

Attachment XII

Guidance note on the completion of the Monitoring Protocol Specification (MPS) Data Templates

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Introduction

SEPA's regulation of marine cage fish farms has, for many years, contained a requirement that discharge licence holders must conduct environmental surveys of the seabed around their cages.

These surveys are expensive to conduct and report on, so SEPA must ensure that they are fit for purpose as the data is used to inform it of the site's environmental performance. Over recent years there has been a concerted effort by SEPA and the operators to improve the quality and format of the surveys. This process has lead to a situation where the surveys from all the different operators and their consultants now have an identical format. However, these surveys are on paper and amount to 200-300 per annum so their processing and storage are a significant issue to SEPA.

To improve on the processing and storage of the surveys and to allow more use of the data contained in each, a series of Excel[®] spreadsheet-based survey data templates has been developed – one for each of the 6 survey types used. On completion of a survey, the operator or their consultant will enter the information into the Data Template and then submit this to SEPA to process.

This attachment gives guidance to operators and their consultants on how to complete the Data Templates and thence where to send the completed files.

Accessing the Data Template

The Monitoring Protocol Specification (MPS) Data Templates can be found on the SEPA web site. In the home page choose the **Regulation** option from the list down the left hand side of the screen, then **Discharges to Water / Aquaculture Homepage / Policies / procedures and guidance... / Marine fish farm manual**, and within the list of manual subsections choose the appropriate MPS Data Template within the templates list. Alternatively use the following link:

http://www.sepa.org.uk/guidance/fishfarmmanual/manual.asp

Double clicking on the appropriate Excel[©] icon will open the file to your computer.

The files are saved as read only, therefore upon opening the Data Template it is recommended that the file is saved as a new file to the operator's local computing system and given an appropriate name.

NB> The file format of the Data Templates is an Excel[®] spreadsheet, version 2003 note that operators may experience difficulties in using this version if they have older software. It may be necessary to purchase upgrades to allow the files to be opened.

The six Data Templates that are available are:

- 1. Standard Baseline
- 2. Extended Baseline
- 3. Standard Monitoring
- 4. Extended Monitoring
- 5. Site Specific Monitoring
- 6. Visual Monitoring

The first two Data Templates are to provide environmental data for applications for new sites.

Data Templates 3 to 6 are to be used as per the guidance given in the MPS, which is a part of the discharge consent for each site. It is recommended that operators check the consent to ensure that the correct MPS and Data Template are followed.

Data Templates structure

To ensure consistency across the six available templates the structure of each has been kept as similar as possible. Whilst only one template will be used per consented site, operators will commonly have multiple sites each with some variations in MPS requirement so it is important that the look and feel of each template type is as generic as can be.

Each template consists of a set of five worksheets, the first of these gives guidance and the remaining four are for data entry.

The worksheet tabs are titled as follows:

- Worksheet 1. Introduction and Guidance,
- Worksheet 2. Survey Cover Sheet,
- Worksheet 3. Documents,
- Worksheet 4. Data Sheet, and
- Worksheet 5. Species Abundance Matrix/Submission Sheet.
 Note that Worksheet 5 in the Visual Monitoring Template is a Submission Sheet which is unique to this Template.

For data entry in Worksheets 2-5, the cells to be used for data entry are all coloured green and are formatted to allow either text or numeric data entry. Note that it is not a

requirement for every green box to be filled in, some will necessarily have to left blank depending upon the vagaries of the completed survey, e.g. a shallow Redox core will only produce a limited number of data points within the available number in the template. All the cells are formatted to expand allowing unlimited length of data entry to be added.

Guidance for completion of each Worksheet

Although SEPA has tried to ensure that the worksheets are self explanatory and that data entry should look and feel similar to the previous paper format survey reports, the text below provides some guidance and notes on how to complete each individual worksheet.

Worksheet 1. Introduction and Guidance

This sheet contains general information and guidance notes for completion of the other worksheets in the file. It also gives information on how to send the completed Data Template file to SEPA.

