

Memorandum

To: SWAMP field crews and project managers

From: Office of Information Management (OIMA), SWAMP Information Management and Quality Assurance (IQ) Center

Date: 03/11/2016

Subject: Addition of two new analytes to Bioassessment Field Data Form with Algae (SWAMP stream habitat characterization form or BA field form) to assess whether data collected at a site was affected by scour and if channels are engineered.

Why: The 2016 Standard Operating Procedures for the Collection of Field Data for Bioassessments of California Wadeable Streams: Benthic Macroinvertebrates, Algae, and Physical Habitat (Field SOP) states; “it is strongly recommended that sampling be carried out at least two, and preferably three, weeks after any storm event that has generated enough stream power to mobilize cobbles and sand/silt capable of scouring stream substrates.” After several meetings and email correspondence between Betty Fetscher, Kevin Lunde, Marco Sigala, Raphael Mazor, Pete Ode and the SWAMP IQ Team, it was determined that we needed to be able to record on the field forms if scour had occurred after a rain event or a discharge release. As the SOP was being revised to include scour information, the need to add engineered channels, as a recorded option, was also discussed. The Stormwater Monitoring Coalition at SCCWRP, which works closely with the SWAMP Perennial Streams Assessment, is making edits to their 2016 field forms to add engineered channels. With the SWAMP Field SOP being updated, the timing was good for SWAMP to make these additions to the BA field forms as well.

What, Where, and When: A new analyte has been added to the SWAMP database to record when field crews observe evidence that a scouring event has occurred. **The analyte is: Evidence of scour; options are Yes or No.** This analyte is available for use within the updated version of the BA Field Form for the 2016 field season to note whether scour is evident within the sampling reach. If using the user interface for the BA Field Form, the analyte can be found under the “Notable Field Conditions” section of the Discharge data entry form. If using printed copies of the BA field form the analyte is in the ‘**Notable Field Conditions**’ section. The new notable field condition on the form is labeled: **Site is affected by recent scouring event.** This information will let data managers know if recent rainfall or a release event potentially had an impact on the streambed. Checking ‘Yes’ for this analyte will prompt for a QA code to be added to all or specific BMI and/or algae data collected at that site.

Another analyte in the ‘**Notable Field Conditions**’ section on both the user interface and the printed version of the 2016 BA Field Form is labeled: **Channel Engineered; options are Yes or No.** Engineered channels include streams that have been straightened or armored (with riprap, rocks, grout, concrete, or earthen levees) on the banks, streambed, or floodplain of the channel. Partially armored channels (e.g., armored only at bridge abutments) are also considered to be “engineered”.

How: Direction on how to evaluate a stream for scour and information on engineered channels has also been included in the 2016 *Standard Operating Procedures for the Collection of Field Data for Bioassessments of California Wadeable Streams: Benthic Macroinvertebrates, Algae, and Physical Habitat Version 2*

Field crews will record whether or not scour is observed in the Notable Field Conditions section of the BA Field Form. If ‘**No**’ is checked, no further action is necessary. If ‘**Yes**’ is checked:

Discussion note: The group will continue discussion about what QA code will be used to flag data affected by scour and other analytes that are possibly affected by scour.

1. Field crews will consult with the Project Manager to enter additional information and add opinions about the scour event, such as size of and actual time since storm events or a discharge release, in the Field Notes/Comments section of the BA field form. This step will occur back at the lab/office.
2. Project manager will notify the SWAMP IQ Team of recorded scour through the OIMA helpdesk. The project manager will give the project code, station code and sample date, along with whether BMI and/or algae were collected at that site to the SWAMP IQ Team. A QA flag will be manually applied to the appropriate data by the SWAMP IQ Team.

Field crews will record in the Notable Field Conditions section of the BA field form, whether or not a channel is engineered based on the definition above. If **'No'** is checked, no further action is necessary. If **'Yes'** is checked:

1. Field crews will record observations of engineered features on the banks, streambed and/or floodplain of channel in the notes section of the BA field form.

Discussion note: The group will continue discussion about what QA code will be used to flag data affected by scour and other analytes that are possibly affected by scour.