Horizons Regional Council Contact Recreation Programme

Data Entry, Quality Control and Troubleshooting Procedures

Created by: Jack O'Carroll, December 2017.

Last updated: Hannah Rowe, June 2024.

Purpose

Horizons Regional Council (HRC) undertakes contact recreation monitoring according to the National Policy Statement for Freshwater Management (NPS–FM) and the Ministry of Health and the Ministry for the Environment's Microbiological Guideline for Marine and Freshwater in Recreational Areas.

Data from the Contact Recreation programme, unlike all other data at HRC, is made publicly available immediately on receipt of the data. This data informs the public of potential health risks at various sites which has been sampled as soon as 48hr prior. The data procedure is put in place to ensure the quality of data is maintained as the time frame is short between sampling realising that data publicly.

This document should be used at as state of procedure for entering data, archiving data and fixing basic mistakes found in Hilltop Sampler. The Hilltop procedures should be used in conjunction with the project lead, head biomonitoring scientist or Michaela Rose. If the data has been altered in Sampler or in Hilltop Manager then Michaela will need to be informed of what was done so she can ensure the correct data is replicated to the server.

Table of Contents

Use and Flow of Data

The data goes through many stages to ensure the Contact Recreation raw, sorted data and published data is as accurate as possible. Below displays the basic flow of Contact Recreation data to give context for working and potentially fixing the data during the season.

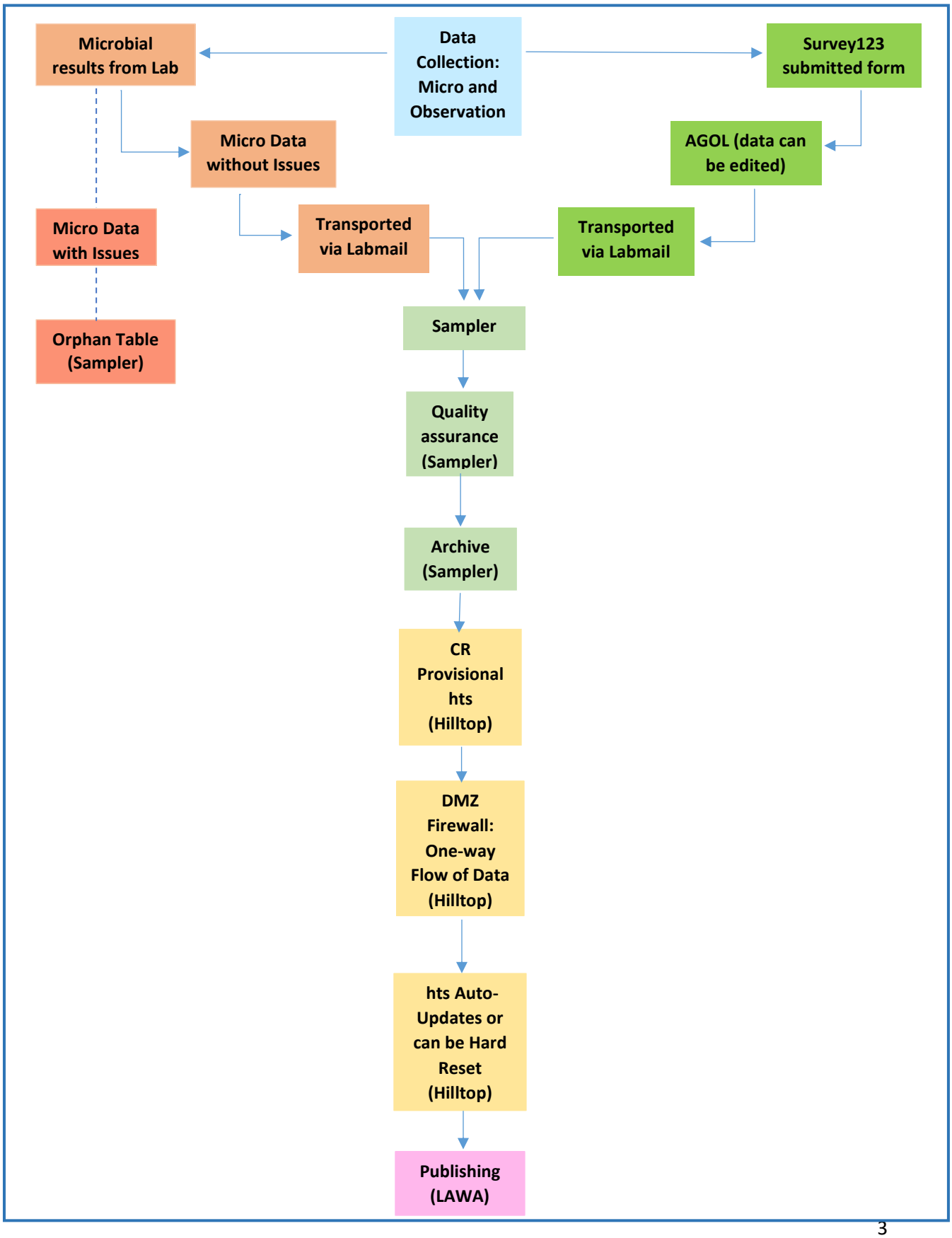


Figure 1. The basic flow of Contact Recreation data from collecting the sample to publishing. Dotted line shows an alternative path.

Sampler is the first software that holds our raw data, goes through the Quality Assurance process and receives the microbial results from the lab via Labmail then pushed through Hilltop for permanent storage. The data stored in Hilltop, within the "CR Provisional hts" file, can be used for post-season analysis purposes and fix any data issues which flowed from Sampler. At this stage, the hts file hits our one-way firewall and periodically updates or if required then the Data Management team can "hard reset" the data which manually pushes through any new data. From this point, the data can be leave the internal network of horizons is ready for publishing.

Things to note about this data flow is that Sampler and Hilltop reads the Sample Name, ID number, Date and Time of each sample. If there is an issue with one of these factors then the data program can disassociate the sample from the run and will not automatically flow into the next stage. Another note is how Sampler and Hilltop read the cyanobacteria alert status as each alert is assigned a number shown as No observation= 0, Green= 1, Amber= 2 and Red=3 and will alter how this data is edited within Hilltop (shown in section 9.3).

The Project Lead and Data Management team (Michaela Rose) will need to be informed of any changes within Sampler and Hilltop post archiving.

Roles and Responsibilities

The data for Contact Recreation is managed partially by the Environmental Data Team and the Science Team depending on what stage the data is sitting at.

Overall, it is Science's responsibility to collect, deliver, enter and fix any issues within the raw data. The field sheets which is then entered into Sampler is considered the raw data and flows into Hilltop where the Environmental Data Team oversees the flow from Sampler into Provisional Contact Rec.hts in Hilltop. It is Science's responsibility to check the flow from Hilltop, through our one-way flow system and onto LAWA is correct and working using the LAWA Sanity Checker.

If there are issues in the raw data, the Biomonitoring Scientist or Project Lead within the Science team is responsible for fixing the data within Sampler, archiving and changing the data in Hilltop. If this process is done then the Environmental Data Team (Michaela Rose) needs to be informed so they can manually flush the issues out by replicating the file outside of Hilltop. Data issues cannot manually flush themselves out and need intervention. If there are issues with the flow of data from the lab

Below lists the Roles and Responsibilities of Contact Recreation with responsibilities involving sample collection and data processing.

Biomonitoring Scientist	**CR Project Lead**	**Swimspot Monitoring Staff**
Oversees the programme.	Execute Runs: collect data, deliver samples, pack utes, complete fieldsheets.	Execute Runs: collect data, deliver samples, pack utes, complete fieldsheets.
Monitor flow of data and fix data issues.	Submit fieldsheets, enter and QA data.	Submit fieldsheets, enter and QA data.
Inform Michalea Rose of data updates.	Inconsistencies in their own fieldsheets is corrected by them.	Inconsistencies in their own fieldsheets is corrected by them.
Set and maintain contracts.	Resample –including letting Public Health know when required.	Resample- including letting Public Health know when required.
Execute runs and/or resample when needed.	Build Runs, Books and Stickers.	Alter mistakes in Sampler- Let Project Lead know.
Inconsistencies in their own fieldsheets is corrected by them.	Archive Runs.	Keep Project lead updated.
Maintains relationship with Public Health.	Monitor flow of data and fix data issues (Hilltop and Sampler).	Build Runs, Books and Stickers.
	Organise CR timetable and vehicles.	Inform Michalea Rose of data updates.
	Restock equipment.	Prepare for overnight stays (Taumarunui)

		with gear and postage supplies if required.
	Inform Michalea Rose of data updates.	Inform project lead when sites cannot be sampled and why.
	Maintain relationship with the Lab and Taumarunui Accom modation.	
	Update Biomonitoring Scientist when sites cannot be sampled and why.	

1. Building Runs

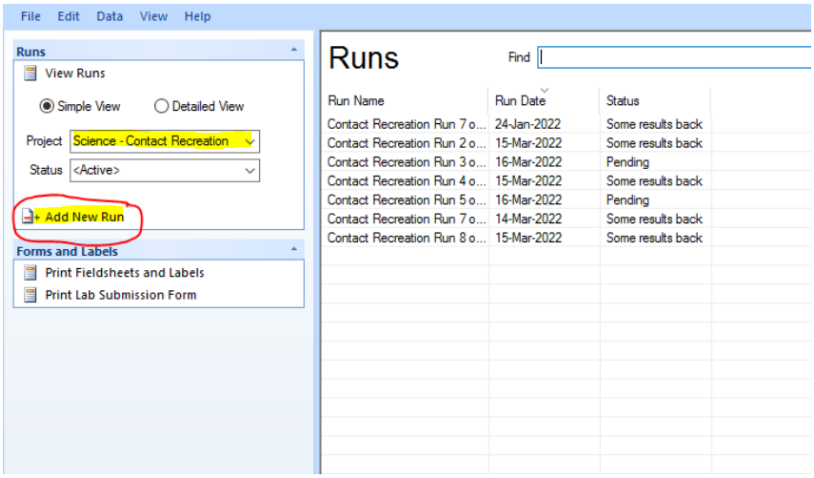
1.1 Sampler

Welcome to Hilltop Sampler! This is our data entry program which is how we digitise ~~digitalise~~ our field data which eventually flows into LAWA.

1) Start by opening Sampler.

\\file\appdata\Desktop\TSFARM Horizons Desktop Apps

2) Below is the Sampler Homepage, make sure "Project" is selected as "Science - contact recreation".



