

Water Framework Directive Project assessment checklist tool



JASPERS' checklist tool¹ to use when a project² could affect the Water Framework Directive (WFD) status of a surface water body or a

groundwater body

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¹ This checklist tool has been prepared to facilitate initial discussions on WFD compliance. It reflects current (2018) good practice in line with the CIS Guidance Document 36. However, it has no formal status and it should not be assumed to be comprehensive. Decisions on WFD compliance will always need to be supported by relevant evidence whether or not the Article 4(7) tests need to be applied. Furthermore, whilst the document is intended to facilitate the implementation of Directive 2000/60/EC, any authoritative reading of the law should only be derived from Directive 2000/60/EC itself and other applicable legal texts or principles. Only the Court of Justice of the European Union is competent to authoritatively interpret Union legislation.

² The term 'project' is used herein to refer to a development, licensable activity or infrastructure works, or to each of the components of a programme of works or activities [See CIS Guidance Document 36 line 502 and footnote 51]

Preamble

The following paragraphs support the JASPERS Water Framework Directive project assessment checklist insofar as they provide background to the EU Water Framework Directive (WFD) and its implementation in EU Member States as well as summarising some of the relevant contents of CIS Guidance Document 36, Exemptions to the Environmental Objectives according to Article 4(7). For detailed guidance, reference should always be made to the relevant definitive European text.

This checklist is intended for use as a support tool for stakeholders involved in project development and relevant environmental decision-making. Steps 1 to 3 of the checklist may be used for assessing whether projects could lead to deterioration or compromise the achievement of the WFD objectives. Step 4 can only be used for projects that are within the scope of Article 4(7) of WFD.

<u>Important note</u>: numbers in red and square brackets (e.g. **[xx]**) refer to the relevant line in the English language version of <u>CIS</u> <u>Guidance</u> <u>Document 36</u>, endorsed by Water Directors in December 2017.

This is Version 1.0 of the JASPERS checklist tool as published in July 2018. The document will be kept updated in the future with changes and amendments subject to feedback that will be received following concrete use in projects assessments. Please refer to the latest version available on the JASPERS Knowledge and Learning Centre: www.jaspersnetwork.org

Derivation of WFD water body status

Under the EU Water Framework Directive (2000/60/EC), the overall status of a body of water is determined with reference to the status of a suite of individual parameters known as elements. For groundwaters, these elements may be referred to as criteria.

The default objective of the Directive is to meet good chemical status and good ecological status in all surface water bodies. The one-out-all-out principle means that every element must therefore reach good status. Groundwater bodies should similarly meet good quantitative and good chemical status.

Chemical status is determined via the monitoring of the priority and priority hazardous substances covered by the Environmental Quality Standards (EQS) Directive (2008/105/EC as amended). Each substance either meets the relevant EQS or fails to meet it. For a water body to be at good chemical status overall, there must be no failures.

WFD ecological status is derived from the monitoring of a number of 'biological quality elements' (BQEs) for example aquatic flora, benthic invertebrates and fish. Each element is classified according to a scale of high-good-moderate-poor-bad, with the objective being to achieve good status. The Directive recognises, however, that variations in characteristics such as water flow/currents, continuity, substrate structure, water temperature, salinity and oxygenation amongst others will affect the ability of a water body to meet good ecological status. The status of each of the relevant hydromorphological and physico-chemical³ 'supporting elements' [884] therefore also contributes to determining the overall ecological status of a water body.

The priority and priority hazardous substances for which environmental quality standards have been adopted are taken into account only in the classification of chemical status. They are not supporting elements for the classification of ecological status (although Member States must take any identified, direct ecotoxicological effects into account during the classification process) [535 and footnote 52]⁴.

 ³ Specific pollutants are a component of the physico-chemical supporting elements and therefore contribute to ecological status.
 ⁴ See Section 2.2 of CIS Guidance Document 13: Overall Approach to the Classification of Ecological Status

⁴ See Section 2.2 of CIS Guidance Document 13: Overall Approach to the Classification of Ecological Status and Ecological Potential.

Ecological 'potential' is the equivalent to ecological status for Heavily Modified or Artificial water bodies. For these water bodies, the WFD objective is to reach good ecological potential. The classification for HMWBs and AWBs follows a scale of maximum-good-moderate-poor-bad [837]⁵.

Throughout this checklist tool, any reference to water body or element level 'status' (or to an effect on status) should be interpreted as including 'potential' in cases where the water body in question is designated as Heavily Modified or Artificial.

Groundwater is classified according to its quantitative and chemical status. Groundwater status can be good or poor, where poor means the water body fails to meet its WFD objective. As with surface water bodies, the one-out-all-out principle applies.

⁵ Some Member States do not use all five classes when classifying the ecological potential of water bodies; for example, some define only maximum, good and moderate, where moderate is equivalent to 'less than good' potential. If the classification of ecological potential is not fully developed [1082], it can be difficult to determine whether a project will cause deterioration or affect the ability of the water body to achieve its WFD objective. A precautionary approach should be applied in such cases.

Understanding what is meant by an effect on water body status

In WFD terminology, an effect on water body status means either [1121]:

 a deterioration [555] across a status class boundary at the scale of the water body (for example from good to moderate; or from moderate to poor; or from good to fail) <u>of an individual element or substance</u> [776]

OR

• a modification or alteration, which prevents or **compromises the achievement of an improvement in status** [768] that could otherwise reasonably be expected (e.g. because of measures proposed in the River Basin Management Plan).

Understanding what type of activity can affect water body status

Any type of project can potentially affect a WFD water body – not only flood defence, navigation, hydropower, wastewater treatment or other projects directly involved with water management, but also transport, energy or other types of infrastructure projects [28]. For example, a road or rail project might require the realignment of, or otherwise impact on, a surface water body.

Water abstraction is a key pressure affecting the status of groundwater bodies but other infrastructure developments can also affect groundwater status. For example, infrastructure construction might not be possible without prior drawdown, or the viability of a tunnel might depend on long-term management of water levels.

Table 2 in CIS Guidance Document 36 illustrates the different situations in which physical modifications to surface water bodies, alterations to the level of groundwater bodies or new sustainable developments in high status water bodies can directly or indirectly affect status, and summarises those to which Article 4(7) might apply [662].

Maintenance activities

'Maintenance' projects can sometimes affect the status of a WFD water body.

When modifications to surface water bodies are proposed in order to reinstate conditions that previously existed many years ago, this may be viewed as 'maintenance' from an engineering point of view but from a WFD perspective the ecological and/or 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 [695].

