Steps 1 to 4

JASPERS Checklist Tool

Budapest, 11 April 2019

European Investment Bank The EU bank

Jaspers Joint Assistance to Support Projects in European Regions

European Commission

Programme

Step 1

- **Context and Screening**
- Q&A

Step 2

- **Scoping the Assessment**
- Q&A

Session 3,

- **Data Collection and or Investigations**
- Q&A

Session 4,

- **Applying the Article 4(7) tests**
- Q&A

Session 1

“ Water is not a commercial product like any other but rather, a heritage which must be protected, defended and treated as such ”

Directive 2000/60/EC establishing a framework for Community action in the field of water policy: the Water Framework Directive. Preamble (1)

Overarching WFD Objectives

- Prevent further deterioration
- Promote sustainable use
- Aim at enhanced protection and improvement of the aquatic environment
- Reduce and phase out, discharges, emissions and losses of priority substances and priority hazardous substances respectively
- Reduce groundwater pollution
- Measures to achieve WFD objectives to be set out in the River Basin Management Plan

Surface Water Ecological and Chemical Status Objectives

- WFD 'default' objectives: good ecological status (GES) and good chemical status
- Good chemical status (GCS) for priority and priority hazardous substances
- GES for biological quality elements and various supporting elements
- Good ecological potential (GEP) is ecological objective for heavily modified and artificial water bodies
- Must meet relevant protected area objectives

Heavily Modified and Artificial Water Bodies

- WFD recognises that certain human uses mean the default ecological objectives cannot be met, so …
- Allows designation of HMWBs and AWBs where the achievement of good ecological status would adversely affect use or wider environment
- 'Uses' include navigation; water storage; flood protection; other sustainable development activities
- Ecological objective is GEP
- GEP can be defined scientifically and/or referring to presence or absence of mitigation measures (the Prague approach)

Ecological Status

Comprised of

- Biological quality elements
- Hydro-morphological supporting elements
- Physico-chemical supporting elements
- Specific pollutants

Biological Quality Elements

- Rivers: aquatic flora; benthic invertebrate fauna; fish
- Lakes: phytoplankton; other aquatic flora; benthic invertebrates; fish
- Transitional waters: phytoplankton; other aquatic flora; benthic invertebrates; fish
- Coastal waters: phytoplankton; other aquatic flora; benthic invertebrates

Full list: Water Framework Directive Annex V

Hydro-morphological Elements

- Rivers: hydrological regime (flow; connections to groundwater); river continuity; morphological conditions (depth variation, width, bed structure and substrate, riparian zone)

- Lakes: hydrology (flow; residence time; connections to groundwater); morphology (depth, bed, shore)

- Transitional waters: morphology (depth, bed, intertidal zone); tidal regime (freshwater flow; wave exposure)

- Coastal waters: morphology (depth, bed, intertidal zone); tidal regime (dominant currents; wave exposure)

Full list: Water Framework Directive Annex V

Physico-chemical Elements

- All water bodies: thermal conditions; oxygenation conditions; salinity; nutrients

Also

- Rivers: acidity
- Lakes: transparency; acidity
- Transitional waters: transparency
- Coastal waters: transparency

Full list: Water Framework Directive Annex V

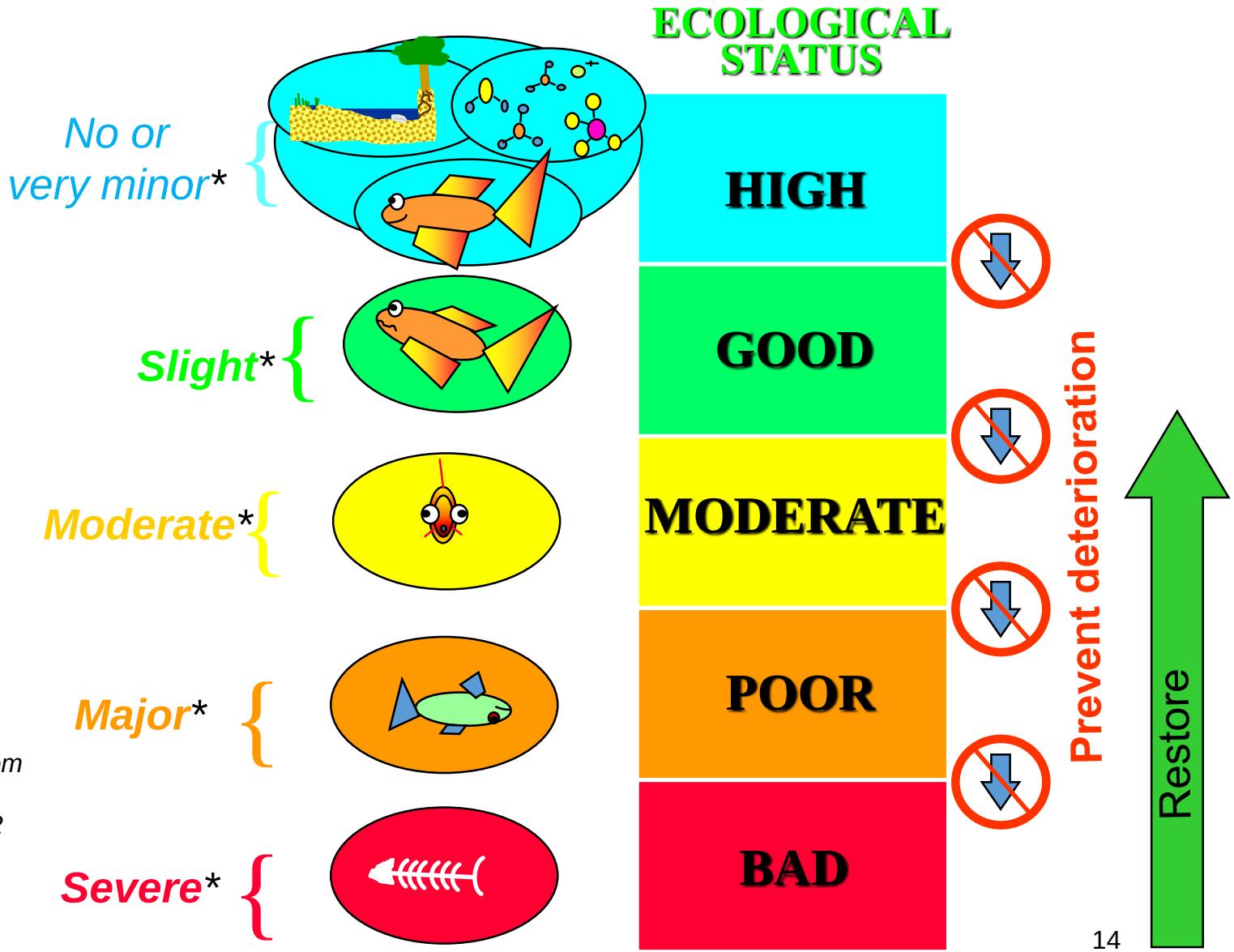
Specific Pollutants

- Under ecological status heading
- ‘Pollution by’ priority substances being discharged
- ‘Pollution by’ other substances discharged in significant quantities into water body
- Specific synthetic and specific non-synthetic pollutants
- No EU-wide list; rather substances are identified by Member States

Ecological Status Classes

- Classified according to status:
  - high (or maximum for GEP)
  - good (the default target)
  - moderate
  - poor
  - bad
- Overall water body status is derived using the one-out-all-out principle
- Supporting elements may be ‘good’ or ‘moderate’ where ‘moderate’ infers below good

