Clearing the waters

A user guide for marine dredging activities – Stage one: the screening stage

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Stage one: the screening stage

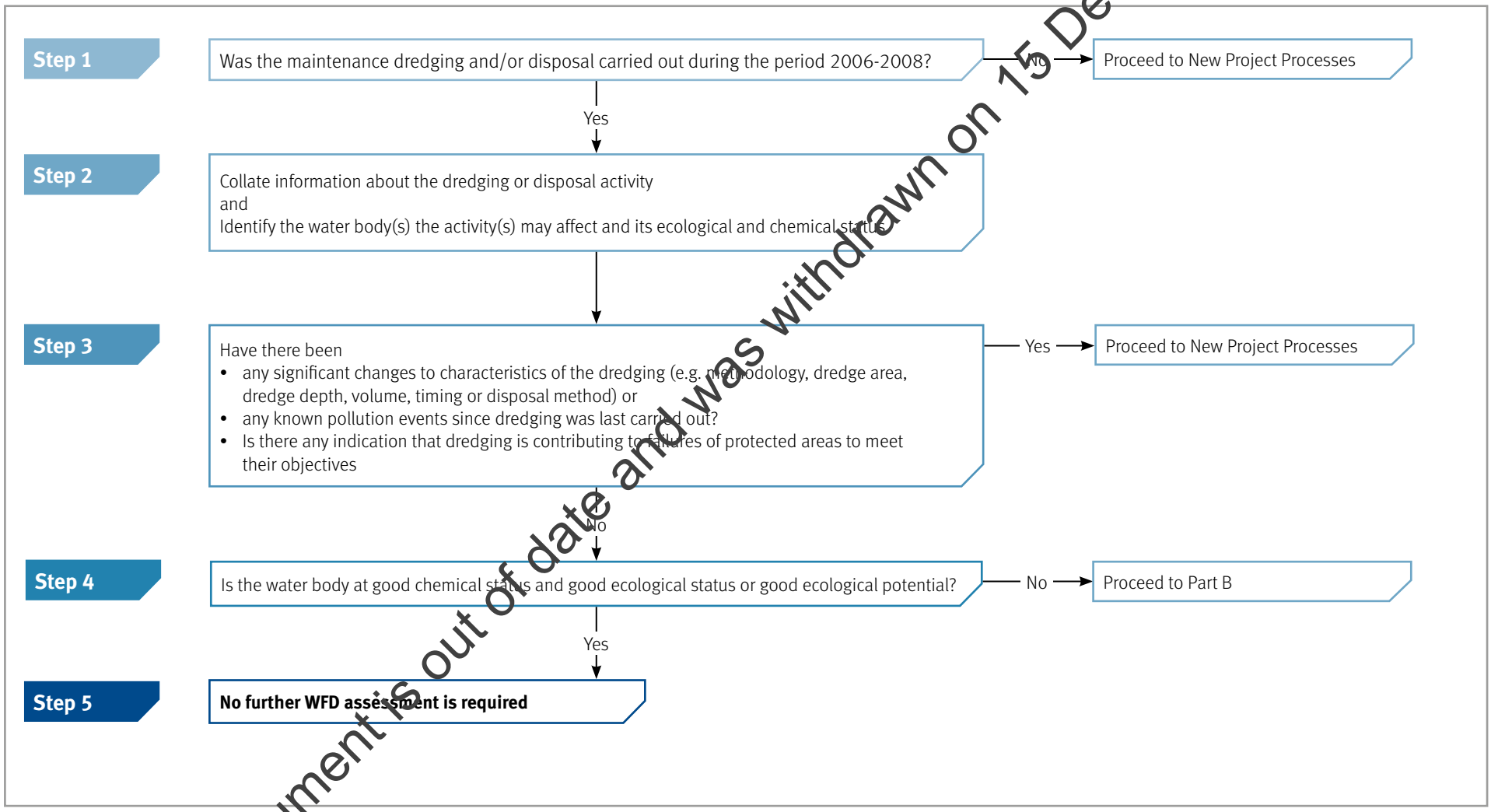
The screening stage enables regulators and operators to determine whether an individual dredging or disposal activity needs further assessment to establish if it complies with the Water Framework Directive. Parts A and B only apply to pre-existing (maintenance) dredging and associated disposal activities. In this context this means activities which started or were ongoing during the period 2006–2008. **New projects – that is, ones started after 1 January 2009 – should go to** New Projects**.**
An activity should be screened **before it is continued** as an early part of the existing licensing or decision-making process.

A **record/audit** should be made and kept of the screening stage and its outcomes.

Further guidance is provided for the decision maker.

Information needed when you start this process: Tables 1 and 2.