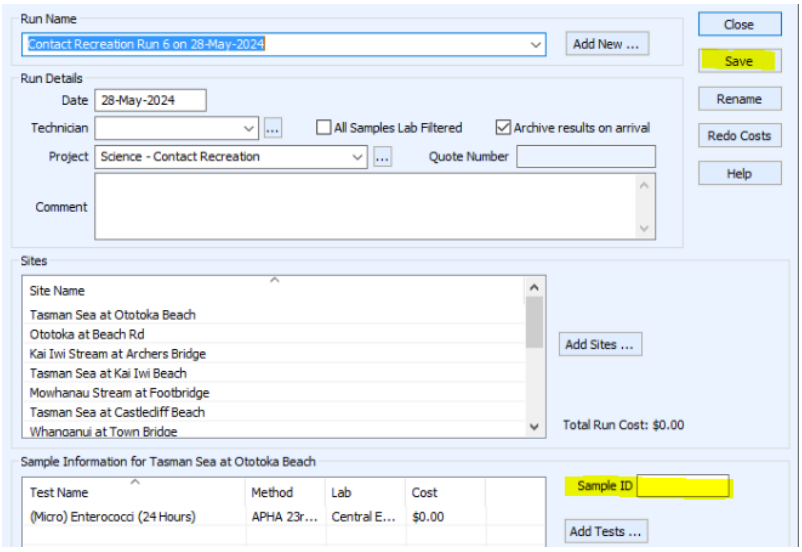
3) Click "add new run" top lefthand side and the window displayed below will pop up.

- Select the run you wish to create from the dropdown box.
- Leave "filter by technician" alone
- add sample date (dd/mm/yyyy)
- Click "build a name"

Here the full run name will appear, double check date and run number, then hit "build the run".

4) A new window will pop up, double check the date and run name again and if everything looks fine then click "save". After hitting Save, the Sample ID will pop up in the bottom righthand corner.

- Clicking the individual site name will change the sample ID that appears and you can copy this info into the field books.



1.2 Printing off Stickers and QR Codes

For online data recording, two separate kinds of stickers need to be printed:

1. **QR codes**. This links the site recorded in survey123 to the associated run in sampler. For HRC purposes.
2. **Barcodes**. This is the sample ID sticker that the lab uses. This links the sample back to the survey and sampler.

If you haven't printed stickers before, you'll need to set up the special sticker printer for both kinds of stickers. The Hydro SOP for this is linked here: https://tqm.horizons.govt.nz/hydrology/SOPs/ed_om_15.9_Appendix_9_Sampler_Labels_Print.pdf

The link above also shows you how to print both kinds of stickers.

The base of the instructions are:

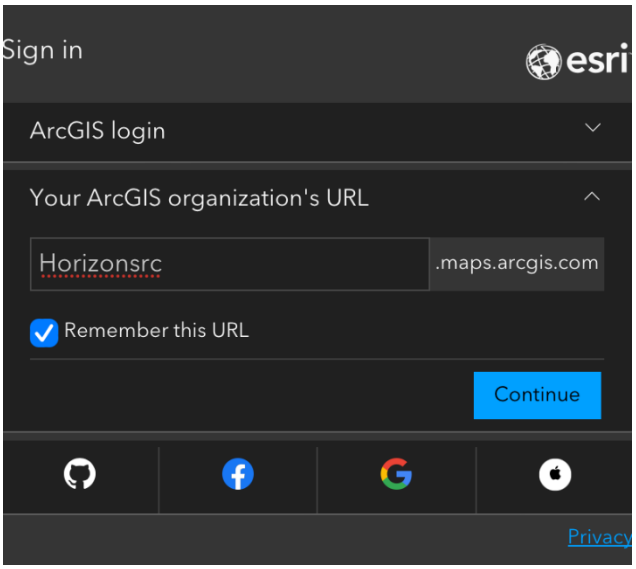
1. Print Barcodes: In Sampler, click the run you need once, it will highlight in blue, then click "Print Labels", click "print preview", select the printer "Brother-Shunter" then "print". Go up to the hydro office and the sticker should be ready.
2. Print QR codes: double on the run you need in Sampler then click "Notify lab" on the left hand panel. Go to \\ares\Hydrology\Sampler_Label_Output , find your run, open in chrome and print using the same printer as above. Two formats of QR codes are available, A4 sheet or individual QR stickers. For CR, I tend to print off Q4 since it's only for people sampling, these runs have 10+ QR codes due to size, and we can recycle the paper.

~~1.~~2. Survey123

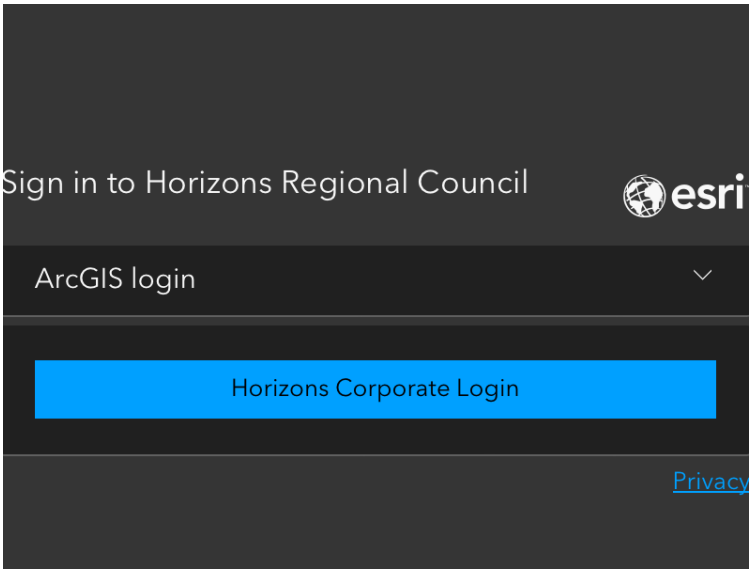
2.1 Logging in and downloading the CR survey.

1) Sign in with ArcGIS online.

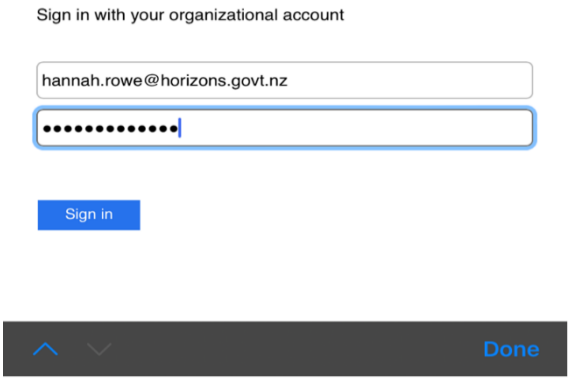
2) Click organization's URL and type "Horizonsrc" then click continue.



3) Click "horizons corporate login".

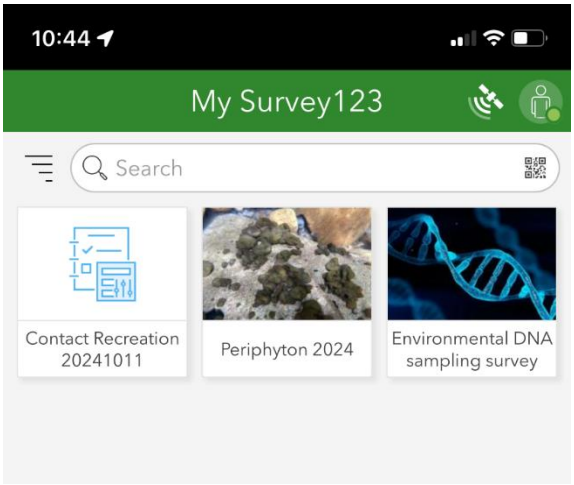


4) Then use your HRC email and TSFarm login password. This will open you up to the main survey page.

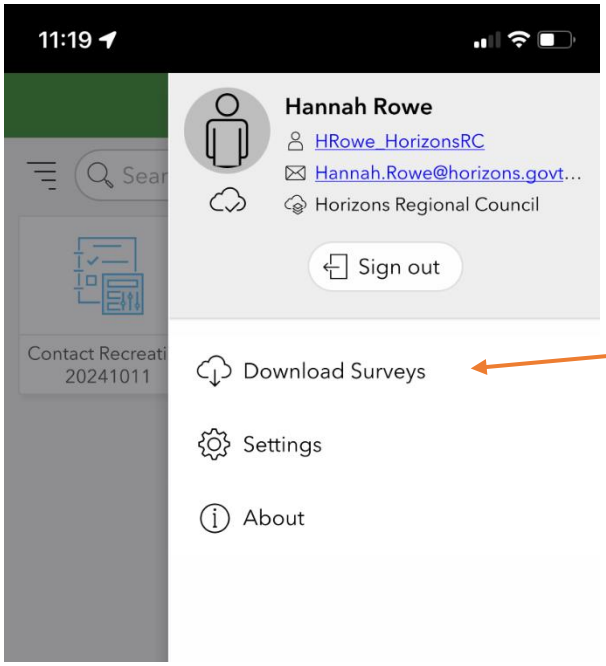


Downloading CR survey

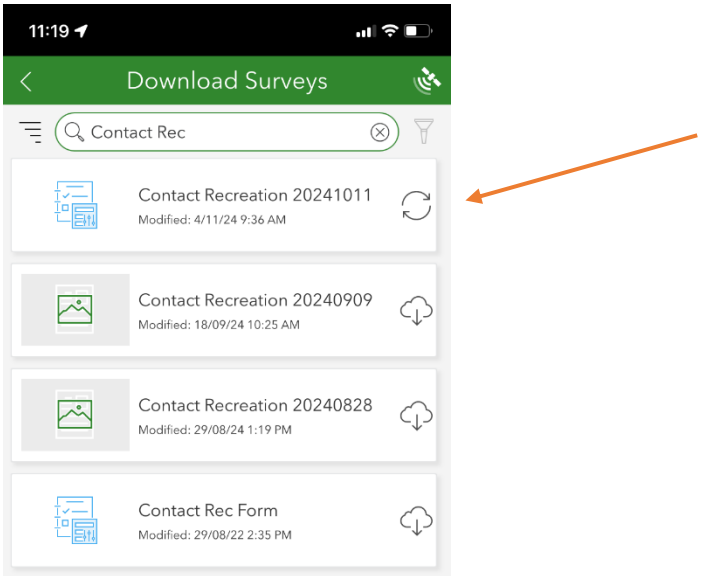
1) From the main survey page, click the “person icon” button top-right.



2) Click the “download survey” button.

