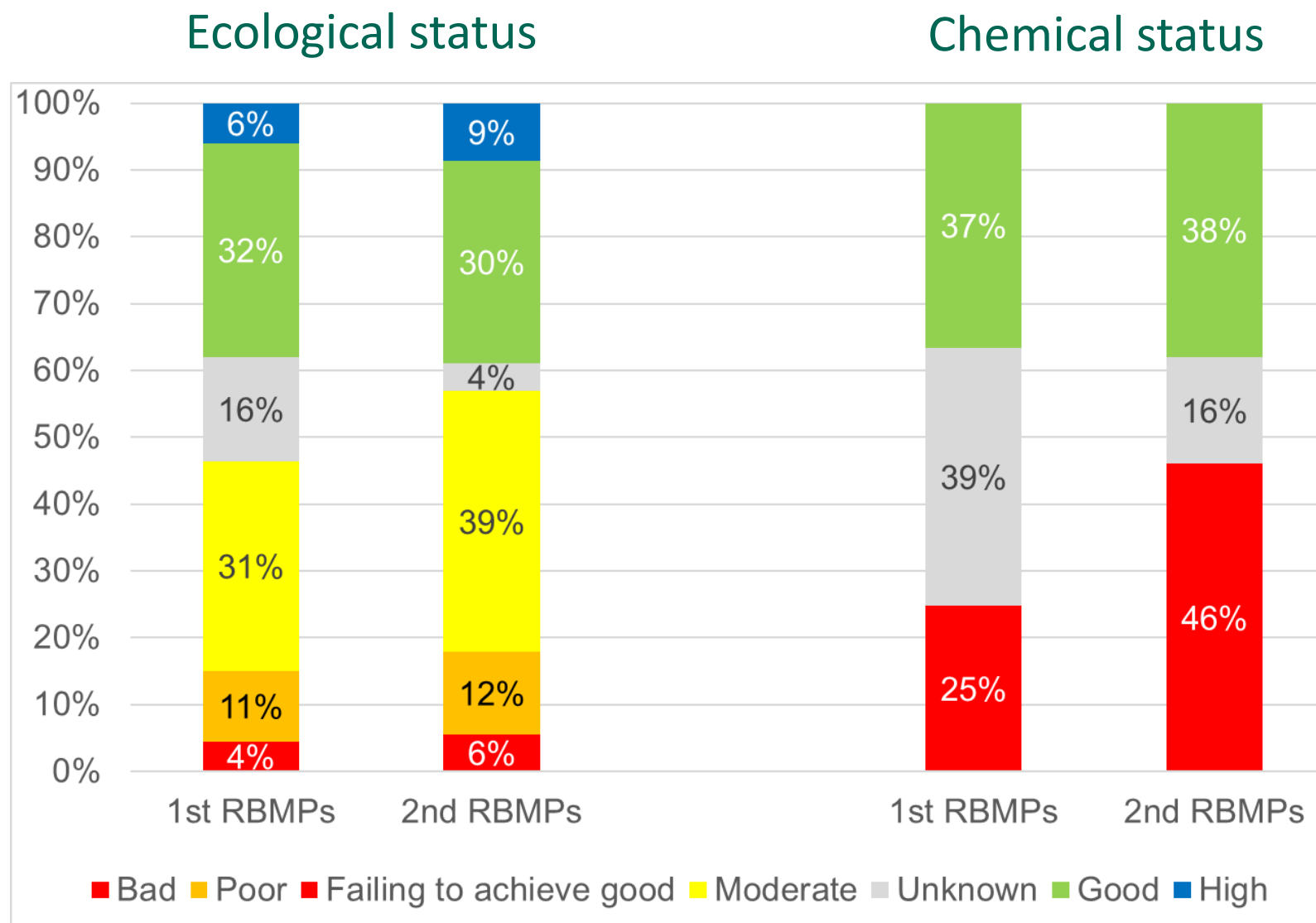
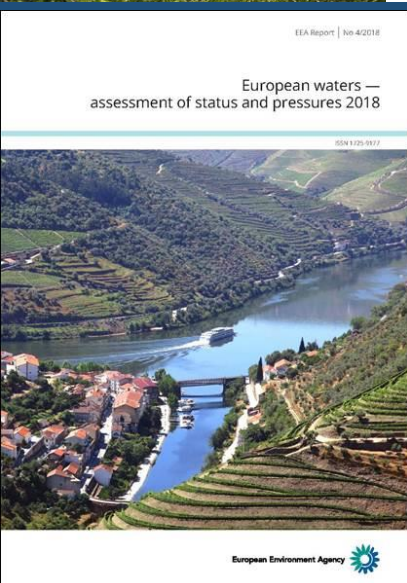
European Environment Agency