Worksheet 2. Survey Cover Sheet

This allows information on the site, the survey and details of in-feed sea lice treatment dates to be entered. It is a requirement that this be completed as far as possible; **the Data Template will be returned to the sender if this is left blank or incomplete.**

Worksheet 3. Documents

This is the location where any word documents associated with the survey are to be saved. These include sections such as: methods, discussion, graphs etc.

There are nine documents embedded as objects in this worksheet. Double clicking on the document icon opens the document. Text produced as a part of the survey report or data sheets (PSA or residues information sheets) from a sub contractor may be pasted into these pro forma files. Not every survey will contain all nine document files therefore not all are required to be completed.

The Benthic Report document includes a template which is to be used for guidance only.

NB> On this worksheet, the documents have been listed and correspond to the numbered icons, as occasionally as a quirk of the system, the icon and the title of the embedded object changes from its original title to 'Document'. This new icon still opens the original document.

Worksheet 4. Data Sheet

This worksheet is the main data entry form for survey data. It contains a series of tables, many of which are smart and will carry out some basic raw data processing tasks, e.g. to assist with the conversion of Redox survey mV readings to Eh (Redox potential).

Table 1 - Station Positions

• The information entered in the Station and Direction field will populate associated fields in subsequent tables. Please use the specified nomenclature in the Station Position and Direction field as appropriate for the survey transect, e.g. 50mN, 25mE and 100mW.

• The DGPS (Differential Global Positioning Satellite) fields have been formatted and pre-populated with 00°00.00.

Table 2 – Sediment Descriptions

Data can be entered freehand into cells.

Table 3 - Redox

- It is important to refer to the MPS and Annex F in completing this table.
- Table 3.1 to 3.4 Data for two replicates at each sample location should be entered. Enter only the top and bottom sediment temperature and the raw mV data. Use Table 1 in the relevant MPS to choose the relevant temperature-adjusted mV to Eh (Redox potential) correction value.
- The Redox potential is automatically calculated when data has been entered in both Table 3 and Table 3.1 to 3.4

Table 4 – Sediment Chemistry

- The data entry cells are formatted in decimal format.
- 'Spare' fields are for SEPA use only.

 Table 5 - Particle Size Analysis (PSA)

- Data entry is in decimal format.
- Classification data can be entered freehand, the cells are formatted to expand allowing unlimited length of data entry to be entered.
- The 'spare' field is for SEPA use only.

Table 6 – Faunal Summary

- Data entry is in decimal format
- For the parameter, Number of Enrichment Polychaetes, if the mouse pointer is moved over this cell a list of Enrichment Polychaetes will be shown.

Table 7 – Residue Returns

- Is only included in appropriate surveys.
- Is only required to be completed if in-feeds have been administered.
- Data entry is both numeric (decimal) and text

Worksheet 5. Species Abundance Matrix/Submission Sheet

This worksheet contains the faunal raw data.

The entry of the Marine Conservation Society (MCS) Code is optional.

Data can be entered freehand, or by cutting/pasting from another document; the cells are formatted to expand allowing unlimited length of data entry to be entered. The protection properties allow Sort, Format columns, Format rows and Format cells. The freeze pane option freezes both header rows and species columns. For example, if only two replicates are collected the remaining three columns can be hidden.

Taxa must be listed as genus and species in 2 separate columns.

Numbers of species entered are automatically totalled for each species and for each repetition.

Submission of the Completed Data Templates

The Information and Guidance worksheet gives information on how to send the completed Data Template file to SEPA.

Save the data template using the 'Save as' function listed in the File menu, renaming the file as appropriate.

The operator should send two copies of the completed template in a CD or DVD format or email the completed submission to the local SEPA office.

Any questions or queries concerning the completion of the Data Template or submission of the completed file should be directed to FFMonitoring@sepa.org.uk or local SEPA office.