Conversely, if maintenance activities have been carried out regularly including in recent years, any associated deterioration or prevention of achievement of WFD objectives should have been considered in designating the water body as heavily modified. In these cases, the WFD objective, good ecological potential, should already take into account both the current use of the water body and the maintenance upon which that use depends.

Whenever a project (or a programme of works) involves an element of maintenance works, a case-specific consideration is therefore recommended.

Article 4(7)

Article 4(7) of the EU Water Framework Directive makes provision for the authorisation of projects that would affect the status of one or more water bodies, but only if [551, 554]:

a new modification(s) to the physical characteristics of a surface water body
 [592, 634] or an alteration to the level of a groundwater body [610, 642]
 will directly or indirectly affect the status of the water body

OR

 a surface water body that is currently at high status will deteriorate to good status as the result of a new sustainable human development activity [614, 645]

AND

- the following conditions are **all** met:
- all practicable mitigation measures are in place

- the reasons for the modification or alteration are set out in the relevant River Basin Management Plan (or it can be demonstrated that the proposed project has been subject to at least as much **public consultation** as is the case for the RBMP<u>and</u> the project will be reported in the next RBMP)
- the modification or alteration can be demonstrated to be of overriding public interest, or its benefits to human health, safety or sustainable development can be shown to outweigh the benefits of maintaining or improving water body status (a balancing test)
- it can be demonstrated that there are no technically feasible and not disproportionately costly **alternatives** that are **significantly better** from an environmental perspective.

If these conditions are not met, the proposed project cannot be authorised [1380].

Residual effects on WFD supporting elements

By implication, the WFD assumes that a deterioration between status classes in a supporting element may result in an adverse consequence for one or more of the biological quality elements.

With one important exception⁶ however, if it can be demonstrated with high certainty that a residual effect⁷ on a supporting element will not affect any of the BQEs, Article 4(7) will not need to be applied.

New sustainable development in high status water bodies

The second provision of Article 4(7) can only be applied in specific situations.

New modifications to the physical characteristics of a surface water body, along with new alterations to the level of groundwater bodies, are dealt with under the first provision of Article 4(7) [657].

There is no definition of 'high' status from which WFD chemical status or groundwater status could deteriorate [664] so the second provision cannot be applied to groundwater bodies or to surface water bodies where chemical status would be affected.

⁶ Deterioration in the status of a hydromorphological supporting element in a water body that is currently at high status or maximum potential for hydromorphology [834] may trigger the application of Article 4(7)

⁷ A residual effect being an effect on status that remains even with all practicable mitigation measures in place.

The application of this second provision is therefore likely to be limited; an example where it could be relevant is new wastewater treatment plants discharging in high status water bodies, where inputs of other types of pollutants, (including specific pollutants, nutrients, etc. covered under the WFD physico-chemical supporting elements) could be authorised as long as the development does not drive water body status to below good [653] and 4(7) criteria are met.

The JASPERS' checklist can be used for the assessment of these developments, but it should be noted that such projects can be complex in terms of establishing WFD compliance. If a project other than a physical modification is proposed in a water body that is currently at high status (i.e. close to pristine conditions), it is strongly recommended that advice be sought via early discussions with the WFD competent authority and/or with the European Commission.

Relevance of Article 4(7) to new inputs of pollutants

As indicated in Table 2 of CIS Guidance Document 36 [661], Article 4(7) cannot be used to exempt new, point source (e.g. wastewater treatment works) or diffuse inputs of pollution in any of the following situations:

- 1. In all water bodies, where an input causes a **chemical status deterioration** (i.e. a deterioration in relation to one or more priority or priority hazardous substance) [757]
- 2. In water bodies currently at good status or below, where an input of other pollutants affects status at element level. Pollutants in this case cover the specific pollutants, nutrients, etc. under the physico-chemical supporting elements [757]
- 3. In high status water bodies, where deterioration caused by the input of any pollutant drives status to below good [653].

If a project is likely to have an adverse effect on water body status due to an input of pollutants, it is strongly recommended that advice be sought via early discussions with the WFD competent authority.

Relevance of the other WFD exemptions to new projects

Articles 4(4) and 4(5) are intended to provide Member States with the possibility to extend deadlines or set less stringent targets in relation to the existing status of water bodies. However, there may also be cases where the application of Article 4(4) or 4(5) exemptions can be justified following the successful application of an Article 4(7) exemption and the modification of a water body [1877]. For example, if natural conditions mean that the recovery of the ecosystem (either naturally or following the implementation of mitigation measures) takes a long period of time, an extended deadline might need to be set under Article 4(4). If a project that passes the Article 4(7) tests is likely to rely on a subsequent exemption under Article 4(4) or 4(5) exemption, early discussion with the WFD competent authority is recommended.

Article 4(6) provides an exemption for a temporary deterioration in the status or potential of a water body only in the case of natural causes or "force majeure". This exemption applies **only** to events (such as prolonged floods or droughts) that are exceptional or could not reasonably have been foreseen [717].

Streamlining WFD assessment with EIA and Habitats Directive Assessments

The requirements of the WFD are subtly different from those of EIA or assessments under the Habitats Directive, for example in terms of the parameters to be assessed and the level of detail of evaluation needed. That said, once the scope of the respective assessments has been determined individually, there may be opportunities [1264, 1317] to explore synergies during the data collection and assessment and possibly also the public consultation stages amongst others, before applying the specific 'significance' tests required under each of the individual Directives.

Strategic and policy considerations

The assessment of whether a project is compliant with the WFD, or whether the Article 4(7) tests need to be applied should wherever possible make reference to strategic level information including Strategic Environmental Assessments (which should in any case have made some initial assessment of possible WFD implications [428]) as well as to relevant policies and policy integration considerations [119]. Such cross-referencing is especially important in the event that 'alternative means' test needs to be applied under Article 4(7).

Member States' Article 4(7) guidance and procedures

Member States' internal procedures for determining whether or not the Article 4(7) tests need to be applied may differ from those described in CIS Guidance Document 36 and reflected in this JASPERS' checklist. However, the nature of the specific procedure is less important that its outputs.

This checklist, via its links to the CIS Guidance Document 36, represents current good practice in both determining whether (and why) Article 4(7) is applicable and – where appropriate – whether the Article 4(7) tests are met.

Transboundary considerations

Taking into account that there may be different procedures in different Member States for assessing project compliance, it is worth noting that a proposed project might affect one or more ground or surface water bodies on either side of a national border. In such cases, the WFD project assessment process including the application of Article 4(7) if appropriate will need to be coordinated, and common methodologies (and, where appropriate, thresholds) will need to be agreed with the respective WFD competent authorities. Where relevant, transboundary river basin commissions might act as facilitators of such coordination [1939].

