

draft RIVER BASIN MONITORING PLAN

# UKTAG SUMMARY PROFORMA

## Benthic Invertebrates - Imposex

### Coastal Waters

22<sup>nd</sup> December 2008

## SUMMARY PROFORMA FOR WATER FRAMEWORK DIRECTIVE

The purpose of this proforma is to summarise the tool

### 1. Project Details

Classification Tool	Benthic Invertebrates – Imposex
Project Reference Number/s	
Sponsor (task team/agency/project)	Northern Ireland Environment Agency
Water category	Coastal Waters (Only)
Biological element	Benthic Invertebrates
Pressures the tool is sensitive to	Hazardous Substances - TBT

### 2. Contact details

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### 3. Criteria for assessing WFD classification tools (with respect to future tool adoption)

Classification Tool Criteria	Response										
1) Please submit your EQRs	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: center;">Boundary</th> <th style="text-align: center;">EQR</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">High – Good</td> <td style="text-align: center;">0.95</td> </tr> <tr> <td style="text-align: center;">Good - Moderate</td> <td style="text-align: center;">0.33</td> </tr> <tr> <td style="text-align: center;">Moderate – Poor</td> <td style="text-align: center;">0.17</td> </tr> <tr> <td style="text-align: center;">Poor – Bad</td> <td style="text-align: center;">0.00</td> </tr> </tbody> </table>	Boundary	EQR	High – Good	0.95	Good - Moderate	0.33	Moderate – Poor	0.17	Poor – Bad	0.00
Boundary	EQR										
High – Good	0.95										
Good - Moderate	0.33										
Moderate – Poor	0.17										
Poor – Bad	0.00										
2) Have the boundaries been intercalibrated in phase 1 – please specify which have/haven't  If there are components of the tool that have not been intercalibrated what is their influence with respect to the intercalibrated boundaries?	No - Hopefully to be intercalibrated in Phase II (2007-2011)										
3) Summary description and/or map of the types (please provide reference to more complex explanation, if necessary; page number specific!)	<p>The Vas Deferens Sequence Index (VDSI) is a component of the Benthic Invertebrate Biological Quality Element and is used to assess the impact of TBT on the common dogwhelk, <i>Nucella lapillus</i>, populations in coastal water bodies. It indicates the occurrence and degree of imposex on the population. The index ranges from zero (unaffected community) to six, (majority of females are sterile due to imposex).</p> <p>Five categories of VDSI were proposed by an OSPAR workshop to describe the effects of TBT on <i>Nucella lapillus</i>. These categories are associated with WFD categories using the definition of Good Ecological Status. The normative definitions indicate that at moderate status dogwhelks would be absent or present in reduced numbers.</p> <p>Reference conditions and class boundaries were set with respect to OSPAR guidance -JAMP Guidelines for contaminant-specific biological effects monitoring (OSPAR, 2002).</p>										

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Classification Tool Criteria	Response
4) Method used to establish the type-specific reference conditions for the tool	OSPAR classes and expert judgement
5) Is the tool covered by an existing CEN/ISO standards - if so, which one? Does it comply with the standard?	No CEN standards are applicable. However there are OSPAR assessment criteria.

Classification Tool Criteria	Response
6) Why was the good/moderate boundary set at that level?	<p>The VDSI has been transposed to a WFD classification from the OSPAR assessment.</p> <p>The border between good and moderate falls between OSPAR Class D and E. (The inference of the normative definitions is that at moderate status many sensitive taxa would be absent shown by the absence, or reduced numbers, of dogwhelks).</p> <p>The VDSI, which ranges from zero to six, has been transformed into an EQR that falls within the range zero to one.</p>
<p>7) Please provide an “implications” of the classification, based on the best available data for any non-intercalibrated G/M EQRs</p> <p>Depending on the tool, this may include:</p> <ul style="list-style-type: none"> <li>• an initial estimate of water bodies in each class across the country (map and/or table);</li> <li>• estimates from trials of how the results are likely to compare with expectations (e.g. in relation to results from applying environmental standards)</li> <li>• how the results for the tool are expected to compare with intercalibrated results for other tools sensitive to the same type of pressure (i.e. more or less stringent)</li> </ul>	<p>The current assessment is based regular (3-yearly) national surveys, which includes 18 sites within seven Coastal water bodies. The assessment is based on the most recent data (2007) and adopts a conservative approach where each water body classified according to the lowest quality site within the water body.</p> <p>It should also be noted that the VDSI cannot be applied to all coastal water bodies, particularly those that do not have suitable rocky shore habitat. In addition, some coastal water bodies that do have suitable habitat were not surveyed.</p>