European waters - assessment of status and pressures 2018



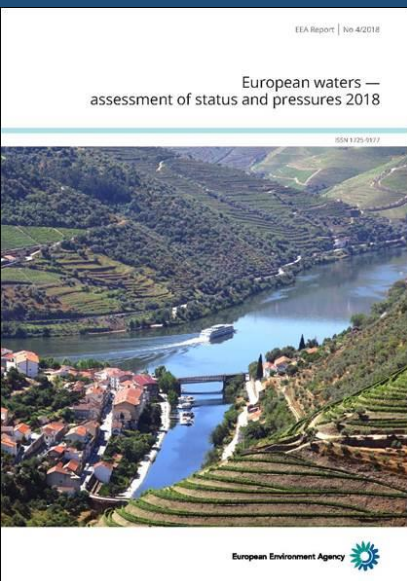
Source: Results from WFD second River Basin Management Plans (2010-2015)

European waters - assessment of status and pressures 2018



Source: Results from WFD first River Basin Management Plans (2009) and second River Basin Management Plans (2010-2015)

European waters - assessment of status and pressures 2018



Source: Annabel



Source: Lippeverband, © Dr. Baoquan Song



Source: Rossographer



Source: Peter Kristensen

Chemicals in European waters – Knowledge developments



EEA Report | No 18/2018

Chemicals in European waters
Knowledge developments

ISSN 1937-8449

European Environment Agency



Can emissions data inform about status / legacy?

- Emissions reporting can provide information on trends in releases
- Draft results – limited help and little reporting of diffuse emissions
- Need for robust, streamlined approach for reporting of emissions to water
- **Mixtures / ‘Cocktail’ effect**

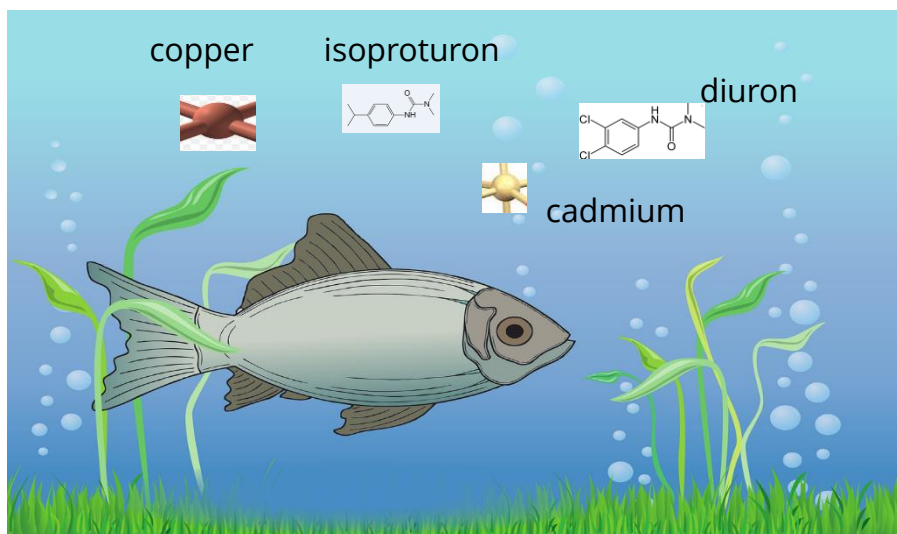


Table 3.2 Number of Member States in which data are available for emissions of the 15 priority substances most frequently causing failure to achieve good chemical status

Pollutant	Source or pathway		
	Industry	UWWTP	Diffuse sources
Cadmium	24	22	8
Lead	26	22	9
Mercury	22	23	8
Nickel	26	26	9
Anthracene	9	9	7
Benzo(a)pyrene	7	4	5
Benzo(b)fluoranthene	5	2	3
Benzo(k)fluoranthene	5	2	3
Indeno(1,2,3-cd)-pyrene	5	2	3
Benzo(g,h,i)perylene	9	7	2
Fluoranthene	14	11	6
4-Nonylphenol	11	16	5
DEHP	14	17	5
pBDEs	3	3	4
Tributyltin-cation	5	3	2
Isoproturon	7	3	5
HCH	6	4	3

