DQM Standard Operating Procedure (SOP) 9.4.1.1

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Use of the DQM Generic Monitoring Task List Template

(This paragraph is common to all DQM SOPs. If you have seen it already, please skip to Section 1 below). This is a new type of guidance, created as part of the Data Quality Management (DQM) System implemented by the Clean Water Team (CWT) to support collection of reliable data of known quality in a fully documented, scientifically defensible manner.

1.0 About this SOP

This SOP provides instructions for using the generic Monitoring Tasks template, provided in electronic format (and in hardcopy as part of the SOP), as a planning and tracking tool for a watershed monitoring Project. The guidance augments Project-planning DQM guidance that will be provided by the CWT in the future. This SOP is intended to be used by citizen monitoring groups or local agency staff, and is focused on roles, responsibilities, and tasks associated with typical watershed monitoring Projects. In this context, a "Project" is defined as a data collection effort, performed by one or more organizational entities, and is limited in space and time.

The steps, tasks, and procedures associated with an environmental monitoring project are challenging. Many times, Project proponents are not aware of the amount of effort and coordination a successful Project requires. If you are the Technical Leader of a monitoring project and you are interested in running a Project that delivers good data, this task list may help you plan it and track its implementation.

There are many tasks, and this list contains all the tasks CWT has encountered so you can use it as a baseline. You can tailor it to your needs by deleting irrelevant tasks and adding relevant ones. You can also use it as a planning and "scoping" tool (preparation of a scope of work), and to line up the folks that will work with you on the Project.

The list walks the planning team through the tasks of question formulation, parameter selection, reconnaissance and Station selection, development of DQOs and sampling design, method selection, kit purchase and testing, training, data gathering, data management and entry, data validation and analysis, and all the way to data reporting. Beyond the tasks listed, the table also contains placeholders for the effort (labor) required to complete each task, for the role title

and the name of the person responsible to perform the task, for a product if applicable, and for the timeline for task completion. The file has been created in Excel to allow sorting by any field, so each Project person can easily see the tasks for which he/she is responsible. It is hoped that this organized listing will help avoid situations where some of the Project tasks slip between the cracks.

2.0 Definition of Project roles

This guidance assumes the use of the "DQM Project File", a Microsoft Excel workbook with multiple spreadsheets that include all the results, result descriptors, and supporting documentation relevant to one Project. It also assumes that there is a team of several people that are working on the Project, and that the other DQM guidance is accessible to them. However, a Project can be run by one person who carries out all the tasks. The DQM identifies –and provides guidance for – three major roles in the data collection effort.

Field Operator – conducts measurements, calibrations, and accuracy checks; collects and dispatches samples for analysis off-site. In addition to the sampling and testing equipment, these DQM materials should be provided for the field operator:

1. Hardcopies of instrument-specific SOPs for all the kits and instruments used by this team of field operators.
2. "Field Data Sheet for Water Quality Monitoring" – hardcopy for the results.
3. Hardcopy instructions - how to fill every cell of the Field Data Sheet for Water Quality Monitoring.
4. "Calibration and Accuracy Checks Sheet" – hardcopy for calibration/accuracy check records.
5. Hardcopy instructions – how to fill boxes of the Calibration and Accuracy Checks Sheet (generic and written to match instrument-specific guidance in SOP).

Trainer and Quality Assurance (QA) Person – the Project person responsible for documentation and data quality. Specific materials for the Trainer & Quality Assurance (QA) Person include:

1. DQM Project File template with entry examples, as an Excel workbook on a disk.
2. Guidance on how to enter results, calibration records, and results of accuracy checks into the Project File. Essentially, this will be done by copying cell contents from the "Field Data Sheet for Water Quality Monitoring" into the appropriate cells in the RESULT spreadsheet, and from the "Calibration and Accuracy Checks Sheet" hardcopies into the

corresponding spreadsheet (this task can be easily delegated to anyone with minimal spreadsheet skills).
3. Guidance on how to fill out the LOCATION, INSTRUMENTS, STANDARDS, and PROJECT ORGANIZATION spreadsheets in the Project File.
4. Guidance on how to run a data validation sequence and attach the appropriate qualifier to each result.
5. Glossary of menu items and list of codes used in the Project File.

Technical Leader & QA/QC Officer – The Project person responsible for maintaining contact with the technical experts and the data users that were involved in question formulation and in developing the Monitoring Plan and the data quality objectives (DQOs) for the Project. The Technical Leader is ultimately responsible for completion and delivery of the Project File. Although in some Projects the roles of the Trainer and the technical Leader may be performed by the same individual, the guidance in the Integrated DQM System will be tailored to each role and provided in two separate chunks. Specific materials for the Technical Leader include:

1. Guidance and template for the use of the DQM Monitoring Tasks Template (this SOP).
2. Guidance for entering the information related to the intent and the sampling design into the appropriate fields in the Project File.
3. Guidance for development of a Monitoring Plan and a Quality Assurance Plan.
4. Guidance for compilation and calculation of final QA/QC results for the Project, including instructions on how to write the QA/QC Report for the Project.
5. Glossary of menu items and list of codes used in the Project File.

3.0 How to use the Monitoring Task List

Obtain the template and save it under a new name.

Step 1: Determine which tasks are relevant to your Project.
Step 2: **Delete** irrelevant tasks.
Step 3: Identify the people that will perform each task or group of tasks, and secure their commitment
Step 4: Fill out the personnel fields of the Task List template
Step 5: Discuss the level of effort and required time with Project personnel for each of their tasks, determine deliverable dates, and enter all that information into the appropriate fields in the Task List.

4.0 Sources and Resources

(This section is common to all DQM-SOPs, except for the title and SOP number in the citation) This SOP is an integral part of the Data Quality Management (DQM) System implemented by the Clean Water Team, the Citizen Monitoring Program of the California State Water Resources Control Board.

For an electronic copy, to find many more CWT guidance documents, or to find the contact information for your Regional CWT Coordinator, visit our website at www.swrcb.ca.gov/nps/volunteer.html

If you wish to cite this SOP in other texts you can use "CWT 2004" and reference it as follows:
"Clean Water Team (CWT) 2004. Use of the DQM Generic Monitoring Task List Template, DQM-SOP-9.4.1.1. in: The Clean Water Team Guidance Compendium for Watershed Monitoring and Assessment, Version 2.0. Division of Water Quality, California State Water Resources Control Board (SWRCB), Sacramento, CA."

Note: To implement this guidance you need to obtain the electronic copy of the task list template. Look for an Excel file with the number 9.4.1.1 in the file name.