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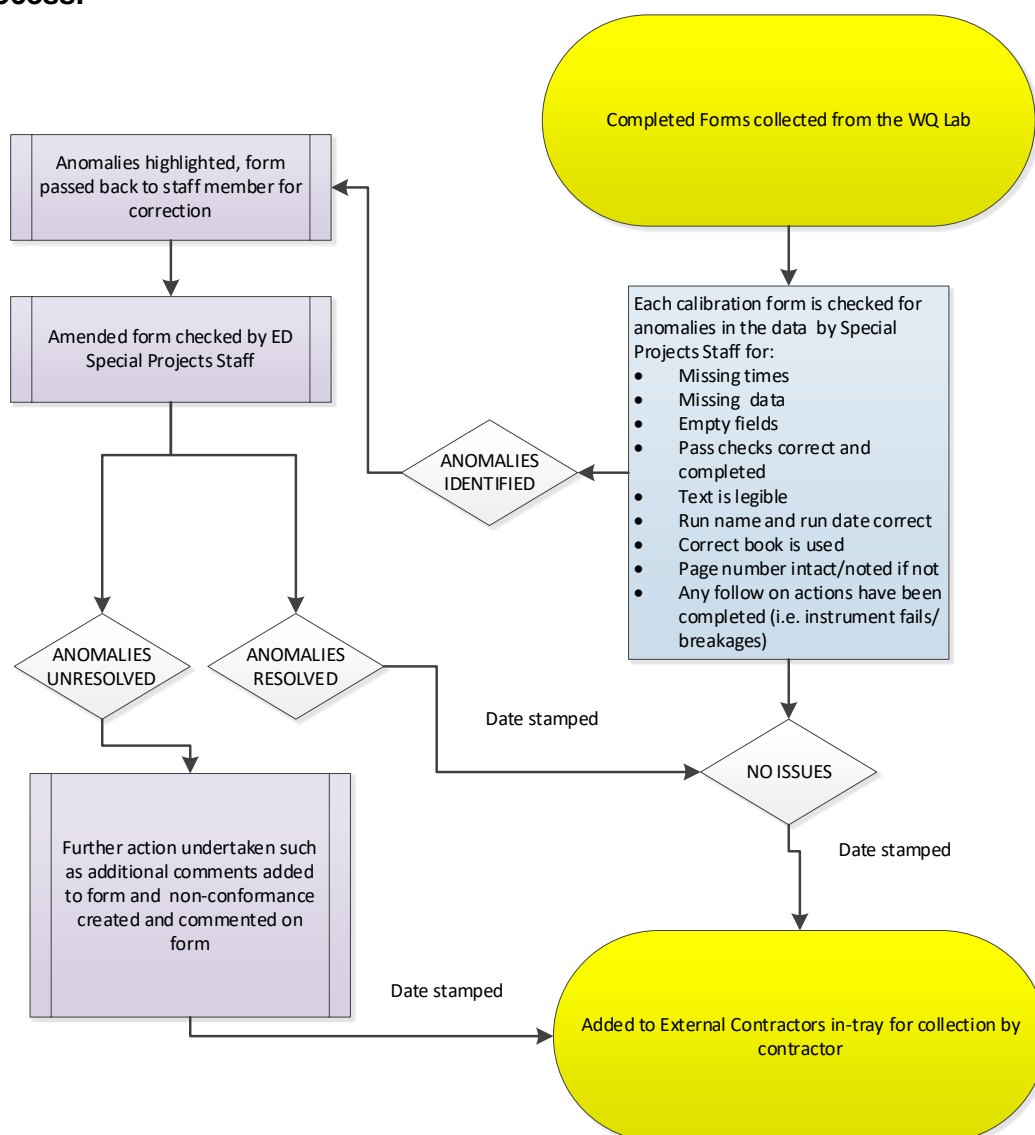
Handheld Meter Calibration Form – Manual Checks

1. Overview:

Horizon regional Councils (HRC) Discrete Water Quality Program requires the use of handheld meters to collect physio-chemical data on site. Such meters will be validated and calibrated in accordance with NEMS – Water Quality parts 1 through 4.

