Your Cheat Sheet to "Red Flag" Monitoring with the Community Science Institute

Obtaining high-quality data is **essential** to the "red flag" monitoring program. Keeping track of all of the steps involved can be confusing. This cheat sheet aims to keep things simple and help you manage the logistics of monitoring.

The most important resource that you have is your **field data sheet**. Most of the time you will use the field data sheet just to enter your results and won't read over it; and that is fine! But please do read it over thoroughly at least once so that you know what is there: reminders about how you need to collect the sample, data acceptance requirements and contact information.

Before you go out:

- ☐ Contact your team members to schedule your monitoring day.
- ☐ Make sure you have enough field data sheets for all of your sites. A ziploc gallon bag can help keep these dry when you are in the field.
- ☐ Run the pH, conductivity and total hardness calibration standards provided by CSI before you go to your sites, or at the first site.
- ☐ Periodically check the levels and expiration dates of chemicals in your test kits.

At your first site:

- ☐ If you haven't already, run your three calibration standards and enter your results on the field data sheet.
- ☐ Perform duplicate tests for each of the five parameters (Temperature, pH, Dissolved Oxygen, Conductivity, Total Hardness) and write your duplicate results on the field data sheet in the space provided.
- ☐ Your duplicate results for temperature should be within 1° C of each other, pH dups within 0.5 pH units, dissolved oxygen and total hardness dups within 20%, and conductivity dups within 10% of each other. Repeat until this precision is achieved.

We cannot stress enough the importance of performing quality control (QC) tests and <u>recording</u> QC test results. It is essential that you check calibration standards, perform duplicates AND record these results on the field data sheet. <u>If you do not do the QC tests on your monitoring day, we cannot accept any of your results for that day!</u> The only way for us to know you have done QC tests is by you recording them. We want to accept your results and absolutely need QC results to do that!

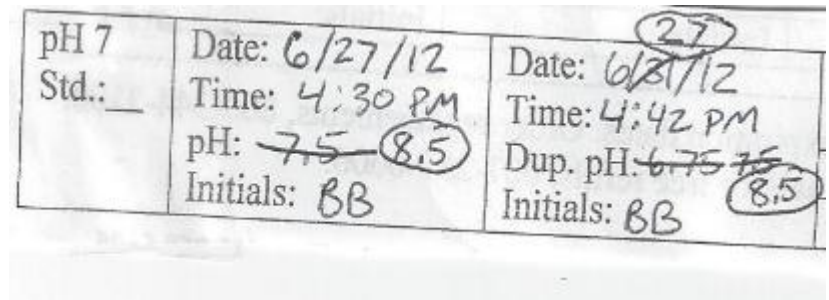
At all of your sites:

- ☐ Perform temperature and pH tests immediately after collecting sample.
- ☐ Fill the dissolved oxygen bottle without bubbles. Add the first three chemicals according to kit instructions so that sample is "fixed". You can finish this test on site or within 8 hours.
- ☐ Follow the instructions with the LaMotte kits for each of the tests.
- ☐ You can perform all of the tests on site if you wish or you can take home a sample in a clean, labeled container to test for conductivity and total hardness within the holding times listed on the field data sheet.
- ☐ It is recommended that the person doing the duplicates and standards for a given parameter continue to test that parameter on that day.

After your monitoring:

- ☐ Check your field data sheets to make sure everything is legible and recorded properly. If there is anything special that you want us to know about, such as unusual visual observations, please write them in the margins of your data sheet. If there is not enough room, write on additional paper or send us an email.
- ☐ If you had to cross out anything on your field data sheet and rewrite it, please use the following guidelines:

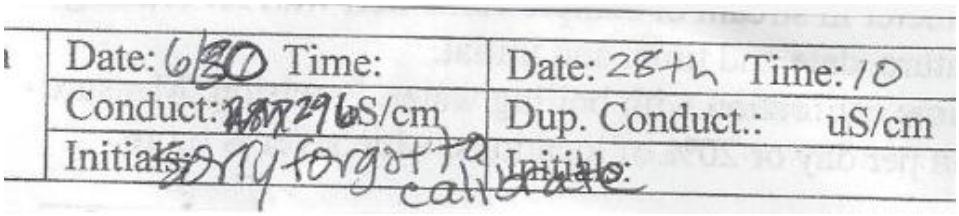
Correct: Single strike-through the mistake, correction circled.



pH 7 Std.:__	Date: 6/27/12 Time: 4:30 PM pH: ~~7.5~~ 8.5 Initials: BB	Date: 6/~~31~~ 27/12 Time: 4:42 PM Dup. pH: ~~6.75~~ ~~7.5~~ 8.5 Initials: BB

Correct!

Incorrect: Writing overtop of a mistake, writing over instructions, scribbling out entirely, ambiguous information (like the date and time below)



Date: 6/30 Time:	Date: 28th Time: 10
Conduct: 296 uS/cm	Dup. Conduct.: uS/cm
Initials: my forgot to calibrate	Initials:

Incorrect

- ☐ Send your **original** field data sheets in the mail to CSI within 3 days or as soon as you can. We encourage you to make copies or scan the field data sheets for your own records.
- ☐ If you are sending a split sample in the mail, enclose the sample bottle in a closed plastic bag. Send in a padded envelope or box. Make sure that the sample tracking sheet (titled "Acceptance Policy for Non-potable Water Sample") is filled out and sent with the sample. You should initial or sign where it says "Relinquished By".

Contact Becky at CSI (becky@communityscience.org or 607-257-6606) if:

- You see something out of the ordinary at your site that indicates a spill or contamination.
- You need more calibration standards
- You are unable to get the desired result from the calibration standard after repeated tests
- Your team is unable to monitor this month - not a problem, just let us know!