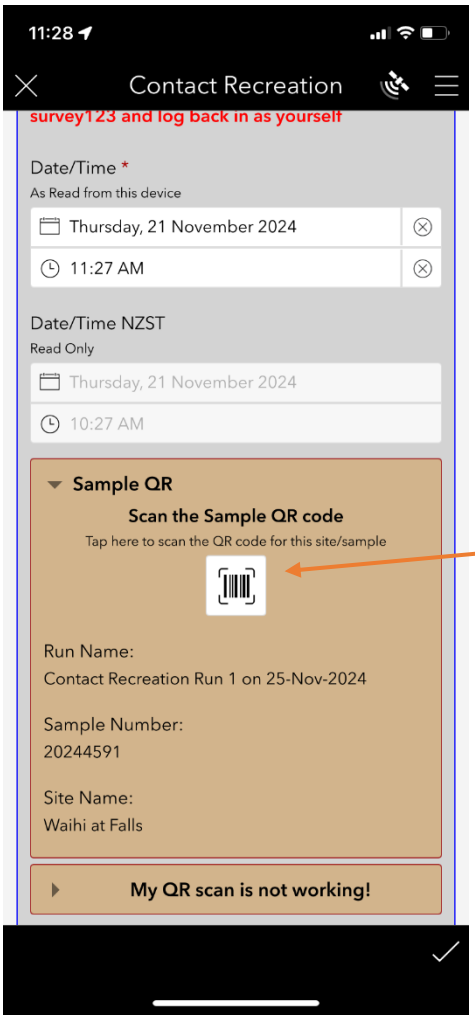


3) Type “contact rec” in the search box. The **Contact Recreation 20241011** form will show up and click the download button.



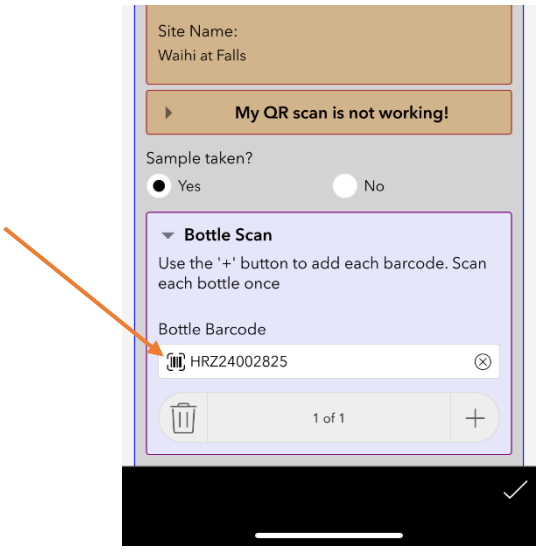
2.2 Using QR and Barcodes within the survey:

1) As you open the Contact Rec form, this will be the opening page. It will prompt you to scan the QR code and when you do, the site info will appear. This is how you know it's scanned correctly.

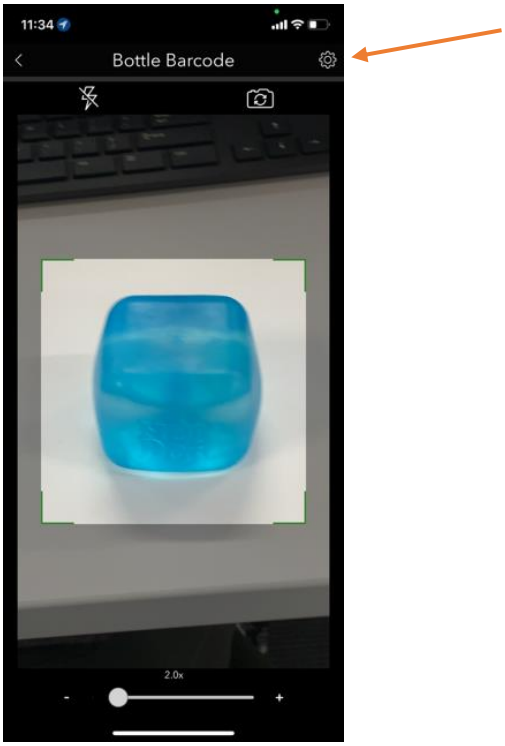


Scan QR code by clicking this and your camera will pop up

2) Scroll down and scan the barcode.



3) **If it can't scan**, we need to change barcoding reading settings. Click the barcode scan button which will open your camera. Click the setting button.



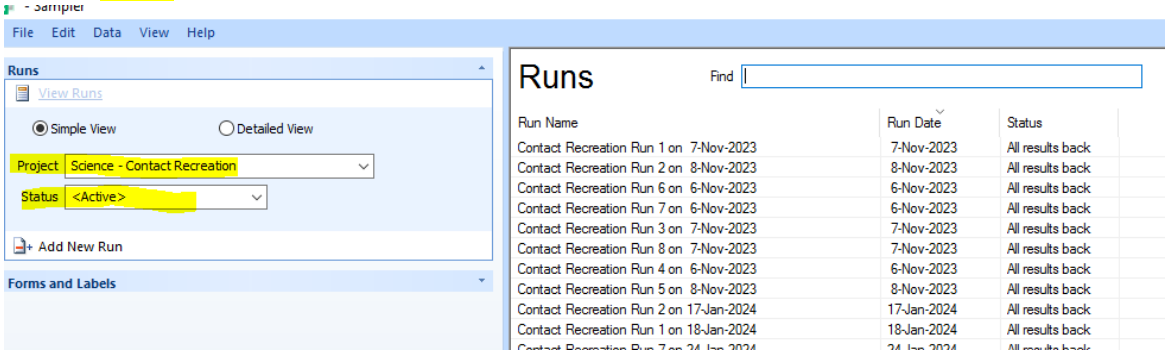
4) This opens the types of barcodes that can be read. Select code 39. You should be able to scan now.

~~2.~~3. Data Entry

Historically, the CR programme relied on paper field forms and manual data entry. Survey123 now 'enters' the raw data into Sampler for us. All that is needed to be manually entered in the cyano alert status during the quality assurance process (stated below).

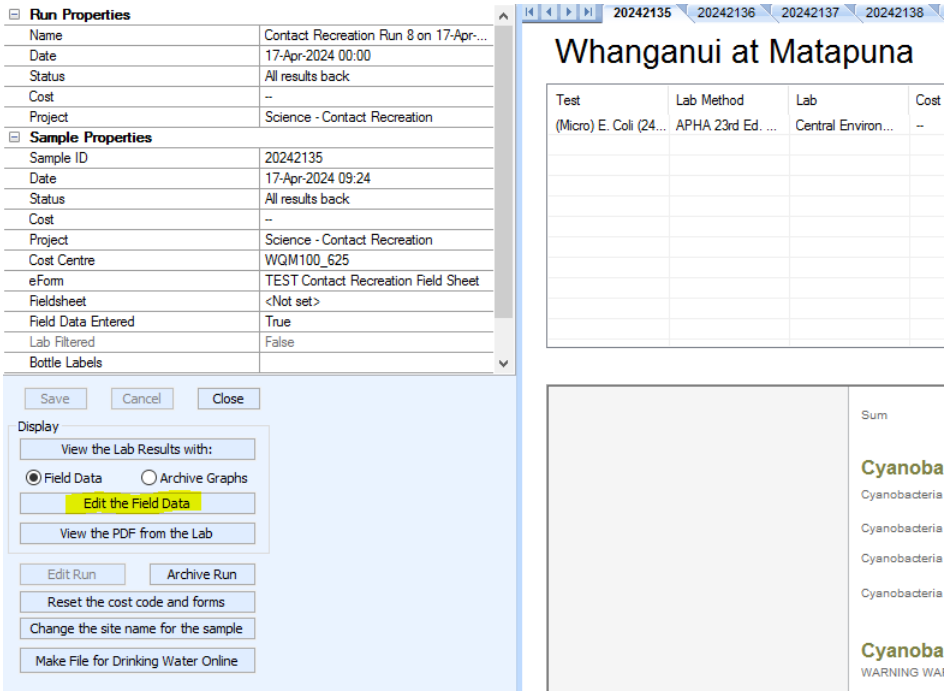
3.1 Entry in Sampler

1) Within Sampler, set the "Project" to "Science- Contact Recreation" and the "Status" to "Active".

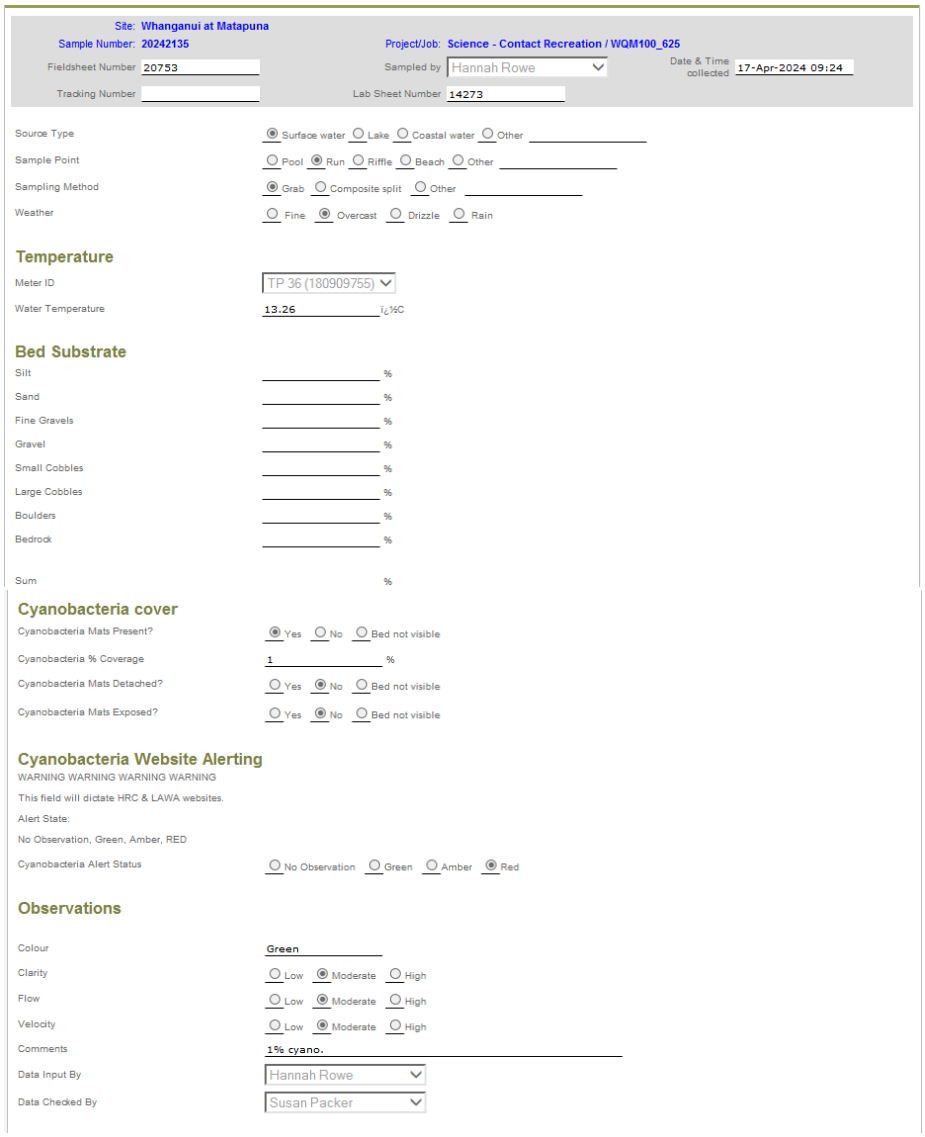


2) Then double click on the correct run from the list. You can click "run name", "run date" or "Status" to sort the list to help find your run.