Engagement with stakeholders

Various European and international instruments (e.g. the Aarhus Convention) anticipate the engagement of interested parties (stakeholders) in the project development process. Such instruments provide the overarching context within which WFD project compliance is assessed.

Furthermore, if an Environmental Impact Assessment is being undertaken for the project, the EIA Directive (Directive 2011/92/EU as amended) requires the environmental authorities, the public, and where relevant affected Member States, to be informed and consulted.

CIS Guidance Document 36 confirms the specific expectation that WFD stakeholders will be consulted, either directly or through the required consultation on the River Basin Management Plan, if the provisions of Article 4(7) need to be applied. However, in situations where the Article 4(7) tests do not need to be applied, it can similarly be considered good practice to ensure the decision making process is transparent such that WFD compliance can be demonstrated to interested parties including other competent authorities [1137].

It should also be recognised that early engagement, including during the project development process, can have number of benefits - not least in helping to identify alternatives (at an early enough stage that there are still options available) and, in due course, highlighting possible mitigation measures or opportunities whereby the project might contribute to achieving an improvement in water body status.

Note to the users:

If the project being assessed for Water Framework Directive compliance is relatively straightforward, or where existing supporting information can be referenced, it is possible to use this checklist tool directly by filling in the boxes provided. Otherwise, it is recommended that a separate document be prepared, using the numbers given below to ensure each step in the process is completed.

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.
- 1.1.

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.

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

Note (b) All water bodies potentially affected by the project need to be included in the assessment [1021, 1409]. This is important because Article 4(8) does not allow projects that compromise status in water bodies elsewhere (i.e. in cases where the conditions of Article 4(7) are not met for these other water [1004]

1.3 Record the type and size/scale of each potentially affected water body. Include maps as needed. This is important because any potential effect on a WFD quality element needs to be assessed in the context of the water body [722, 734].

1.3

1.4 List any potentially relevant water-dependent EU protected areas in or adjacent to each water body. Consider the full range of protected area types defined in WFD Annex IV. Include maps as needed. Information about protected areas can be obtained from the WFD competent authority or from the relevant agency.

1.4

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.

1.5

1.6 Indicate the current ecological and chemical status⁸ of each potentially affected water body (chemical and quantitative status for groundwater bodies [542]). In each water body, record the individual elements that are failing to meet their WFD objectives, including the reasons for failure where known. Pay

⁸ Throughout this checklist, the reference to water body or element level 'status' or to an 'effect on status' should be interpreted as including (effect on) 'potential' if the water body in question is designated as heavily modified or artificial.

particular attention to elements that are close to the status class boundary [1085], or are already in the lowest status class [779, 811]. Include the current status of relevant EU protected areas. Information from 1.6 will be needed to inform decisions in STEP TWO.

1.6

Don't forget!

Note (c) Deterioration in status can be more likely if an element is already close to a status class boundary (i.e. a relatively small change might trigger a deterioration in status). Further, for elements that are already in the lowest status class, case law [779] indicates that any observable or measurable [813, 822] change constitutes deterioration. Information about the current status of the water body can be sourced from the latest River Basin Management Plan, from more recent WFD monitoring (if publicly available) or obtained from the WFD competent authority.

1.7 Record the future ecological and chemical status objectives for each relevant surface water body (chemical and quantitative status for groundwater bodies). Highlight any exemptions (derogations) already applied to the water body under Article 4(4) or 4(5) and the associated deadlines where relevant. Include similar information for relevant EU protected areas. Information from 1.7 will be needed to inform decisions in STEP TWO.

1.7

Don't forget!

Note (d) Information about the expected future status of the water body can be sourced from the relevant River Basin Management Plan (RBMP).

Wherever an improvement in status is foreseen, the RBMP should include details about the measures that are proposed to deliver the improvement. Mitigation measures intended to deliver an improvement in ecological potential should also be listed in heavily modified or artificial water bodies.

The RBMP should similarly provide an explanation for any derogations already applied in the water body, for example an extended deadline under Article 4(4) or a less stringent objective under Article 4(5).

1.8 Compile a list of the measures identified in the River Basin Management Plan as being required (or already in place) to ensure that WFD objectives are met in each potentially affected water body. This information will be needed to inform decisions in STEP TWO. 1.8

1.9 Projects can affect the status of a water body alone or in-combination with other projects, activities or works. For each water body, identify any other planned, proposed or already under construction projects, activities, etc. that could affect water body status. This information will be needed to inform decisions in STEP TWO.

1.9

1.10 Taking into account the size⁹ and current status of each water body, use **the** relevant Table 1 to identify if the proposed project could directly or indirectly [596] affect the ecological or chemical status of a surface water body or the chemical or quantitative status of a groundwater body [542], or compromise the status of a water-dependent EU protected area. In other words, establish whether possible cause and effect mechanism(s) exist [1203]. Tables 2 to 9 in CIS Guidance Document 36 provide some useful examples of how WFD status can be affected.

⁹ If the water body has not been properly delineated, it can be difficult to determine whether a project will cause deterioration or affect the ability of the water body to achieve its WFD objective [734]. A precautionary approach should be applied in such cases.

Note (e) In WFD terminology, an effect on water body status means either [1121]:

- a **deterioration** [508,555] across a status class boundary at the scale of the water body (for example from good to moderate; or from moderate to poor; or from good to fail) of an individual element or substance [776] OR
- a modification or alteration, which prevents or **compromises the achievement of an improvement in status** [508, 768] at element level [1234] that could otherwise reasonably be expected (e.g. because of measures proposed in the River Basin Management Plan).

Examples

Direct Vs. Indirect Effects

A new dredge is proposed in a transitional water body. There is a mechanism for a <u>direct</u> effect on depth or on the benthic invertebrates that will be physically removed from the affected area. In addition, however, the deepening could indirectly affect flow characteristics, salinity and intertidal zone structure amongst other elements, with potential consequences for the affected BQEs.

Compromising an expected improvement

A new impounding structure is proposed on a river with an existing but redundant sluice. The RBMP contains a measure to remove this existing sluice, enabling the water body to reach good status. The new structure therefore has the potential to compromise the intended improvement.

Completing the relevant version of Table 1 (rivers, lakes, etc.) <u>for each water body</u> will ensure that all WFD elements are considered in identifying potential effects.