■ 14 or more Member States reporting

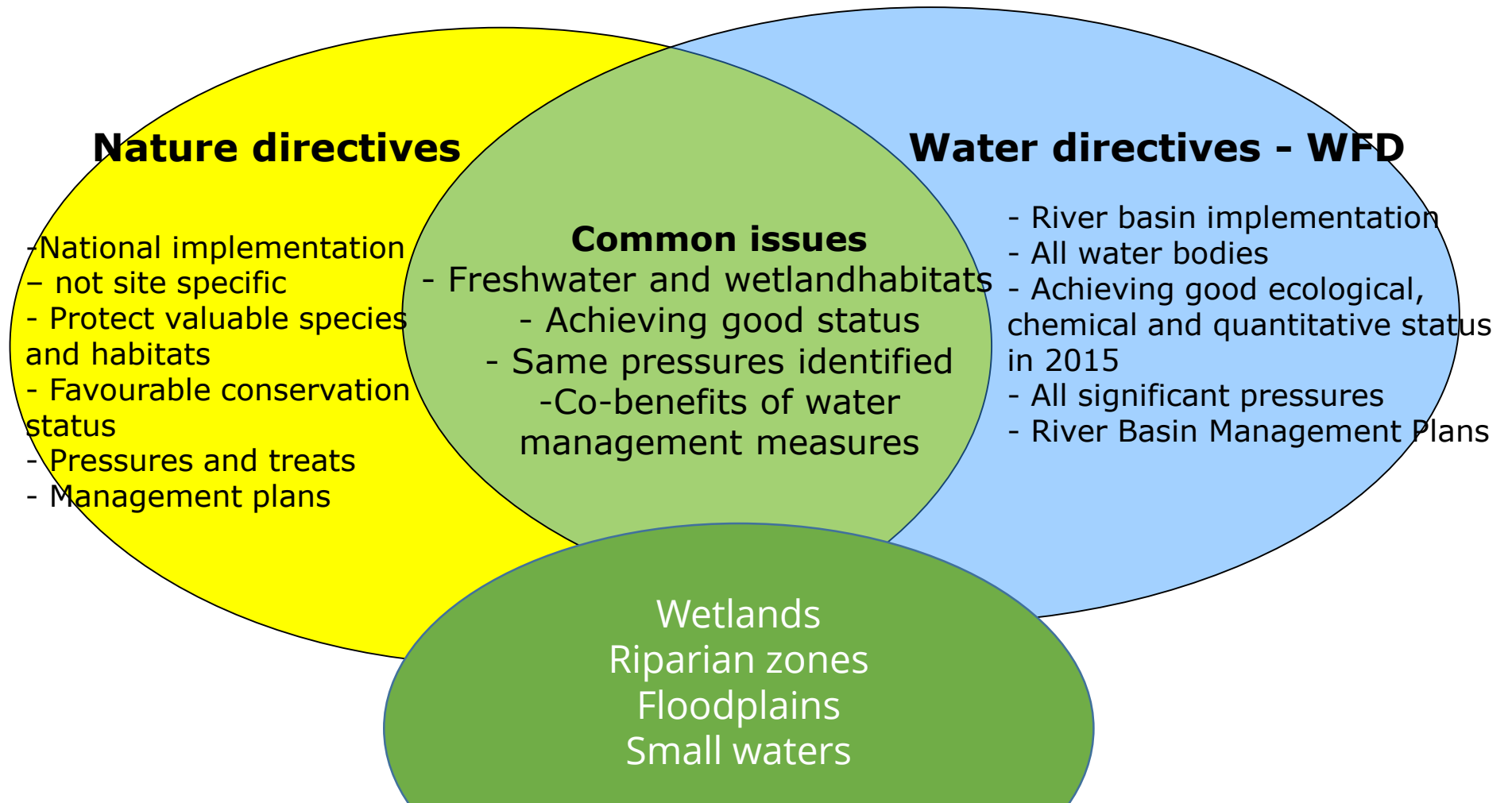
■ Between 7 and 14 Member States reporting

■ Fewer than 7 Member States reporting

Source: EEA, 2015, 2017b, 2018b.