Ecological Status Explained



** extent of deviation from undisturbed conditions. See WFD Annex V: 1.2*

Chemical Status

- Member States are required to take measures to:
  - Phase out discharges, emissions and losses of priority hazardous substances
  - Progressively reduce discharges, emissions and losses of priority substances
- Water bodies 'pass' (at good status) or 'fail' (not at good status)
- WFD very strict on chemical status objectives
- Inventories prepared by Member States
- Some recognised outstanding issues with 'legacy' substances including uPBTs (ubiquitous, 'persistent, bio-accumulative toxic' substances)

Groundwater

- WFD includes quantity and quality objectives:
  - prevent or limit the input of pollutants into groundwater
  - prevent deterioration of status
  - protect, enhance and restore
  - balance abstraction and recharge
- Also links to dependent surface waters and groundwater dependent terrestrial ecosystems
- Groundwater also covered by exemptions

Protected Areas

- WFD aims to achieve [relevant] protected area objectives i.e. where a site or feature is 'water-dependent'
- Bathing Waters Directive; Urban Waste Water Treatment Directive; Nitrates Directive; Birds and Habitats Directives
- Freshwater Fish Directive and Shellfish Waters Directive were integrated into WFD from 2013
- Where there is more than one objective, the 'most stringent' applies
- *For example, the Habitats Directive objective for a feature might be more ambitious than the WFD 'good' status threshold*
- Cannot use WFD to derogate from objectives of other protected area Directives

River Basin Management Plans

- Statutory plans
- Describe characteristics of River Basin and water bodies (the two WFD reporting units)
- Confirm current and expected future water body status (objectives)
- Explain whether designations (e.g. HMWB) and derogations (exemptions) have been applied
- Describe measures to achieve WFD objectives: programmes of measures; also mitigation measures to achieve GEP in HMWBs and AWBs

Overview of WFD Exemptions

- Article 4(3) = designations
- Articles 4(4) and 4(5) = extended deadlines and less stringent objectives
- Article 4(6) = retrospective exemption
- Article 4(7) = allows physical modifications, alterations to level of groundwater bodies, new sustainable development affecting high status water bodies
- Article 4(8) = other water bodies
- Article 4(9) = other EU Directives

Article 4(3)

- WFD recognises that certain human uses depend on the physical modification of water bodies
- Heavily modified water bodies (HMWB) and artificial water bodies (AWB) are a designation rather than an exemption
- Other exemptions may then apply, including Article 4(7)
- Cannot designate HMWB in response to a threat; only after the modification has taken place

Articles 4(4) and 4(5)

- If certain criteria are met and providing that no further deterioration occurs……
- 4(4) allows Member States to extend deadlines for meeting WFD objectives
- 4(5) allows setting of less stringent targets
- Disproportionate cost, technical feasibility are amongst the determining criteria
- Need to demonstrate 'no environmentally better option' for 4(5)
- Article 4(4) widely used in RBMPs; 4(5) less so
- Article 4(4) may apply in some situations where a project leads to a temporary effect on status

Article 4(6)

- Temporary, retrospective exemption
- Applies to natural events or *force majeure*
- Must be exceptional or 'could not reasonably have been foreseen'
- Particularly prolonged droughts or extreme floods
- Also accidents which 'could not reasonably have been foreseen'
- Certain criteria must be met
- Not an alternative to 4(7)

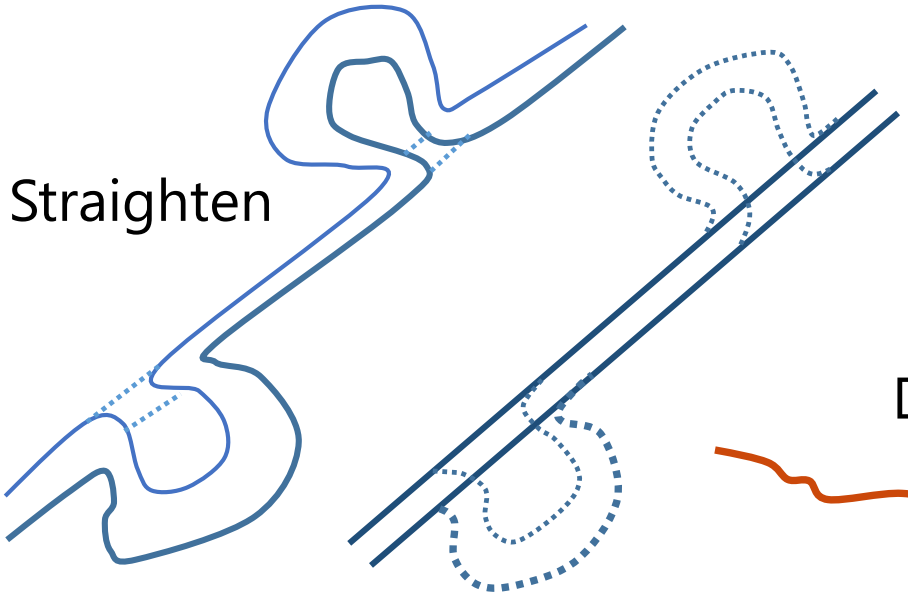
Article 4(7)

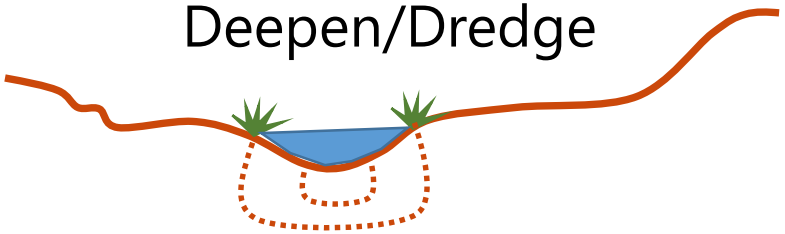
- Exemption is potentially applicable if a deterioration in ecological status or a failure to achieve the WFD ecological objectives is a direct or indirect consequence of:
  - a new modification to the physical characteristics of a surface water body or
  - an alteration to the level of a groundwater body
  - or if chemical status will be indirectly affected by such changes* or if
  - new sustainable human development activities cause deterioration from high to good status

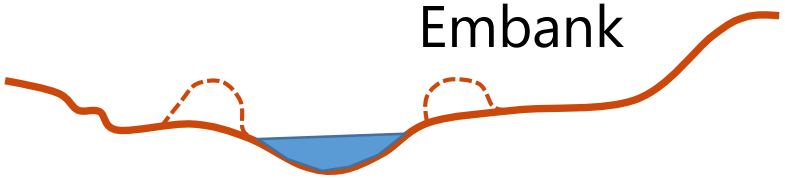
* *For example, if contaminated sediments are re-suspended by construction works for a physical modification or if pollutant concentrations are increased because of groundwater drawdown*

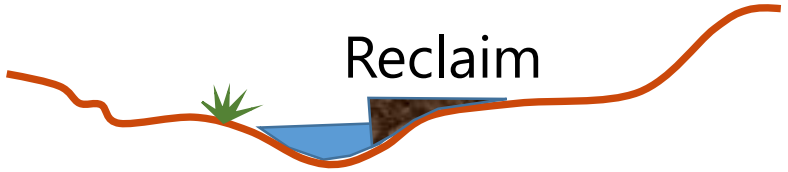
- Article 4(7) does not provide an exemption where new direct, point or diffuse source inputs of pollutants cause deterioration, other than in high status water bodies as long as status does not drop below good