Note (f) A potential effect on a hydromorphological or physico-chemical parameter may affect more than one of the biological quality elements. In addition, particular care is required in water bodies already designated as HMWB or AWB to distinguish between the effects on an existing modification and those associated with the proposed change [925].

For each water body, if the completed table confirms that there is no potential causal mechanism, or if it can be demonstrated that the effect would be so minor as to be un-measurable, provide the evidence needed to support this conclusion and keep a record of the decision in Box 1.10. If Box 1.10 is completed, no further WFD assessment of the project is necessary in that water body.

1.10



Possible stop point!!

If Box 1.10 has been completed, it may be prudent to consult with the competent authority to confirm the conclusion reached in Step 1.10. 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.

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 TWO:

SCOPING THE ASSESSMENT

Note (h) STEP TWO is used to determine whether any further assessment is needed and, if so, which WFD elements should be investigated [1212]. If this step is applied sufficiently early in the project development process, it may be possible to combine subsequent WFD-related data collection or investigations with those needed under other instruments (e.g. Environmental Impact Assessment, or Appropriate Assessment under the Habitats Directive).

2.1 For each water body where one or more potential causal mechanisms is identified or where there is uncertainty about whether status would be affected for any of the elements, refer to the completed Table(s) from 1.10. Place a tick in the relevant box(es) in the second column on the equivalent Table 2 to indicate the WFD elements identified in STEP ONE as possibly being affected by the proposed project. Include any implications for EU protected area characteristics.

2.2 Consider the identified possible effects in the context of the information about the water body highlighted in Sections 1.2 to 1.9 above.

For each of the elements where a potential cause-and-effect relationship has been identified, refer to the relevant Table 2 and answer all of the following three questions (i.e. 2.2(i), 2.2(ii) and 2.2(iii).

2.2(i) Will the effect be temporary?

Don't forget!

Note (i) The application of the Article 4(7) tests is not generally needed if the status of a WFD element is affected only temporarily and is expected to recover within a short period of time 674. Conversely, if the effects on the status of the element are expected to be permanent or to persist over a long period of time, the Article 4(7) tests should be applied to the project.

'Short' and 'long' periods of time are not defined in the CIS guidance, although it is noted that the monitoring frequency for the element in question can serve as an indication [681]. Importantly, however, the guidance also confirms that temporary effects associated with the construction or establishment of the modification or alteration should not trigger the application of the Article 4(7) tests as long as there is no long-term or permanent adverse consequence and no further deterioration in the status of the element is expected.

There are therefore two main situations in which an effect on the status of an element can be considered to be temporary:

- if it can be clearly demonstrated that the element in question will recover (either naturally or as a result of the implementation of mitigation measures 675) within the monitoring period or
- if the effect is associated with construction or establishment and recovery is expected (either naturally or as a result of the implementation of mitigation measures) with no permanent adverse consequence and no further deterioration is expected.

Notwithstanding the scope of the CIS guidance, it is prudent to recognise both that major development projects can take several years and that there is currently a lack of case law. It is therefore strongly recommended that any effects associated with project construction or establishment that last longer than six years (i.e. equivalent to a full WFD planning cycle) should be considered as 'long term'.

Examples:

Temporary effects

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 will 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

2.2(ii) Will the effect be <u>insignificant in the context of the water</u> body?

Don't forget!

Note (j) Particularly for the biological quality elements, the spatial characteristics of the element within the context of the water body need to be taken into account in determining whether an effect is insignificant at the scale of the water body [726]. Especially in large water bodies, the effects of a project may be relatively local in extent. A decision on whether such local effects are insignificant in the context of the water body can only be made with certainty if information about the locations of BQE species or their supporting habitats is also available. If there is uncertainty, it should not be concluded that effects are insignificant.

Note (k) Even if it is demonstrated that a local effect will not affect WFD status at water body level, the same impacts may nonetheless still be important in the context of the Environmental Impact Assessment (and vice versa).

Examples:

Insignificant in the context of the water body

A new flood embankment will lead to the direct loss of 0.8 ha of the 350 ha of saltmarsh in a 30 km² coastal water body. **Conclusion: the effect on the angiosperms 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 saltmarsh in a 30 km^2 coastal water body. Conclusion: the effect on the

angiosperms BQE (deterioration) is NOT insignificant at the scale of the water body

The construction and dredging of 2km of new quay walls in a small transitional water body will result in the loss of 30% of the remaining mudflat. Conclusion: the potential deterioration of the benthic invertebrates BQE is NOT insignificant at the scale of the water body

2.2(iii) Can it be concluded that there are no potential <u>in-</u> <u>combination effects</u>?

Don't forget!

Note (I) Whereas a modification, alteration or development, on its own, might not affect water body status, it is possible that two or more components in the same programme of works, or two or more different projects, might cause deterioration or affect the ability of the water body to achieve its WFD objectives. Cumulative or in-combination effects [1041] should therefore be considered when determining if the Article 4(7) tests need to be applied.

For projects that potentially affect a water body in several locations (e.g. a road or railway running along a river corridor) the cumulative impacts assessment should start with potential upstream effects and progress downstream.

For projects within their scope, the outputs of a Strategic Environmental Assessment or an EIA respectively may help in the understanding of such effects [1652].

Example:

In-combination effects

The construction of an off-line water storage area is unlikely, alone, to affect the status of aquatic flora at the scale of the water body. However, a new bridge is being constructed less than 2km upstream. It cannot be concluded that there are no in-combination effects so further data collection is needed.

Where the answer to <u>all</u> 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 incombination 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. If none of the elements require further assessment, record this conclusion along with the necessary supporting evidence in Box 2.2.



If Box 2.2 has been completed, it may be prudent to consult with the competent authority to confirm the conclusion reached in Step 2.2. For any water body where Table 2 identifies a potential non-temporary¹⁰ effect on the status of one or more elements including through possible in-combination effects, or where there is uncertainty, or where there is the potential for the proposed project to compromise the achievement of water-dependent EU protected area objectives, continue to 2.3.

2.3 Use the outputs from 2.1 and 2.2 to establish the scope of the data collection or investigation needed to inform decisions on WFD-compliance [1212]. Consider how data might be collected and evaluated, or which modelling or evaluation might be appropriate, and use this information to define the scope of the required activity.

2.3

Don't forget!

Note (m) The level of detail of further data collection or investigations should be proportionate to the anticipated risk [1098].

¹⁰ The term non-temporary is used here because the CIS guidance makes reference to 'long periods of time' in the same context as permanent effects: it therefore seems prudent to expect long-term effects on the status of a WFD element(s) to be treated in the same way as permanent effects for the purposes of Article 4(7) assessment.