Screening process flowchart for dredging and disposal operations



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Part A - Step 1: consider whether the activity has been carried out previously and if so when

This step identifies whether the activity is considered to be **maintenance** dredging or disposal. For the purposes of this WFD assessment, this means activities carried out during the period when we (the Environment Agency) classified the status of water bodies. The classification period was 2006–2008.

If the activity was carried out during this period, we consider we have taken account of any significant effects or impacts on status. Assuming there are no significant changes and that no new information about impacts has become available, the continuation of the dredging or disposal activity should not cause (further) deterioration in water body status. Maintenance dredging that fulfils this criterion will similarly not be considered as a "new modification" in WFD terms.

All other activities now proceed directly to the New Projects Process.

Continue through the screening process if the proposed activity comprises maintenance dredging or associated disposal which is not significantly different from that carried out during the period 2006–2008,

Proceed to the scoping process if proposed activity comprises:

- a new dredging or disposal activity (started since 1 January 2009);
- a maintenance activity was last carried out outside of the period 2006–2008; or
- a maintenance activity that is different to that undertaken during the period 2006–2008.

Action: Refer to dredging records for 2006–2008 and check if dredging and/or disposal was carried out. If yes, identify on Table 1.

Return to flowchart.

Part A - Step 2: identify and collate the information required to apply the screening process

Before applying this guidance framework to a particular dredging or disposal activity, you should collect information on the dredge and environmental information about the location. It may be helpful to refer to the list of information requirements in Table 1. This information will fall into two groups 1) details about the dredging and/or disposal activity and 2) details about the water body(s) that the activity(s) could affect. These tables will help you record your progress through the screening process.

In the first instance, information on the location, volume, method and timing of the proposed dredging or disposal activity is required. You also need to establish which WFD water body or water bodies could be affected by the dredging or disposal activity. To do this you will need to visit our website section "What's in your back yard?" (WiYBY), referring to the relevant River Basin Management Plan. Refer to the user guide for navigating WIYBY and the Plans.

If the dredging or disposal affects two or more water bodies, or if an activity will take place close to a boundary between two or more water bodies, you should identify each of the potentially-affected water bodies at this stage.

You also need to confirm whether there are any protected areas in or close to this water body(s). Protected areas that are likely to be relevant to dredging and disposal activities include the following:

- areas designated under the EC Birds and/or Habitats Directives;
- areas designated under the EC Shellfish Directive and Freshwater Fish Directive;
- areas designated under the EC Bathing Waters Directive;
- areas designated under the EC Nitrates Directive or Urban Wastewater Treatment Directive.

Our WIYBY site and the relevant River Basin Management Plan contain this information.

First collate information about the proposed dredging or disposal activity and identify the name and reference number of the WFD water body within which the activity will take place.

Action: Insert the above information into Tables 1 and 2 as appropriate.

Return to flowchart.

Part A - Step 3: is the maintenance dredging and disposal activity the same as that undertaken during the WDF 2006-2008 classification period?

Changes could include the following:

- method of dredging
- area of depth of dredging
- volume of material to be dredged/disposed
- timing of dredging
- disposal method or location

Are you aware of any pollution events that have occurred since 2008, which may require some level of assessment to ensure that there are no implications for WFD ecological or chemical quality as a result of disturbing sediment.

Is there any indication that maintenance dredging or disposal is contributing to failures of protected areas to meet their objectives?

Go to New Projects if the dredging and disposal activity differs from that carried out during 2006-2008

and/or if there have been any known pollution incidents

and/or if concerns have been raised about protected area objectives

Return to flowchart.

Part A - Step 4: identify the current status of the potentially-affected water body(s)

The aim of the WFD is for all water bodies to achieve "good status". "Good status" comprises two parts. The first is "good ecological status" (or "good ecological potential", for water bodies classed as heavily modified or artificial). The second is "good chemical status". "Good ecological status/potential" includes biological, hydromorphological and physicochemical quality elements and specific pollutants. "Good chemical status" concerns a series of priority substances, including a number of priority hazardous substances. The WFD also requires that relevant protected area objectives are achieved.

We use the term "WFD parameter" throughout this draft guidance framework to refer to some or all of the components of good status.

We sometimes use the abbreviations GES/P for "good ecological status" "good ecological potential" and GCS for "good chemical status".

Refer to our WiYBY website or the relevant WFD River Basin Management Plan to determine whether the water body is already at "good ecological status" (or potential) and "good chemical status". Identify the status of any relevant protected areas.

Action: Refer to our WiYBy site or the relevant River Basin Management Plan to identify the current ecological and chemical status of the water body (along with the objective for 2015 if different) and protected area (if relevant).

If you see that only a partial assessment has been carried out, for example, GES/GEP has been classified but not GCS (or vice versa) or if one or more quality element is not classified, then you should screen the dredging and/or disposal activity for its effects against whichever parameters have been classified.