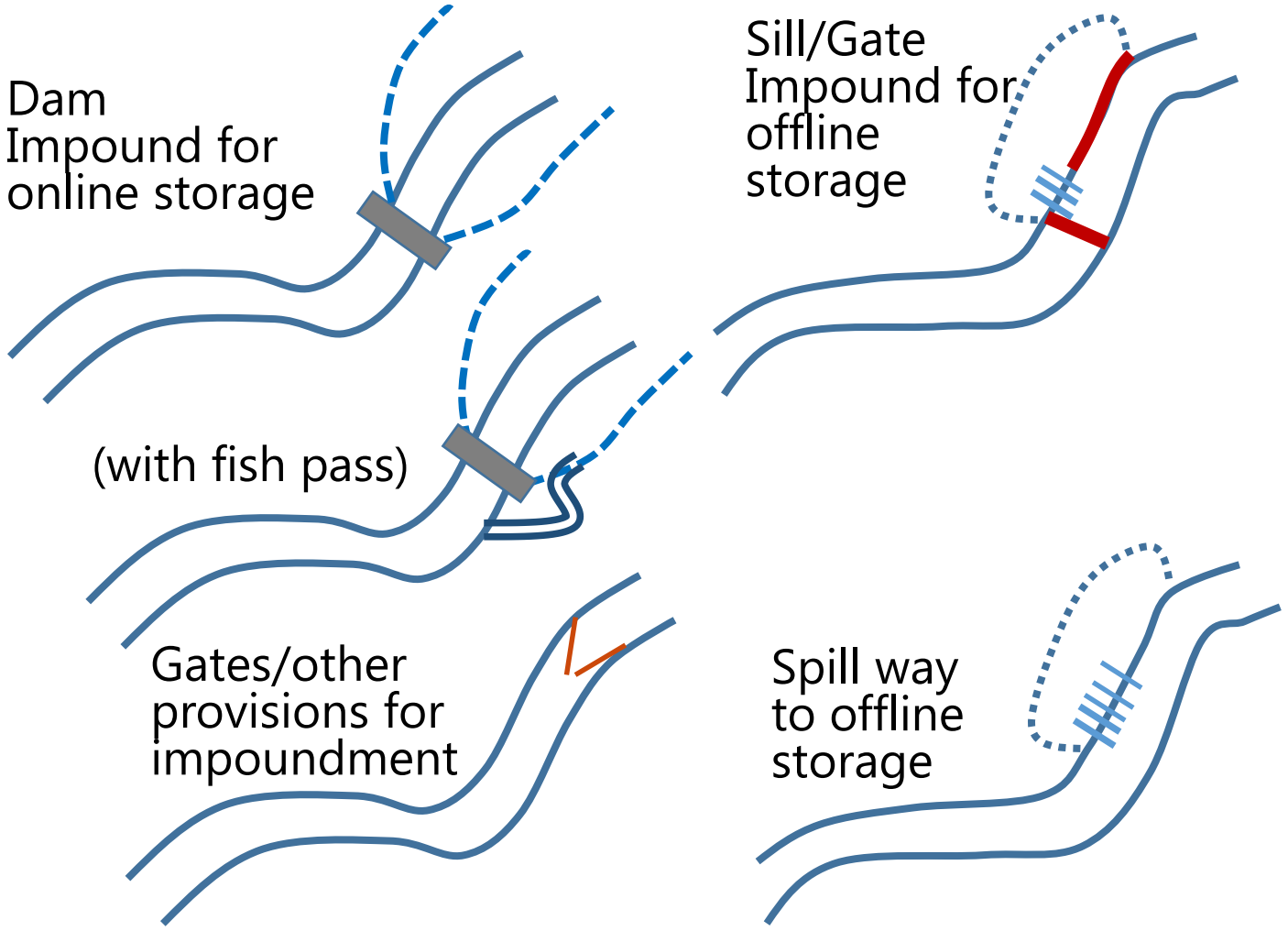
Physical Modifications: Examples

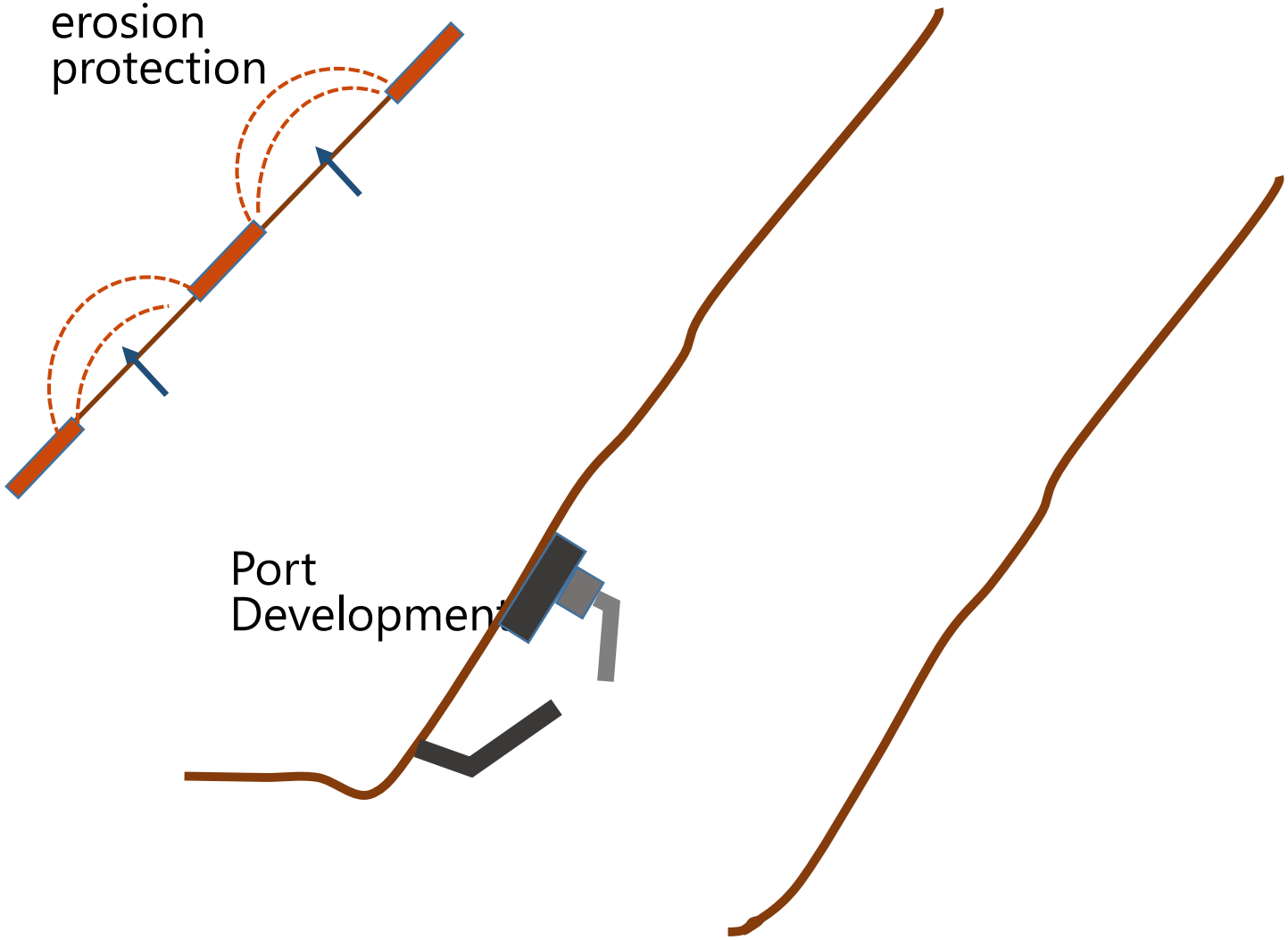

Straighten
Re- meander


Deepen/Dredge


Embank


Reclaim


Dam
Impound for
online storage
(with fish pass)
Sill/Gate
Impound for
offline
storage
Gates/other
provisions for
impoundment
Spill way
to offline
storage


erosion
protection
Port
Development

Maintenance

- Regular ongoing maintenance activities can affect the achievement of WFD objectives
- The need for maintenance to support a use may have been considered in a HMWB designation; the GEP objective should take account of the maintenance upon which water body use depends