2.4 Confirm that the scope of the required WFD data collection or investigation has been agreed with the WFD competent authority.

2.4

2.5 Refer to Figure 5 in CIS Guidance Document 36 [1292] and consider whether the necessary data can be collected as part of another assessment – for example an Environmental Impact Assessment (EIA) [1295] or an assessment under the EU Habitats Directive [1344] or vice versa.

Then continue to STEP THREE.

Note (n) In situations where a project falls below the relevant EIA 'threshold' meaning that an EIA is not being carried out, a dedicated but proportionate WFD project compliance assessment may still be needed, for example if the modification will impact on water body continuity.

Note (o) The WFD is concerned with water-dependent, EU protected areas. However, if potential impacts on an EU protected area are properly assessed as part of the EIA, it is unlikely that further additional work will be required to satisfy the WFD. Early discussions about the scope of the EIA should therefore help to ensure its adequacy in this respect. The same applies to Habitats Directive assessments covering water-dependent features in Special Areas of Conservation or Special Protection Areas. As long as such assessments have been scoped with the WFD requirements in mind, additional WFD-specific work may not be needed.

STEP THREE:

FURTHER DATA COLLECTION OR INVESTIGATIONS

Note (p) The WFD 'significance tests' described in Note (e) are subtly different from those for EIA or Habitats Directive assessments. Local and/or temporary effects deemed significant in EIA or Habitats Directive terms are not necessarily also significant under the WFD [1281], but in other cases small changes that are deemed negligible or insignificant in EIA terms can lead to a change in WFD status class (see Note (c)).

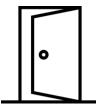
If data are to be collected or investigations undertaken as part of another assessment, care must therefore be taken to ensure they are 'fit-for-purpose' in WFD terms.

3.1 Undertake the data collection and/or commission the investigation(s); then receive and review the outcome(s) to understand:

- 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 <u>all</u> of these questions is 'no' record this conclusion in Box 3.1 along with the necessary supporting evidence. If Box 3.1 is completed, no further WFD assessment of the project is necessary and the Article 4(7) tests do not need to be applied [1245].

Likewise, if there is high certainty that a residual effect on a particular supporting element will not affect the status of any of the BQEs in a water body at good status or below, Article 4(7) does not need to be applied.



3.1

Possible stop point!!

If Box 3.1 has been completed, it may be prudent to consult with the competent authority to confirm the conclusion reached in Step 3.1.

3.2 Where potential effects on the status of one or more WFD elements are identified, including possible in-combination effects, consider whether mitigation measures [1432] can be integrated into the project design so as to avoid, minimise, reduce or offset the risk of the identified effect on status. Record the measures thus identified and provide evidence to explain how they will be implemented as part of the project.

Note (q) There are some subtle but important differences between mitigation measures under the WFD and those required under other Directives.

The WFD does not differentiate between mitigation and compensation. There is no equivalent in the WFD of the requirement under Article 6(4) of the Habitats Directive to compensate for a residual effect; rather, if the Article 4(7) tests are met, the WFD simply accepts that there will be a residual effect [1461].

In the WFD, the objective of mitigation is simply to avoid or reduce the identified possible effect on the status of a WFD element [1440]. Offsetting or compensatory measures, including measures taken in another water body [1499], could therefore be used for mitigation purposes as long as the outcome is to mitigate the effect on the water body in which the possible need to apply the Article 4(7) tests is being considered. Further, mitigation measures will not necessarily be hydromorphological in nature [1514].

Notwithstanding the above, when options for mitigation are being evaluated, it should be considered good practice to apply the mitigation hierarchy [1472], with measures taken on-site to avoid or reduce the problem preferred to off-site or offsetting measures.

In WFD terms, taking all practicable steps to mitigate an effect suggests that mitigation measures should be technically feasible, not disproportionately costly, and compatible with the proposed modification, alteration or use [1492]. The adaptive management concept (i.e. implementing mitigation

measures in response to monitoring outcomes) can provide a useful way forward in situations where there is residual uncertainty about the precise implications of a modification or alteration, or about the adequacy of the proposed mitigation measures [1577].

Examples:

Offsetting measure

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.

Adaptive management

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

Ecologically sensitive resources exist within 2 km of a capital dredging project. Modelling investigations indicate it is unlikely the plume will affect these resources, 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 to ensure deterioration is avoided

3.3 With mitigation measures in place, can it be concluded with sufficient certainty [572] that the project will not cause deterioration or compromise the achievement of good status?

Note (r) 'Sufficient certainty' is not defined in the CIS guidance; rather this decision should be made in collaboration with the WFD competent authority and should be based on sound science with expert judgement where appropriate.

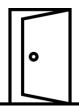
3.4 Confirm that the WFD competent authority is in agreement with the conclusion from Step 3.3 about whether or not the status of the water body will be affected.

3.4

3.3

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.

3.5



Possible stop point!!

If Box 3.5 is completed, no further WFD assessment of the project is necessary and the Article 4(7) tests do not need to be applied. Otherwise continue to STEP FOUR.

STEP FOUR:

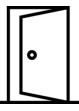
THE ARTICLE 4(7) TESTS

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.

Note (t) Decisions on the applicability or otherwise of Article 4(7) will be site-specific. If mitigation measures can be designed-in to a project such that there will be no measurable or observable residual effect on the status of any element at water body level, Article 4(7) will not need to be applied [1535]. where there is significant uncertainty, however, the Article 4(7) tests should be applied [1111].

If Article 4(7) does need to be applied, all four tests must be met:

- all practicable mitigation measures are in place
- the reasons for the modification or alteration are set out in the relevant River Basin Management Plan (or it can be demonstrated that the proposed project has been subject to at least as much **public consultation** as is the case for the RBMP<u>and</u> the project will be reported in the next RBMP)
- the modification or alteration can be demonstrated to be of overriding public interest, or its benefits to human health, safety or sustainable development can be shown to outweigh the benefits of maintaining or improving water body status (a balancing test)
- it can be demonstrated that there are no technically feasible and not disproportionately costly alternatives that are significantly better from an environmental perspective.

If it is necessary and relevant to apply the Article 4(7) tests, continue to 4.2.

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

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

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.

4.5

Note (z) If a project fails the Article 4(7) tests it cannot be authorised.