3) The sample ID's run along the top panel, click on the site you wish to edit. Then click "edit the field data" on the left hand panel (see below).



4) 4) Select the correct cyano alert for **rivers** and add any missing metadata if necessary. Beaches don't need alerts, Lakes are done later.



Site: Whanganui at Matapuna
Sample Number: 20242135
Project/Job: Science - Contact Recreation / WQM100_625
Fieldsheet Number: 20753
Sampled by: Hannah Rowe
Date & Time collected: 17-Apr-2024 09:24
Tracking Number:
Lab Sheet Number: 14273

Source Type: (•) Surface water ( ) Lake ( ) Coastal water ( ) Other
Sample Point: ( ) Pool (•) Run ( ) Riffle ( ) Beach ( ) Other
Sampling Method: (•) Grab ( ) Composite split ( ) Other
Weather: ( ) Fine (•) Overcast ( ) Drizzle ( ) Rain

Temperature
Meter ID: TP 36 (180909755)
Water Temperature: 13.26 ¡¿½C

Bed Substrate
Silt: %
Sand: %
Fine Gravels: %
Gravel: %
Small Cobbles: %
Large Cobbles: %
Boulders: %
Bedrock: %
Sum: %

Cyanobacteria cover
Cyanobacteria Mats Present?: (•) Yes ( ) No ( ) Bed not visible
Cyanobacteria % Coverage: 1 %
Cyanobacteria Mats Detached?: ( ) Yes (•) No ( ) Bed not visible
Cyanobacteria Mats Exposed?: ( ) Yes (•) No ( ) Bed not visible

Cyanobacteria Website Alerting
WARNING WARNING WARNING WARNING
This field will dictate HRC & LAWA websites.
Alert State:
No Observation, Green, Amber, RED
Cyanobacteria Alert Status: ( ) No Observation ( ) Green ( ) Amber (•) Red

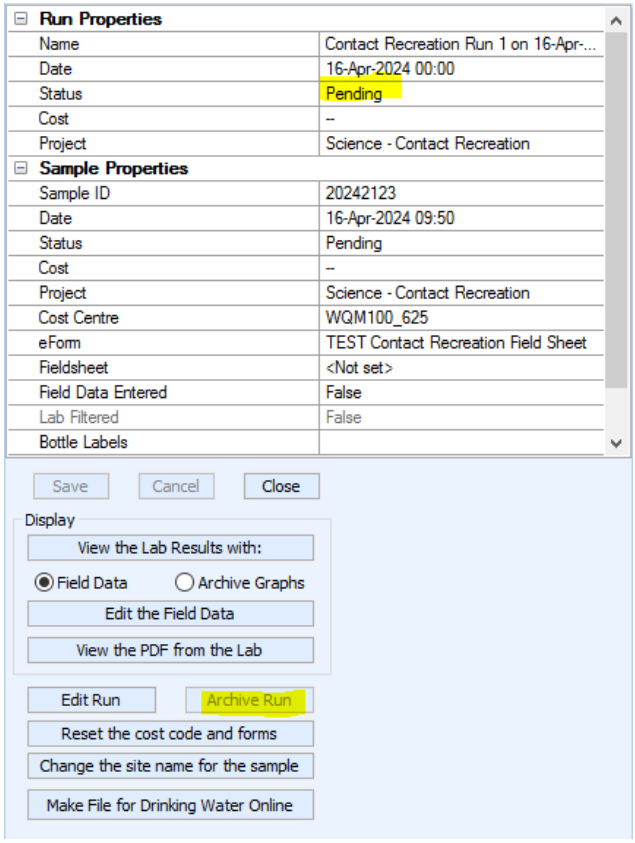
Observations
Colour: Green
Clarity: ( ) Low (•) Moderate ( ) High
Flow: ( ) Low (•) Moderate ( ) High
Velocity: ( ) Low (•) Moderate ( ) High
Comments: 1% cyano.
Data Input By: Hannah Rowe
Data Checked By: Susan Packer

5) For lakes, Hokio estuary and Hokowhitu Lagoon the alert status under "cyano website alerting" stays blank as the cyano status will be entered after the Lake Scientist analyses the lake samples (results back 24-36 hours later).

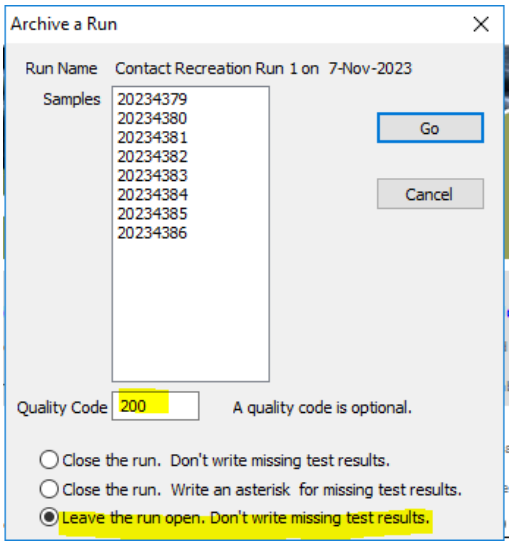
NOTE: Be careful when entering in "cyano website alerting" as once selected, this category cannot be cleared. Same way if the run is saved, the alert cannot be overridden by a new input in Sampler afterwards.

6) Hit save bottom right of the field sheet and repeat process for the next sites.

7) Once all sites have been entered, Quality assure the data (procedure in next section) and change the "Status" under "Run Properties" (highlighted area shown below) from "Pending" to "Some results back".



8) "Archive Run" will become an option, click it and the window (see below) will pop up. Make sure settings are on "200" and "leave run open". This data will now flow into Hilltop.



9) Enter the observed cyano coverage in our in-house cyano alert spreadsheet found here:
INSERT SPREADSHEET HERE

~~3.~~4. Quality Assurance (QA)

QA ensures the accuracy of the information given to the public and acts as a safety net to make sure the information published is accurate. QA involves cross referencing the original data collected in the logbooks with what is entered into Sampler to check for any results that need querying, mismatches or inconsistencies.

Two regulations:

1. Data cannot be archived without it being QA-d.
2. You cannot QA your own data.

Procedure follows:

1) Cross referencing the data within Sampler to the survey123 forms in the "saved" tab in the app, checking for inconsistencies. Pay special attend to the date, time and alert status. The alert status will need to be checked against the in-house cyano alert spreadsheet to ensure timelines for alert drops are within the public health guidelines.

2) If there are inconsistencies in the date, time or alert status then the data can be changed in Sampler and in Hilltop. Refer below to the "Sampler and Hilltop Troubleshooting" section and inform Michaela of these changes or ask for Michaela to fix the data. The data can then be archived.
    - If you prefer for Michaela to fix the data then email her with the full run name, site name, ID number and what you need cleared. She will clear the date in Hilltop so you can reselect the correct option within Sampler, re-archive the data and Michaela can manually push through the corrected data.

3) If there are no issues with the data then the run can be archived laid out in the "Closing Runs" section below.

~~4.~~5. Resample in Sampler

Setting up a resample run in Sampler:

1). In Sampler, click "add new run", left hand side of the main page.

2). A new window will pop up, the first drop down option will be "Contact Recreation Run..". Choose the run where the resample site belongs to and leave "filter by technician" as "show all".

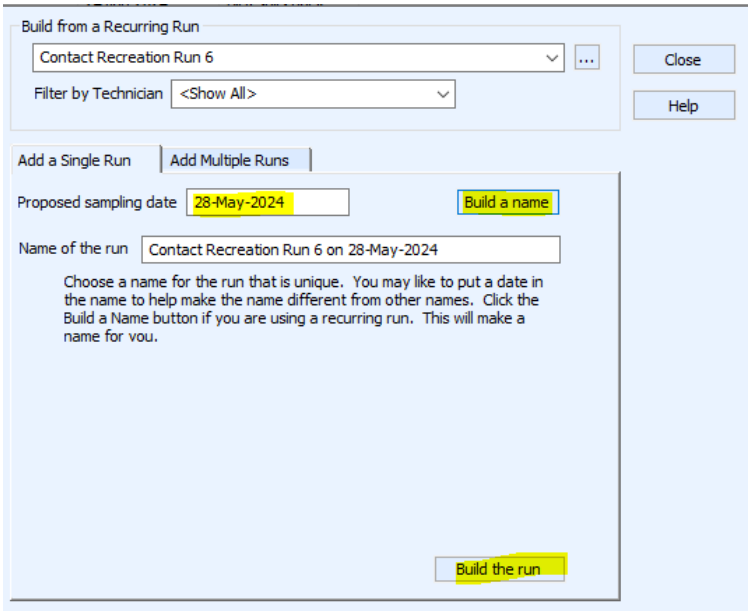
➔ Three options:

2a) if there's one site or multiple to resample from the same run then choose the run the resample site belongs to.

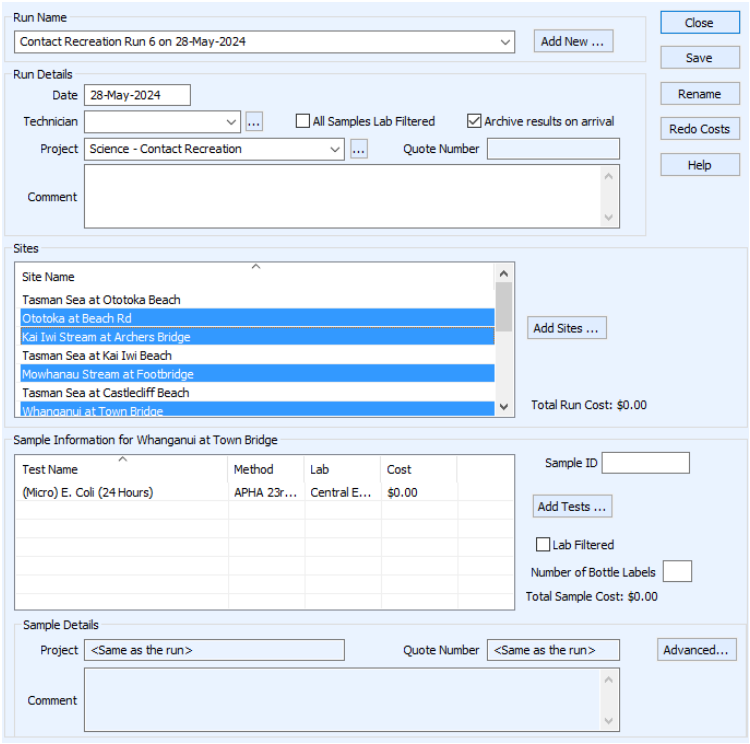
2b) if there's multiple resamples from different runs then choose a run that one of the sites belong to and follow the **Merging Run Procedure** stated below.