<u>However</u>

- If modification is proposed so as to reinstate conditions that existed many years ago, this may be considered 'maintenance' from an engineering point of view, but the ecological and chemical status of the water body may have recovered or stabilised in the meantime
- The current status of the water body is what is important
- *If the current status could be detrimentally affected, the proposed works should be assessed as a 'new' project irrespective of the engineering intention*
- The Article 4(7) tests may need to be applied
- Case-specific consideration is therefore important

Article 4(7) Criteria

Exemption can be granted if:

- All practicable steps are taken to mitigate possible effects on status
- Reasons for the physical modification, alteration to the level of groundwater or justification for the new sustainable development are set out in the RBMP
- There are reasons of overriding public interest or the project benefits outweigh the WFD benefits foregone (the balancing test)
- No technically feasible, not disproportionately costly and significantly environmentally better alternative exists
- *All criteria must be met*

Articles 4(8) and 4(9)

- WFD makes clear that exemptions, including Article 4(7), can only be used if provisions of Articles 4(8) and 4(9) are also met
- 4(8) requires that use of exemption 'does not permanently exclude or compromise' achievement of WFD objectives in other water bodies and is consistent with other EU Directives
- 4(9) requires that use of exemption 'guarantees at least same level of protection' as existing EC legislation

Relationship between WFD, EIA and Habitats Directive Assessments

- In addition to demonstrating WFD-compliance, a project may also require assessment under the EIA Directive and/or the Habitats Directive
- A project may already have been included in a Strategic Environmental Assessment. SEA can provide useful context for a WFD assessment, especially on alternatives and in-combination effects
- At project-level, streamlining of EIA, Habitats Directive and WFD assessments is possible; it is vital to be aware of both:
  - Efficiencies, synergies; streamlining opportunities, and
  - Subtle but important differences

EIA-WFD Efficiencies and Synergies

- Screening and scoping for the different assessments can be carried out in parallel
- Potential for economies of scale can be achieved especially with data collection e.g. common mobilisation costs [but see next slide]
- Public participation and consultation can be coordinated; this is especially important if the assessment is taking place within a WFD planning cycle
- Identifying mitigation measures
- Consideration of alternatives [but see next slide]

WFD and EIA Directives: Differences

- May be different parameters needed, or different levels of detail may be required during data collection if there are different 'thresholds' for significance
- EIA: significant impacts can be local or temporary
- WFD significance test: 'non-temporary' effect on status of one or more elements at the scale of the water body
- So, the same impact can be 'significant' under one Directive but not the other
- Other differences between EIA and WFD 4(7) tests include:
  - 'Compensation' concept in EIA, not as such in WFD
  - WFD 'alternatives' expected to be *significantly* environmentally better

WFD and Nature Directives FAQ paper

- Both WFD and Birds/Habitats Directive objectives apply to water-dependent Natura 2000 sites (i.e. sites where maintaining or improving water status is essential for habitat or species protection)
- Confirms that, if objectives differ, the most stringent applies
- Protection of a habitat/species which is uncharacteristic of the water body should not prevail over water body restoration unless such protection is important to the conservation status of the protected area
- Confirms that WFD cannot be used to justify a significant effect on conservation status

WFD and Habitats Directives: Differences

- Also different parameters, or different levels of detail required during data collection if different 'significance' thresholds'
- Habitats Directive significance test: likely significant effect on the site's conservation objectives
- Again, the same impact can be 'significant' under one Directive but not the other
- Other differences between WFD 4(7) and Habitats Directive 6(4) include:
  - Habitats Directive = *Imperative* Reasons of Overriding Public Interest; WFD = Reasons of Overriding Public Interest
  - Clear requirement for compensation measures in Habitats Directive; not in WFD

Questions?

Overarching Considerations

- Think about data needs early. Use existing data, including from: RBMP classification; WFD monitoring outcomes; protected area registers; other data sources
- Explore alternatives
- Level of detail of investigations to be proportionate to risk
- Deal with uncertainty (if uncertain effect on status at water body level, could effect be mitigated?)
- Seek 'proven and effective' mitigation measures (or use adaptive management solutions)
- Assess implications for protected areas
- Consider transboundary implications and collaborate if needed

JASPERS Checklist Tool Content Overview

The main body text is divided into 4 parts corresponding to 4 steps:

1. Context and screening: is there a causal mechanism for a direct or indirect effect on status at element level?
2. Scoping: consider non-temporary effects, significance at water body level, alone or in-combination effects
3. (further) Data collection and investigations
4. Application of Article 4(7) tests: mitigation measures, alternatives, overriding public interest, inclusion in RBMP; also Articles 4(8) and 4(9)

The checklist tool was developed in parallel, and is consistent with CIS Guidance 36

Step One

Step One: Context and Screening

Information Collation

- 1.1 Information about the project
- 1.2 Identify potentially affected water bodies
- 1.3 Size, Scale, Location and Mapping of water bodies
- 1.4 Identify water dependent protected areas
- 1.5 Main Characteristics of water bodies and areas identified in steps 1.2 and 1.4
- 1.6 Water body status and status of the water dependent protected areas– ”problems, risks and causes”
- 1.7 “Record” future status objectives for each relevant water body and similar information for water dependent protected areas
- 1.8 List of measures in the RBMP linked to the potentially affected water bodies and water dependent protected areas
- 1.9 List of any other projects that could affect the above

Coarse Evaluation

- 1.10 For each potentially affected water body, identify possible mechanisms for a direct and indirect effect on status at element level
- 1.11 Consult competent authority on outcome of analysis

No

Potential for deterioration or compromise of environmental objectives?

Yes

Step Two

Step One: Context and Screening

1.1 Collate information about the proposed project. Include the project name and location, the alternatives considered and where applicable, other physical modifications to surface water bodies or other activities leading to a change in the level of groundwater that are part of the same overall programme.

- *Compliance with the WFD should be demonstrated for all projects that have the potential to affect water body status, irrespective of whether the Article 4(7) tests need to be applied*
- *An effect on status can be caused either when a modification, alteration or development results in element-level deterioration across a status class boundary at the scale of the water body,* ***or*** *when a modification or alteration compromises an improvement in status that is otherwise anticipated*
- *Transport, energy, or other types of project that could affect status should be assessed. WFD compliance is not only for projects involving a water management activity*

Step One: Context and Screening

1.2 – 1.4 Identify potentially affected water bodies; record their size/scale; List any potentially relevant water-dependent EU protected areas in or adjacent to each water body.

- *All potentially affected water bodies should be included in the assessment to avoid issues with Article 4(8)*

1.5 Note the main characteristics of each surface water body, including whether the water body is designated as heavily modified or artificial under Article 4(3). Refer to the River Basin Management Plan to identify and record the main WFD characteristics of groundwater bodies, groundwater-dependent terrestrial ecosystems, relevant wetlands, etc. Provide similar information for potentially affected protected areas.