EPRT, SoE WISE emissions, WFD inventory

Water and nature directives



Coordinated activities under the nature and water directives help to ensure better protection of freshwater ecosystems and water management

Coordinated policies to promote river restoration

WFD – RBMPs

Obj. good ecological status

Program of measures

Floods Directive FRMPs

Natural Flood management

Program of measures

Habitat Directive

Obj. good conservation status

Conservation plans

Biodiversity Strategy

15% restoration target

Green infrastructure
Natural Water
Retention Measures

Climate change adaptation

Adaptation measures

Coordinated measures

- Catchment based approach
- Multiple benefits of measures
- Prioritization of measures

EU Funding of measures

Cohesion and Regional Development Funds,
Rural Development Funds,
European Maritime and Fisheries Fund,
and LIFE+



In summary

- European waters remain under pressure from multiple sources: water pollution, over-abstraction and hydro-morphological change;
 - Challenges: securing sustainable management of water and dependent ecosystems; ensuring availability of sufficient high-quality water;
 - Need to improve implementation of environmental policies for water protection and maximising synergies between them;
 - Economic sectors e.g. agriculture, energy and transport need to adopt management practices which keep water ecosystems healthy and resilient;
-
- The EU policies on water, nature and biodiversity are closely linked. Together, they form the backbone of environmental protection of Europe's ecosystems.
 - Both the nature and water directives aim at ensuring healthy aquatic ecosystems.
 - For the moment, assessing status and pressures of freshwater habitat types and the WFD water bodies are run separately and more synergies between the two processes could be established/exploited.
 - A coordinated assessment of status, pressures and impact, as well as management responses and reporting schedules will result in co-benefits for both policy processes and environmental domains. Upcoming dedicated workshop under the Action Plan for Nature, People and Economy on 'Synergies between the Nature, Water Framework, Marine Strategy Framework and Floods directives' (Autumn 2019)

Stéphane Isoard
Water and Marine – Head of Group
Stephane.Isoard@eea.europa.eu

Sign up to receive EEA news, reports
and alerts on your areas of interest at
<http://eea-subscriptions.eu/subscribe>

Thank you for your attention



European Environment Agency

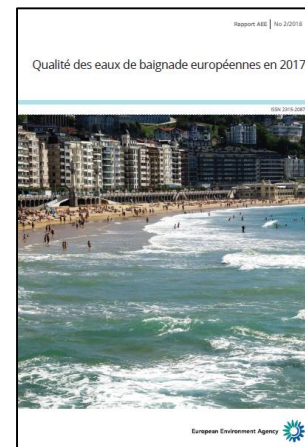
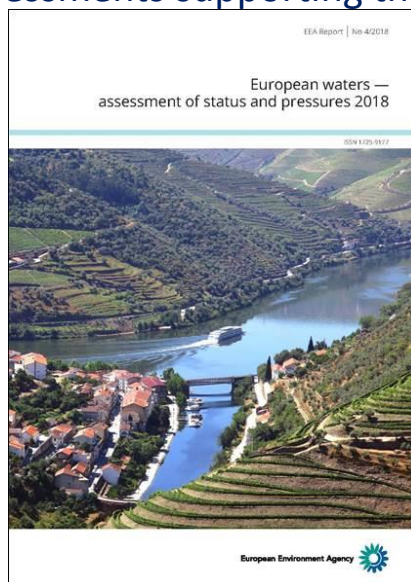


European Environment Agency

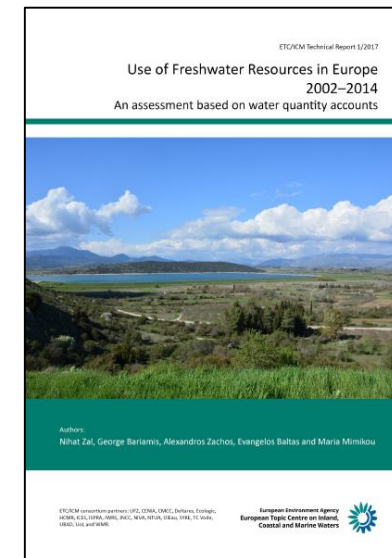
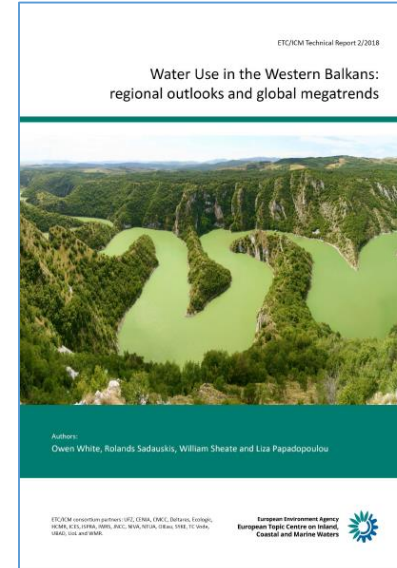
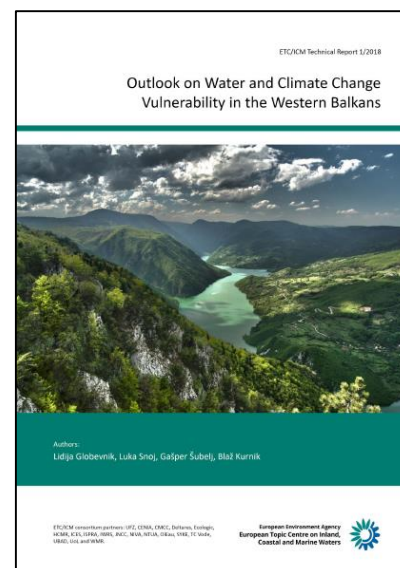
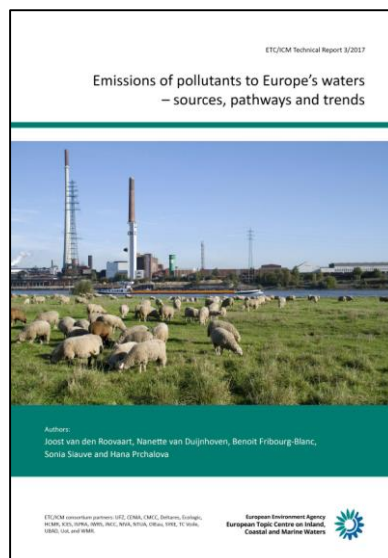