2c) if there's multiple resamples from different runs and do not wish to merge the runs then make individual runs which correspond to the resamples sites.

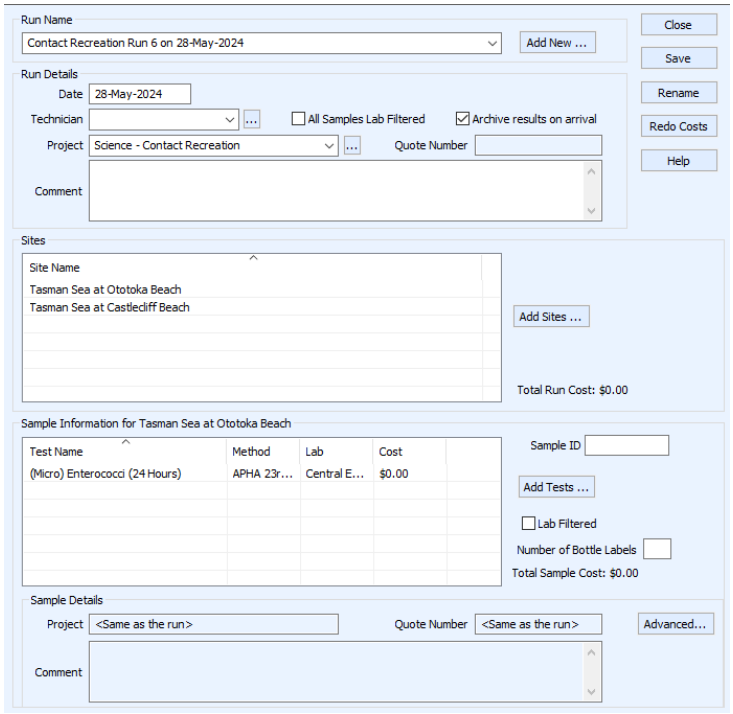
3) For options 2a and 2c, add the date of the run in "proposed sampling date" then hit "build a name" then hit "build the run".



4) A new window will pop up which shows the whole run, select the sites you wish to delete off the run (the sites you aren't resampling). This can be done by holding down Ctrl, clicking sites, right click and hit "remove".

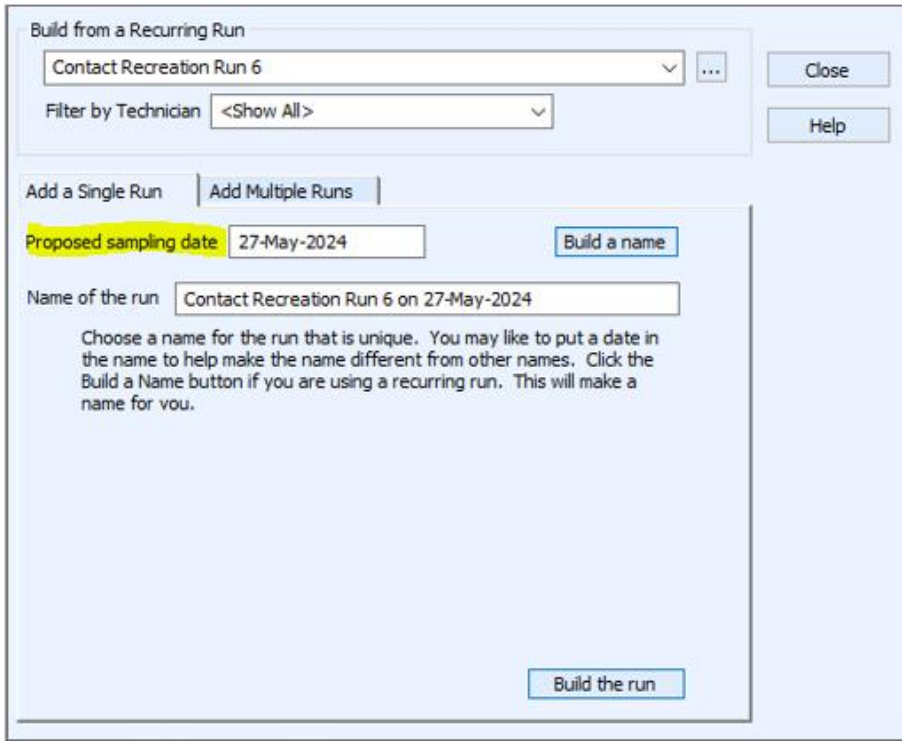


5) You should be left with just the sites you wish to resample (see below). From here, click "save". Print QR codes and ID stickers like normal.

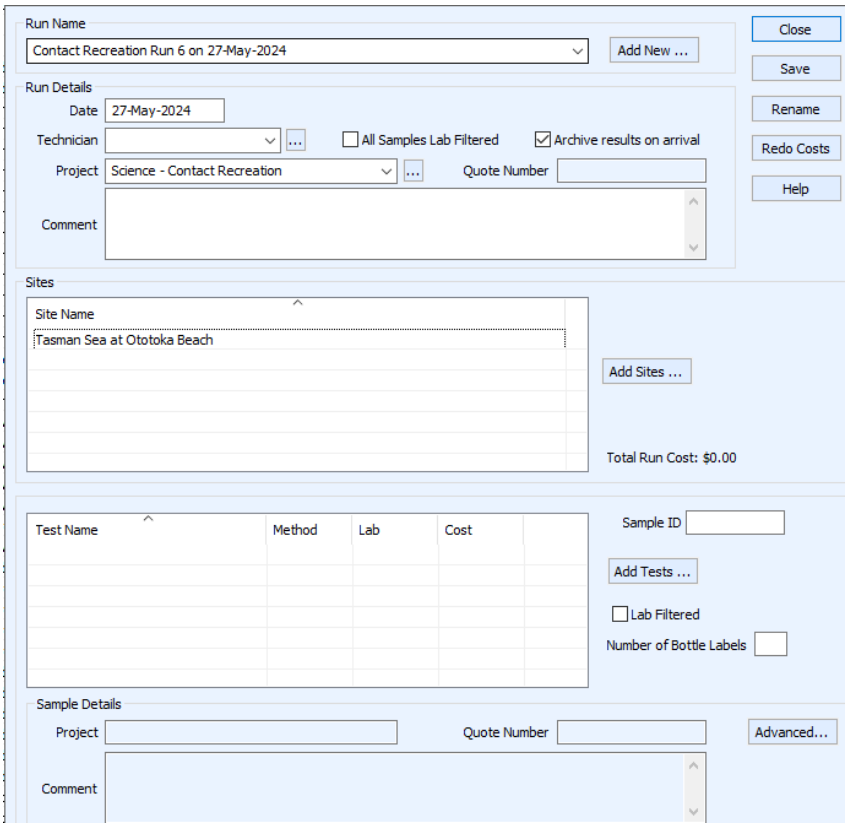


5.1 Merging Run Procedure: for resamples which belong to different runs.

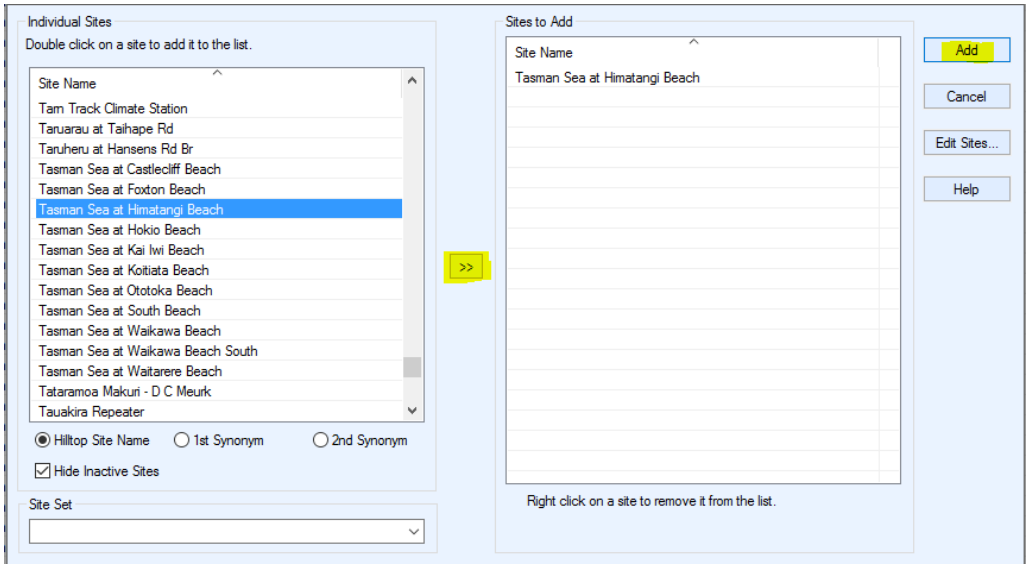
1) Add the date of the run in "proposed sampling date" then hit "build a name" then hit "build the run".



2) The full run will show up, select the sites you wish to delete (sites you're not resampling), afterwards it should look similar to what's below. Hit "Add Sites" right hand side of “Sites” box.

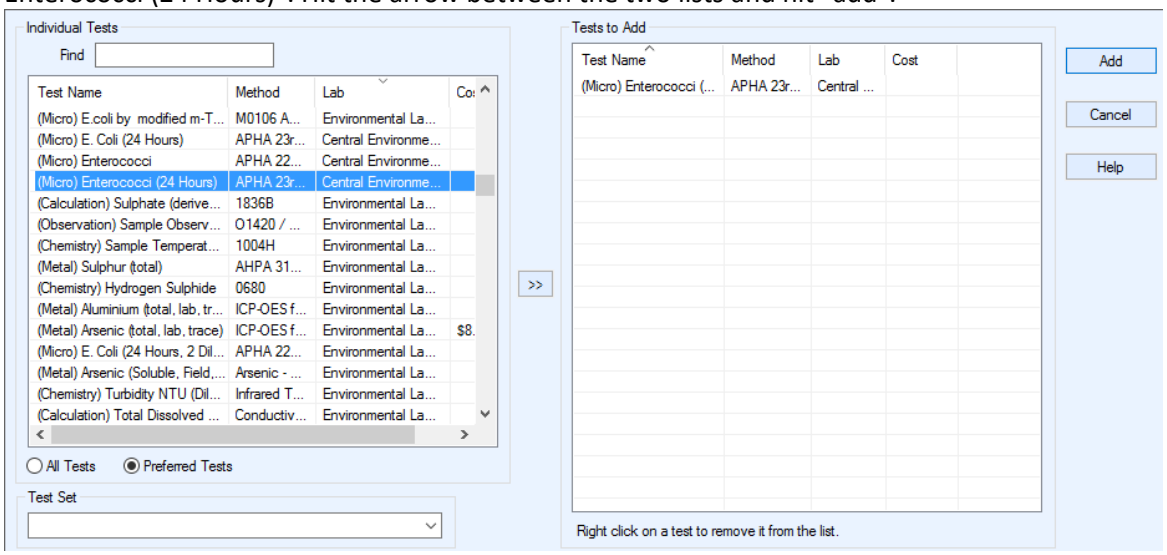


3) The window displayed below will show up, scroll through the left hand side list to find the resample sites you wish to add, hit the arrow between the two boxes and hit "add". Be careful to choose the correct site as other program sites are in this list too.