Step One: Context and Screening

1.6 Record the current ecological and chemical status of each water body and each protected area

- *Pay particular attention to elements that are close to the status class boundary or are in the lowest status class*
- *Further measurable deterioration in an element that is already in the lowest status class can automatically trigger the application of the Article 4(7) tests*

1.7 For each water body, record future WFD status objectives and any derogations already applied (e.g. under Article 4(4) or 4(5)). Include similar information for relevant EU protected areas

Step One: Context and Screening

1.8 For each water body, list the measures already identified in the RBMP that will deliver improvements in ecological or chemical status

- *Refer to the RBMP programme of measures. Include any mitigation measures intended to achieve GEP in HMWBs or AWBs. Obtain equivalent information about protected areas from the relevant agency. This information is needed to inform decisions in Step Two*

1.9 For each water body, identify any other planned, proposed, or already under-construction projects, activities, etc. that could affect water body status

- *Projects can affect the WFD status of water bodies alone or in combination with other projects, activities or works. This information is needed to inform decisions in Step Two*

Step One: Context and Screening

1.10 For each water body, identify possible mechanisms for a direct and indirect effect on status at element level

- *Taking into account the information collated, consider possible effects on the ecological or chemical status of each surface water body, or on the chemical or quantitative status of a groundwater body, or adverse impacts on a water-dependent EU protected area*
- *Direct vs. indirect effects: by way of an example, if a new dredge is proposed in a transitional water body, there is a mechanism for direct effects on depth and on the benthic invertebrates that are physically removed from the affected area. In addition, however, the deepening could indirectly affect flow characteristics, salinity and intertidal zone structure amongst other elements*
- *Step One is a broad filter, designed only to screen out projects where there is no mechanism for an effect on status, or to identify the WFD elements where a cause-and-effect mechanism exists*

Step One: Example Outcomes

- It is clear that a new tidal barrage will cause direct and indirect deterioration in the status of several BQEs and hydromorphological supporting elements. *Project continues to Step Two*
- There is a lack of data and much uncertainty about the possible effects of a proposed new hydropower project. *Project continues to Step Two*
- The pillars for a new bridge will be constructed in the flood plain immediately to landward of the existing flood embankment. No mechanism for a direct or indirect effect on the ecological or chemical status of the water body is identified. The evidence to support this conclusion is recorded and the *project does NOT need to continue to Step Two*

Step One: Context and Screening

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1.1 Collate information about the proposed project. Include the project name and location, the alternatives considered and where applicable, other physical modifications to surface water bodies or other activities leading to a change in the level of groundwater that are part of the same overall programme.

1.1.

Question / Inquiry

Provided free field

Don't forget!

Note (a) Any new modification or development of the physical characteristics of a surface water body [592] or alteration to the level of groundwater [610] has the potential to affect the status of the water body. This does not mean that Article 4(7) always needs to be applied; rather that evidence is required to demonstrate whether or not status will be affected.

Don't forget…..

1.2 Which water bodies could potentially be affected by the modification(s), alteration(s) or human activities? Identify all water bodies including upstream and downstream surface water bodies and groundwater bodies. Water body information can be found in the relevant River Basin Management Plan or obtained from the WFD competent authority.

1.2

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If a potential causal mechanism(s) is identified, or if it is uncertain whether status would be affected for any of the elements (for example because of proximity to a status class boundary), continue to STEP TWO.

Don't forget!

Note (g) This first step is only a broad filter [1173]. It is designed to 'screen out' projects that will clearly not affect the status of any WFD element at the of the water body, or to identify the elements that require further attention.

Examples

Example

Step one outcomes

It is clear that a new tidal barrage will cause direct and indirect deterioration in the status of several BQEs and hydromorphological supporting elements. **Project continues to STEP TWO.**

There is a lack of data and much uncertainty about the possible effects of a proposed new hydropower project. **Project continues to STEP TWO.**

The pillars for a new bridge will be constructed in the flood plain immediately to landward of the existing flood embankment. No mechanism for a direct or indirect effect on the ecological or chemical status of any water body is identified. The evidence to support this conclusion is recorded and the **project does NOT need to continue to STEP TWO.**

Step One: Context and Screening

Five tables in the Annex, 1a to 1e support step 1.10, developed for:

- Rivers
- Lakes
- Transitional waters
- Coastal waters
- Groundwater bodies

Drop down fields

- **Yes**
- **No**
- **Uncertain**

Table 1a WFD compliance assessment cause-and-effect mechanisms (Rivers)

WFD elements[1]	Is there a possible causal mechanism for a direct effect on…? Notes (a)(c)(e)(g)[2]	Is there a possible causal mechanism for an indirect effect on…? Notes (a)-(c) and (e)-(g)[3]
Hydromorphological supporting elements		
Hydrology: quantity and dynamics of flow	Yes	Yes
Hydrology: connection to groundwaters	Yes	Yes
River continuity	Yes	Yes
Morphology: river depth and width	Yes	Yes
Morphology: river bed structure, substrate	Yes	Yes
Morphology: riparian zone structure	Yes	Yes
Physico-chemical supporting elements		
Thermal conditions	Yes	Yes
Oxygenation	Yes	Yes
Salinity	Yes	Yes
Acidification	Yes	Yes
Nutrient conditions	Yes	Yes
Specific synthetic pollutants	Yes	Yes
Specific non-synthetic pollutants	Yes	Yes
Biological quality elements		
Phytoplankton	Yes	Yes

Step Two

Step Two: Scoping

2.1 Confirm which WFD elements require further consideration

2.2 Taking into account the information collated in 1.2 to 1.9, address the following questions:

- 2.2 (i) Will the effect be temporary?
- 2.2 (ii) Will the effect by insignificant in the context of the water body?
- 2.2 (iii) Can it be concluded that there will be no in-combination effects?

Yes

No

2.3 Establish Scope of investigations and data collections to answer unknowns?

2.4 Confirm scope of investigations with Competent Authorities

2.5 Integrate / coordinate investigations with “other processes” (EIA, Natura …)

Step Three

Step Two: Scope the Assessment

2.1 Confirm which WFD elements require further consideration in each water body or protected area (i.e. elements where a potential cause-and-effect relationship has been identified)

2.2 Taking into account the information collated in 1.2 to 1.9, address the following questions:

- Will the effect be temporary?

- *The application of the Article 4(7) tests will not be needed if the status of an element will be affected only temporarily and will recover in a short period of time. The Article 4(7) tests will need to be applied if the effects will be permanent or persist over a long period*

- *Consider the relevance of monitoring frequencies*

- *Construction effects where recovery is expected either naturally or as a result of mitigation measures, with no long term consequence, should not trigger the Article 4(7) tests*

Step Two: Temporary Effect Examples

- Increased levels of suspended sediment concentrations generated during a week long dredging campaign will quickly revert to background concentrations when dredging is finished. *Conclusion: the effect on the transparency supporting element is temporary*

- A river is to be dredged and straightened to improve flood conveyance. *Conclusion: the effect on several BQEs and hydromorphological supporting elements is NOT temporary*

- Whilst the demolition of a breakwater will take only a few days, the release of sediment trapped in the lee of the structure could lead to the smothering of seagrass beds in the vicinity, with potential long term consequences. *Conclusion: the potential effect on the angiosperms BQE may NOT be temporary*

- Construction of a major road tunnel will involve the extensive drawdown of groundwater over a period of years. There is uncertainty over how long water level recovery will take. *It cannot be concluded that the effect on the level of the groundwater body is temporary. Further investigation is needed*

Step Two: Scope the Assessment

- Will the effect be insignificant in the context of the water body?