Examples:

There will be an effect on status and the article 4(7) tests are met

A new flood defence scheme will affect morphology (the depth and substrate supporting elements) and hydrology (the flow supporting element) in a populated area of 10 km in a 30 km river water body. There will be permanent consequences for aquatic flora and fauna. The Article 4(7) tests therefore need to be applied. All possible mitigation options are considered, including upstream measures and floodplain reconnection, and it is confirmed there are no additional measures. It is satisfactorily demonstrated that no significantly environmentally better alternative exists. An extended cost benefit analysis, undertaken with the proper involvement of stakeholders [1721], 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.**

An extensive programme of measures including ecological enhancement works will mitigate the effects on WFD status of a major coastal erosion control project. However, the implementation of the full programme of works will take several years and there is uncertainty about ecological recovery timescales. This uncertainty triggers application of the Article 4(7) tests. No additional mitigation

measures or significantly environmentally better alternatives are identified, and the balancing test demonstrates that the benefits of the coast protection clearly outweigh the possible delay in the return to WFD good ecological status. **Conclusion: the Article 4(7) tests are applied and are met.**

A new waste water treatment works (WWTW) involves a direct, point source discharge into a high status surface water body. The STEP THREE data collection shows that, with an appropriate level of treatment, the water body will deteriorate to good status but not below. Article 4(7) can be used. All practicable mitigation measures are in place, there is no significantly environmentally better option (such as discharging into a larger river where status might not be affected) and the benefits to human health outweigh the deterioration to good status. **Conclusion:** the Article 4(7) tests are applied and are met.

There will be no effect on status so the article 4(7) tests do not need to be applied

A port fairway is to be deepened from 11.0m to 12.5m over 6 km in a 70 km² 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.**

A new WWTW will involve a direct, point source discharge into a large coastal water body currently at good status. The STEP THREE data collection shows that the proposed level of treatment and the scale of the water body combine to mean no change in WFD status is expected in the water body. **Conclusion: the project can be authorised; Article 4(7) is not relevant.**

A new WWTW is proposed in a water body that is currently at poor status because of the discharge from an existing WWTW nearby. Once the new WWTW is constructed, this old works will be decommissioned Notwithstanding that the new facility will treat effluent from a larger number of households, the intended level of treatment is such that there will be an overall improvement in status. The physical modification required for the new outfall structure is insignificant in the context of the 12km long water body and the new works will not affect the status of the water body in any other way. Conclusion: the project can be authorised; Article 4(7) is not relevant.

There will be an effect on status but the article 4(7) exemption cannot be used

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**.

A new WWTW involving a direct, point source discharge into a surface water body that is currently at moderate status will cause a deterioration to poor status. This deterioration is not the result of a new physical modification or an alteration to the level of groundwater, and a deterioration to below good status will occur. **Conclusion: the Article 4(7) exemption cannot be used.**

Other situations

STEPS ONE to THREE confirm that construction of a road tunnel will both affect the level of the groundwater body (through drawdown) and impact on a groundwater-dependent terrestrial ecosystem (via changes in mineral content due to flow / changes in residency times). In addition, some realignment of a river water body is required at the tunnel entrance, with residual effects on hydrology, morphology and several BQEs. **Conclusion: even though this is not a 'water' project, the Article 4(7) tests need to be applied.**

A new WWTW will involve a direct, point source discharge into a watercourse that is typically dry during the summer months. The assessment identifies several potential effects on status, related to hydrology (introduction of year-round flow); ecology (species that are adapted to or depend on a dry environment for part of the year); and the introduction of contaminants affecting the WFD physicochemical supporting element and possibly also chemical status. Conclusion: it is unlikely that the Article 4(7) exemption can be used. Advice should be sought from the WFD competent authority.

4.6 Even if the Article 4(7) tests are met, Articles 4(8) and 4(9) of the WFD [519] 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, <u>and</u>
- is consistent with the implementation of other European Community legislation [1004], and
- guarantees at least the same level of protection as other existing European Community legislation [390].

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

4.6

4.7 Does the project pass all four Article 4(7) tests <u>and</u> the Articles 4(8) and 4(9) tests? If no, record the reasons in Box 4.7. If Box 4.7 is completed, 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.

4.7

4.8 If the WFD competent authority agrees that the necessary tests are met, record this conclusion in Box 4.8 along with the necessary supporting evidence. If Box 4.8 is completed, it can be concluded that the project is WFD compliant.

4.8



Table 1a 🛛 W	'FD	compliance	assessm	ent	cause-and-effect
mechanisms (Rivers)					
WFD elements	1	Is there a possible of mechanism for a dir on? Notes (a)(c)(e)(g) ²		mechan effect or	a possible causal ism for an indirect n? ı)-(c) and (e)-(g) ³
	H	lydromorphological	supporting e	elements	
Hydrology: quai and dynamics o	-				
Hydrology: connection to groundwaters					
River continuity					
Morphology: riv depth and width					
Morphology: riv bed structure, substrate	er				
Morphology: rip zone structure	parian				
	Pł	nysico-chemical supp	oorting elem	ents	
Thermal condition	ons				
Oxygenation					
Salinity					
Acidification					
Nutrient conditi	ons				
Specific synthet pollutants	ic				
Specific non-syn pollutants	thetic				
		Biological qualit	y elements		
Phytoplankton					

¹ The text in column 1 could be colour-coded blue-green-yellow-orange-red (or using relevant Member State convention if different) to identify the current status of each element.

 $^{^2}$ The scale or significance of any effect is not relevant at this step: the only question is whether a potential causal mechanism exists.

 $^{^{3}}$ The scale or significance of any effect is not relevant at this step: the only question is whether a potential casual mechanism exists.

- see Directive 2008/105/EC am	nended by 2013/39/EU
protected areas (see WFD Ann	lex IV)
	- see Directive 2008/105/EC am

For each element where the answer is recorded 'yes' or 'uncertain', proceed to STEP $\underline{\text{TWO}}$

Table 1b	WFD compliance assessment cause-and-effect
mechanism	ns (Lakes)

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		
Hydrological regime: residence time		
Hydrology: connection to groundwaters		
Morphology: depth		
Morphology: quantity, structure, substrate (bed)		
Morphology: structure of shore		
	Physico-chemical supporting e	lements
Transparency		
Thermal conditions		
Oxygenation		
Salinity		
Acidification		
Nutrient conditions		
Specific synthetic pollutants		

¹ The text in column 1 could be colour-coded blue-green-yellow-orange-red (or using the relevant Member State convention if different) to identify the current status of each element.

² The scale or significance of any effect is not relevant at this step: the only question is whether a potential causal mechanism exists.

³ The scale or significance of any effect is not relevant at this step: the only question is whether a potential causal mechanism exists.