4). Now you need to add the correct test associated with the resample site. Click "add test" right hand side of test name box.

5) New window will pop up, scroll through the left hand side list and choose, in our case,"(Micro) Enterococci (24 Hours)". Hit the arrow between the two lists and hit "add".



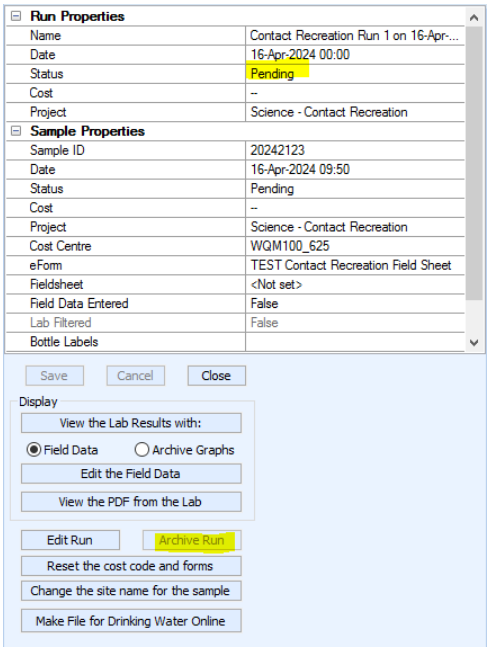
6) Now it should look like this, hit save, the sample ID will load which (right hand side box), print the stickers.

~~5.~~6. Closing Runs

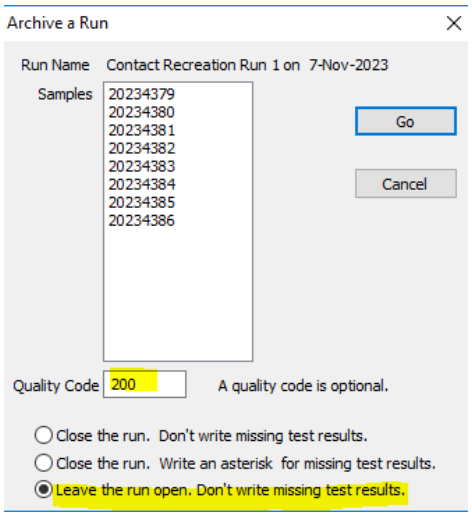
All runs will be archived twice, first time under the “Run Properties” as “Some Results Back” and second time as “All Results Back” within Sampler. Some results back refers to the field data and observed cyano coverage entered but with no microbial results. All results back is when both field data, cyano coverage and microbial results has been entered. After “All Results Back”, will be through our internal check and onto LAWA.

6.1 “Some Results Back” Procedure:

1) Change the "Status" under "Run Properties" (highlighted area shown below) from "Pending" to "Some results back".



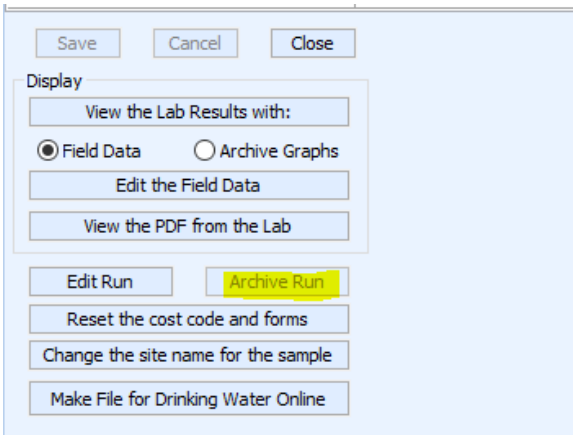
2) "Archive Run" will become an option, click it and the window (see below) will pop up. Make sure settings are on "200" and "Leave run open”.



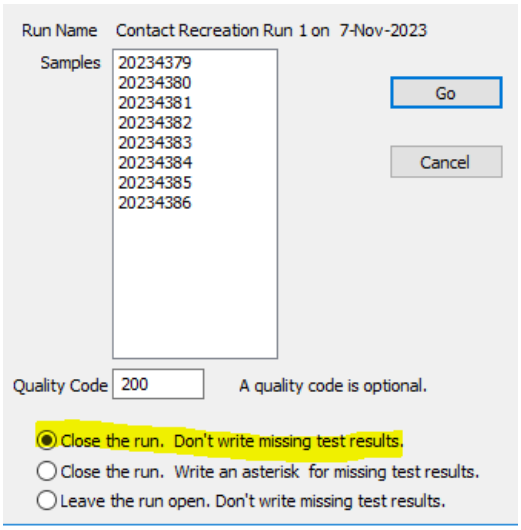
6.2 “All Results Back” Procedure:

If all results look normal, then the run can be closed:

1) Within Sampler, open the appropriate run and click "Archive run".



2) A new window will pop up, change the settings to "Close Run" and leave quality code to “200”. Hit "Go" and the run will change to "Closed".



~~6.~~7. LAWA

Check LAWA Sanity Checker for data flow issues

https://tqm.horizons.govt.nz/Hydrology/Science/lawa_contactrec_dashboard/LAWA_Contact_Rec.html

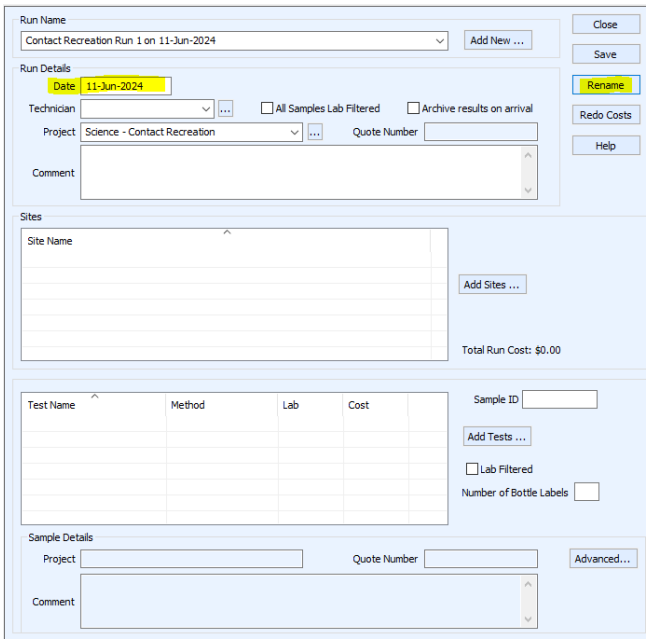
- Changing alert status, set and remove special status
- Publishing alert status on LAWA (need to test)

~~7.~~8. Troubleshooting Sampler

8.1 Changing Incorrect Run Name

Use the methods below if a Sampler run has been created with the wrong date, causing the run name to be incorrect.

1) Open Sampler and open the appropriate run
2) Click “Edit Run” on the left-hand side panel.
3) This opens a new window which has the run name details. Click “Rename” which brings up a new window.

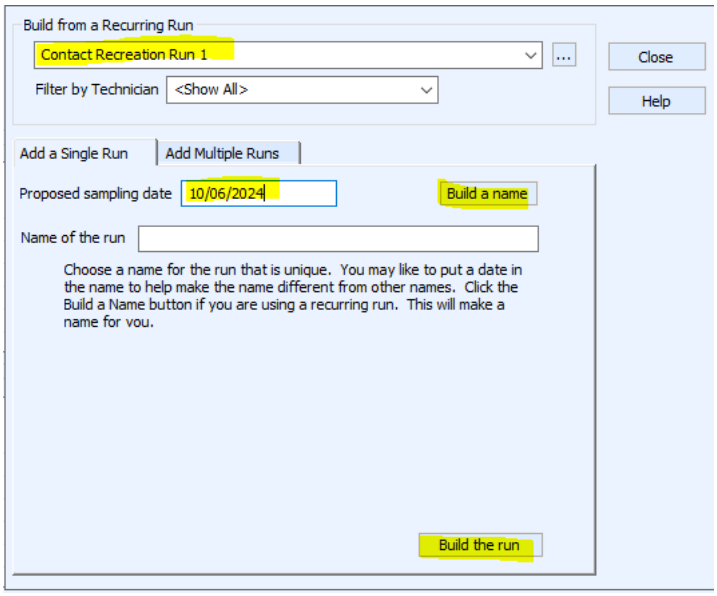


4) In the new window, use the drop-down list to find the run and type in the new date, click “Build a Name” and then “Build the run”.
5) After building the run again, the run will autosave and return to the first window. Type in the new date (if the old date was incorrect) and click “Save”.

8.2 Quirks of Sampler

- Default 1899 date

If the date is not entered in full form (DD/MM/YYYY or YYYYMMDD) then Sampler will change the data to 1899. Manually change the date in Sampler, save it and change the date within Hilltop or notify Michaela Rose.



