

Date: June 14, 2012

To: The Surface Water Ambient Monitoring Program (SWAMP) Roundtable

From: The SWAMP Data Management Team (DMT) and Quality Assurance Team (QAT)

Subject: Storing Bacteria Parameters with Different Units

Background

It has come to our attention that there may need to be an allowance for bacteria results to be reported in different units dependant on the method used. Currently SWAMP only allows one unit per analyte matrix combination to be reported for analytical results. However, depending on the method used, bacteria can be reported in 2 different units that are not interchangeable or convertible. For this reason we are asking for a RT vote to allow the coliform (total and fecal) and E. Coli analytes to be reported in the unit appropriate for the method used.

RWB6 has over 4 years worth of bacteria trend monitoring of fecal coliform and E. Coli where results were analyzed by a membrane filtration procedure to achieve a more precise measurement. These methods require fecal coliform and E. Coli to be reported in cfu/100mL. The SWAMP QAPrP states the unit for fecal coliform and E. Coli should be mpn/100ml but does not take into consideration that different bacteria methods for the same analyte are reported in different units. RWB6 is requesting that multiple units be allowed in the SWAMP database for fecal coliform and E. Coli based on the method performed since the units of mpn/100ml cannot be converted to cfu/100ml and they desire a more precise measurement of fecal coliform and E. Coli.

This proposal was discussed with Jaclyn Pimental of the Assessment Unit at the State Water Resources Control Board (State Board). Because the assessment standards do not specify a unit, they are comfortable with us reporting in either unit.

Proposed Action

This request is for the State Board and voting members of the SWAMP RT to determine whether to allow multiple units when different bacteria methods are used.

The SWAMP Roundtable vote was unanimously in favor of the proposed update. It is summarized in the following table:

Voter	Vote Tally
Regional Waterboard 1	Accepted RF
Regional Waterboard 2	Accepted KT
Regional Waterboard 3	Accepted KW
Regional Waterboard 4	Accepted ML
Regional Waterboard 5	Accepted AW
Regional Waterboard 6	Accepted TS
Regional Waterboard 7	Accepted JG
Regional Waterboard 8	Accepted HB
Regional Waterboard 9	Accepted LB
State Board	Accepted SA

Outcome

Accepted Outcome:

- Region 6 data was reported in SWAMP database.
- Memo is posted online at: <http://swamp.mpsl.miml.calstate.edu/resources-and-downloads/quality-assurance/quality-assurance-memos>.
- SWAMP QAPrP is updated at next revision.
- A global data check was created by DMT to ensure that the correct units are reported for the method cited.