The relevant staff member completes the calibration and end of day checks of the handheld meter used for sample and data collection in duplicate paper form on the day. One of the Environmental Data Special Projects team members checks the top copies of the forms for omissions or errors and ensures these are rectified as soon as possible. These are then date stamped then digitally entered into the Provisional Archive: [\\ares\Environmental Archive\Provisional WaterQuality.hts](#) by an external contractor (refer to 15.9 Appendix 6 of the Hydrology Ops Manual).

2. Process:



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3. Example completed calibration form:

Once completed by the sample staff member these forms are left for collection in the WQ lab.

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HORIZONS REGIONAL COUNCIL
HANDHELD METER CALIBRATION FORM

Meter ID: TROL 6		Date: 19 DEC 2017	
Staff Member: CRAIG BEAVEN		Time: 835 NZST	
Run Name: SEE UPPER WHANGAPU			
BAROMETRIC PRESSURE CHECKS			
Handheld Meter Reading:	990.3		mbar
Manawatu at Victoria Avenue:	—		mbar
3 POINT pH CALIBRATION			
	Calibration Value	Temperature	mV pH Value
pH 7 (calibration)	7.00	22.5 °C	-17.4
pH 4 (calibration)	4.00	23.2 °C	150.2
pH 10 (calibration)	10.00	23.4 °C	-177.7
CONDUCTIVITY CALIBRATION			
	Specific Conductivity	Temperature	
0.001M handheld reading	180.5 µs/cm	21.56 °C	Pass Calibration 0.001M check value is between 120-175 µs/cm <input checked="" type="radio"/> Y / <input type="radio"/> N
0.01M calibration value	1435 µs/cm	23.4 °C	
0.001M handheld reading	180.7 µs/cm	23.16 °C	
DISSOLVED OXYGEN CALIBRATION			
DO% (after calibration)	100.1 %	Temperature	Pass Calibration 99.7%-100.3% <input checked="" type="radio"/> Y / <input type="radio"/> N
DO mg/L (after calibration)	8.74 mg/L	20.85 °C	
ORP CALIBRATION			
ORP (Calibration)	Calibration ORP Value	Temperature	
	mV	°C	
END OF DAY CHECKS			
Staff Member: CRAIG BEAVEN		Time: 1430 NZST	
pH	Handheld	Temperature	Allowable Range Passed
pH 7 Buffer	7.01	21.00 °C	6.80 - 7.20 <input checked="" type="radio"/> Y / <input type="radio"/> N
Specific Conductivity	Handheld	Temperature	Allowable Range
0.001M	188.3 µs/cm	20.63 °C	120 - 175 <input checked="" type="radio"/> Y / <input type="radio"/> N
ORP	Handheld	Temperature	Allowable Range
ORP Check	mV	°C	200 - 280 <input type="radio"/> Y / <input type="radio"/> N
COMMENTS:			
PASSED			
19 JAN 2018			

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4. Further Notes:

GENERAL NOMENCLATURE:

These general rules will apply to missing data that needs to be digitized:

- (i) Missing Data (i.e. temperature, calibration values): Leave **BLANK**
- (ii) Missing Time: enter **00:00:00**

COMMENTS

Comments are to be digitized verbatim. If clarification etc. is needed contact either the staff member or the Discrete Water Quality Portfolio holder to confirm any details.

DISCARDED FORMS

Occasionally forms will be missed and left out of sequence. Prior to recycling the 'empty/used' calibration book the Discrete Water Quality Portfolio holder will check to ensure all 'white' top copies have been removed for digitization.

Out of sequence, blank forms will still need to be digitized. They should be marked as **DISCARDED** (or words to the affect) and be dated and signed. For such instances record:

1. Date: As per the date the form was signed or sampled
2. Staff member: If not stated put against the Discrete Water Quality Portfolio holder
3. SmarTroll #: if not stated confirm with the Discrete Water Quality Portfolio holder
4. Comments: Simply mark as **FORM NOT USED – DISCARDED**. (Note if there is any other pertinent information include and this in the comments field also).
5. Date stamp the form.