The EEA, a knowledge provider - Recent reports (2018 update)

Assessments supporting the implementation and development of EU policies

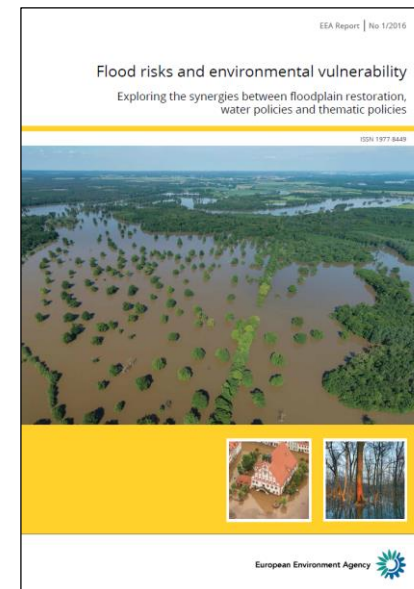
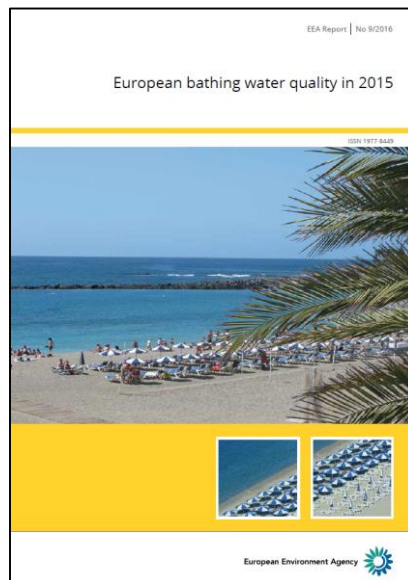


ETC/ICM Technical Reports (<http://icm.eionet.europa.eu/>)

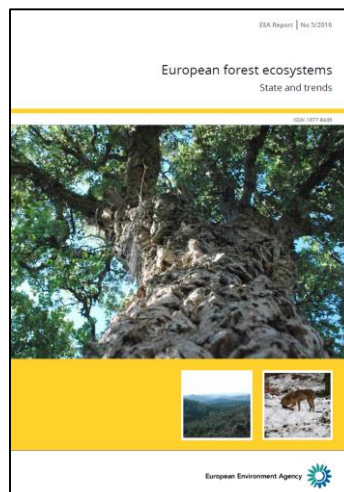


The EEA, a knowledge provider - Recent reports (2016 update)

