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| Short Course Details: | Small Streams Characterisation System | Internal Verification |
| Practical Task: | Measure and Record Stream Characteristics | By |
| <p>This checklist is designed to aid assessment of the practical tasks relating to the measurement and recording of stream characteristics. It is recognised that it may require modification to suit the specific site conditions experienced during its use. Any changes made should be recorded in the comments box.</p> | | Date |

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|--|-----------|--|--|--|--|--|
| Skills / Activities Observed | ADD NAMES | | | | | |
| Correct 6 figure grid reference is obtained from map or GPS Unit and recorded | | | | | | |
| Channel width is measured and recorded accurately Channel wet width is measured and recorded accurately | | | | | | |
| Depth samples taken at appropriate locations and intervals Average depth is calculated correctly and recorded | | | | | | |
| Stream substrate types correctly identified Stream substrate types accurately quantified and recorded | | | | | | |
| Water velocity characteristics are accurately identified and recorded Water flow types are accurately identified and recorded | | | | | | |
| Surrounding land use types are accurately identified and recorded | | | | | | |
| Stream characteristics field sheets are accurately completed and submitted | | | | | | |

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|--|-------------------------|--|--|--|--|--|
| <p>Any knowledge and understanding which is apparent from this observation should be noted here for each student</p> | <p><u>ADD NAMES</u></p> | | | | | |
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| COMMENTS |
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I confirm that the performances of the above candidates were satisfactory:

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Observer's signature:

Date:

Oral question set (if required)

If there is insufficient evidence of the candidate's knowledge and understanding of the measurement and recording of stream characteristics from their practical activities oral questioning may be used to supplement this.

Examples of the types of question and expected answers are given below.

Question

Why is it important to provide an accurate grid reference for each sampling site?

To ensure there is an accurate record of precisely where each sample is taken for future reference.

To ensure later samples can be taken from the same location for comparative purposes.

Question

Why is it important to measure both the full and the current wet width of the channel?

As this will give an indication of the flow conditions in the stream at the time of sampling.

Question

How do you measure the average depth of water at the sample site?

By taking several depth samples across the stream width and calculating the average from those. The number of samples will depend on the width of the stream. More samples for a wider stream.

Question

Describe the main substrate types that are generally found in small streams.

The candidate describes and defines mud, silt, sand, gravel and cobble.

Question

Why is it important to identify and record the stream substrate type?

The stream substrate will determine the types of macro-invertebrate that will reside there. The SSCS requires that the sample concentrates on gravel and cobble substrates to classify the stream.

Question

Why is it important to identify and record the stream flow characteristics?

The stream flow is closely linked to the stream substrate type and will determine the types of macro-invertebrate that will reside there.

The stream flow will also affect the efficiency of the kick sampling technique.

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Question

What are the physical characteristics of riffle / glide / pool?

Riffle: shallow fast flow, broken standing waves at surface, audible

Glide: flow moderate/fast, moderate depth; waves will form behind obstruction placed in flow, smooth surface appearance, silent

Pool: flow slow, deeper, eddying, no waves form behind obstruction placed in flow, smooth surface appearance, silent.

Question

Why is it important to record whether livestock have access to the sample site for drinking?

Regular access to the sample site by livestock may affect the invertebrate population by physical disturbance and defecation.

Question

Why is it important to identify and record the surrounding land use practice?

Different land use practices will have different effects on the stream and subsequently the invertebrate population.

For example the use of pesticides and fertilisers on arable crops, shading by trees in woodland and forestry, siltation resulting from ploughing or clear felling.

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