0		
Specific non- synthetic pollutants		
	Biological quality elemer	nts
Phytoplankton		
Macrophytes and phytobenthos		
Benthic invertebrate fauna		
Fish fauna		
Chemical stat	cus - see Directive 2008/105/EC a	mended by 2013/39/EU
Priority substances		
Priority hazardous		
substances		
(list all relevant areas	EU protected areas (see WFD Anr s)	lex IV)

For each element where the answer is recorded 'yes' or 'uncertain', proceed to $\underline{\text{STEP TWO}}$

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
Hydr	omorphological supporting e	elements
Morphology: depth variation		
Morphology: bed structure, substrate		
Morphology: intertidal zone structure		
Tidal regime: freshwater flow		
Tidal regime: wave exposure		
Phy	vsico-chemical supporting ele	ements
Transparency		
Thermal conditions		
Oxygenation		
Salinity		
Nutrient conditions		
Specific synthetic pollutants		
Specific non-synthetic pollutants		
	Biological quality element	
Phytoplankton		
Macroalgae		
Angiosperms		

Table 1c WFD compliance assessment cause-and-effect mechanisms (Transitional waters)

¹ The text in column 1 could be colour-coded blue-green-yellow-orange-red (or using the relevant Member State convention if different) to identify the current status of each element.

² The scale or significance of any effect is not relevant at this step: the only question is whether a potential causal mechanism exists.

³ The scale or significance of any effect is not relevant at this step: the only question is whether a potential causal mechanism exists.

Benthic invertebrate fauna		
Fish		
Chemical status - se	ee Directive 2008/105/EC an	nended by 2013/39/EU
Priority substances		
Priority hazardous substances		
EU (list all relevant areas)	protected areas (see WFD A	nnex IV)

For each element where the answer is recorded 'yes' or 'uncertain', <u>proceed to</u> <u>STEP TWO</u>

Table 1dWFD compliance assessment cause-and-effectmechanisms (Coastal waters)

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
Hydro	morphological supporting ele	ements
Morphology: depth variation		
Morphology: bed structure, substrate		
Morphology: intertidal zone structure		
Tidal regime: dominant currents direction		
Tidal regime: wave exposure		
Phys	ico-chemical supporting elen	nents
Transparency		
Thermal conditions		
Oxygenation		
Salinity		
Nutrient conditions		
Specific synthetic pollutants		
Specific non-synthetic pollutants		

¹ The text in column 1 could be colour-coded blue-green-yellow-orange-red (or using the relevant Member State convention if different) to identify the current status of each element.

 $^{^2 {\}rm The}\ {\rm scale}\ {\rm or}\ {\rm significance}\ {\rm of}\ {\rm any}\ {\rm effect}\ {\rm is}\ {\rm not}\ {\rm relevant}\ {\rm at}\ {\rm this}\ {\rm step:}\ {\rm the}\ {\rm only}\ {\rm question}\ {\rm is}\ {\rm whether}\ {\rm a}\ {\rm potential}\ {\rm causal}\ {\rm mechanism}\ {\rm exists}.$

 $^{^{\}rm 3}$ The scale or significance of any effect is not relevant at this step: the only question is whether a potential causal mechanism exists.

	Biological quality elements	
Phytoplankton		
Macroalgae		
Angiosperms		
Benthic invertebrate fauna		
Chemical status - see	e Directive 2008/105/EC ame	nded by 2013/39/EU
Priority substances		
Priority hazardous substances		
(list all relevant areas)	J protected areas (see WFD A	Annex IV)

For each element where the answer is recorded 'yes' or 'uncertain', <u>proceed to</u> <u>STEP TWO</u>

Table 1eWFD compliance assessment cause-and-effectmechanisms (Groundwater bodies)

WFD elements ¹	Is there a possible causal	Is there a possible causal
	mechanism for a direct effect	mechanism for an indirect
	on?	effect on?
	Notes (a)(c)(e)(g) ²	Notes (a)-(c), (e) and $(g)^3$
Quantitative status	Is there a possible causal	Is there a possible causal
(see WFD Annex V	mechanism for a direct effect	mechanism for an indirect
2.1.2 and CIS	on?	effect on?
Guidance 18)		
Available		
groundwater		
resource		
Groundwater	Direct effects are not relevant:	
dependent surface	effects are associated with	
water bodies	changes in level or flow	
Groundwater-	Direct effects are not relevant:	
dependent	effects are associated with	
terrestrial	changes in level or flow	
ecosystems		
Saline or other		
intrusions		
Groundwater	Is there a possible causal	Is there a possible causal
chemical status [996]	mechanism for a direct effect	mechanism for an indirect
(see WFD Annex V	on?	effect on?

Groundwater chemical status [996] (see WFD Annex V and Directive 2006/118/EC)	Is there a possible causal mechanism for a direct effect on?	Is there a possible causal mechanism for an indirect effect on?
EU protected areas	Is there a possible causal mechanism for a direct effect on?	Is there a possible causal mechanism for an indirect effect on?

¹ The text in column 1 could be colour-coded blue-green-yellow-orange-red (or using the relevant Member State convention if different) to identify the current status of each element.

 $^{^{2}}$ The scale or significance of any effect is not relevant at this step: the only question is whether a potential causal mechanism exists.

³ The scale or significance of any effect is not relevant at this step: the only question is whether a potential causal mechanism exists.

For each element where the answer is recorded 'yes' or 'uncertain', proceed to $\underline{\text{STEP TWO}}$

			J	· /
Under each heading,		2.2(i) Will the	2.2(ii) Is the effect	2.2(iii) Can it be
identify the element(s)	✓	effect be	on the element	concluded that
that could potentially be		temporary?	insignificant <u>in the</u>	there are no
affected by the project			<u>context of the</u>	potential in-
(from Table 1a)			<u>water body</u> ?	combination
				effects
		Note (i)	Notes (j) and (k)	Note (l)
Hyd	ron	norphological supp	orting elements	
Hydrology: quantity and				
dynamics of flow				
Hydrology: connection to				
groundwaters				
River continuity				
Morphology: river depth				
and width				
Morphology: river bed				
structure, substrate				
Morphology: riparian				
zone structure				
Ph	ysi	co-chemical suppo	rting elements	
Thermal conditions				
Oxygenation				
Salinity				
Acidification				
Nutrient conditions				
Specific synthetic				
pollutants				
Specific non-synthetic				
pollutants				
		Biological quality e	elements	
Phytoplankton				
Macrophytes and				
phytobenthos				
Benthic invertebrate				
fauna				
Fish fauna				
Chemical status - s	ee	Directive 2008/105	5/EC amended by 20	013/39/EU
Priority substances				
Priority hazardous				
substances				
EU protected areas (see			of EU protected area	
WFD Annex IV)			xplain your response	2.
		Note (o)		