Assessments supporting the implementation and development of EU policies



Contributions



ETC/ICM Technical Reports

Title	ETC/ICM Technical Report number
Use of freshwater resources in Europe 2002-2012 - Supplementary document to the European Environment Agency's core set indicator 018	ETC/ICM Technical Report 1/2016
Hazardous Substances in European Waters - Analysis of the data on hazardous substances in groundwater, rivers, transitional, coastal and marine waters reported to the European Environment Agency from 2002 - 2011	ETC/ICM Technical Report 3/2015
European Freshwater Ecosystem Assessment: Cross-walk between the Water Framework Directive and Habitats Directive types, status and pressures	ETC/ICM Technical Report 2/2015
Initial Assessment of European Seas based on Marine Strategy Framework Directive Article 8 reporting - Summary Report	ETC/ICM Technical Report 1/2015
Emissions of pollutants to Europe's waters - Analysis of data reported under European data flows	ETC/ICM Technical Report 1/2014
Historic flood events in Europe: European case studies based on the reporting under the Floods directive	ETC/ICM Technical Report 2/2013
Hazardous Substances in European Waters - Analysis of the data on hazardous substances in groundwater, rivers, transitional, coastal and marine waters reported to the European Environment Agency from 1998 - 2010	ETC/ICM Technical Report 1/2013
Vulnerability to Water Scarcity and Drought in Europe - Thematic assessment for EEA Water 2012 Report	ETC/ICM Technical Report 3/2012
Hydromorphological alterations and pressures in European rivers, lakes, transitional and coastal waters - Thematic Assessment for EEA Water 2012 Report	ETC/ICM Technical Report 2/2012
Ecological and chemical status and pressures in European waters - Thematic Assessment for EEA Water 2012 Report	ETC/ICM Technical Report 1/2012
Comparison of Nitrate Reporting Under European Reporting Obligations	ETC/ICM Technical Report 1/2011
Climate Change Impacts on Water Quality and Biodiversity - Background Report for EEA European Environment State and Outlook Report 2010	ETC Water Technical Report 1/2010
Freshwater Eutrophication Assessment - Background Report for EEA European Environment State and Outlook Report 2010	ETC Water Technical Report 2/2010

European waters - assessment of status and pressures 2018

Why, what, for who and when

- The European Commission:
 - Published its report on “Implementation of WFD and the review of the 2nd River Basin Management Plans (RBMPs)” (Feb 2019)
 - Started the process of evaluating the Water Framework Directive (EU Water Conference, Vienna, 20-21 September 2018).
- To accompany and inform this process, the EEA has long planned a report of status of European waters (WFD art 18).

The report, based on data reported by 25 MS, addresses:

- What is the status of European waters?
- Which pressures is causing less than good status;
- What progress has been achieved in the 1st River Basin Management cycle (2010-2015)?

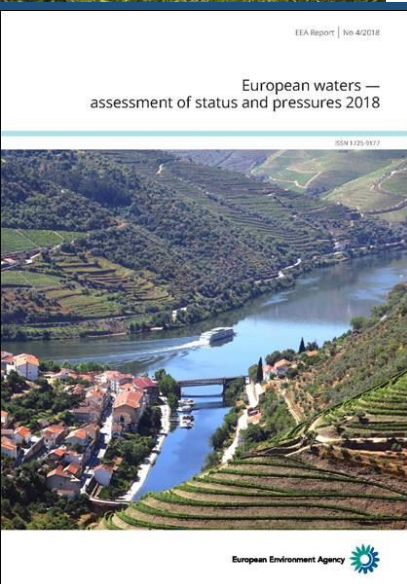
Involvement of EU member states and EEA member countries: a 2-year process with regular presentations of the EEA approach and draft results, and consultation of EU member states and EEA member countries

The report provides the EU overview and key results. It is complemented with more detailed results available on the interactive WISE-Freshwater visualisation tool.

[European waters – assessment of status and pressures 2018](#)

WFD Article 18: The EU Commission shall publish a report on the implementation of the directive two years after the Member States have delivered the RBMPs.

- The report shall include a review of the status of surface water and groundwater in the Community undertaken in coordination with the [European Environment Agency \(EEA\)](#)





Data flows/reporting, Information sharing and indicators, Networking

Data flows/reporting, data management

- Support the common implementation strategy and the water data reporting under EU Directives: Water Framework D./FD. (e.g. PoMs), Urban Waste Water Treatment D. (e.g. 10th call, evaluation) and Bathing Water D.
- Support to the WFD and FD (e.g. WG DIS, WG Chemicals, WG ECOSTAT and sub-group HYMO, Floods).
- WISE-SoE data base published <https://www.eea.europa.eu/data-and-maps>:
 - WISE-1 <https://www.eea.europa.eu/data-and-maps/data/waterbase-emissions-7>
 - WISE-3 <https://www.eea.europa.eu/data-and-maps/data/waterbase-water-quantity-11>
 - WISE-4 <https://www.eea.europa.eu/data-and-maps/data/waterbase-water-quality-2>) and related indicators being updated (Nutrients in freshwater (CSI 020), Oxygen consuming substances in rivers - biochemical oxygen demand (BOD) (CSI 019))
- Interactive visualisation tools:
 - WISE-Freshwater WFD <https://www.eea.europa.eu/themes/water/european-waters/water-quality-and-water-assessment/water-assessments/eea-2018-water-assessment>
 - UWWTD <https://www.eea.europa.eu/data-and-maps/data/waterbase-uwwtd-urban-waste-water-treatment-directive-5>; <https://www.eea.europa.eu/themes/water/european-waters/water-use-and-environmental-pressures/uwwtd>
 - BWD <https://www.eea.europa.eu/themes/water/europes-seas-and-coasts/assessments/state-of-bathing-water/state-of-bathing-water-3>
 - Water scarcity [Visualisation of the water scarcity; WEI+ interactive map](#)
 - WISE-SoE (upcoming)
- SDGs indicators: CSI 019, Nitrate in groundwater (based on CSI 020), Phosphate in rivers (based on CSI 020), Bathing water quality (CSI022), WEI+ (CSI018), WFD statuses according to 2nd RBMPs made available.