Wherever relevant WFD data are missing, any licence issued or decision taken is time-limited. There is a condition requiring a return to the screening process when any further dredging campaigns are planned. You should take a risk-based approach on a site-by-site basis to determine the appropriate review period. In some cases, that is "high risk" areas, it may be appropriate to issue a licence for a single dredging campaign. In other locations a licence may be issued for a number of years. This cycle will continue until all relevant water body status data are collected and available from us.

Take a similar approach for protected areas. However, with respect to sites **in England** designated under the Birds and Habitats Directives note that the primary mechanism for addressing impacts of dredging and disposal activities is the Maintenance Dredging Protocol. The Maintenance Dredging Protocol has not been adopted in Wales.

Action: Summarise and record this information on Table 2.

Return to flowchart.

Part A - Step 5: record keeping

Any dredging and/or disposal activity that reaches this step in the process is considered to comply with WFD objectives. You should retain a complete record of the decision-making process (steps 1 to 3), but no further assessment is required.

Keep a clear **record** of the decision-making process.

Action: Record the outcome of the screening process and continue with the normal licensing or decision-making processes.

Return to flowchart.

Table 1: Dredging and disposal information required to inform screening process

	Dredging	Disposal
Location of proposed dredging or disposal activity: • Describe location(s) or provide grid reference or other coordinates. • Dredge footprint (m^2). • Dredge depth (m). • Dredge timing and duration (proposed). • Dredge methodology. • Dredge/disposal volume (m^3).		
Above information relating to any previous dredging and disposal activities at that location.		
Sediment quality data (available from MMO or CEFAS if a marine licence application has previously been made).		
Protected areas in or close to the activity.		
Was this dredging and/or disposal activity carried out during the period 2006–2008? – if no, go to new projects process. – if yes, continue.		
Is there any evidence that indicates that maintenance dredging or disposal activities could lead to deterioration in the status of the water body or delay or otherwise affect the future ability of the water body to meet good status?		
Is the water body (or are the water bodies) already at good status (see Table 2)? – if yes, go to step 5. – if no, continue.		
Could dredging or disposal activities affect or have affected the status of the water body (or water bodies)? – if yes, go to Part B. – if no, continue.		

Table 1 (continued)

	Dredging	Disposal
Are there any (additional) cost-effective, technically feasible and not disproportionately costly dredging- or disposal-related measures that would contribute to a meaningful improvement in the status of the failing parameters at water body level?		
Activity currently complies with WFD objectives?		

Table 2: Water body information required to inform Screening Process

Water body name and reference	Water body size	Current status	If not at "good status", record 2015 objective	If not at "good status", record all WFD parameters at moderate status or below

Part B: Maintenance Dredging and Disposal

Capital dredging and new maintenance dredging or disposal activities should refer to the New Dredging and Disposal Project Process

Step 1

Identify which parameters are failing to meet their WFD objectives. For each of the failing parameters (including protected areas) does the RBMP identify dredging as a cause of the failure of any of (including protected areas)?

Record on Table 3

Yes

Step 2

For each failing parameter, where dredging/disposal is not listed on the RBMP as a cause of failure, use the criteria listed in the Trigger Table to identify if dredging/disposal is considered to be a potential cause of failure.

Record on Table 3

Dredging/disposal **could** be a potential cause of failure

Yes → **Proceed to Assessment**

No – Dredging/disposal is **unlikely** to be a potential cause of failure

Step 3

Are there any (additional) cost-effective, technically viable and not disproportionately costly dredging - or disposal-related measures that would contribute to a meaningful improvement in the status of the failing parameters at water body level?

Yes → **Proceed to Identification of Measures**

No

Step 4

No further WFD assessment is required

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Step B - Step 1: reasons for failure to meet good status or potential

If the water body is not at "good status" for either ecological or chemical reasons, or because a protected area objective is not being met, an operator or regulator should:

i. identify which WFD parameter(s) is causing the failure; and

ii. consider whether the effects of dredging and/or disposal operations may be contributing to the failure to achieve "good status" at water body level.

iii protected area objectives

Refer to the relevant WFD River Basin Management Plan to understand why the water body is failing to achieve "good status" or potential.

The River Basin Management Plan may have already identified maintenance dredging and/or disposal as a significant water management issue at water body level.

Action: Refer to the relevant River Basin Management Plan to identify whether dredging and/or disposal operations are identified as being significant water management issues or pressures and. If so, identify which WFD parameters are being affected. Indicate on Table 3a - c if it is likely that the dredging and/or disposal is contributing to or causing the failure to meet "good status".

If the water body(s) is/area heavily modified for navigation reasons, is dredging a reason why the water body(s) is/are not at "good status" or good ecological potential

Return to flowchart.

Step B - Step 2: potential causal links between dredging, disposal and failure to meet WFD objectives

The River Basin Management Plan may not provide sufficient information to establish whether dredging or disposal is responsible for a water body failing to meet its WFD ecological or chemical status objectives. In such cases, reference should be made to the dredging and disposal 'Trigger Table'.

