

# Volunteer Monitoring Program

## Guide for Viewing Water Quality Data

### How to Interpret Processed Data Output Files

#### Purpose Statement

This document provides instructions for viewing continuous water quality data output files processed by DEQ. Continuous datasets submitted by volunteer program partners undergo data review and are uploaded into a local VolWQdb database. The intent of this database is to stage the data for transfer to a publically accessible database.

To open the provided zipped folder you will need to manually rename to files to end in “.zip”.

Naming convention for the files within the zipped folder begins with a four digit tracking number used by the DEQ to group a data submission together. The remainder of the file name describes the information within the file. Data are broken down by data logger and parameter. To be consistent with the STORET database, parameter is referred to as characteristic or ‘charid’ in the data files.

#### Continuous Data

##### Summary Data

- *DeployStats.csv* – File provides summary statistics for each sensor covering the entire deployment of a data logger.
- *DailyStats.csv* – File provides statistics for each day of deployment for each sensor. Each row of data has all the statistics for a specific day. These are the statistics that are stored in the database. The fields include the following:
  - dDTmin – start time of the daily statistic
  - dDTmax- end time of the daily statistic
  - dyN- number of logged results
  - hrNday- number of hours in day with logged data
  - dydql- data quality level based on QC review
  - dDQL- data quality level based on number of logged results
  - dyMean- mean for characteristic on the date
  - dyMin- minimum for characteristic on the date
  - dyMax- maximum for characteristic on the date
  - delta- difference between max and min for the day
  - dyMedian- median for characteristic on the date
  - anaStart- first logged result used for moving average
  - anaEnd- last logged result used for moving average
  - ma- moving average
  - cmnt- comments associated with results

##### Plots

Very simple plots are included for each sensor in the files ending with “.png”. The color of the point represents the final data quality level assigned to the data. For temperature and dissolved oxygen moving averages are displayed as blue lines. Also generic water quality criteria are displayed but these are not specific standards for the site in question and are provided only for informational purposes.



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## R files

Files containing the R script used to process the data as well as output files generated during processing are provided. Files ending in “.R” are the script files, and files ending in “.Rdata” are generated during processing. For each sensor there are three files:

(1) Contains the logged results, (2) contains the field audits, and (3) is a script displaying any changes to the data quality levels made during data review.

## **Accessibility**

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email

[deqinfo@deg.state.or.us](mailto:deqinfo@deg.state.or.us).