Networking: (1) WFD Common Implementation Strategy (CIS) Working Groups, (2) UWWTD Working Group, BWD Working Group, (3) EIONET Workshop and (4) Attendance of key conferences

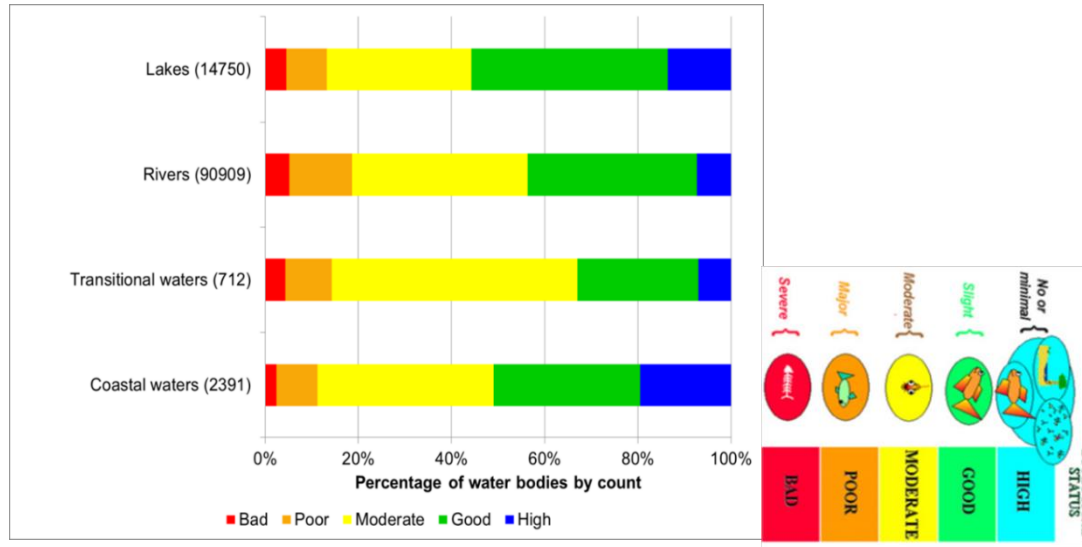


Other upcoming assessments and activities

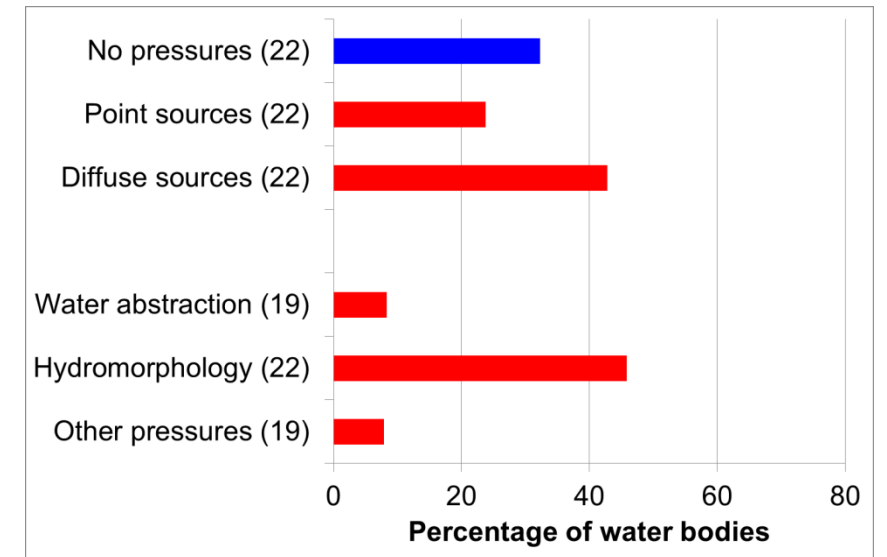
- In 2019:
 - EEA Briefing 'Urban waste water treatment for the 21st century's challenges' (Q2)
 - EEA report 'Floodplains: ecosystems and mitigators of flood risk' (Q4)
 - EEA Briefing 'Water and agriculture' (Q4)
 - State of the Environment and Outlooks report (SOER2020) – Launch 3-4 December in Brussels
 - Contribution to Target 2/Action 5, and MAES in particular.
- In 2020 (tbc):
 - EEA report 'Water and agriculture' (diffuse pollution, water abstraction and hydromorphology)
 - EEA report 'European bathing water quality in 2019'
 - EEA report 'Integrated assessment of bathing water quality'
 - EEA report 'Pesticides in water'
 - Update indicators: CSI019, CSI020, CSI024
- Prepare for:
 - EEA report 'Water resources across Europe- Confronting water scarcity and drought' (tbc)
 - Further develop water quantity accounts, emissions accounts and freshwater ecosystem condition accounts