 Table 2a
 WFD compliance assessment scoping table (Rivers)

Protected area (1)	
characteristics:	
-	
_	
_	
_	
_	
Protected area	
(2) characteristics:	
_	
Protected area	
(3) characteristics:	
-	
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Protected area	
(4) characteristics:	
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Protected area	
(5) characteristics:	
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For each element where the answer is recorded 'no' or 'uncertain', proceed to 2.3

1				• •
Under each heading,		2.2(i) Will the	2.2(ii) Is the effect	2.2(iii) Can it be
identify the element(s)	✓	effect be	on the element	concluded that
that could potentially be		temporary?	insignificant <u>in the</u>	there are no
affected by the project			<u>context of the</u>	potential in-
(from Table 1b)			<u>water body</u> ?	combination
				effects
		Note (i)	Notes (j) and (k)	Note (I)
Hyd	ron	norphological supp	orting elements	
Hydrology: quantity and				
dynamics of flow				
Hydrological regime:				
residence time				
Hydrology: connection to				
groundwaters				
Morphology: depth				
Morphology: quantity,				
structure, substrate of				
bed				
Morphology: structure of				
shore				
Ph	iysio	co-chemical suppo	rting elements	1
Transparency				
Thermal conditions				
Oxygenation				
Salinity				
Acidification				
Nutrient conditions				
Specific synthetic				
pollutants				
Specific non-synthetic				
pollutants				
	1	Biological quality e	elements	1
Phytoplankton				
Macrophytes and				
phytobenthos				
Benthic invertebrate				
fauna				
Fish fauna				
	see	Directive 2008/105	5/EC amended by 20	013/39/EU
Priority substances				
Priority hazardous				
substances				

Table 2b WFD compliance assessment scoping table (Lakes)

EU protected areas (see	Could the status of EU protected area(s) be
WFD Annex IV)	compromised? Explain your response.
Protected area (1)	Note (o)
characteristics:	x-,
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Protected area	
(2) characteristics:	
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Protected area	
(3) characteristics:	
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Protected area	
(4) characteristics:	
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-	
Protected area	
(5) characteristics:	
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<u> </u>	

For each element where the answer is recorded 'no' or 'uncertain', proceed to 2.3.

Table 2c WFD compliance assessment scoping table (Transitional

waters)

Under each heading, identify the element(s) that could potentially be affected by the project (from Table 1c)	~	2.2(i) Will the effect be temporary ?	2.2(ii) Is the effect on the element insignificant <u>in the</u> <u>context of the</u> <u>water body</u> ?	2.2(iii) Can it be concluded that there are no potential in- combination effects
		Note (i)	Notes (j) and (k)	Note (I)
Hyd	ron	norphological sup	porting elements	
Morphology: depth variation				
Morphology: bed structure, substrate				
Morphology: intertidal zone structure				
Tidal regime: freshwater flow				
Tidal regime: wave exposure				
Ph	ysi	co-chemical suppo	orting elements	
Transparency				
Thermal conditions				
Oxygenation				
Salinity				
Nutrient conditions				
Specific synthetic pollutants				
Specific non-synthetic pollutants				
		Biological quality	elements	
Phytoplankton				
Macroalgae				
Angiosperms				
Benthic invertebrate				
fauna				
Fish				
Chemical status - s	ee	Directive 2008/10	5/EC amended by 20)13/39/EU
Priority substances				
Priority hazardous substances				
EU protected areas (see WFD Annex IV)			of EU protected area Explain your response tain	

	Note (o)
Protected area (1)	
characteristics:	
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Protected area (2)	
characteristics:	
characteristics.	
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Protected area (3)	
characteristics:	
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Protected area (4)	
characteristics:	
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Protected area (5)	
characteristics:	
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For each element where the answer is recorded 'no' or 'uncertain', proceed to 2.3.

Table 2d WFD compliance assessment scoping table (Coastal waters)

waters)				
Under each heading, identify the element(s) that could potentially be affected by the project (from Table 1d)	•	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 (I)
Hydro	on	norphological supp	••• · · ·	
Morphology: depth variation				
Morphology: bed structure, substrate Morphology: intertidal zone structure				
Tidal regime: direction of dominant currents Tidal regime: wave				
exposure				
Phy	/si	co-chemical suppo	rting elements	
Transparency				
Thermal conditions				
Oxygenation				
Salinity				
Nutrient conditions				
Specific synthetic pollutants				
Specific non-synthetic pollutants				
		Biological quality e	elements	
Phytoplankton				
Macroalgae				
Angiosperms				
Benthic invertebrate fauna				
Chemical status - see Directi	ive	2008/105/EC ame	ended by 2013/39/E	U
Priority substances			-	
Priority hazardous				
substances				

EU protected areas (see	Could the status of EU protected area(s) be
WFD Annex IV)	compromised? Explain your response.
	Note (o)
Protected area (1)	
characteristics:	
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Protected area (2)	
characteristics:	
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Protected area (3)	
characteristics:	
characteristics.	
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Protected area (4)	
characteristics:	
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Protected area (5)	
characteristics:	
characteristics.	
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For each element where the answer is recorded 'no' or 'uncertain', proceed to 2.3.

bodies)				
WFD elements (criteria)	~	2.2(i) Will the effect be temporary ?	2.2(ii) Is the effect on the element insignificant <u>in</u> <u>the context of</u> <u>the water body</u> ? Note (k)	2.2(iii) Can it be concluded that there are no potential in- combination effects
		Note (i)		Note (l)
Quantitative status			1	.,
Available groundwater				
resource				
Groundwater dependent				
surface water bodies				
Groundwater-dependent				
terrestrial ecosystems				
Saline or other intrusions				
Groundwater chemical stat	us (s	ee WFD Annex V	and Directive 2006/1	18/EC)
EU protected areas (see			of EU protected area	
WFD Annex IV)		compromised?	Explain your response	e. Note (o)
Protected area (1)				
characteristics:				
-				
-				
-				
-				
-				
-				
Protected area (2) characteristics:				
-				
-				
-				
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-				
Protected area				
(3) characteristics:				
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Table 2eWFD compliance assessment scoping table (Groundwaterbodies)

Protected area (4) characteristics: - -			
- - Protected area (5) characteristics:			
- - - -			

For each element where the answer is recorded 'no' or 'uncertain', proceed to 2.3.

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This document has been prepared by the JASPERS Networking and Competence Centre in consultation with experts from JASPERS sectoral divisions.

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