Water Monitoring Group
ADCP Measurement Quality

Site Number			
Gauging Number			
Date		Time	
Instrument software version		Instrument firmware version	

Measurement	Requirement	Yes	No	Notes	Checked
Site Information					
Gauge Board Reading [1]		☐	☐		☐
Meas. Water Temp [1]		☐	☐		☐
Salinity [1]		☐	☐		☐
Magnetic Variation [1]		☐	☐		☐
Edge Dis. Measured [1]		☐	☐		☐
Instrument Configuration					
Transducer Depth [1]		☐	☐		☐
Maximum Velocity [1]		☐	☐		☐
Maximum Depth [1]		☐	☐		☐
ADCP Tests Undertaken					
Diagnostic Test [1]		☐	☐		☐
Compass Calibration [1]		☐	☐		☐
Bed Movement					
Moving Bed Test (if bed movement is not present due to site conditions, ignore requirements)	Performed [1]	☐	☐		☐
	Method Used?				☐
	Is a flow Adjustment required?	☐	☐		☐
	Amount of bias (cumecs)?				☐
	Applied to total discharge?	☐	☐		☐
GPS	GPS Used [1]	☐	☐		☐
	HDOP value less than 6?	☐	☐		☐
	No. of Sats. greater than 4?	☐	☐		☐
	Data string used as positional reference? If None, Why?	☐	☐		☐
Post Processing					
Extrapolation	Top and Bottom Extrapolations checked [1]	☐	☐		☐
	Top method used?				☐
	Bottom method used?				☐

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No	Criteria	5 Points.	2 Points	1 Point
Quality Matrix				
1	Gauging Method	<7/13 (Bed Movement) <6/11 (No Movement) Of criteria with subscript [1] completed in accordance with the National Guideline. ☐	7-11/13 (Bed Movement) 6-9/11 (No Movement) Of criteria listed with subscript [1] completed in accordance with the National Guideline. ☐	>11/13 (Bed Movement) >9/11 (No Movement) Of criteria listed with subscript [1] completed in accordance with the National Guideline. ☐
2	Channel Description.	Bed debris and vegetation disrupting flow and bed profile, a large amount of non uniform and turbulent flow. Aeration of the water ☐	Some Non uniform flow, asymmetrical channel shape, some bed debris/ vegetation causing moderate flow and channel disturbance. ☐	Uniform flow, smooth uniform X-section profile, no large bed debris or vegetation disruption of flow within the channel profile ☐
3	Measurement Time (total)	0 - 500 sec ☐	501 to 799 sec ☐	800 + sec ☐
4	Extrapolation Accuracy.	Large areas in top and/or bottom extrapolated and extrapolation fits is uncertain. ☐	Extrapolation is uncertain but top and bottom areas are small or extrapolation is good and top and bottom areas are large. ☐	Extrapolation fit is a good representation of unmeasured areas ☐
5	C.O.V of Q	≥ 8 % ☐	< 8 % > 5% ☐	≤ 5% ☐
6	Area C.O.V	≥ 10% ☐	< 10% > 5% ☐	≤ 5% ☐
7	Invalid Data	≥ 20% consistently clustered in the main area of flow within the transects ☐	10% - 20% Randomly distributed across the channel ☐	≤ 10% Randomly distributed across the channel. ☐
8	Edge Estimates	Edge estimates > 15% of total discharge ☐	Total edge estimates < 15% and > 5% of total discharge ☐	edge estimates < 5% of total discharge. ☐

95% uncertainty of the final average discharge can be calculated using the following equation:

$$Qu = COV * f / \sqrt{n}$$

Where f is the multiplier from a *t* distribution table to achieve 95% for degrees of freedom of the measurement (n - 1) where n is the number of transects.

Total Points	

Quality Score

Band 1 = 8 - 10pt ☐	Band 2 = 11 - 19 pts ☐	Band 3 = 19- 34 pts ☐	Unrated = 35+ pts ☐

Comments:

Processed by:	Checked by:	Archived ☐