 - WISE – Integrated visualization tools
 - The WFD 3rd RBMPs reporting, as well as other reporting obligations (UWWTD, BWD, FD, DWD) and the 'European waters – Assessment of status and pressures 2022' report.
 - EEA report 'Integrated Water Management' - 2024

Assessment of status, pressures, treats and impacts

WFD – ecological status

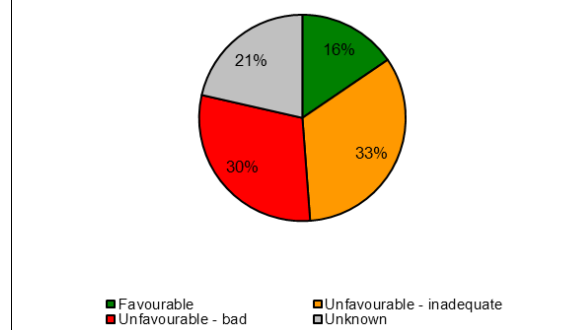


WFD: Percentage of river water bodies affected by specific pressure

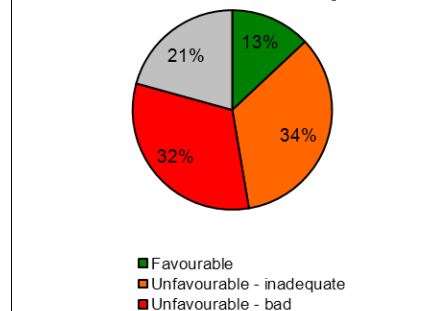


Nature – Conservation Status

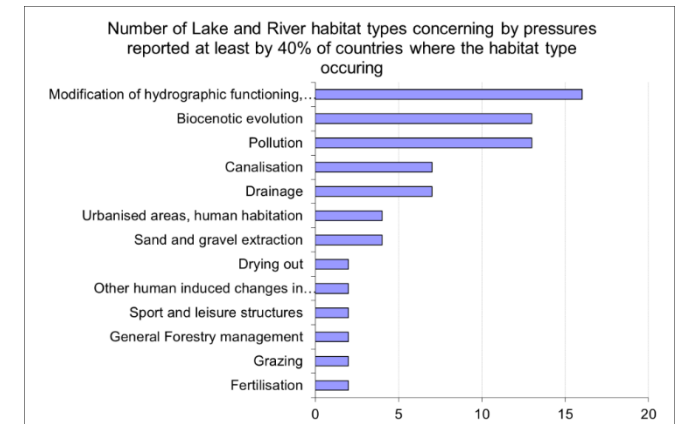
Rivers and lakes habitats



All regions Freshwater species



Nature: Habitat types affected by specific pressures



Timing of selected EU reporting obligations

EU reporting obligation	Article	Deadline
Water Framework Directive	Art. 3, 4, 5 & 6,	23 March 2016
Marine Strategy Framework Directive	Art. 13, 14, 17 & 19 (measures)	31 March 2016
Marine Strategy Framework Directive	Art. 8, 9 & 10	15 October 2018
Habitats Directive	Art. 17	1 st quarter 2019
Marine Strategy Framework Directive	Art. 20 (progress report)	June or December 2019
SOER 2020	EEA Regulation	3-4 th quarter 2019
7 th Environmental Action Programme	N/A	2020
EU Biodiversity Strategy	N/A	2020