Action: For parameters where the River Basin Management Plan does not contain adequate information, use the Trigger Table to identify whether dredging and/or disposal activities could have affected the parameter(s) which are not at good status. Indicate on Table 3a - c if it is likely that the dredging and/or disposal is contributing to or causing the failure to meet good status.

Guidance on using the Trigger Table is also provided

If the dredging of disposal activity could be contributing to or causing the failure to meet good status, go to Assessment.

Step B - Step 3: establish whether more can be done to help the water body meet its objectives

In addition to the requirement to prevent deterioration in water body status, the WFD also includes an **aim to improve** objective. This objective applies to any water body not presently at "good status". The requirement for assessment is therefore similarly limited to those parameters that are not at GES/P or GCS. Operators and regulators should therefore consider whether any modifications or additions to the dredging or disposal activity could be made (subject to the tests of technical viability and disproportionate cost). Any such improvements should make a meaningful improvement to the "failing" parameters and could hence contribute to a future improvement in overall status at water body level.

Consider whether, by modifying the dredging or disposal activity, a meaningful contribution might be made to improving those elements for which the water body is currently failing. Any such modifications must be technically feasible and not disproportionately costly.

Action: Review the list of possible measures for dredging and/or disposal activity in Table 8 and 9 (associated with the identification of measures process). Identify those that are already applied to the dredging and/or disposal activity. Bearing in mind the reasons why the water body is not at "good status", consider whether any other dredging and/or disposal-related measures could make a meaningful contribution to the future achievement of "good status". If yes, use the relevant assessment methodologies for identification and evaluation of measures to identify whether the potential measures are technically feasible and not disproportionately costly.

Return to flowchart.

Box A:

Example A: Failing on intertidal structure and benthic invertebrates

Water body 'A' is designated as a heavily modified water body for flood defence. The water body is failing to meet good ecological potential with regard to both intertidal zone structure and benthic invertebrate fauna. According to the River Basin Management Plan, the cause of the failure to meet good ecological potential is the fixed coastal defence line which prevents the intertidal habitat from moving landward. The problem is compounded by sea level rise. In this case, dredging and disposal are not identified as causing or contributing to the problem.

A measure described in the River Basin Management Plan involves the setting back of the coastal defence line into an adjacent area of low-lying agriculture land. Once the existing defence is breached, it is intended that marine sediments will settle out in this low-lying area, facilitating its transition to mudflat and saltmarsh.

If water injection dredging or another form of agitation dredging is already being used for maintenance dredging in this water body and the sediment is therefore already retained within the wider system, **there may not be any further opportunity for dredging and disposal to help improve the status of the water body.**

If, however, maintenance dredging in the water body involves removing the dredged sediment to an offshore disposal site, there may be an opportunity to modify the maintenance dredging and disposal activity so as to contribute to an improvement in water body status. **In this case, the criteria set out in Stage 4: Identification and Evaluation of Measures should be reviewed (i.e. technical feasible, not disproportionately costly, etc).**

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Step B - Step 4: record keeping

Any dredging and/or disposal activity that reaches this step in the process is considered to comply with WFD objectives. You should retain a complete record of the decision-making process (steps 1 to 3), but no further assessment is required.

Keep a clear **record** of the decision-making process.

Action: Record the outcome of the screening process and continue with the normal licensing or decision-making processes.

Return to flowchart.

Table 3a: Information on water body ecological status

Information required on WFD ecological status	RBMP or WiYBY
Current ecological status or potential	
WFD biological quality elements not meeting WFD objectives	
Activities, etc. causing failure(s)	
Any links to dredging and disposal?	
WFD hydromorphology supporting elements not meeting WFD objectives	
Activities, etc. causing failure(s)	
Any links to dredging and disposal including navigation-related GEP measures which are not in place?	
WFD physico-chemical supporting elements not meeting WFD objectives	
Activities, etc. causing failure(s)	
Any links to dredging and disposal?	
Specific pollutants not meeting WFD objectives	
Activities, etc. causing failure(s)	
Any links to dredging and disposal?	
Any opportunities for dredging or disposal to contribute to improvement of failing parameters?	

Table 3b: Information on water body chemical status

Information required on WFD ecological status	Source or link
Current chemical status	
2015 chemical status objective	
Priority and priority hazardous substances not meeting WFD objectives	
Activities, etc. causing failure(s)	
Any links to dredging and disposal?	

Table 3c: Protected area
(NB complete one table for each protected area in or associated with the water body)

Information required on protected area status	Source or link
Name of and type of protected area	
Current status	
Objective and date for achievement	
Features of interest not meeting protected area objectives	
Activities, etc. causing failure(s)	
Any links to dredging and disposal?	

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