- *The spatial characteristics of the water body and the distribution of elements within it are relevant to this question*

- *Just because an impact is 'significant' in EIA terms does not necessarily make it significant in WFD terms (and vice versa)*

- Can it be concluded that there will be no potential in-combination effects on status?

- *A modification or alteration - on its own - might not affect water body status. However two or more project components, or two different projects, might cause deterioration or compromise an expected improvement in status*

- *For projects in their scope, SEA or EIA outputs can inform decisions on in-combination effects*

Step Two: Examples of Insignificant or In-Combination Effects

- A new embankment will lead to the direct loss loss of 0.8 ha out of 350 ha of suitable fish spawning habitat in a river water body.
  *Conclusion: the effect on the fish BQE is insignificant at the scale of the water body (*but note this same loss is not necessarily also insignificant in Habitats Directive terms)*

- A new flood embankment will lead to the direct loss of 0.8 ha of the 1.5 ha of suitable fish spawning habitat in a river water body.
  Conclusion: the effect on the fish BQE (deterioration) is NOT insignificant at the scale of the water body

- A Port expansion will detrimentally affect 40% of the riparian vegetation in an already modified water body.
  Conclusion: the potential for deterioration at the scale of the water body means the project requires further assessment.

Step Two: Outcomes

Where the answer to all of the above questions is 'yes' for a potentially affected element, no further assessment is necessary for that element. The same conclusion can be drawn when an effect is not temporary but it is nonetheless confirmed to be insignificant in the context of the water body, and no in- combination effects are identified.

Similarly, if there are no implications for a water-dependent EU protected area, no further assessment of that protected area is needed.

- *In all cases where is it concluded that no further assessment is needed, evidence to support the conclusion should be provided and a record kept of the decision.*

OR …

Step Two: Outcomes

2.3 Where an effect on an element is not temporary and/or it is significant in the context of the water body and/or there are potential in-combination effects, or where there is uncertainty, the scope of further work on each element should be determined

- *The level of detail of data collection or investigation should be proportionate to the risk*

2.4 Agree the overall scope of further work with the WFD competent authority. *Project continues to Step Three*

- *In some cases a WFD assessment may be required even though the project is below the threshold triggering an EIA*

2.5 Refer to Figure 5 in CIS Guidance Document 36 and consider whether the necessary data can be collected as part of another assessment – for example an Environmental Impact Assessment (EIA) or an assessment under the EU Habitats Directive or vice versa.

- *Other ongoing assessments (e.g. for EIA, Habitats Directive) can help inform WFD decisions on protected area implications*

Step Two: Scoping (2/2)

Five tables in the Annex, 2a to 2e support step 2.2, developed for:

- Rivers
- Lakes
- Transitional waters
- Coastal waters
- Groundwater bodies

Possibility to introduce a ✓ indicator

Drop down fields

- **Yes**
- **No**
- **Uncertain**

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Table 2a WFD compliance assessment scoping table (Rivers)

Under each heading, identify the element(s) that could potentially be affected by the project (from Table 1a) ✓	2.2(i) Will the effect be temporary? Note (i)	2.2(ii) Is the effect on the element insignificant in the context of the water body? Notes (j) and (k)	2.2(iii) Can it be concluded that there are no potential in-combination effects Note (l)
Hydromorphological supporting elements			
Hydrology: quantity and dynamics of flow	Yes	Yes	Yes
Hydrology: connection to groundwaters	Yes	Yes	Yes
River continuity	Yes	Yes	Yes
Morphology: river depth and width	Yes	Yes	Yes
Morphology: river bed structure, substrate	Yes	Yes	Yes
Morphology: riparian zone structure	Yes	Yes	Yes
Physico-chemical supporting elements			
Thermal conditions	Yes	Yes	Yes
Oxygenation	Yes	Yes	Yes
Salinity	Yes	Yes	Yes
Acidification	Yes	Yes	Yes
Nutrient conditions	Yes	Yes	Yes
Specific synthetic pollutants	Yes	Yes	Yes
Specific non-synthetic pollutants	Yes	Yes	Yes
Biological quality elements			
Phytoplankton	Yes	Yes	Yes
Macrophytes and phytobenthos	Yes	Yes	Yes
Benthic invertebrate fauna	Yes	Yes	Yes
Fish fauna	Yes	Yes	Yes
Chemical status - see Directive 2008/105/EC amended by 2013/39/EU			
Priority substances	Yes	Yes	Yes
Priority hazardous substances	Yes	Yes	Yes
EU protected areas (see WFD Annex IV)	Could the status of EU protected area(s) be compromised? Explain your response. Note (o)		

Questions?

Step Three

Step Three: (further) Data Collection

3.1 Review outcomes of investigations and answer the following

3.1 (i) Could the project have a non-temporary effect on the status of one or more of the WFD elements at the scale of the water body?

3.1 (ii) Is the project expected to have an adverse effect on the water-dependent features of relevant EU protected area objectives?

3.1 (iii) Are significant in-combination effects on status possible?

NO → 

Yes ↓

3.2 Where effects on status are expected– identify mitigation measures

3.3 With mitigation measures in place, can it be concluded with sufficient certainty that the project will not cause deterioration or compromise the achievementof good status?

Yes → 

3.4 + 3.5 If mitigation is enough to avoid an effect on status: Confirm outcome of 3.3 with Competent Authority and record with the necessary supporting evidence

No ↓

Step Four

Step Three: Data Collection

3.1 Undertake data collection/investigations and review outcomes:

- Could the project have a non-temporary effect on the status of one or more of the WFD elements at the scale of the water body?
- Is the project expected to have an adverse effect on the water-dependent features of relevant EU protected area objectives?
- Are significant in-combination effects on status possible?

If the answer to all of these questions is 'no' record the supporting evidence. No further WFD assessment of the project is needed and the Article 4(7) tests do not need to be applied

- *The WFD 'significance tests' are different from those for EIA or Habitats Directive assessments. Local or temporary effects may be significant in EIA but not in WFD; an effect on WFD status is often not the same as Habitats Directive adverse effect on integrity*

- *Data collected as part of another assessment must be 'fit-for-purpose' in WFD terms*

Step Three: Data Collection

3.2 Where effects on status are expected, including in-combination effects, consider whether mitigation measures are available. Provide evidence to show how these measures will be integrated into project

- *The WFD does not differentiate between mitigation and compensation: offsetting measures in another water body could be used, as long as the outcome is to mitigate the effect in the water body to which the Article 4(7) tests might be applied*
- *Not all mitigation measures will be hydromorphological in nature. Management or operational procedures might avoid deterioration*
- *Applying the mitigation hierarchy is recommended: i.e. preferable to avoid / minimise effect on site than offset / compensate off-site*
- *Adaptive management concept (implementing mitigation measures in response to monitoring outcomes) can help deal with uncertainty*

Step Three: Mitigation Examples

- Adaptive management example (1): a newly developed seed product is to be trialled. The establishment of vegetation will be monitored. *If the new method is not performing satisfactorily, proven seedling planting techniques will be used to ensure deterioration is avoided*

- Adaptive management example (2): ecologically sensitive resources exist within 2 km of a capital dredging project. Modelling investigations indicate it is unlikely these will be affected by the plume, but real time techniques will be used to monitor suspended sediment levels. *If an agreed threshold is exceeded, dredging will temporarily be stopped. If the threshold is exceeded too frequently, a change to a less productive dredging method that generates less suspended sediment will be required*

- Offsetting example: even with screening in place, a new intake will have a small residual adverse effect on fish mortality. An opportunity exists to enhance nursery habitat for this species in an upstream water body. *The offsetting mitigation measure will deliver an overall increase in fish populations in the affected water body even though some individuals may still be entrained*

Step Three: Outcomes

3.3 With mitigation measures in place can it be concluded with sufficient certainty that the project will not cause deterioration or compromise the achievement of good status? Document the evidence used to support this decision

- *The WFD competent authority should be involved in this decision*

3.4 Confirm that the WFD competent authority is in agreement with the conclusion from Step 3.3 about whether or not the status of the water body will be affected.