~~8.~~9. Troubleshooting Hilltop

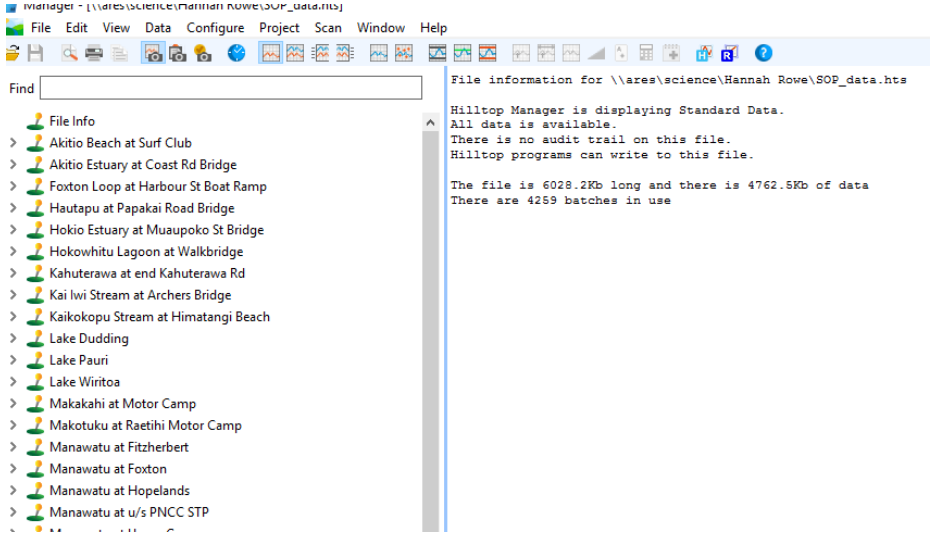
Once data is saved, it flows into Hilltop and only the original sample results and metadata will save without intervention. This means that changing the original records in Sampler and re-archiving will not replace the data that sits in Hilltop from the previous archiving within Sampler. If changes happen in Sampler then those changes need to happen in Hilltop this is displayed below.

The original data series is located in Sampler. The time, date and cyanobacteria status needs to be corrected (Data Entry procedure) in Sampler and re-archived. This will either produce an incremental 1 second step or remove the incorrect sample first.

Below lays out how to change incorrect details within Hilltop Manager and every change to the Hilltop data needs to be disclosed with Michaela Rose (michaela.rose@horizons.govt.nz) so the servers after hilltop can be updated.

9.1 Opening and Viewing Hilltop

1) Open “Manager” within TSFARM Horizons Desktop Apps.
2) Click “file” and open “Contact Rec Provisional”.
   \\ares\Environmental Archive\Provisional_Contact_Rec.hts
3) Your Hilltop main page should look like this if not then changing your “View” to “Site Tree” should result in what is shown below for easier navigation.



4) Follow the instruction below specific to the alteration you need then carry out the same alteration with the “Cyanobacteria Alert Status” folder under the site name.

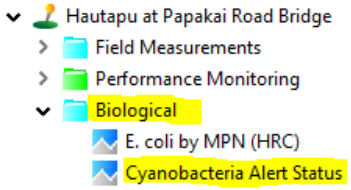
9.2 Altering Records (Sampler to Hilltop)

It is important to note that any alteration made in Hilltop needs to be done in Sampler as well. This means the same alternation that has been done in Sampler will need to happen in Hilltop and contrariwise. If alternations are made to one program but not the other then this causes issues with the one-way flow of data and can misrepresent the original data.

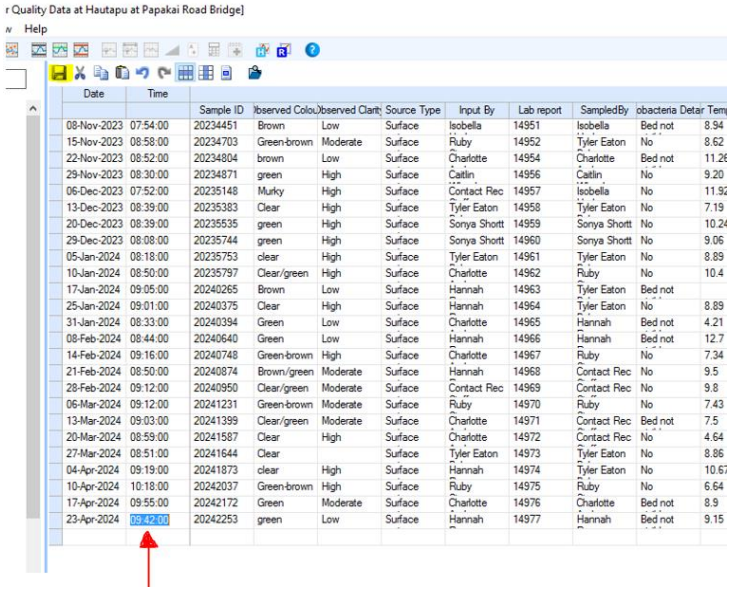
1) Altering Sampler records follows the same process as the “Data Entry” section.
2) Altering Hilltop records are displayed below.

9.3 Altering Cyanobacteria Alert Status Folder

1) Before editing make sure you edit Sampler with the necessary changes then archive.
2) Within Hilltop Manager, double click the site name which brings down a drop-down list and click “Biological” then “Cyanobacteria Alert Status”.



3) Right click the Cyanobacteria Alert Status folder and click edit.
4) This brings up another window, click “All Data” then “OK”.
5) A new table shows up with all counts of cyano alerts from that site within this season. Double click the run you wish to edit, double click the parameter (date, time, alert status) and edit.



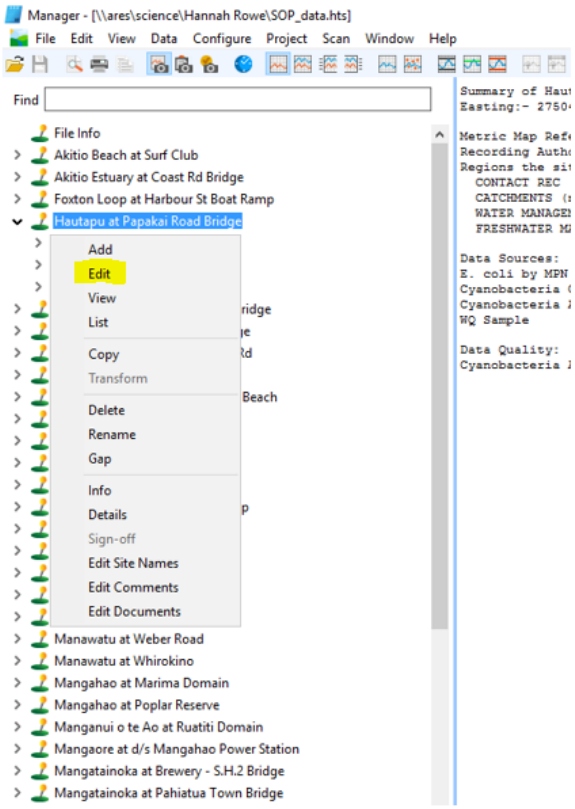
Date	Time	Sample ID	Observed Colou	Observed Clarit	Source Type	Input By	Lab report	SampledBy	obacteria Detai	Tem
08-Nov-2023	07:54:00	20234451	Brown	Low	Surface	Isobella	14951	Isobella	Bed not	8.94
15-Nov-2023	08:58:00	20234703	Green-brown	Moderate	Surface	Ruby	14952	Tyler Eaton	No	8.62
22-Nov-2023	08:52:00	20234804	brown	Low	Surface	Charlotte	14954	Charlotte	Bed not	11.2
29-Nov-2023	08:30:00	20234871	green	High	Surface	Caitlin	14956	Caitlin	No	9.20
06-Dec-2023	07:52:00	20235148	Murky	High	Surface	Contact Rec	14957	Isobella	No	11.9
13-Dec-2023	08:39:00	20235383	Clear	High	Surface	Tyler Eaton	14958	Tyler Eaton	No	7.19
20-Dec-2023	08:39:00	20235535	green	High	Surface	Sonya Shortt	14959	Sonya Shortt	No	10.2
29-Dec-2023	08:08:00	20235744	green	High	Surface	Sonya Shortt	14960	Sonya Shortt	No	9.06
05-Jan-2024	08:18:00	20235753	clear	High	Surface	Tyler Eaton	14961	Tyler Eaton	No	8.89
10-Jan-2024	08:50:00	20235797	Clear/green	High	Surface	Charlotte	14962	Ruby	No	10.4
17-Jan-2024	09:05:00	20240265	Brown	Low	Surface	Hannah	14963	Tyler Eaton	Bed not	
25-Jan-2024	09:01:00	20240375	Clear	High	Surface	Hannah	14964	Tyler Eaton	No	8.89
31-Jan-2024	08:33:00	20240394	Green	Low	Surface	Charlotte	14965	Hannah	Bed not	4.21
08-Feb-2024	08:44:00	20240640	Green	Low	Surface	Hannah	14966	Hannah	Bed not	12.7
14-Feb-2024	09:16:00	20240748	Green-brown	High	Surface	Charlotte	14967	Ruby	No	7.34
21-Feb-2024	08:50:00	20240874	Brown/green	Moderate	Surface	Hannah	14968	Contact Rec	No	9.5
28-Feb-2024	09:12:00	20240950	Clear/green	Moderate	Surface	Contact Rec	14969	Contact Rec	No	9.8
06-Mar-2024	09:12:00	20241231	Green-brown	Moderate	Surface	Ruby	14970	Ruby	No	7.43
13-Mar-2024	09:03:00	20241399	Clear/green	Moderate	Surface	Charlotte	14971	Contact Rec	Bed not	7.5
20-Mar-2024	08:59:00	20241587	Clear	High	Surface	Charlotte	14972	Contact Rec	No	4.64
27-Mar-2024	08:51:00	20241644	Clear		Surface	Tyler Eaton	14973	Tyler Eaton	No	8.86
04-Apr-2024	09:19:00	20241873	clear	High	Surface	Hannah	14974	Tyler Eaton	No	10.6
10-Apr-2024	10:18:00	20242037	Green-brown	High	Surface	Ruby	14975	Ruby	No	6.64
17-Apr-2024	09:55:00	20242172	Green	Moderate	Surface	Charlotte	14976	Charlotte	Bed not	8.9
23-Apr-2024	09:42:00	20242253	green	Low	Surface	Hannah	14977	Hannah	Bed not	9.15

6) Once edited, click the save icon top left corner of the window.

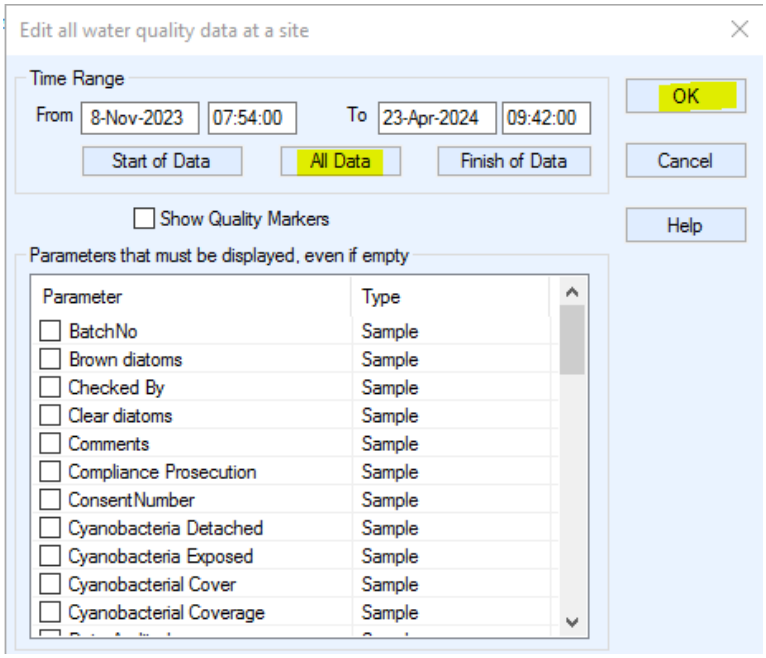
9.4 Editing Incorrect Parameters (Time, Date and Alert Status)

1) Edit within Sampler first, adding necessary changes and archiving.

2) In Hilltop, click the site you wish to change the time on. Right click the site name which will bring up options and click edit.



3) This brings up a new window which you need to click “All Data”. This will change the filtering system to include all of this season’s data so far. Then click “OK”.



4) A new table shows up and displays all field measurements and microbial results taken from that site. Here you can double click on the incorrect parameter value (date, time, alert

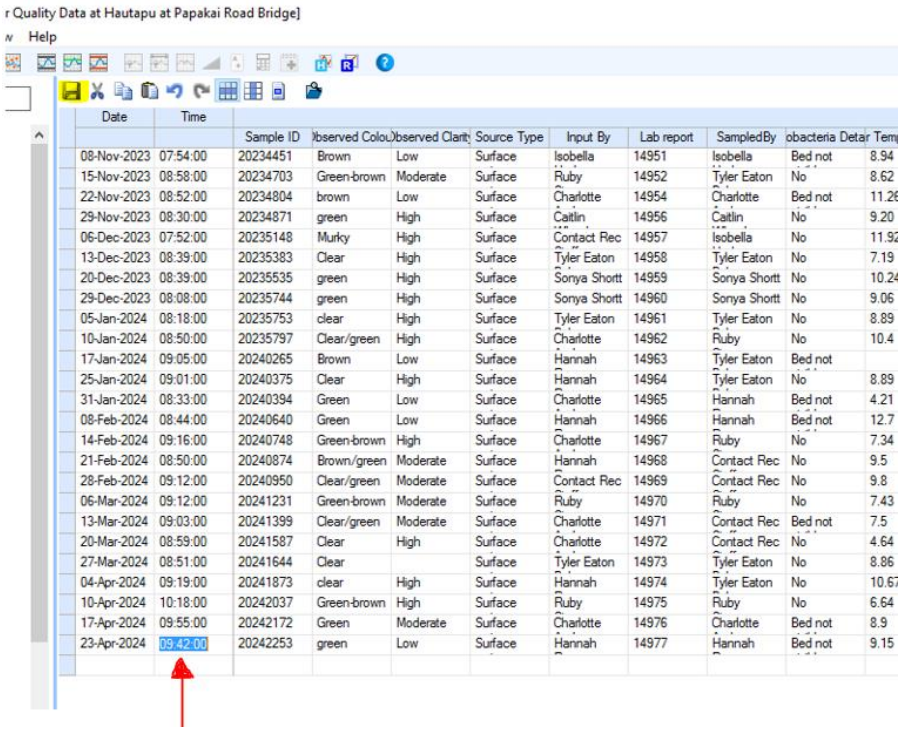
status) which will highlight then you can type the correct value. Be mindful to type in the same format that Hilltop displays including 24hr time.

5) Then click the Save icon top left corner of the window.
6) Repeat the same process in the “Cyanobacteria Alert Status”. Instructions for editing the “Cyano Alert Status” is stated above.

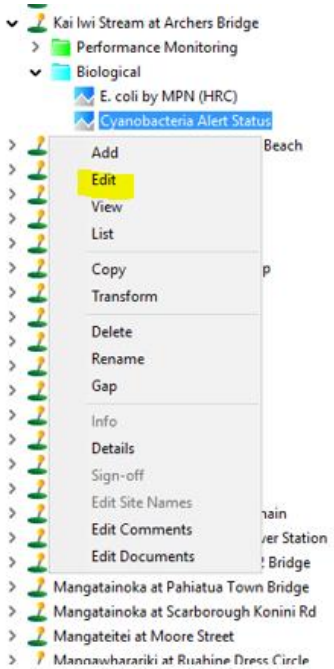
9.5 Deleting Runs

When a run is archived from Sampler which carries incorrect data (alert status, date, incorrect microbial results), it can be easier to delete the incorrect data and re-archive the run within Sampler. This will cause the correct data to “replace” the incorrect data in Hilltop with minimal repercussions. For incorrect times, dates and alert statuses deleting the incorrect run will be used as an alternative to the methods above. For more incorrect microbial results and other more complex problems then deleting the run is preferred.

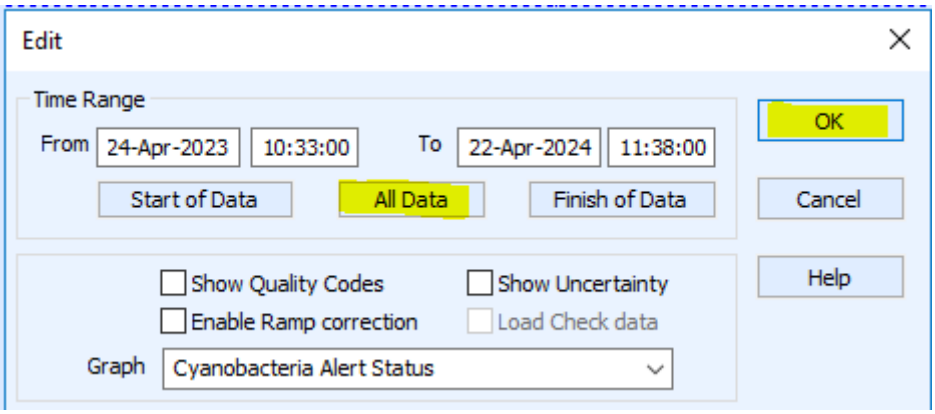
1) Make the changes in Sampler first and archive the run.
2) Within \\ares\Environmental Archive\Provisional_Contact_Rec.hts
   - Double click the site name
   - Open the “Biological” folder
   - Depending on the issue, you will either right-click the microbial folder, Cyano Alert Status Folder or both.



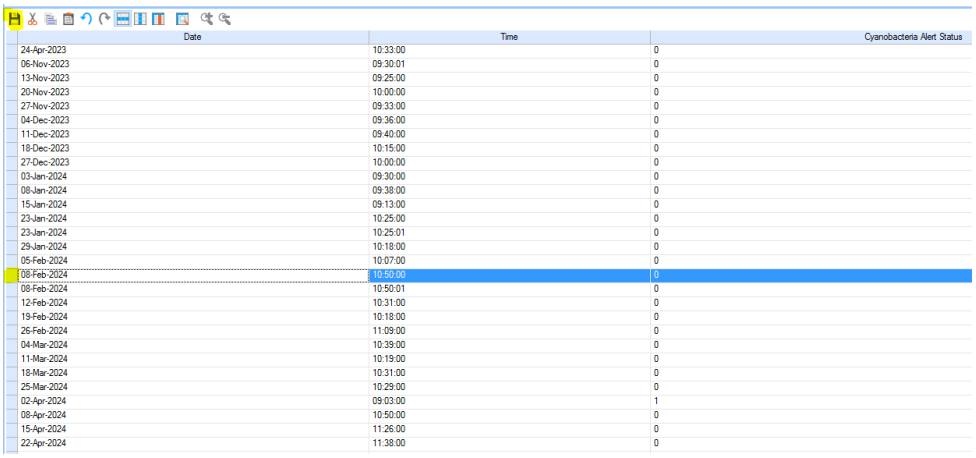
3) Right-clicking the folder will show a Drop-down list and hit “edit”.



4) This brings up another window, click “All Data” and “OK”.



5) A list of data which has been taken at that site from each run shows up. Locate the data line you wish to delete, double click the row and hit Ctrl-del to delete the row.



Date	Time	Cyanobacteria Alert Status
24-Apr-2023	10:33:00	0
06-Nov-2023	09:30:01	0
13-Nov-2023	09:25:00	0
20-Nov-2023	10:00:00	0
27-Nov-2023	09:33:00	0
04-Dec-2023	09:36:00	0
11-Dec-2023	09:40:00	0
18-Dec-2023	10:15:00	0
27-Dec-2023	10:00:00	0
03-Jan-2024	09:30:00	0
08-Jan-2024	09:38:00	0
15-Jan-2024	09:13:00	0
23-Jan-2024	10:25:00	0
23-Jan-2024	10:25:01	0
29-Jan-2024	10:18:00	0
05-Feb-2024	10:07:00	0
08-Feb-2024	10:50:00	0
08-Feb-2024	10:50:01	0
12-Feb-2024	10:31:00	0
19-Feb-2024	10:18:00	0
26-Feb-2024	11:09:00	0
04-Mar-2024	10:39:00	0
11-Mar-2024	10:19:00	0
18-Mar-2024	10:31:00	0
25-Mar-2024	10:29:00	0
02-Apr-2024	09:03:00	1
08-Apr-2024	10:50:00	0
15-Apr-2024	11:26:00	0
22-Apr-2024	11:38:00	0

6) Click the Save icon top-right corner.
7) Close the folder and reopen to double the data was deleted.

9.6 Altering Incorrect Date with Microbial Results Attached

This action is required when an incorrect date on the sampler form and/or field forms which has been sent to the lab. This can separate the lab result and the field data as Manager will read this as two different runs, carrying this split into Hilltop.

1) For incorrect dates in a Sampler form/field form, correct the date in Sampler and re-archive the run.
2) Check \\ares\Environmental Archive\Provisional_Contact_Rec.hts to see if results have flown in correctly.
3) If results are incorrect in Hilltop (the .hts file) then remove the file (instructions stated above).
4) Let Michaela Rose know to re-set the LAWA file.

If the results from the lab have come back incorrect or an incorrect sample number has been assigned then let Michaela Rose or Darren Bentley-Hewitt know. When notifying, make sure to include the run name, date, sample ID (incorrect and correct) and what the issue is.

9.7 Inserting Missing Cyanobacteria Alert Status

If an alert status was left out by mistake in Sampler then archived, that data will not show in the "Cyanobacteria Alert Status" folder on Hilltop. Entering the alert status into Sampler then re-archiving the run will push the data through.

1) Open Sampler then open the run and site you wish to add an alert status to.
2) Enter the alert status under "Cyanobacteria Website Alerting".
3) Click "Archive Run" on the left hand side panel.
4) This brings up a new window where you leave the setting on "200" and select "Leave run open" or if the microbial results are in Sampler then "Close the run. Don't write missing test results". Click "Go" then the data should flow into Hilltop.