3.5 If the competent authority agrees that there will be no effect on the status of the water body, record this conclusion in Box 3.5 along with the necessary supporting evidence.

Step Four

Step Four: Article 4(7) Tests

4.1 Is it necessary and/or relevant to apply the Article 4(7) tests?

- *If there is uncertainty about the significance of an effect, the Article 4(7) tests should be applied*
- *Article 4(7) can only be used if the effect on status is the result of a new physical modification or a new alteration to the level of the groundwater body, or if a new sustainable human development activity will result in deterioration from high to good status*
- *Article 4(7) cannot be used to exempt deterioration due to a new (direct) point source or diffuse input that drives the water body to a status below good*

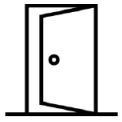
Don't forget!

Note (s) The Article 4(7) exemption can only be applied if WFD ecological status will be affected as a result of new modifications to the physical of a surface water body, or if alterations to the level of a groundwater body will affect its status, or if chemical status will be indirectly affected by such changes, or if new sustainable human development activities will cause deterioration from high to good status [662]. Projects not meeting these criteria may not be authorised [757], so early discussion with the WFD competent authority is recommended in such cases.

As indicated in the Preamble above, Article 4(7) cannot be applied to a project involving a new (i.e. point source or diffuse) input of pollutants other than in high status water bodies in accordance with the second provision of Article 4(7).

4.1 Is it relevant to apply the Article 4(7) tests [1373]? If no, record the reasons supporting this decision in Box 4.1.

4.1



Possible stop point!!

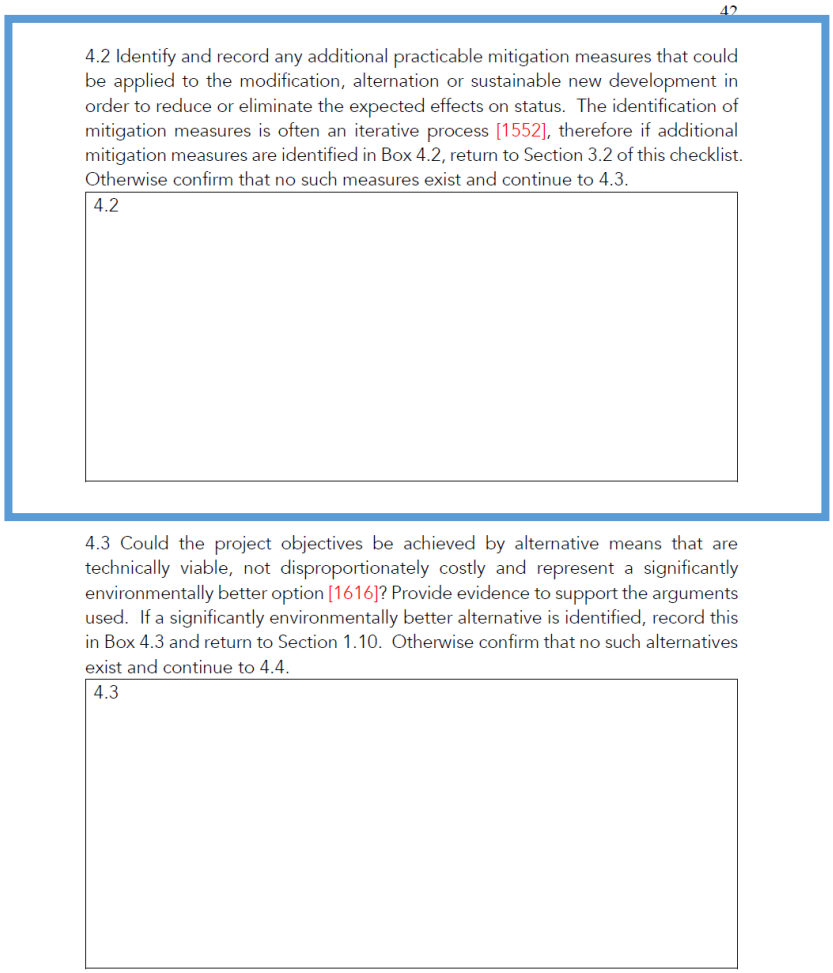
If Box 4.1 is completed, this will usually indicate that the project does not comply with the requirements of the WFD. In this case it is unlikely that the project will be able to go ahead.

Step Four: Mitigation

4.2 Identify any additional practicable steps to mitigate expected effects on status

- *Practicable suggests technically feasible, not disproportionately costly and compatible with the modification, alteration or use*

Return to 3.2 or *continue to 4.3*



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4.2 Identify and record any additional practicable mitigation measures that could be applied to the modification, alternation or sustainable new development in order to reduce or eliminate the expected effects on status. The identification of mitigation measures is often an iterative process [1552], therefore if additional mitigation measures are identified in Box 4.2, return to Section 3.2 of this checklist. Otherwise confirm that no such measures exist and continue to 4.3.

4.2

4.3 Could the project objectives be achieved by alternative means that are technically viable, not disproportionately costly and represent a significantly environmentally better option [1616]? Provide evidence to support the arguments used. If a significantly environmentally better alternative is identified, record this in Box 4.3 and return to Section 1.10. Otherwise confirm that no such alternatives exist and continue to 4.4.

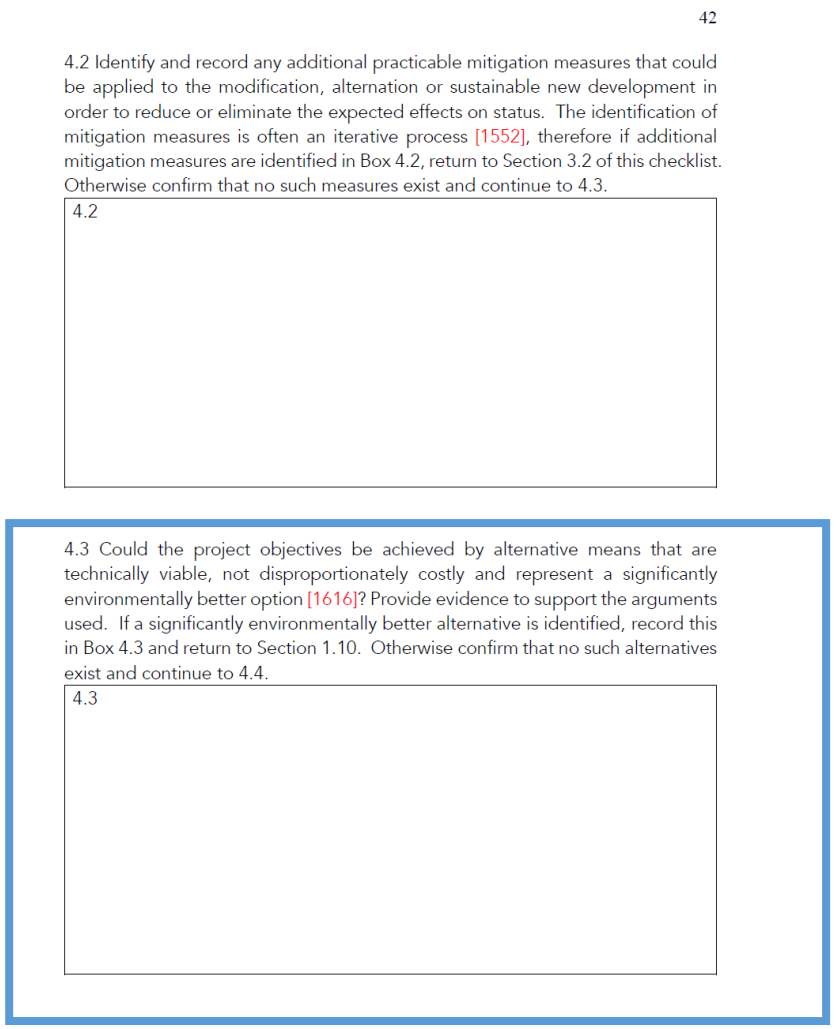
4.3

Step Four: Alternatives

4.3 Could the objectives be achieved by a technically viable and not disproportionally costly alternative means, representing a significantly better environmental option?

- *Consider strategic as well as project or project component level alternatives; alternative locations, designs, methodologies, processes …*
- *Reference can be made to SEA or the outcomes of an ongoing EIA, but remember the WFD requires identification of a significantly better environmental option*
- *Disproportionality is a judgement informed by economic information but with political, technical and social dimensions*

Return to 1.6 or *continue to 4.4*



42

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4.3

Step Four: Public Interest or Weighing of Benefits (the Balancing Test)

4.4 Are there reasons of overriding public interest why the modification, alteration or use should go ahead, or do the benefits of the project (to human health, safety or sustainable development) outweigh the benefits of achieving the WFD objectives?

- *Evidence needs to be presented; this is not just a statement*
- *Assessment to be as simple as possible but as detailed and comprehensive as necessary*
- *Qualitative, quantitative and monetised information can all be used*
- *Need for clarity on the residual effects on WFD status triggering the Article 4(7) tests*
- *Balancing test is especially useful where most effects are mitigated but a relatively minor residual effect is a potential showstopper*

Don't forget!

Note (u) Alternatives need to be considered at a strategic level as well as at the level of the project or its components. As with the requirements under other Directives, alternative solutions as well as alternative locations, designs, methodologies or processes should be considered.

For projects under their scope, the outputs of a Strategic Environmental Assessment [1652] or an EIA [1625] may help in the identification of alternatives. However, note that in the specific case of the WFD, the focus is on determining whether an option exists that is significantly better from an environmental perspective.

Note (v) Disproportionality is a judgement, which has a political, technical and social dimension, and is informed by economic information and analysis of costs and benefits [1628].

4.4 Are there reasons of overriding public interest why the modification, alteration or use should go ahead [1678] and/or do the benefits of the proposed project to human health, human safety or sustainable development outweigh the benefits that would otherwise be delivered by achieving the objectives of the WFD (the balancing test [1733])? Provide evidence to support the arguments used.

4.4

Step Four: Project in RBMP

4.5 Are the reasons for the modification, alteration or development explained in the RBMP?

- *If the project is proposed within a WFD planning cycle (i.e. is not included in the RBMP) the public must be given an opportunity to comment at least equivalent to that provided for comments on the RBMP*
- *Public consultation on SEA or EIA might be relevant*

Don't forget!

Note (w) Overriding in this case means that the benefits of the project are shown to override the achievement of the relevant WFD objectives [1682]. A statement is unlikely to sufficient to demonstrate that public interest is overriding: rather an assessment based on a broad and transparent discussion will usually be needed [1720].

Note (x) The balancing test [1733] can be especially useful in cases where most effects have been mitigated but the residual effects on the status of a WFD element represent a potential 'showstopper'. Agreeing on the specific WFD benefit that will be foregone if the project is progressed (i.e. understanding the relative magnitude of the residual effect that triggered the application of the Article 4(7) tests) and comparing this to the benefits to human health, safety and/or sustainable development [1750] that will result from the proposed modification or alteration, can help in reaching a common understanding. Assessing different types of costs and benefits is not only a monetary exercise [1764]. A proportionate mix of qualitative, quantitative and monetised information, supported by expert judgement, will often be needed to inform a judgement for the balancing test.

Note (y) Throughout the application of the Article 4(7) tests, the analysis should be as simple and clear as possible but at the same time as detailed and comprehensive as necessary to reach reasonable results [1382]. In other words, the analysis should be proportionate to the level of risk associated with the project.

4.5 Article 4(7) anticipates that the reasons for the modification, alteration or deterioration due to a new sustainable development should be set out and explained in the River Basin Management Plan. This is a reporting requirement, which it may be possible to meet retrospectively as long as the project has been subject to an equivalent level of public consultation as the RBMP for example as part of an EIA [1801]. If the proposed project is not already explained in the Plan, record how this obligation has been or will be met.

Step Four: Article 4(7) Examples (1)

- A new flood defence scheme will affect morphology (the depth and substrate supporting elements) and hydrology (the flow supporting element) over 10 km in a 30 km river water body, with permanent consequences for aquatic flora and fauna. The Article 4(7) tests therefore need to be applied. It is confirmed there are no additional mitigation measures, and no significantly environmentally better alternative exists. An extended cost benefit analysis supports the argument that improved flood protection to the safety of a city of 45,000 people represents an overriding public interest. *Conclusion: the Article 4(7) tests are applied and are met*

Step Four: Article 4(7) Examples (2)

- A port fairway is to be deepened from 11.0m to 12.5m over 6 km in a 70 km^2 coastal water body. Effects on the transparency supporting element are shown to be temporary; the effects on hydrology and morphology are insignificant in the context of the water body. In Step Three, data collection on sediment quality and a study of the possible implications for a European protected area both confirm no effect on status. All the identified effects are thus local or temporary. *Conclusion: the project can be authorised; the Article 4(7) tests do not need to be applied*

Step Four: Article 4(7) Examples (3)

Even with mitigation measures in place, it is concluded that a small hydropower project will cause the deterioration of a river water body because of residual effects on the status of the continuity (hydromorphological) supporting element and the fish BQE. Although not within the ownership of the project promoter, there are several other possibilities to develop small hydropower facilities on nearby water bodies that are less important for a key species of migratory fish, so significantly environmentally better alternatives do exist. Further, although renewable energy is a priority policy of the Member State Government, the small scale of the project relative to its implications for WFD status means that neither overriding public interest nor a favourable outcome of the balancing test can be demonstrated. *Conclusion: the tests are not met so the Article 4(7) exemption cannot be used.*

Step Four: Articles 4(8) and 4(9)

Even if the Article 4(7) tests are met, Articles 4(8) and 4(9) of the WFD indicate that the Article 4(7) exemption can only be used if its application:

- does not permanently exclude or compromise the achievement of WFD objectives in other water bodies in the same river basin district, and
- is consistent with the implementation of other European Community legislation, and
- guarantees at least the same level of protection as other existing European Community legislation

4.6. Confirm that this is the case (and provide supporting evidence) and/or describe any issues raised by this requirement

Step Four: Consultation with the WFD competent authority

4.7 Does the project pass all four Article 4(7) tests and the Articles 4(8) and 4(9) tests? If no, record the reasons; this will usually indicate that the project does not comply with the requirements of the WFD. The conclusion should be discussed with the WFD competent authority.

4.8 If the WFD competent authority agrees that the necessary tests are met, record this conclusion along with the necessary supporting evidence.

Questions?